URI/GSO
Academic Assessment Report
Graduate Students
2021

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I. Executive Summary

In November of 2020, Dean Paula Bontempi requested an assessment of the academic program at the University of Rhode Island's Graduate School of Oceanography (URI/GSO) administered by Robert Pockalny (Associate Marine Research Scientist) in collaboration with David Smith (Associate Dean of Academic Affairs). A series of three surveys were discussed to target matriculating URI/GSO graduate students, recent alumni, and potential employers. This report presents the results of the URI/GSO graduate student academic assessment.

A two-part survey was designed with the online SurveyMonkey™ application with the assistance of 13 graduate students and 5 faculty members. The first part of the assessment focused on the core curricular program (e.g., core courses, student progress, and degree requirements). The second part of the assessment focused on ancillary topics of interest (e.g., student recruitment, anticipated careers, and supplemental instruction).

The survey was made available to all matriculating URI/GSO students listed on the URI/GSO website for a three-week period from December 29, 2020 to January 18, 2021. A total of 61 of 78 students (78%) participated in the first core curricular program survey, while 50 of 78 students (64%) participated in the second ancillary topics of interest survey.

Some of the key and notable results of the core curricular program assessment include,

- Core courses are generally rated above average with biological oceanography rated slightly higher than the other core courses.
- Students are seeking courses that provide more skills within and across disciplines.
- Students are seeking more quantitative skill courses and more hands-on courses.
- Majority of students are interested in an introductory oceanography course, but the preference is not overwhelming.
- Student seminar is still considered a positive component, but numerous and varied suggestions about length and composition are provided.
- Students overwhelmingly support maintaining the cruise requirement, but suggest allowing multiple day cruises as another means to meet the requirement.
- Students are generally satisfied with the quality of elective courses offered at GSO, but expressed concerns about appropriate advertising and lack of a regular schedule or catalog.
- The quality of student advising and mentoring is generally above expectations with a range of effort provided by the primary advisor (61%), the lab group (20%), the student committee (11%), and other sources (14%).
- Student progress and confidence in writing their thesis/dissertation and teaching or being a teaching assistant upon graduation are well above average; however, confidence in writing a proposal to a funding agency lags behind throughout their career at GSO.

Some of the key and notable results of the ancillary topics assessment include,

- The most important potential student recruitment parameters are related to financial support, research topics, and reputation of the advisor.

- Students prioritize government and private industry institutions, science/engineering and education sectors, and research and teaching roles in their anticipated careers.
- Majority of students (74%) would likely participate in a student orientation program with emphasis on topics such as computational skills and an introduction to URI/GSO, URI and Rhode Island.
- Students are generally pleased with their quality of life at GSO and rank items such as living in the area, recreational opportunities, and GSO overall as the highest rated aspects. In contrast, items such as career development opportunities/training and diversity, equity and inclusion efforts are the lowest rated aspects.
- Students rate the importance of characteristic soft skills very highly with an emphasis on critical thinking and problem solving, communication, work ethic, and time management.
- Students also indicate a high interest in workshops involving career development (e.g., grant proposal writing, effective presentations, and job applications/interviews).

Some Suggested Recommendations (so far)

- Use the disaggregated core curriculum survey results to triage academic programs to identify aspects/components to improve, modify, maintain, and/or remove.

- Use the topics of general interest survey results to identify ways to improve student recruitment and preparation.

- Provide more opportunities for students to engage faculty and staff beyond their lab group and building in both formal and informal settings.

- Find ways to include more skill-based and hands-on course content, as well as more opportunities for quantitative/computational skills and proposal development.

II. Academic Assessment Report

1. Introduction

This report presents the results of an assessment of the academic program at the University of Rhode Island's Graduate School of Oceanography (URI/GSO) requested by Dean Paula Bontempi and administered by Robert Pockalny (Associate Marine Research Scientist) in collaboration with David Smith (Professor and Associate Dean of Academic Affairs).

Our assessment builds on previous graduate student surveys conducted in 2012 and a more recent replicate survey conducted in 2018, as part of the self-study of URI/GSO led by Colleen Mouw (Associate Professor of Oceanography). In our new assessment, we seek the student's perspective regarding various components of the academic program and degree requirements including core course concepts and skills, GSO-based electives, student advising/mentoring, student seminar, cruise requirements, proposal defenses, and comprehensive examinations. We also seek to identify potential factors impacting student recruitment, preparation, and retention.

2. Timeline of Events

A timeline and summary of the key events for the development of the assessment tool, the analysis of results, and the delivery of this report are provided in Table I. Methodology of survey design and analysis are provided in Appendix D.

Table I. Gantt chart identifying the timing and duration of academic assessment program.

Event	November 2020				December 2020					January 2021				February 2021			
Dean's Request for academic assessment (Nov. 24, 2020)				■													
Recruit faculty participants in survey design (Dec. 3, 2020)					■												
Recruit student participants in survey design (Dec. 4, 2020)					■												
Present preliminary outline to design team (Dec. 10, 2020)						■											
Design of survey (Dec. 11, 2020 to Dec. 28, 2020)							■	■									
Begin survey collection (Dec. 29, 2020)									■	■	■						
Stop survey collection (Jan. 18, 2020)									■	■	■						
Analysis and synthesis of survey results (Jan. 19, 2021 to Feb. 23, 2021)												■	■	■			
Initial draft report (Feb. 24, 2021)															■	■	
Finalize report (Feb. 28, 2021)																	■
Deliver report to Dean Bontempi (Mar. 1, 2021)																	■

6. Observations

The presented observations are very preliminary and require additional analysis to realize the full potential of this data set. As an initial attempt to interpret these data, we present a purpose or goal of each question followed by a preliminary analysis and accompanying plots. A full list of survey items, SurveyMonkey™ formatted topics, graphical/statistical results, and text-based comments are presented in the appendices.

6.1 Response Rates

The survey was made available to all matriculating URI/GSO students listed on the URI/GSO website for a three-week period from December 29, 2020 to January 18, 2021. A total of 61 of 78 potential students (78%) attempted the core curricular program survey with a completion rate of 92% and a typical duration of 22 minutes. For the ancillary topics of interest survey, 50 of 78 students (64%) attempted the survey with a completion rate of 100% and a typical duration of 11 minutes. In both cases, response rates are well above 50% (Fig. 1), which is considered an excellent response rate for on-line surveys. Average response rates for all surveys is 33% and slightly lower (e.g., 29%) for online surveys (https://surveyanyplace.com/average-survey-response-rate/). Only two groups (e.g., MO and MS/BO) have response rates below 50%.

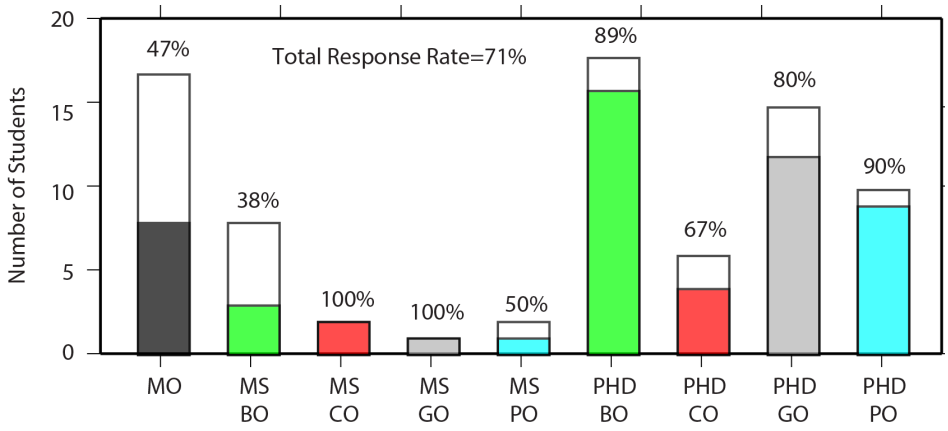


Figure 1. Graduate student response distribution according to degree sought and curricular group. Colored portions of histograms indicate the number of student responses and the full histogram height represents the total number of students within a degree/curricular groups. Percentages indicate the response rate within a degree/curricular group.

6.2 Core Curriculum

6.2.a Core Courses

Questions:

- *<Core Course>: Rank the various aspects of this core course content.*
- *<Core Course>: Rank the various aspects of the skills addressed in this core course.*

Purpose/Goals

The first eight questions are designed to assess the character of the content and skills addressed by each of the core courses. The content-related topics include quality, difficulty, scope & sequence, relevance, interdisciplinary content, capstone projects and prior preparation. An expanded and mixed Lykert scale is provided with terms such as "Low" to "High", "Minimal" to "Excessive", and "Not Appropriate" to "Very Appropriate" as representative upper and lower rating limits. The skills-related topics include a range of soft skills (e.g., critical thinking, collaboration), as well as more technical skills (e.g., statistics, data analysis). An expanded Lykert scale is provided with frequency terms ranging from "Never" to "Very Often" for upper and lower rating limits.

Observations

Below is a list of preliminary observations based on survey results (Figs. 2 & 3). When interpreting the results of the survey, it should be noted the instructor for BO has remained constant for all students surveyed, while instructors for the other core courses have varied.

- Content-related attributes are generally rated above average with mean ratings ranging from 55 for "career relevance" to 69 for "sequence of content"
- Skill-related attributes range from slightly below "Sometimes" to "Often" with mean ratings ranging from 42 for "statistics" to 67 for "collaboration or team work"
- While most of the core courses exhibit somewhat similar overall trends, biological oceanography tends to exhibit higher rated attributes
- PO students generally rate the content of their own core course the highest among the curricular groups (Fig. 3), while GO and CO students generally rate course content of their own core course on the lower end
- PO students indicate a higher frequency of critical thinking
- CO students indicate the higher use of software and data in their core course

Student Comments

Below is an abbreviated list of frequent or useful comments sorted according to core course.

- BO
  - strong positive comments for course
  - suggestion to include more content on upper trophic levels
  - fish trawl was fun (from PO student)
  - mixed comments about lab reports
- CO
  - several critical comments focusing on confusing material, overly difficult due to lack of clarity, and poorly planned skill development
  - enjoyed Jiffy Cruise
- GO
  - boring, more like undergrad class (from BO & PO students)
  - enjoyed labs (BO student)
- PO
  - mixed views about Argo capstone project (difficult/stressful vs enjoyable)
  - solving problems in class led to confusion
  - maybe focus more on concepts less focus on solving equations
  - taught to PO students not GSO students
  - could be more interdisciplinary

➢ too Matlab focused

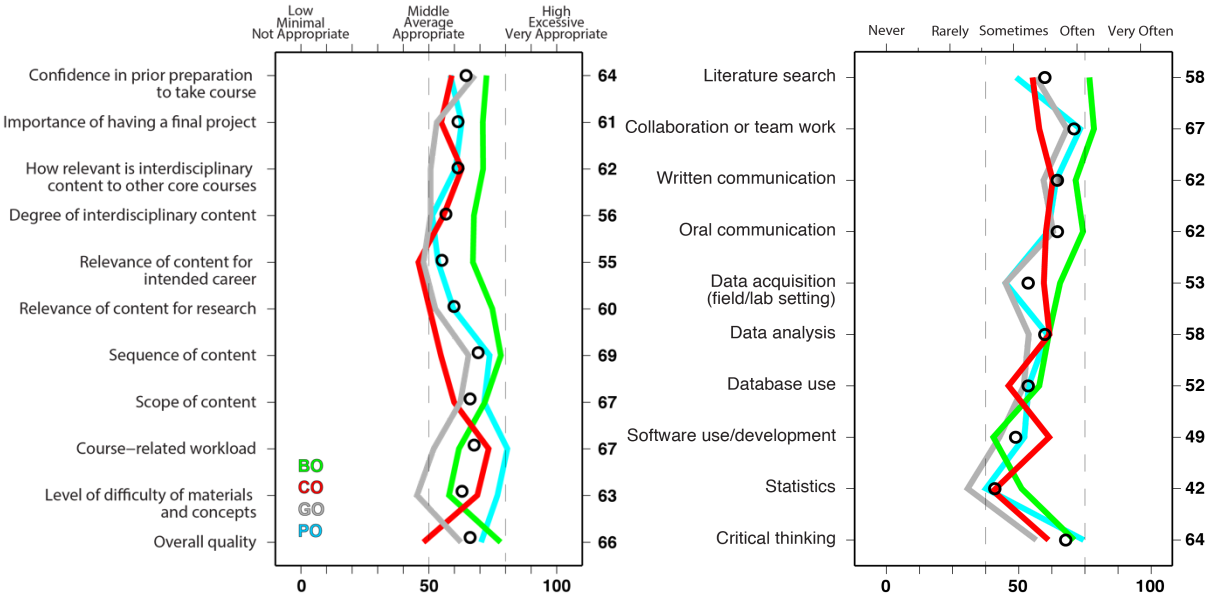


Figure 2. Combined results of core course content (left) and skills (right) surveys. Black circles and bold text on the right-hand side of each plot represent the mean of the scaled ratings for all responses. Colored lines correspond to mean scaled ratings for each sub-discipline as indicated (e.g., BO-green, CO-red, GO-grey, PO-cyan).

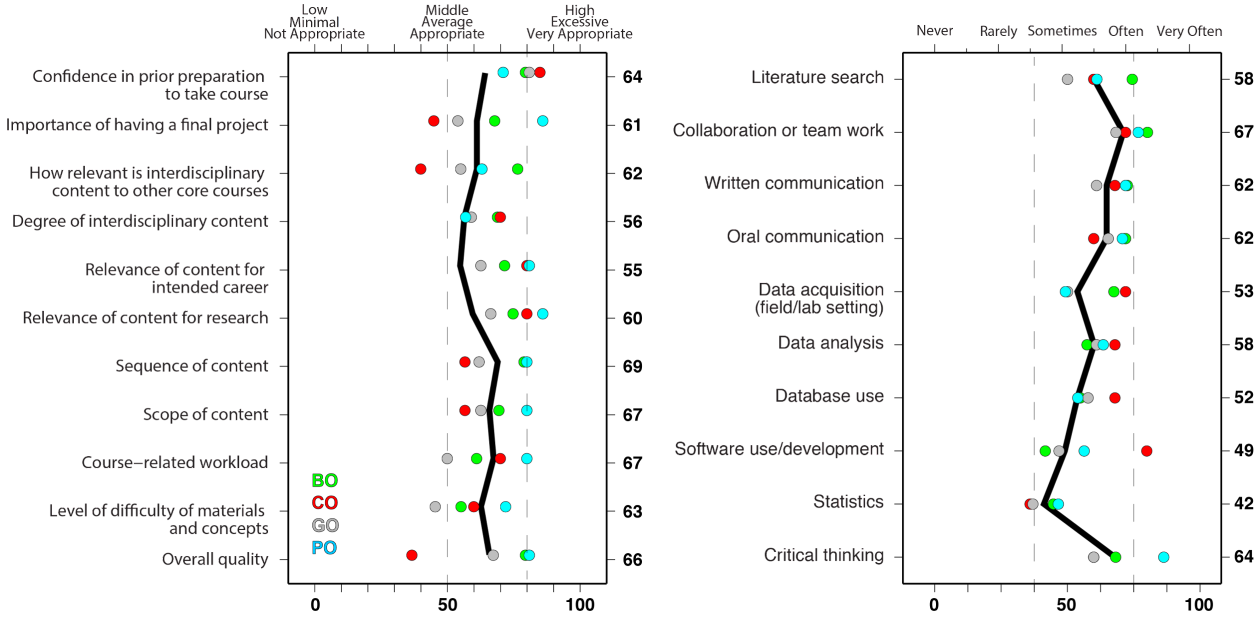


Figure 3. Plots comparing curricular group ratings of their own respective core course content (left) and skills (right). Black lines and bold text on the right-hand side of each plot represent the mean of the scaled ratings for all responses. Colored circles correspond to mean scaled ratings for each sub-discipline as indicated (e.g., BO-green, CO-red, GO-grey, PO-cyan).

6.2.b Core Course Requirements

Question:

- *What is your preference for the following various Core Course scenarios? (Note: total credits required will not change).*

Purpose/Goals

The purpose of this question is to determine the student's perspective regarding core course requirements. This topic was one of the major items explored in the Ad-hoc Curriculum Committee Summary Report (Spivack et al., 2013). We provided rating options of "No", "Maybe", and "Yes" for four scenarios ranging from no change to all core courses required and the possibility of including an introductory course in addition to or replacing a core course.

Observations

Below is a list of preliminary observations based on survey results (Fig. 4) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall
  - ➢ scenario with an introductory oceanography course with modified requirements received the highest normalized rating of 66
  - ➢ scenario with no change in core course requirements received normalized rating of 49
  - ➢ scenario with adding an introductory course to existing requirements received the lowest normalized rating of 35
- Degree-related
  - ➢ MO students prefer no change or add introductory course to existing, but prefer not to have all core courses required
- Curricular Group
  - ➢ BO rates adding introductory course to existing requirements the lowest
  - ➢ CO rates the all four required option the highest
  - ➢ GO rates the all four required option the lowest

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ very mixed views on proposed scenarios ranging from all students should take all four course to developing a year-long course with more labs and computational activities
- ➢ strong opinion against intro course in addition to present requirements
- ➢ introductory course may not be necessary for some people
- ➢ PO should have two separate levels

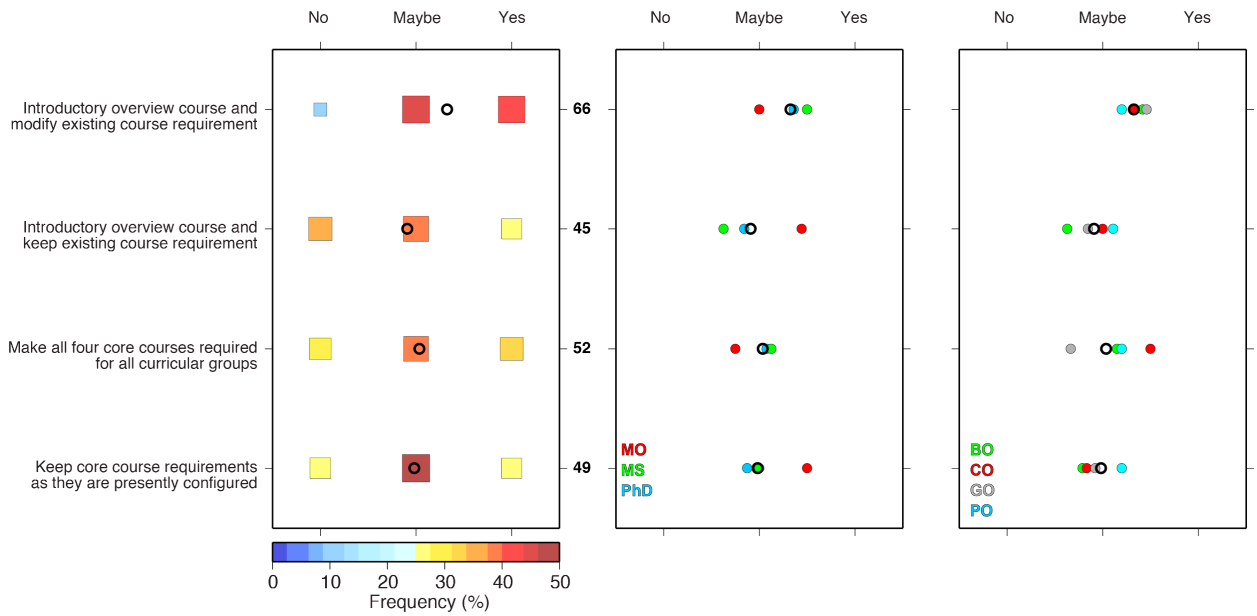


Figure 4. Plots of survey responses regarding potential core course scenarios. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to degree (center) and curricular group (right).

6.2.c GSO Electives

Question:

- What are your perceptions regarding the GSO elective courses?

Purpose/Goals

The purpose of this question is to get a general assessment of electives offered at URI/GSO by requesting student perceptions about availability, quality, ease of finding, and selecting. We provided an expanded Lykert scale with terms ranging from "Never" to "Average" to "High".

Observations

Below is a list of preliminary observations based on survey results (Fig. 5) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall
  - ➢ wide-ranging distribution of ratings with an overall rating at or slightly above average
  - ➢ quality of electives received the highest rating of 68
- Degree-related
  - ➢ MS students indicate they have the least amount of freedom to select electives
  - ➢ PhD students indicate greater availability and quality of electives
- Curricular Group
  - ➢ BO indicate lower ease of selecting electives
  - ➢ CO indicate higher overall quality and lower ease of selecting electives

- ➢ GO indicate lower overall quality and availability of electives
- ➢ PO indicate high overall quality, availability, and ease of selecting electives

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ mixed critiques, but fairly critical of availability
  - limited offerings for non-PO students
  - listed but not taught courses,
  - plan of study difficult to create, need course catalog
  - very late notice about courses
- ➢ positive comments include
  - faculty willing to adjust class schedule
  - PO likes offering, but maybe more practical skills

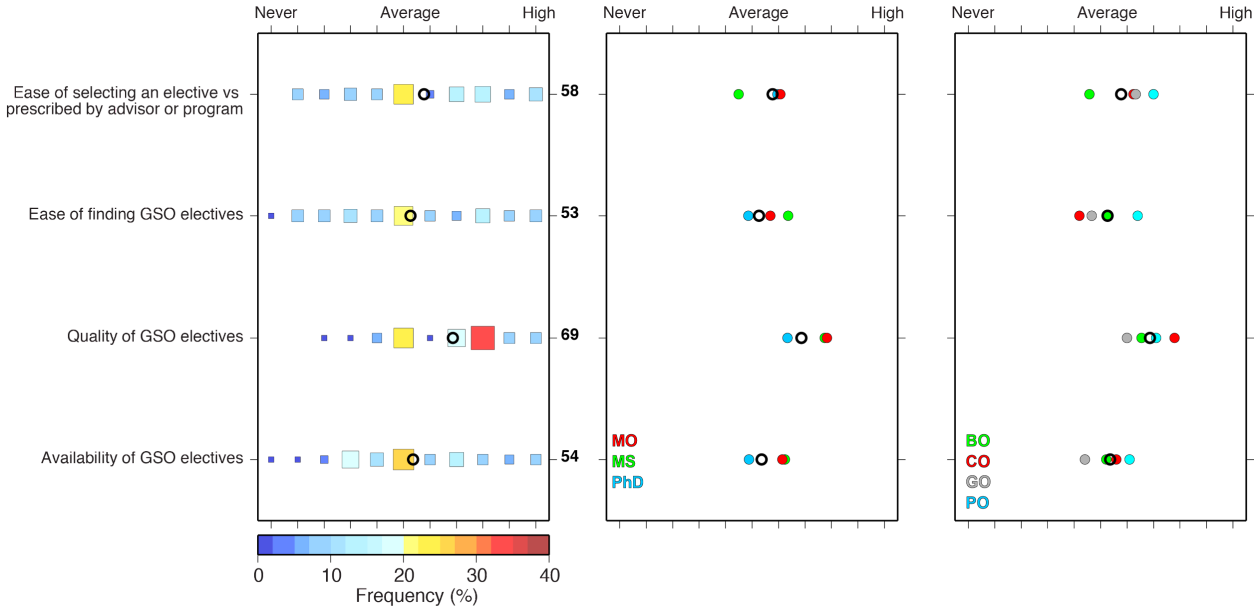


Figure 5. Plots of survey responses regarding GSO elective courses. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to degree (center) and curricular group (right).

6.2.d Course Formats

Question:

- *What is your interest level in following course formats?*

Purpose/Goals

The purpose of this question is to see what format/types of courses students prefer between choices of lectures, lectures with lab, reading seminars, and hands-on practicums. We provided an expanded Lykert scale with terms ranging from "Never" to "Average" to "High".

Observations

Below is a list of preliminary observations based on survey results (Fig. 6) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall
  - ➢ the highest rated format is the practicum format with a normalized rating of 86
  - ➢ the lecture-only format has the widest range of responses and the lowest normalized rating of 62
  - ➢ paper/book discussions had a relatively intermediate rating (71), but a response rate to the "high" selection option
- Degree-related
  - ➢ MO students rate lectures and lectures with lab higher than other student groups (72 and 86, respectively)
  - ➢ MS students rated paper/book discussions lower (59) than other student groups
- Curricular Group
  - ➢ most of the curricular groups have similar responses
  - ➢ CO students indicate a higher rating high hands-on preference
  - ➢ PO students indicate a lower lecture-only preference

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ comments were mixed, but suggested maybe best to incorporate a combination of formats

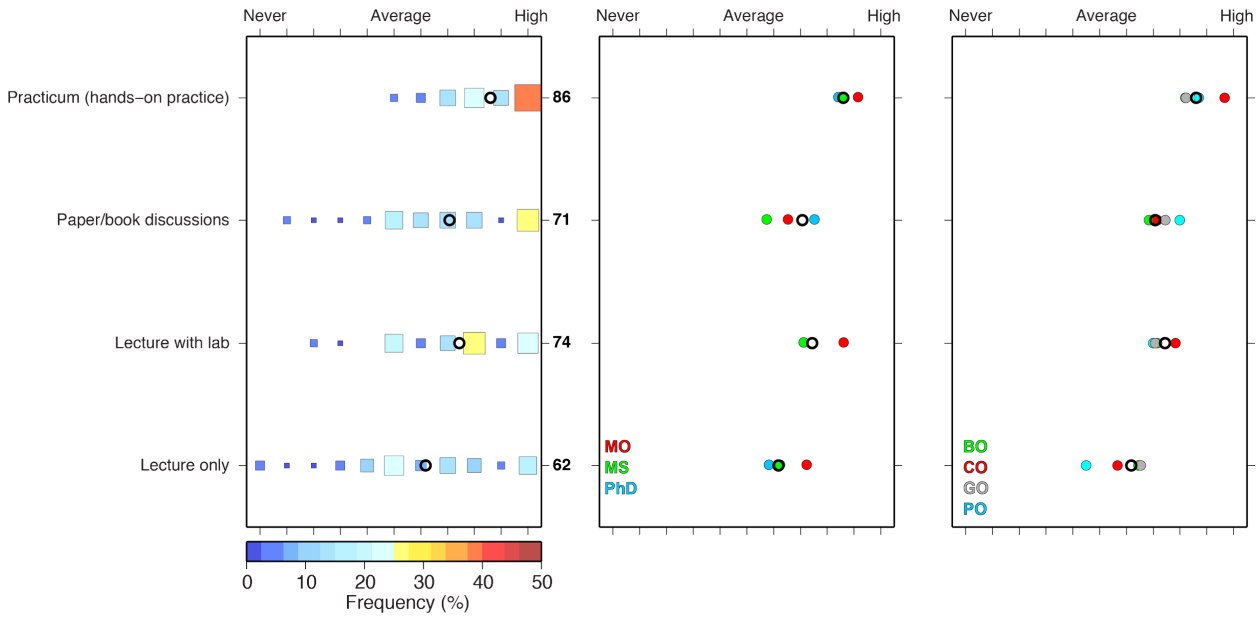


Figure 6. Plots of survey responses regarding potential formats of courses. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to degree (center) and curricular group (right).

6.2.e Course Designs

Question:

- What is your interest level in different course topics/designs/foci?

Purpose/Goals

The purpose of this question is to assess the design of different topics or foci of courses, mostly with an eye toward elective courses but also some aspect of integration into all graduate courses. We provided an expanded Lykert scale with terms ranging from "Never" to "Average" to "High".

Observations

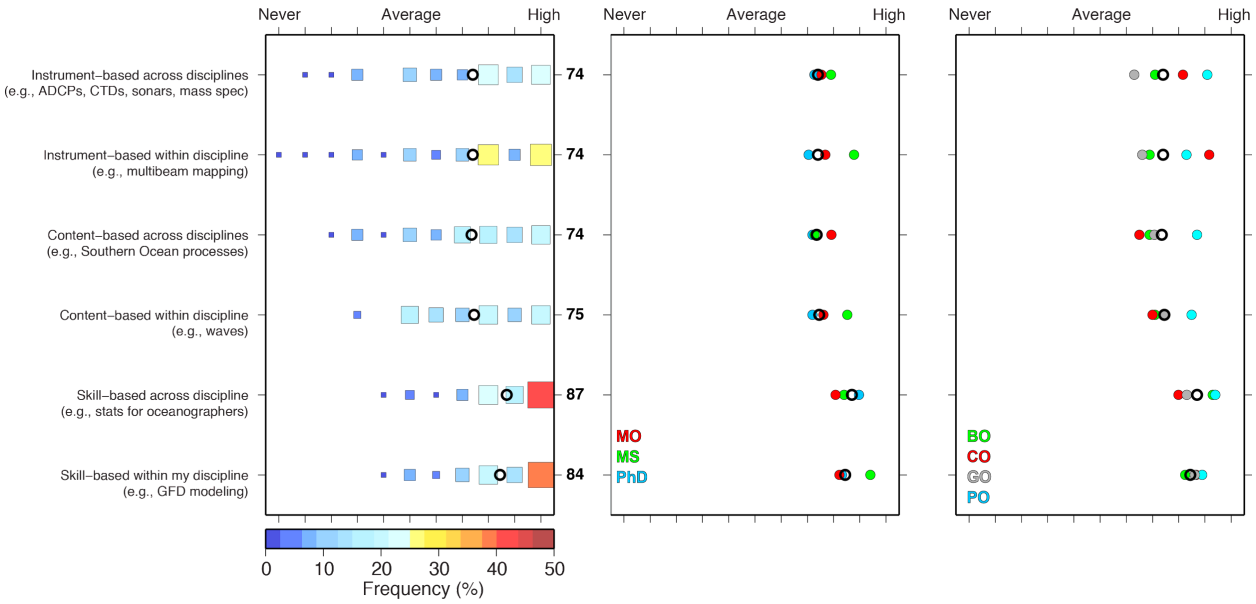
Below is a list of preliminary observations based on survey results (Fig. 7) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall
  - ➢ all formats are ranked above average (e.g., 74-87) with the highest normalized ratings for skills-based courses within and across disciplines (e.g., 84 and 87, respectively)
- Degree-related
  - ➢ MS students indicate a higher preference for all courses within discipline
- Curricular Group
  - ➢ CO students indicate a higher preference for instrument based courses within a discipline
  - ➢ GO students indicate a lower interest in instrument-based courses
  - ➢ PO students indicate higher ratings for all options

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ a couple of comments from GO and PO supporting taking all core courses


Never
Average
High
Instrument–based across disciplines
(e.g., ADCPs, CTDs, sonars, mass spec)
Instrument–based within discipline
(e.g., multibeam mapping)
Content–based across disciplines
(e.g., Southern Ocean processes)
Content–based within discipline
(e.g., waves)
Skill–based across discipline
(e.g., stats for oceanographers)
Skill–based within my discipline
(e.g., GFD modeling)
74
74
74
75
87
84
0
10
20
30
40
50
Frequency (%)
MO
MS
PhD
BO
CO
GO
PO

6.2.f Student Seminar

Questions:

- *How useful/important is student seminar?*
- *Suggestions for changes or ways to improve student seminar?*

Purpose/Goals

The purpose of these questions is to determine the usefulness of student seminar, and how it may be improved. We provided an expanded Lykert scale with terms ranging from "Not Useful" to "Somewhat Useful" to "Very Useful" and an open response comment section.

Observations

Below is a list of preliminary observations based on survey results (Fig. 8) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall
  - ➢ fairly broad range of responses skewed toward the higher end with an overall normalized rating of 65
  - ➢ multi-modal values correspond to "Somewhat Useful", "Useful", and "Very Useful"
- Degree-related
  - ➢ not much difference in normalized mean values for various degrees
- Curricular Group
  - ➢ CO students rate seminars slightly lower in the "Somewhat Useful" range
  - ➢ BO and PO students have a higher rating in the "Useful" range
  - ➢

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ maybe throw in a couple of faculty presentations as exemplars
- ➢ propose a longer time limit or change format
- ➢ presently a trade-off between depth versus breadth of topics
- ➢ maybe have a post-seminar meet and greet
- ➢ find a way to encourage more questions from students
- ➢ not sure about the usefulness of talk-rating surveys

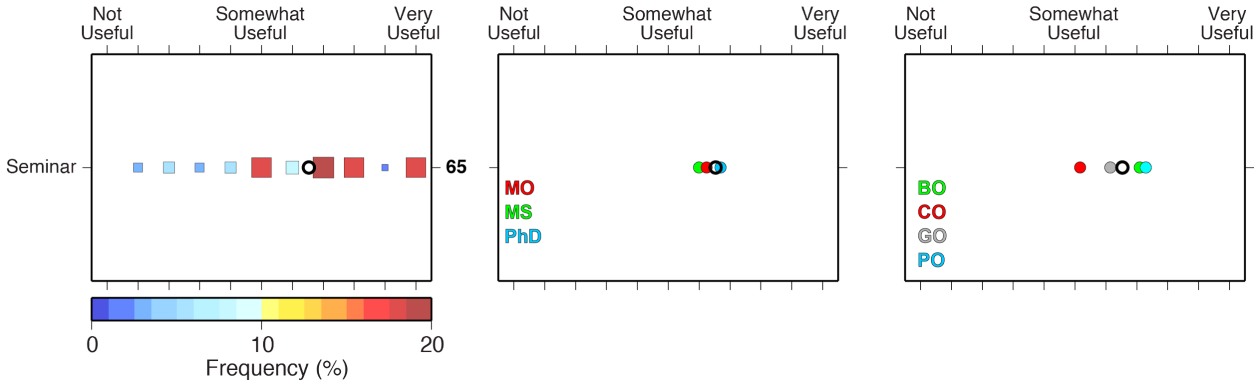


Figure 8. Plots of survey responses regarding usefulness of student seminar. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to degree (center) and curricular group (right).

6.2.g Cruise Requirement

Questions:

- *How useful/important is the cruise requirement?*
- *What is your preference for the cruise requirement?*

Purpose/Goals

The purpose of these questions is to determine the usefulness or importance of the cruise requirement, as well as some possible modifications to the requirement. We provided an expanded Lykert scale with terms ranging from "Not Useful" to "Somewhat Useful" to "Very Useful" for the first questions and "No", "Maybe", and "Yes" options for a list of possible modifications.

Observations

Below is a list of preliminary observations based on survey results (Figs. 8 & 9) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall
  - ➢ overwhelming support for keeping the requirement with a normalized rating of 73 in the "Useful" range.
  - ➢ majority of students support allowing cumulative day cruises to meet the requirement
  - ➢ majority of students support keeping the same number of days
  - ➢ not a strong opinion on whether the requirement should be expanded to MO students or required by only PhD students
- Degree-related
  - ➢ MO students indicate a slight preference for mandatory for all students
  - ➢ MS students indicate a slight preference for requirement to be up to the advisor
- Curricular Group
  - ➢ CO students rated cruise requirement higher and closer to the "Very Useful" range

- CO students also express lower interest in allowing an advisor decide or applying the requirement to PhD students only
- mixed views on duration of requirement; GO students prefer to reduce duration while CO students prefer to increase the duration

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- overall strong opinions in support of cruise requirement
- additional support for modification of the requirement (e.g., coastal cruises)

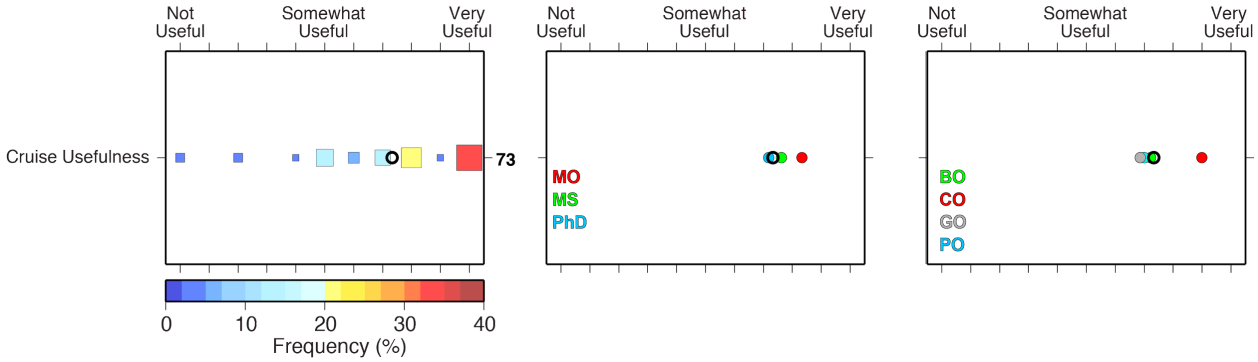


Figure 8. Plots of survey responses regarding cruise requirements usefulness. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to degree (center) and curricular group (right).

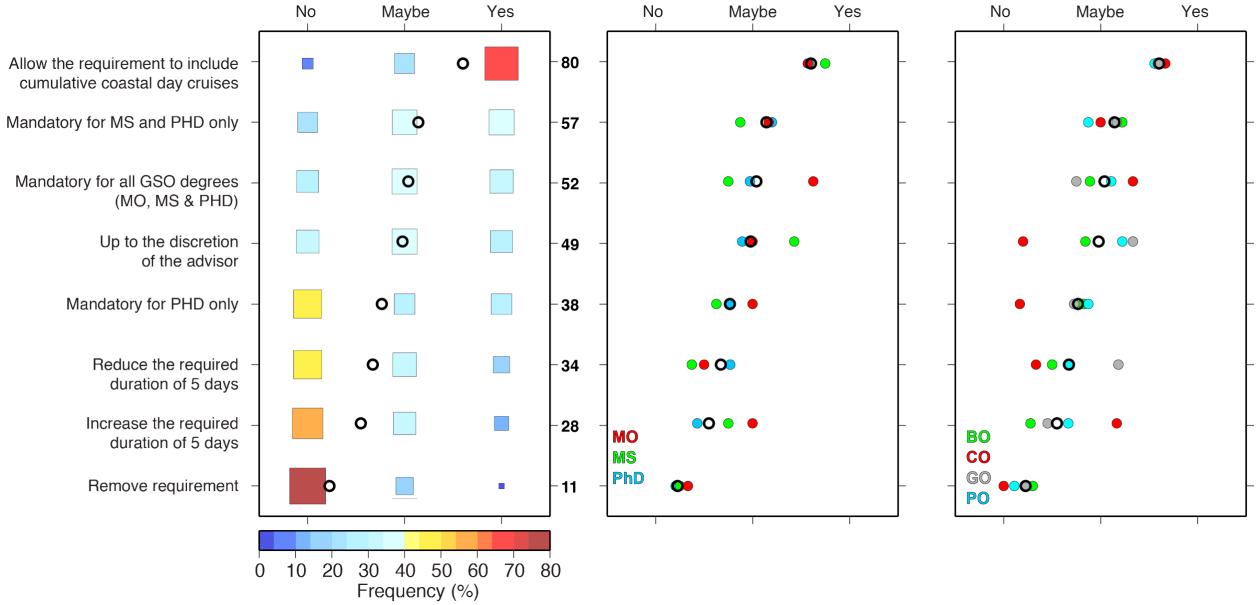


Figure 9. Plots of survey responses for potential cruise requirements modifications. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to degree (center) and curricular group (right).

6.2.h Student Advising/Mentoring

Questions:

- *What percentage of the student advising and mentoring is done by the groups listed below?*
- *Please rate the various aspects of your PRIMARY ADVISOR'S advising and mentoring expectations.*
- *Please rate the various aspects of your GRADUATE COMMITTEE'S advising and mentoring expectations.*
- *Please rate the various aspects of your LAB or GROUP MEMBER'S advising and mentoring expectations.*
- *Please rate the various aspects of OTHER PERSONS' advising and mentoring expectations.*
- *What additional advising/mentoring activities would you like?*
- *Suggestions to improve advising/mentoring?*

Purpose/Goals

The series of questions are designed to explore the sources and quality of student advising/mentoring. We provided a percentage scale to measure the relative amount of advisoring/mentoring various personnel provided. We provided an expanded Lykert scale with terms ranging from "Far Below" to "Meets" to "Far Above" to assess the quality, appropriateness and effort of the advising/mentoring. Suggestions for additional activities and ways to improve advising/mentoring were requested with open responses.

Observations

Below is a list of preliminary observations based on survey results (Figs. 10 & 11) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall
  - ➢ majority of advising/mentoring provided by primary advisor (61%),followed by lab/group members (26%), other personnel (14%), and graduate committee (11%)
  - ➢ responses for primary advisor contribution (15-95%), while others skewed toward lower contributions
  - ➢ in some cases, the lab/group members provided the majority of the advising/mentoring
  - ➢ the quality, appropriateness, and effort were generally above expectations and scales similarly to the sources (e.g., primary highest ranked & committee lowest)
- Degree-related
  - ➢ all degree tracks were very consistent
- Curricular Group
  - ➢ PO students indicate lower contributions from lab/group members
  - ➢ CO students indicate higher contributions from lab/group members

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ more opportunities for
  - careers discussions
  - proposal writing/technical writing support
  - opportunities to meet other faculty, people at EPA & NOAA

- potential improvements include
  - progress reports
  - guidance from someone besides advisors
  - more peer mentoring
  - more informal gatherings
  - tracking of faculty
- suggest training for advisors

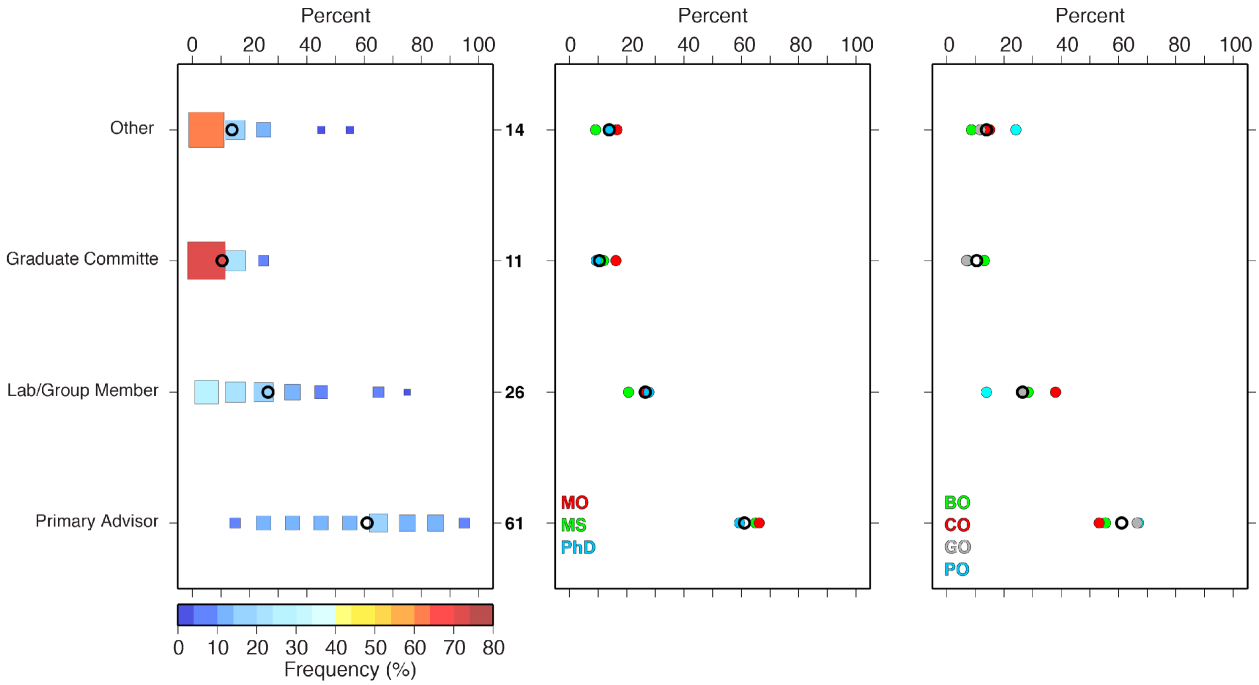


Figure 10. Plots of survey responses regarding advising and mentoring of graduate students. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to degree (center) and curricular group (right).

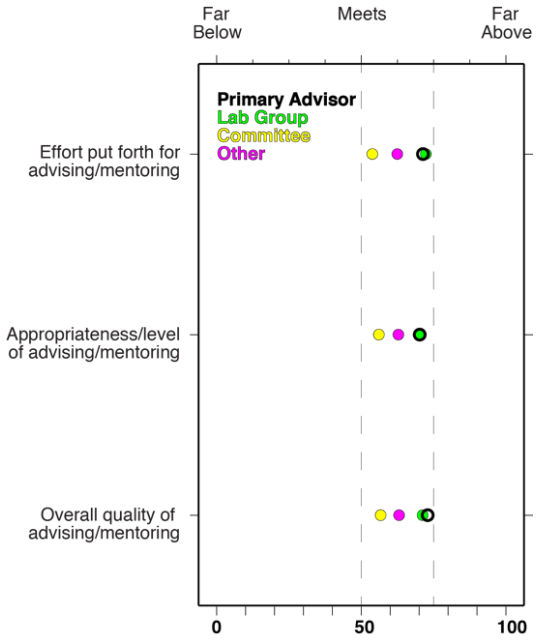


Figure 11. Plot of the quality, appropriateness, and effort put forth toward graduate student advising and mentoring for the various types of advisors as indicated by the text color.

6.2.i Academic Progress Meeting

Question:

- *How recently have you met with Associate Dean David Smith to discuss your academic progress?*

Purpose/Goals

The purpose of this question is to get an assessment about student meetings with the Associate Dean of Academic Affairs to discuss progress. Also, a bit of a reminder to students that they should meet with the Associate Dean at least annually. We provided possible selection items of "< 12 Months" to "> 1 Year" to "Never".

Observations

Below is a list of preliminary observations based on survey results (Fig. 12) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall
  - ➢ majority of students (69%) have met with the Associate Dean within past year
  - ➢ a significant number (~25%) have never met with the Associate Dean
- Degree-related
  - ➢ all of the responding MO students have met with the Associate Dean within past year
  - ➢ responding MS and PhD students have similar rates (e.g., 62% & 65%, respectivley) of meeting with the Ossciate Dean within the past year
- Curricular Group

- ➢ BO and PO groups have higher rates of meeting with the Associate Dean within the past year (e.g., 75% & 80%, respectively)
- ➢ CO and GO groups have lower rates of meeting with the Associate Dean within the past year (e.g., 50% & 46%, respectively)
- ➢

Student Comments

No comments requested

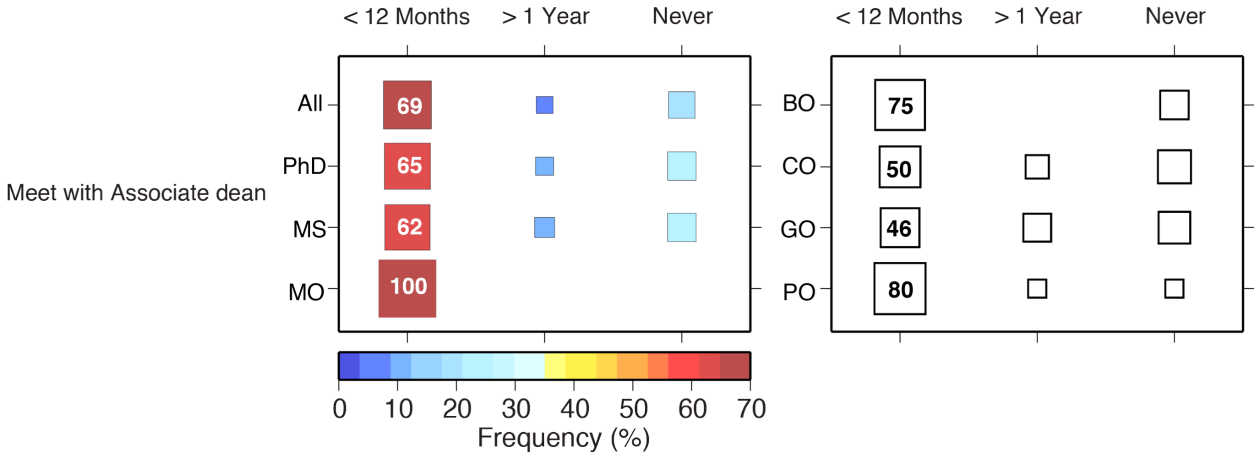


Figure 12. Plots indicating how recently the graduate students have met with the Associate Dean to discuss progress according to degree sought (left) and curricular group (right). Text within symbols represent the frequency in percent.

6.2.j Proposal Defense

Questions:

- *What percentage of your research was completed (or do you anticipate being completed) prior to defending your thesis/dissertation proposal?*
- *When should the proposal defense occur?*

Purpose/Goals

These questions are designed to determine the amount of research completed prior to the proposal defense, and when a student should defend their proposal. A percentage scale in increments of 10% was provided for the amount of research question and "No", "Maybe", and "Yes" options were provided for various program milestones.

Observations

Below is a list of preliminary observations based on survey results (Figs. 13 & 14) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall
  - ➢ average amount of research completed by proposal defense is ~47%, with a modal value of 30%
  - ➢ majority of responses clustered between 20 - 70%

- ➢ the most frequent choices for the timing are at least one year prior to thesis/dissertation defense, at the transition from Level II to Level III, and after completion of core courses (normalized ratings of 69, 55, 54 respectively)

- Degree-related
  - ➢ MS students indicated lower amounts of research (~35%)
  - ➢ similar timing selection patterns for both MS and PhD students
- Curricular Group
  - ➢ mean percentages range from 32% to 55% for all curricular groups
  - ➢ BO and CO students are at the lower end of the range (< 50%)
  - ➢ GO and PO students are at the upper end of the range (> 50%)
  - ➢ fairly similar timing selection patterns for all curricular groups, but CO students indicated a higher preference for at core course completion, after a minimal number of course credits are completed, and at the transition from Level I to Level II

Student Comments

No comments requested

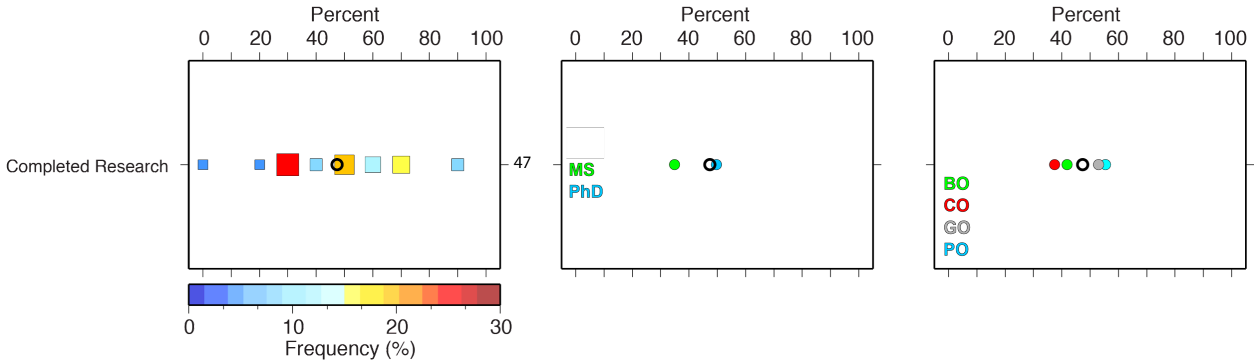


Figure 13. Plots of survey responses regarding research completion prior to proposal defense. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to degree (center) and curricular group (right).

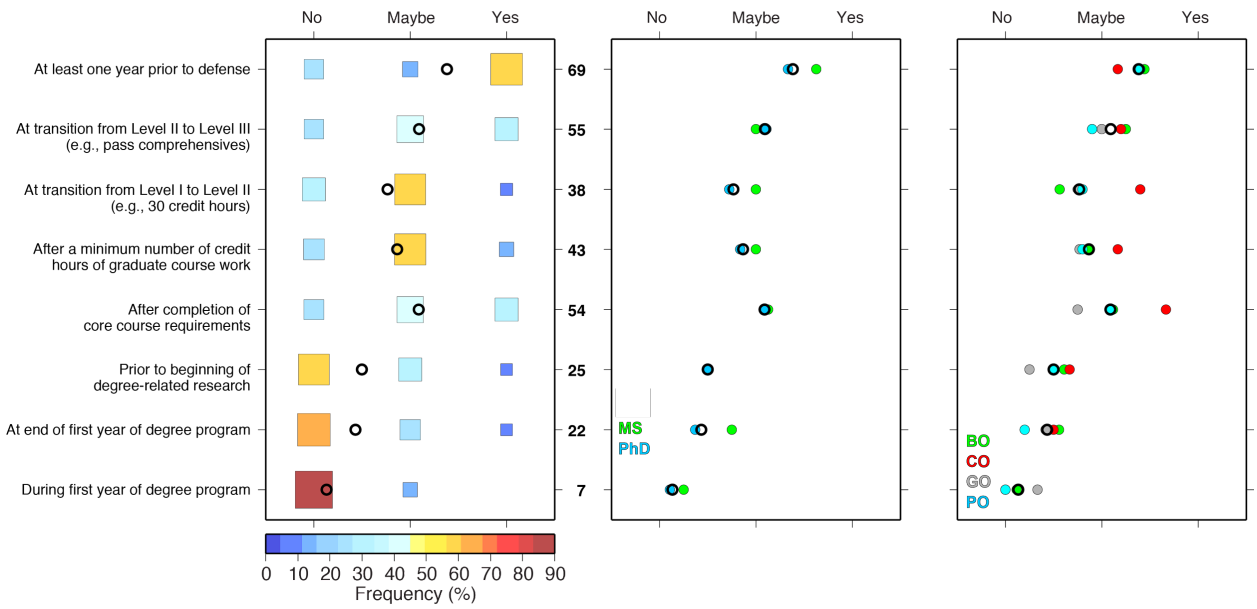


Figure 14. Plots of survey responses regarding when the proposal defense should occur. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to degree (center) and curricular group (right).

6.2.k Committee

Questions:

- *Have you established your MS/PHD committee?*
- *Please rate the ease of establishing your MS or PHD committee.*
- *Courses taken from MS/PHD committee members?*
- *Meetings with MS/PHD committee members?*

Purpose/Goals

These series of questions are designed to assess the ease of creating a committee and the level of interaction with the student's graduate committee. Only MS and PhD students were able to answer this question. We provided simple "No" or "Yes" options for whether a student had established their committee. An expanded Lykert scale with terms ranging from "Very Difficult" to "Some Effort" to "Very Easy" are provided for the question concerning the ease of establishing the committee. For the graduate committee interaction level questions, end-member options of "No" and "Yes" are provided with two intermediate options of "No, don't plan to" and "Not yet, but plan to".

Observations

Below is a list of preliminary observations based on survey results (Figs. 15-18) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall

- ➢ majority of the responding students (65%) have established their graduate
- ➢ fairly broad range of effort ranging from Very Difficult to Very Easy are indicated, but the overall mean corresponds to "Some Effort
- ➢ majority of responding students have taken courses with outside (>60%) and core (>80%) committee members
- ➢ majority of responding students have discussed research with all members of the core committee members (>50%) while fewer students have discussed their research with their outside committee members (~40%)
- ➢ in all cases, students had more interaction with core committee members compared to outside committee members
- ➢

- Degree-related
  - ➢ larger percentage of PhD students (68%) have formed their committee compared to MS students (55%)
  - ➢ the mean effort required by both MS and PhD students is similar
- Curricular Group
  - ➢ CO students lag other curricular groups in establishing their graduate committee
  - ➢ BO students indicate establishing a committee is slightly more difficult
  - ➢ PO students indicate establishing a committee is slightly easier

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ difficulty with finding outside members
- ➢ maybe provide an online guide for how to establish a graduate committee

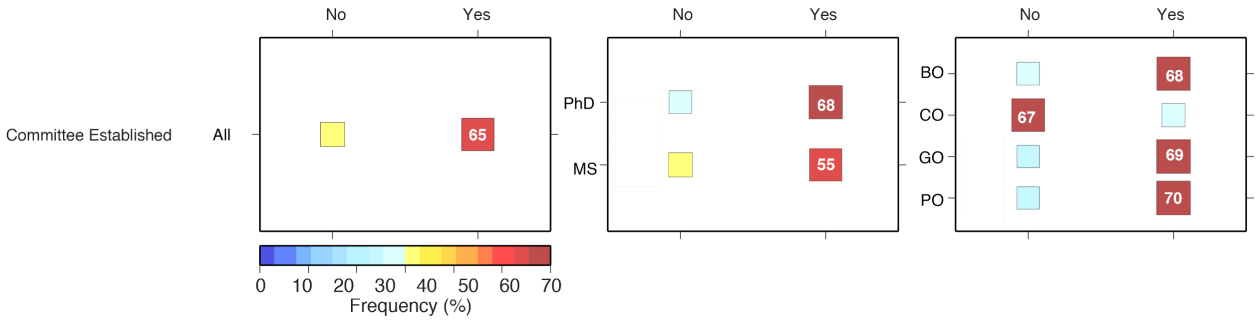


Figure 15. Plots of survey responses regarding whether a student's committee has been established. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses and higher value shown as white text. Comparisons for all responses (left), degree programs (center) and curricular groups (right) are shown.

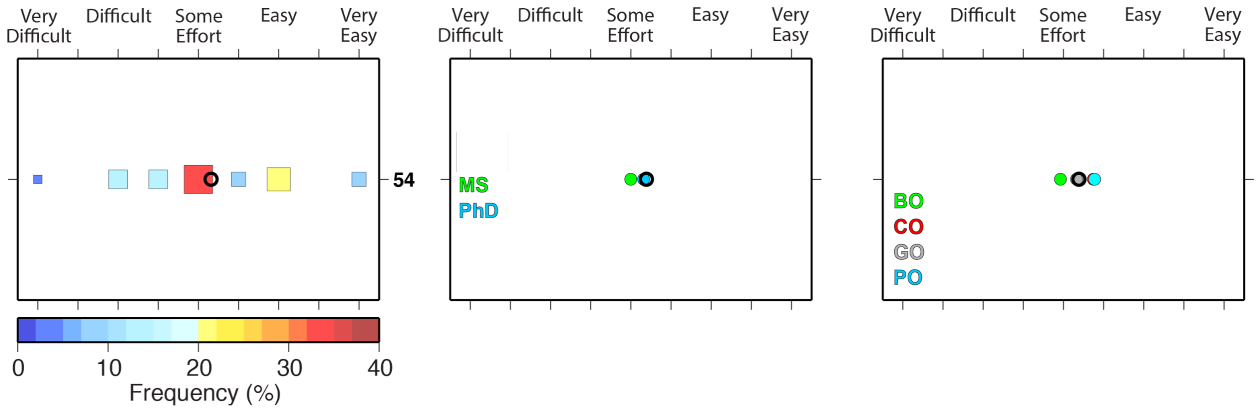


Figure 16. Plots of survey responses regarding the ease of establishing a committee. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to degree (center) and curricular group (right).

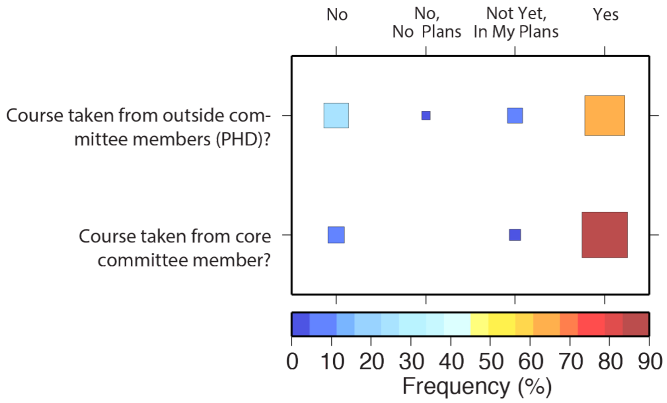


Figure 17. Plot of survey responses for whether a student has or plans to take a course with a committee member. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses .

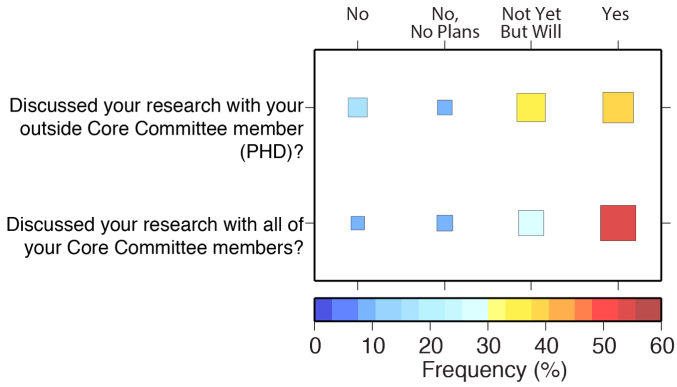


Figure 18. Plot of survey responses for whether a student has or plans to discuss their research with a committee member. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses.

6.2.l Comprehensives

Questions:

- *What should be the components of a comprehensive exam?*
- *When should the comprehensive exams occur?*
- *Do you have a preference for the attributes of written comprehensive exams?*
- *How much time should be allotted for each committee member's written exam question(s)?*

Purpose/Goals

While we realize that most aspects of the comprehensives exams are dictated by the graduate school, several faculty were interested in questions concerning components of comprehensive exams and several students were interested in the design/timing of the written and oral exams. The questions were designed to determine if there is a student preference for various components of comprehensive exams. This portion of the survey was only available to PhD students. We provided "No", "Maybe", and "Yes" selection choices for various options related to components of comprehensive exams, when in a students graduate career the exams should occur, and the composition of the written exam. We also requested student input for the time allotted (in hours) for individual written exams.

Observations

Below is a list of preliminary observations based on survey results (Figs. 19-22) and organized according to overall observations and curricular group observations.

- Overall
  - ➢ students indicated a substantial preference for both written and oral exams
  - ➢ majority also indicate the exams should occur after completion of the core courses
  - ➢ majority prefer exams tailored to individual students
  - ➢ while the preferred duration of individual written exams ranged from 2 to 8 hours, the mean duration is about 4 hours
- Curricular Group
  - ➢ CO students indicate a strong "No" for oral only comprehensives
  - ➢ GO students prefer shorter time duration of written exams
  - ➢ PO students prefer shorter time duration of written exams

- PO students have a preference for their present approach (e.g.,same cohort, same exam at specified time) and not tailored to individual students

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- most students want to keep both components of exams, while others think comprehensives are a waste of time
- mixture of comments for individualized versus standardized exams
- mixed responses about when exams should occur, but realize timing is dependent on curricular group and needs
- mixed responses about duration of written exams ranging from preferring some standardization and to question dependent

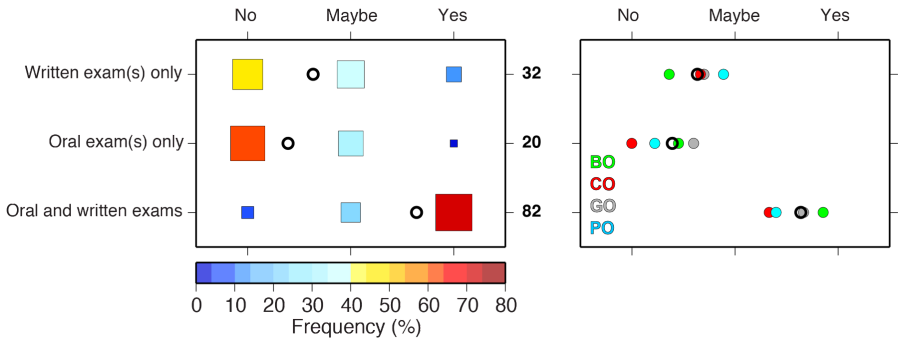


Figure 19. Plots of survey responses regarding composition of comprehensive examination. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to curricular group (right).

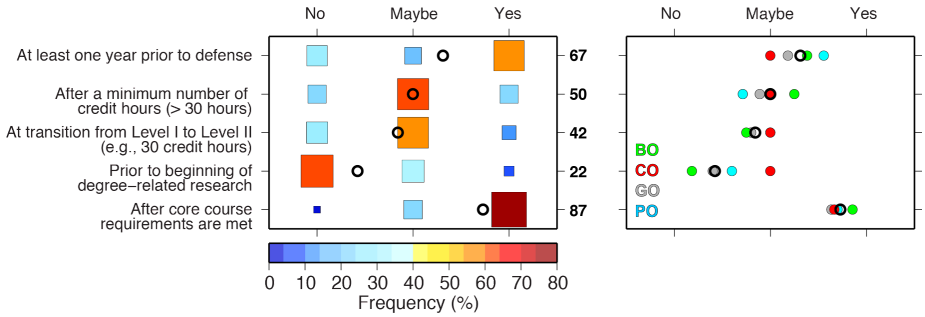


Figure 20. Plots of survey responses for when in a student's program of study comprehensive examinations should occur. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to curricular group (right).

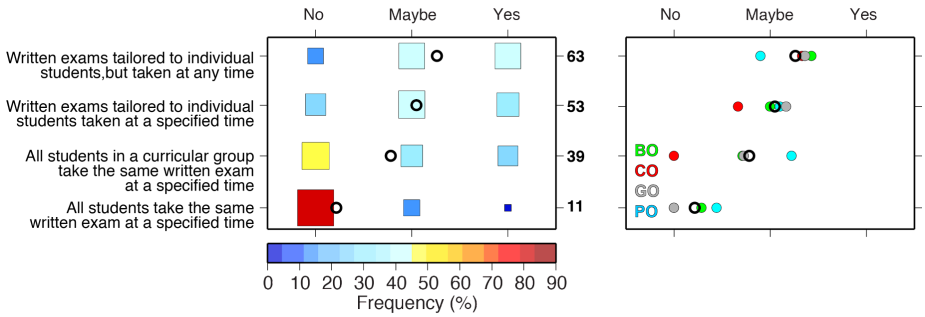


Figure 21. Plots of survey responses regarding the character/format of the written comprehensive exams. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to curricular group (right).

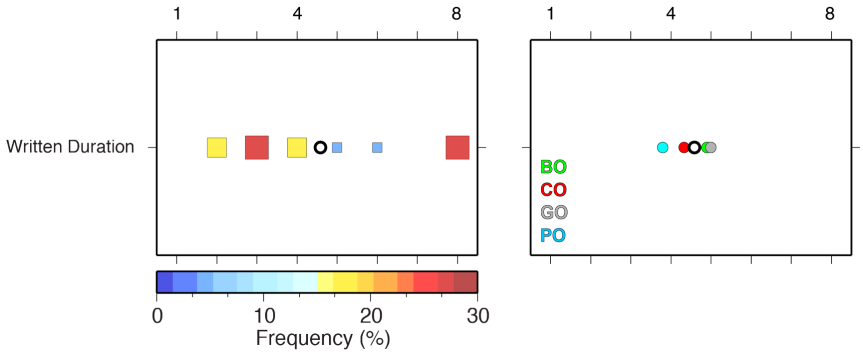


Figure 22. Plots of survey responses regarding the preferred duration of individual comprehensive exams. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the normalized ratings for all responses are shown for disaggregated values according to curricular group (right).

6.2.l Confidence/Comfort Levels

Questions:

- *How much have your CORE COURSE experiences impacted the following?*
- *How much have ALL COURSES TAKEN UNTIL PRESENT AT GSO impacted the following?*
- *Upon graduation from GSO how do you anticipate YOUR TOTAL GRADUATE EXPERIENCE AT GSO will have impacted the following?*

Purpose/Goals

The purpose of this question is to assess student-perceived impact or progress (e.g., confidence/comfort) on possible program related activities at various milestones (e.g., after core courses, after all courses, and anticipated at graduation). We provided an expanded Lykert scale with terms ranging from "Low Impact" to "Average Impact" to "High Impact". In hindsight, we wish we had included a question for "At the beginning of graduate school at URI/GSO" to assess the net increase due to the core courses.

Observations

Below is a list of preliminary observations based on survey results (Fig. 23) and organized according to overall observations, degree-related observations, and curricular group observations.

- Overall
  - ➢ confidence/comfort in proposal writing generally lags the other activities
  - ➢ typically greatest growth between completion of all courses and graduation
- Degree-related
  - ➢ fairly similar confidence/comfort levels for MS and PhD students
  - ➢ no or minimal increase in confidence/comfort levels for MO between completion of core courses and completion of all courses
- Curricular Group
  - ➢ CO student confidence/comfort levels are a bit anomalous and generally lower overall, except in writing thesis and dissertation

Student Comments

No comments provided

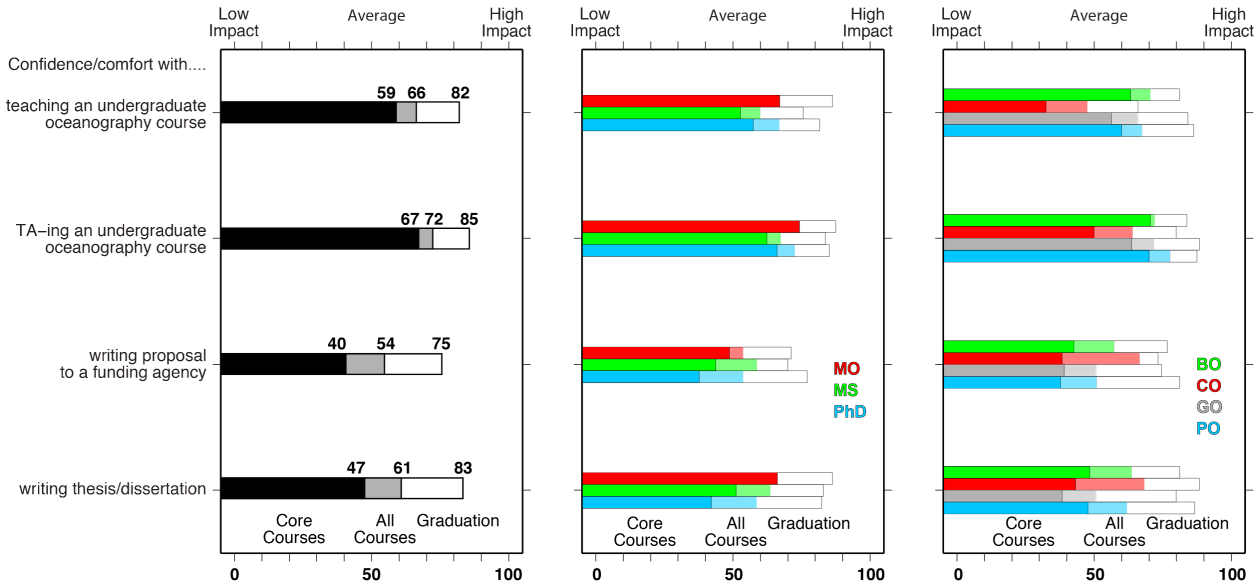


Figure 23. Plots of survey responses indicating confidence and comfort levels of graduate students with performing various potential tasks after completion of key program milestones. A summary of all responses (left), as well as disaggregated for degree (center) programs and curricular groups (right) are provided. Numerical values in the leftmost panel represent the mean of the scaled ratings.

6.3 Ancillary Topics of Interest

6.3.a Why choose GSO?

Question:

- *Rank the reason(s) why you selected GSO for graduate school.*

Purpose/Goals

This question is designed to identify why students chose GSO for graduate school as a means to prioritize and target potential student recruitment efforts. A total of 17 possible options were provided including geography-related, family-related, finance-related, and research-related factors. We provided an expanded Lykert scale with terms ranging from "Lowest" to "Middle" to "Highest".

Observations

Below is a list of preliminary observations based on survey results (Fig. 24) and organized according to overall observations and location of undergraduate institutions.

- Overall
  - ➢ most of the factors were rated middle or above (e.g., 48 - 95) with distinct breaks at top 3, top 8, and bottom 4
  - ➢ the 3 highest rated factors are research topic/opportunities, offered financial support, and reputation of advisor
  - ➢ the 5 next highest rated factors are reputation of faculty, reputation of institution, job potential, and campus visit
  - ➢ teh 4 lowest rated factors are proximity to friends and family, cost of living, recreational/social opportunities, and climate/weather

- Location
  - ➢ students from non-US undergraduate institutions rankedGSO administration, student recommendation, and job potential higher and size of GSO lower than US students

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ having a graduate student union is a plus
- ➢ talking to potential advisors and campus visit helped

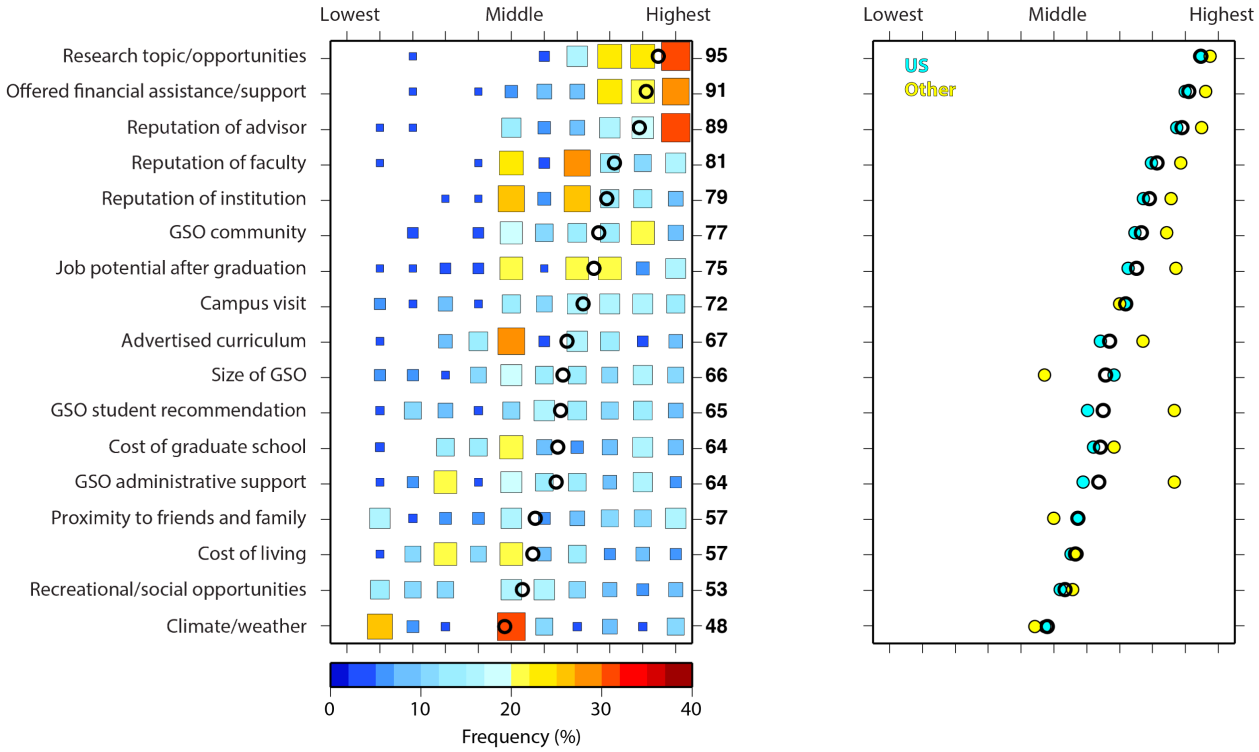


Figure 24. Plots of survey responses regarding reasons for choosing URI/GSO for graduate school. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the mean scaled ratings for all responses are shown for similar disaggregated values according to location of undergraduate degree (right).

6.3.b Schools Considered/Applied/Accepted

Question:

- *How many other graduate programs did you consider?*
- *How many other graduate programs did you apply?*
- *How many other graduate programs were you accepted?*

Purpose/Goals

This series of questions requested information about the "other graduate schools considered", "other graduate schools applied to", and "other graduate schools accepted at" to ascertain GSO's relative competitiveness in acquiring students. We provided numerical selections from 0 to more than 8.

Observations

Below is a list of preliminary observations based on survey results (Fig. 25) and organized according to overall observations and location of undergraduate institution.

- Overall
  - ➢ mean and modal values of other schools considered are 3.6 and 1, respectively, with a maximum of more than 8 schools

- ➢ mean and modal values of other schools applied to are 3.2 and 2, respectively, with a maximum of more than 8 schools
- ➢ mean and modal values of other schools applied to are 1.1 and 0, respectively, with a maximum of 4 schools

- Undergraduate Location
  - ➢ - non-US undergraduate students generally apply to more schools (~4) compared to US undergraduate students (~3)

Student Comments

No comments requested

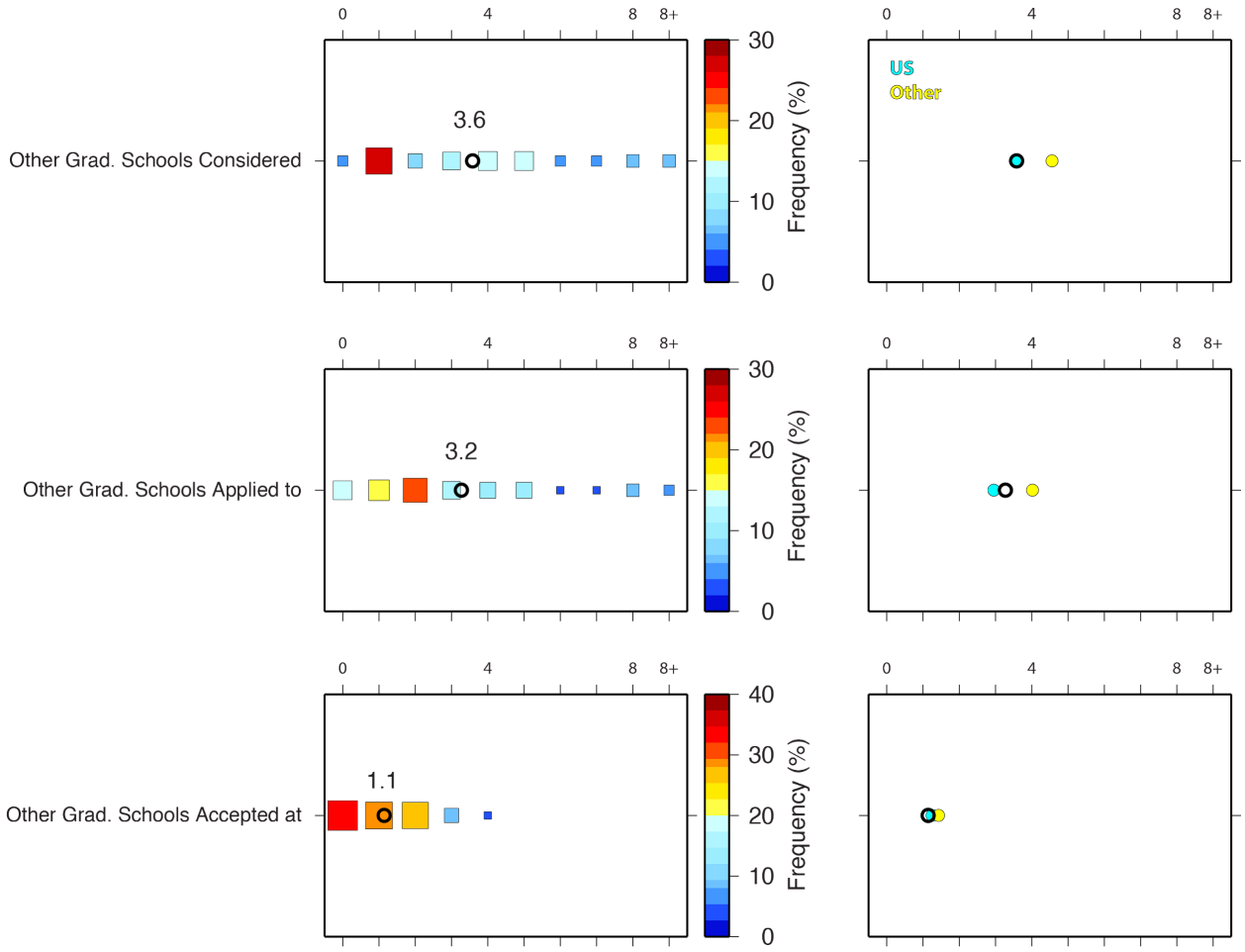


Figure 25. Series of plots displaying survey responses for the number of other graduate schools considered (top), applied to (middle), and accepted at (bottom). Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the mean scaled ratings for all responses are shown for similar disaggregated values according to location of undergraduate degree (right).

6.3.c Pathways

Question:

- *What was your path prior to coming to GSO?*

Purpose/Goals

The purpose of this question is to identify education and employment pathways students have taken to become graduate students at URI/GSO in order to prioritize recruitment efforts and identify underutilized networks. Students are provided options ranging from directly from recent degree (undergraduate vs other graduate degree) to directly from a job to time off after previous degree.

Observations

Below is a list of preliminary observations based on survey results (Fig. 26) and organized according to overall observations and location of undergraduate institution.

- Overall
  - ➢ most common pathways for all students are from other graduate programs (25%), from a job after an undergraduate degree (25%) and directly from an undergraduate degree (20%)
- Undergraduate Location
  - ➢ majority of non-US-educated students (50%) are from other graduate programs or jobs after previous undergraduate (25%) and graduate (25%) degrees
  - ➢

Student Comments

No comments requested

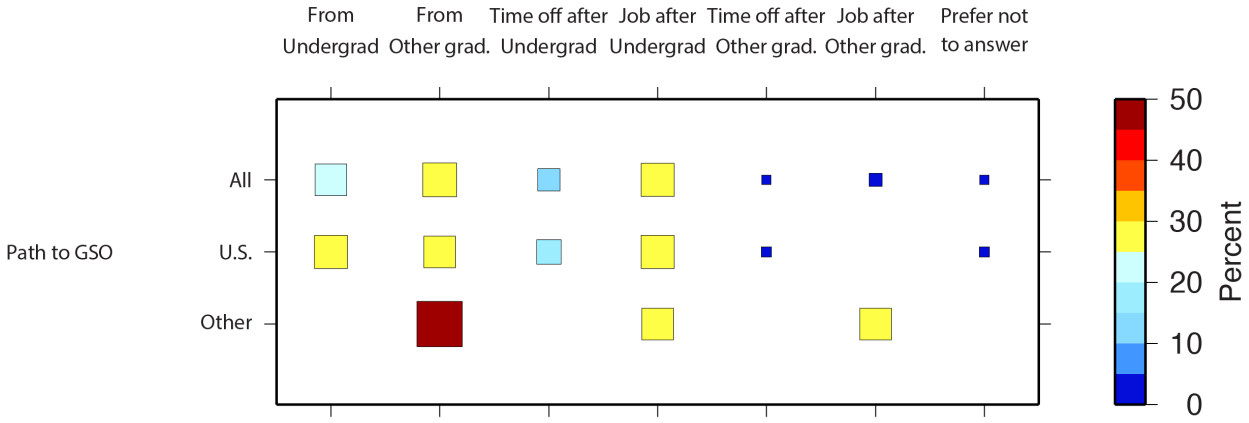


Figure 26. Plots of survey responses regarding the various pathways to URI/GSO for all responses combined, as well as for students with undergraduate degrees from the U.S.and non-U.S. nations. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses.

6.3.d Anticipated Career

Question:

- *What type of institution(s) do you anticipate for your career?*
- *What sector(s) do you anticipate for your career?*
- *What role(s) do you anticipate for your career?*

Purpose/Goals

This series of questions are designed to identify the institutions, sectors, and roles which graduate students anticipate to pursue for their careers after URI/GSO. A range of topics were provided for each career segment which we believed were most applicable to GSO students. We provided an expanded Lykert scale with terms ranging from "No" to "Possibly" to "Very Likely".

Observations

Below is a list of preliminary observations based on survey results (Fig. 27) and organized according to overall observations and location of undergraduate institution.

- Overall
  - ➢ the three top-rated of six institutions are government, private industry, and academia with normalized ratings of 64, 59, and 53, respectively
  - ➢ the lowest rated institution is military with normalized rating of 20
  - ➢ the two top-rated of seven sectors are science/engineering and education with normalized ratings of 70 and 54, respectively
  - ➢ the lowest rated sector is financial with normalized rating of 18
  - ➢ the two top-rated of six sectors are research and teaching with normalized ratings of 75 and 61, respectively
  - ➢ the lowest rated sector is administration with normalized rating of 35

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ "Own Business" is an additional institution provided
- ➢ "Data Science or Consulting" is an additional sector provided

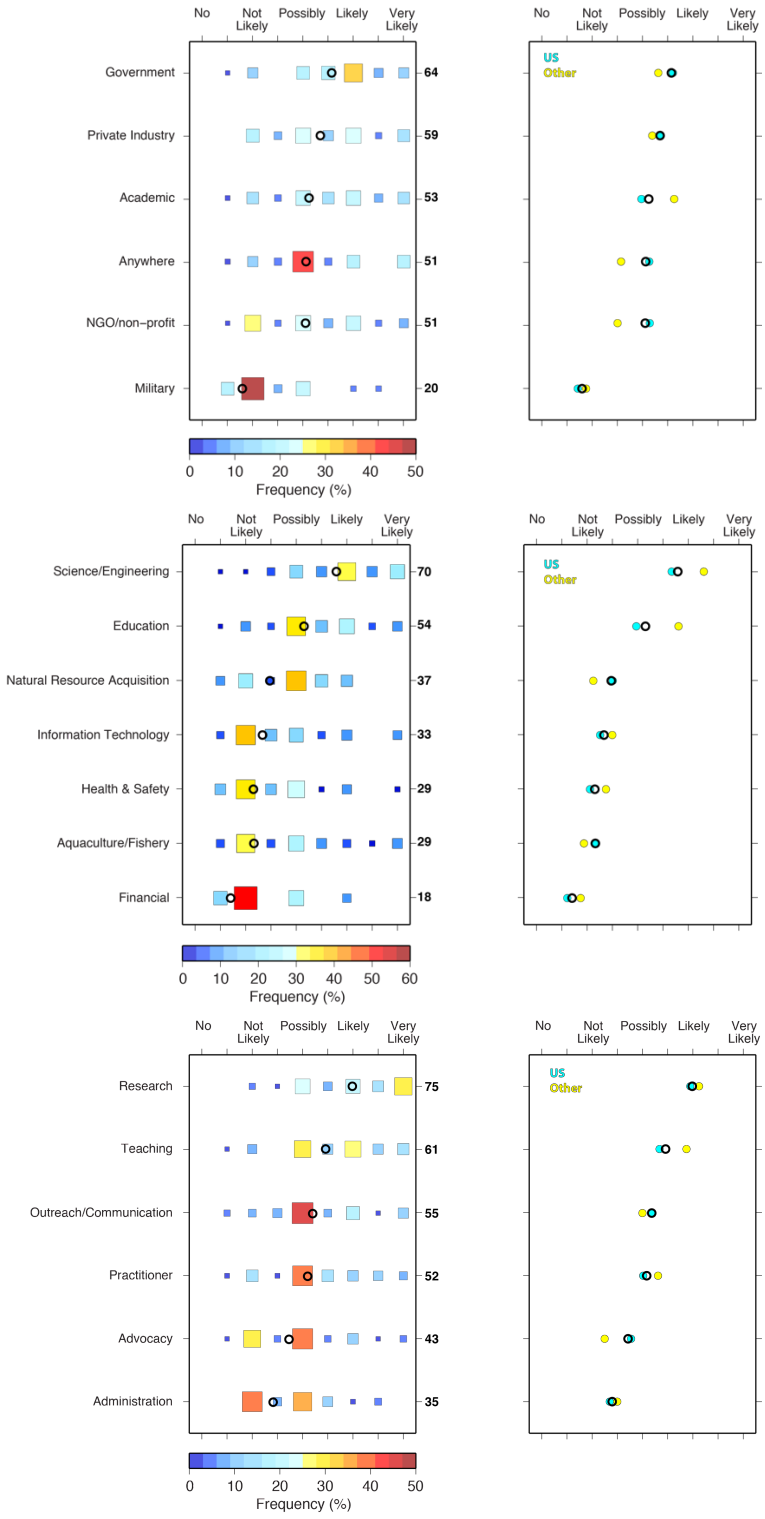


Figure 27. Plots of survey responses regarding the institutions (top), sectors (center), and roles (bottom) of anticipated careers. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot. Comparisons of the mean scaled ratings for all responses are shown for similar disaggregated values according to location of undergraduate degree (right).

6.3.e Student Orientation

Quest*ion:*

- *In hindsight, if incoming students were offered a series of workshops/primers during the week before classes begin, how likely would you have been willing to participate?*
- *Which topics do you think would be most beneficial?*

Purpose/Goals

The purpose of this question is to determine the level of interest for an orientation program before starting graduate school and which topics would be of interest. We provided an expanded Lykert scale with terms ranging from "No" to "Possibly" to "Very Likely" for the level of interest question and a rating scale of "Lowest" to "Middle" to "Highest" for the 13 various expectations, soft skill and quantitative topics.

Observations

Below is a list of preliminary observations based on survey results (Figs. 28 & 29) and according to overall observations and location of undergraduate institution.

- Overall
  - ➢ majority of responses (74%) indicate students are likely or very likely to participate in an student orientation program
  - ➢ top 2 topics are computational skills and introduction to GSO, URI and RHode Island
  - ➢ topics such as graphical software, data organization, and grad school expectations were also rated highly
- Undergraduate Location
  - ➢ non-US students give higher rankings for nearly all
  - ➢

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ useful topics, but a lot of work to initially implement
- ➢ all topics may not be useful as an intro

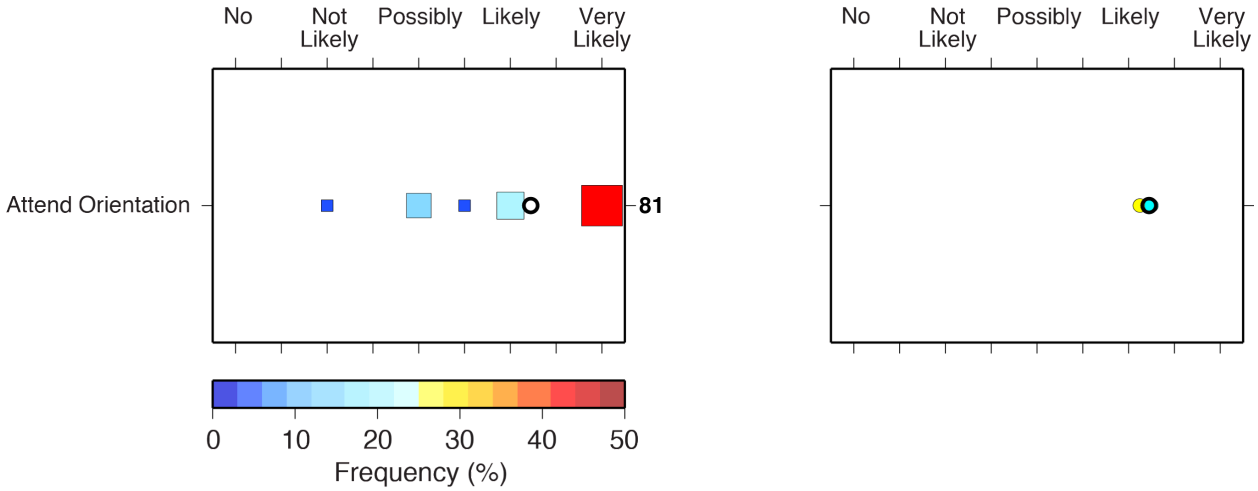


Figure 28. Plots of the likelihood graduate students would participate in an orientation program during the week before classes start. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the mean scaled ratings for all responses are shown for similar disaggregated values according to location of undergraduate degree (right).

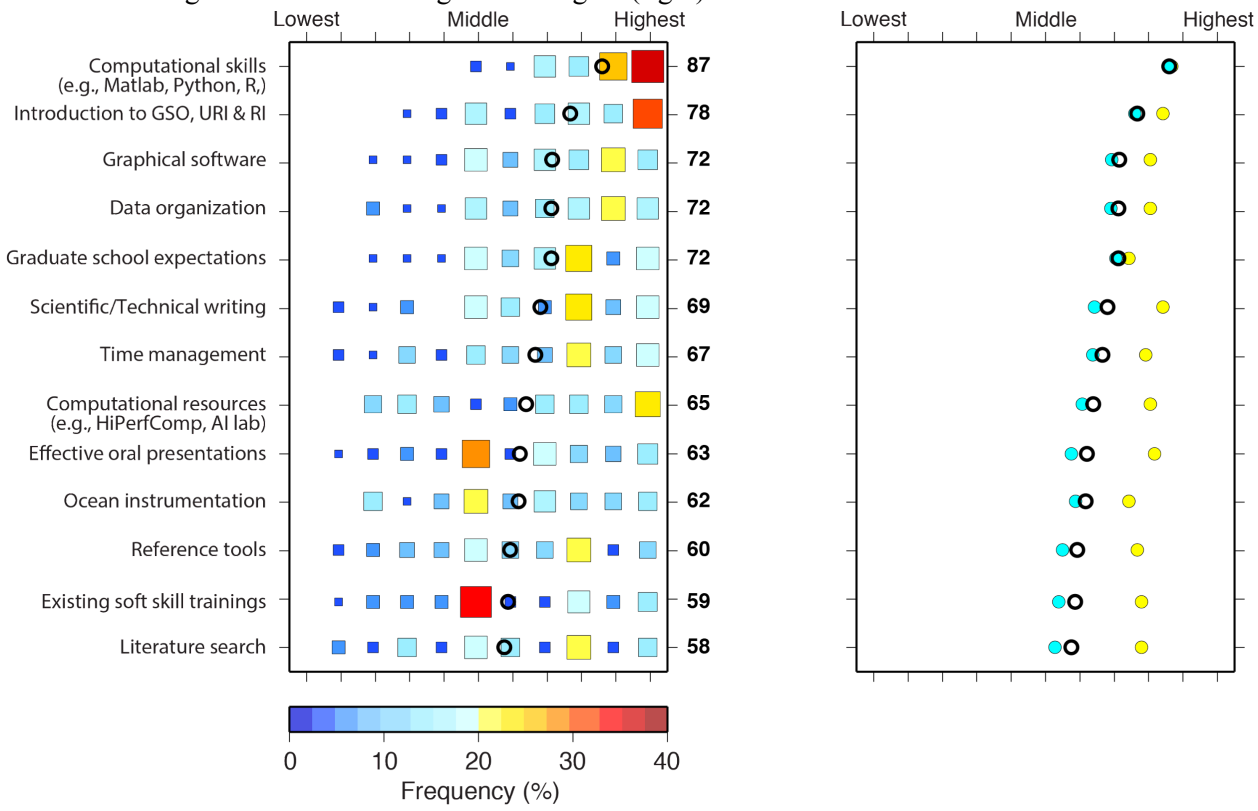


Figure 29. Plots of possible orientation topics sorted by student level of interest. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the mean scaled ratings for all responses are shown for similar disaggregated values according to location of undergraduate degree (right).

6.3.f Soft Skills

Question:

- *How would you rate the IMPORTANCE of the listed soft skills for your career?*
- *How would you rate the AVAILABILITY of the listed soft skills at GSO or URI for your career?*

Purpose/Goals

The purpose of this question is to identify which soft skills students consider important and what they perceive as the availability of obtaining these skills at GSO or URI in order to identify which skills should be added and/or emphasized. Various websites with lists of soft skills were explored to create the list of 11 soft skill items in our survey. For the importance aspect, we provided an expanded Lykert scale with terms ranging from "Not Important" to "Moderate Importance" to "Very Important". For the availability aspect, we provided an expanded Lykert scale with terms ranging from "Not Available" to "Moderate Availability" to "Very Available".

Observations

Below is a list of preliminary observations based on survey results (Figs. 30 & 31) and according to overall observations and location of undergraduate institution.

- Overall
  - ➢ importance of all the soft skill items listed were ranked very high with a normalized rating greater than 82.
  - ➢ the top four items are critical thinking, communication, work ethic,and time management with normalized ratings of 92,90, 89, and 89, respectively.
  - ➢ availability of the soft skills were rated between moderately to highly available with normalized ratings of 57 to 74.
- Undergraduate Location
  - ➢ ratings of importance and availability were all rated as high or higher than by students from non-US institutions compared to students from US institutions.

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ some comments about not knowing what "availability" means

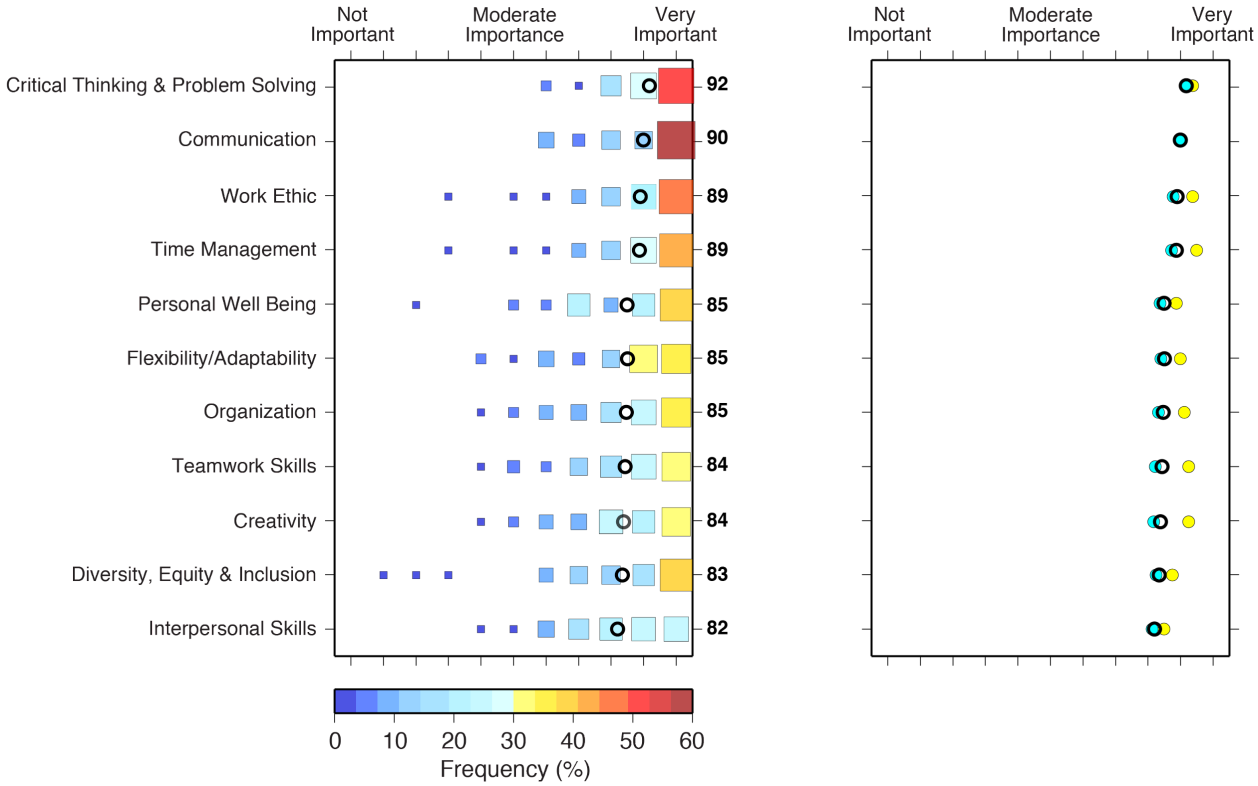


Figure 30. Plots of survey responses regarding the importance of various soft skills for the student's career. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the mean scaled ratings for all responses are shown for similar disaggregated values according to location of undergraduate degree (right).

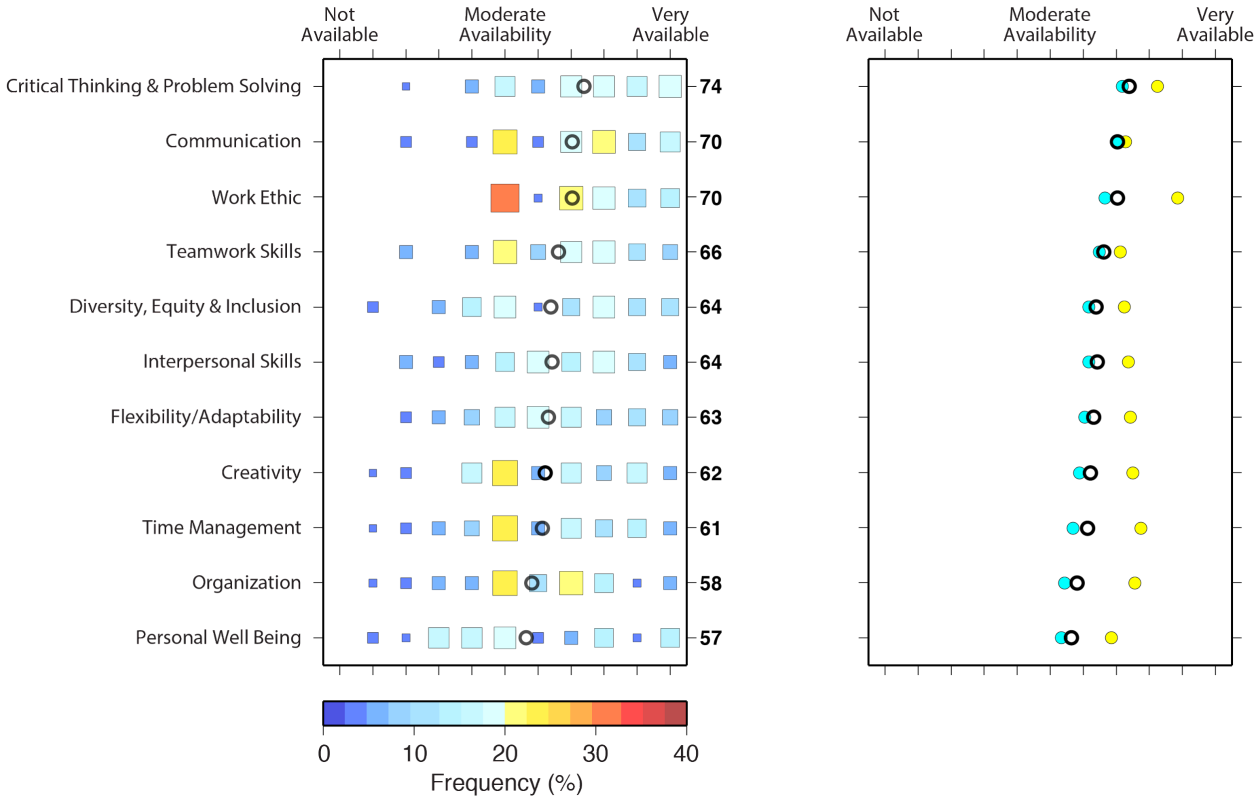


Figure 31. Plots of survey responses regarding the availability of various soft skills at URI/GSO. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the mean scaled ratings for all responses are shown for similar disaggregated values according to location of undergraduate degree (right).

6.3.g Quality of life

Question:

- *Please rank the various items below with respect to the quality of life at GSO.*

Purpose/Goals

The purpose of this question is to rate various aspects of GSO, URI, and Rhode Island that contribute to the quality of life and identify any issues that can be improved. We provided an expanded Lykert scale with terms ranging from "Lowest" to "Middle" to "Highest".

Observations

Below is a list of preliminary observations based on survey results (Fig. 32) and organized according to overall observations and location of undergraduate institution.

- Overall
  - ➢ the items provided ranked from middle to high ranking with normalized ratings ranging from 55 to 73
  - ➢ top 5 items are Overall satisfaction with living in the area, Satisfaction with recreational opportunities, Overall satisfaction with GSO, Overall satisfaction

with GSO physical campus, and Satisfaction with GSO community with normalized ratings of 73, 73, 72, 71, and 70, respectively

- ➢ lowest 2 items are Satisfaction with career development opportunities & training and Satisfaction with diversity, equity, & inclusion efforts with normalized ratings of 55 for both items

- Undergraduate Location
  - ➢ students from non-US undergraduate institution ranked most of the items higher, except for Recreational opportunities
  - ➢

Student Comments

Below is an edited/consolidated list of frequent or useful comments.

- ➢ several comments about the frustration of COVID
- ➢ student health benefits inadequate for women
- ➢ would like more career development & beyond academia
- ➢ physical campus issues negatively impacting research
- ➢ limited quality housing
- ➢ student fee barriers for incoming students
- ➢ why assistantships pay 20 hrs/week when students work 40+
- ➢ lack of decent public transportation between GSO and URi
- ➢ student pay mix-ups
- ➢ lack inter-building communication

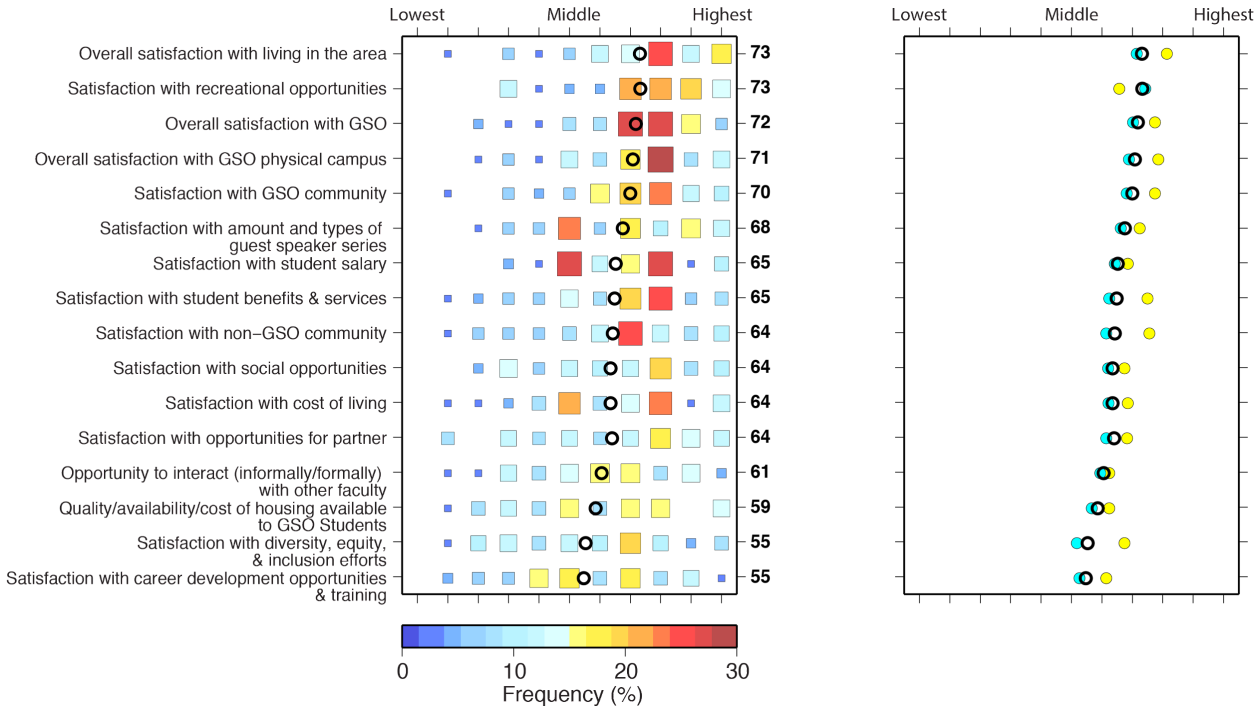


Figure 32. Plots of survey responses regarding various factors impacting the quality of life at URI/GSO. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols

corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the mean scaled ratings for all responses are shown for similar disaggregated values according to location of undergraduate degree (right).

6.3.h Possible Workshops

Question:

- *Which possible workshop topics would you be interested in attending if offered at GSO or URI?*

Purpose/Goals

The purpose of this question is to identify which potential workshop topics would interest graduate students. We chose a total of 22 topics focused on soft skills and technical skills that may or may not be addressed on formal coursework. We provided a standard 5-level Lykert scale with terms ranging from "No" to "Possibly" to "Definitely".

Observations

Below is a list of preliminary observations based on survey results (Fig. 33) and organized according to overall observations and location of undergraduate institution.

- Overall
  - ➢ all provided topics rated ranked as possibly to most likely with normalized ratings of 47 to 83
  - ➢ - top rated topics are Career Development, Grant Proposal Writing, Effective Presentations, and Job Applications/Interviews with normalized ratings of 81, 79, 79 and 78, respectively
- Undergraduate Location
  - ➢ students from non-US undergraduate institutions indicate more emphasis on communication oriented topics (e.g., presentations, emails, text editing)

Student Comments

No comments are provided.

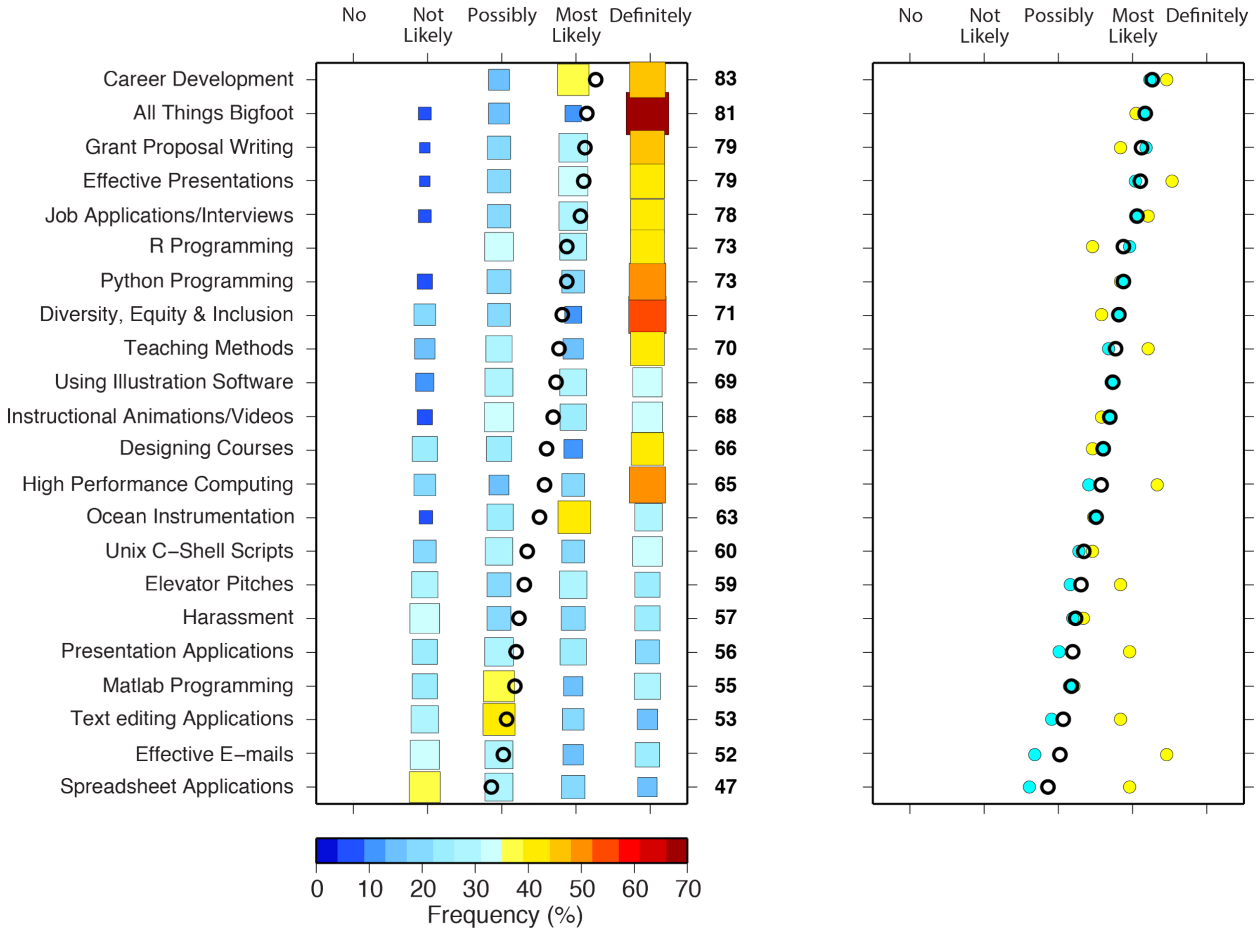


Figure 33. Plots of survey responses regarding interest in potential workshops sorted in order of priority. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the mean scaled ratings for all responses are shown for similar disaggregated values according to location of undergraduate degree (right).

6.3.i Demographics

Question:

- *Where did you receive your undergraduate degree?*

Purpose/Goals

This question is designed to ascertain if there are significant differences in the graduate experience for students with undergraduate degrees within the US versus abroad. We provided selection choices "US", "non-US", and "Prefer not to answer".

Observations

Below is a list of preliminary observations based on survey results (Fig. 34) and organized according to overall observations.

- Overall
  - ➢ obvious majority of graduate student responses are from within US > 80%

Student Comments

No comments requested

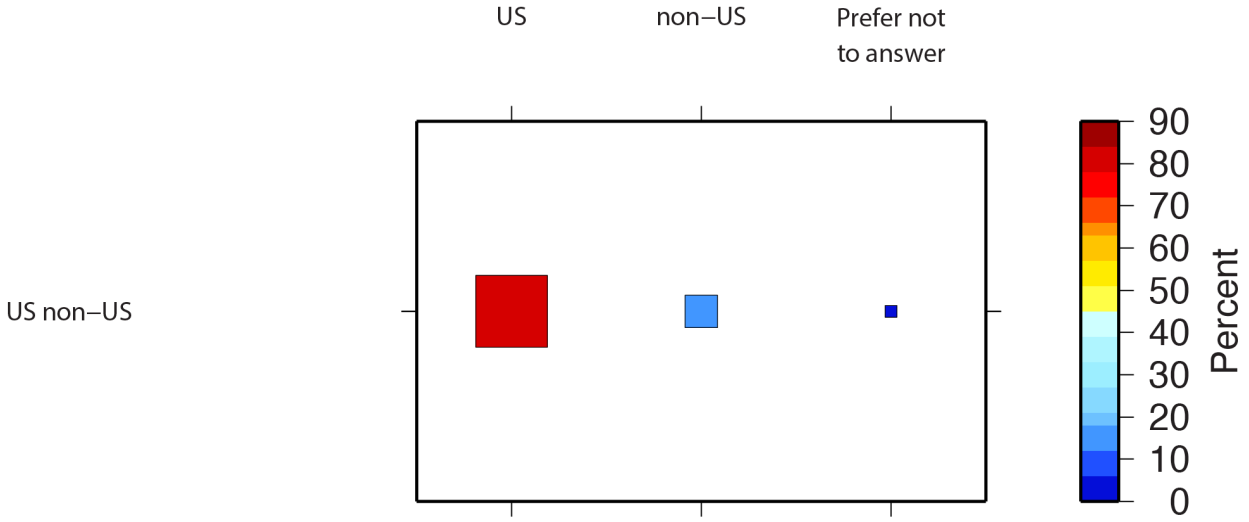


Figure 34. Plots of survey responses regarding the location where students received their undergraduate degree. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot (left). Comparisons of the mean scaled ratings for all responses are shown for similar disaggregated values according to location of undergraduate degree (right).

7. References

https://surveyanyplace.com/average-survey-response-rate/
ad hoc summary report