



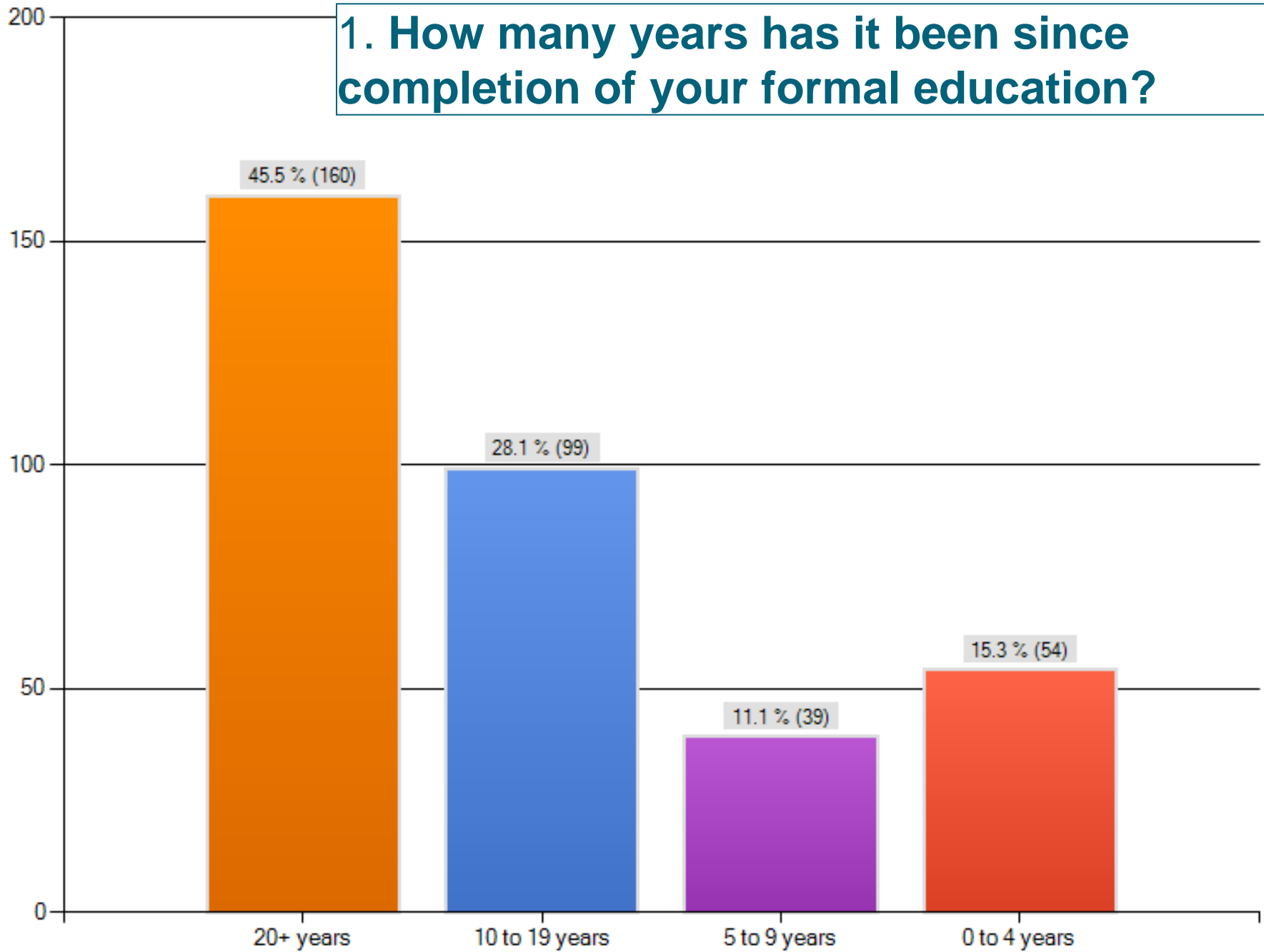
# UNOLS Vessel Usage Survey Statistics

- The Survey was announced on Feb 11, 2011
- 260 surveys as of 3/1/2011
- 355 Surveys as of August 14
  - 69 different institutions/organizations responded
- Survey url:  
[http://www.surveymonkey.com/s/unols\\_vessel\\_usage\\_survey](http://www.surveymonkey.com/s/unols_vessel_usage_survey)

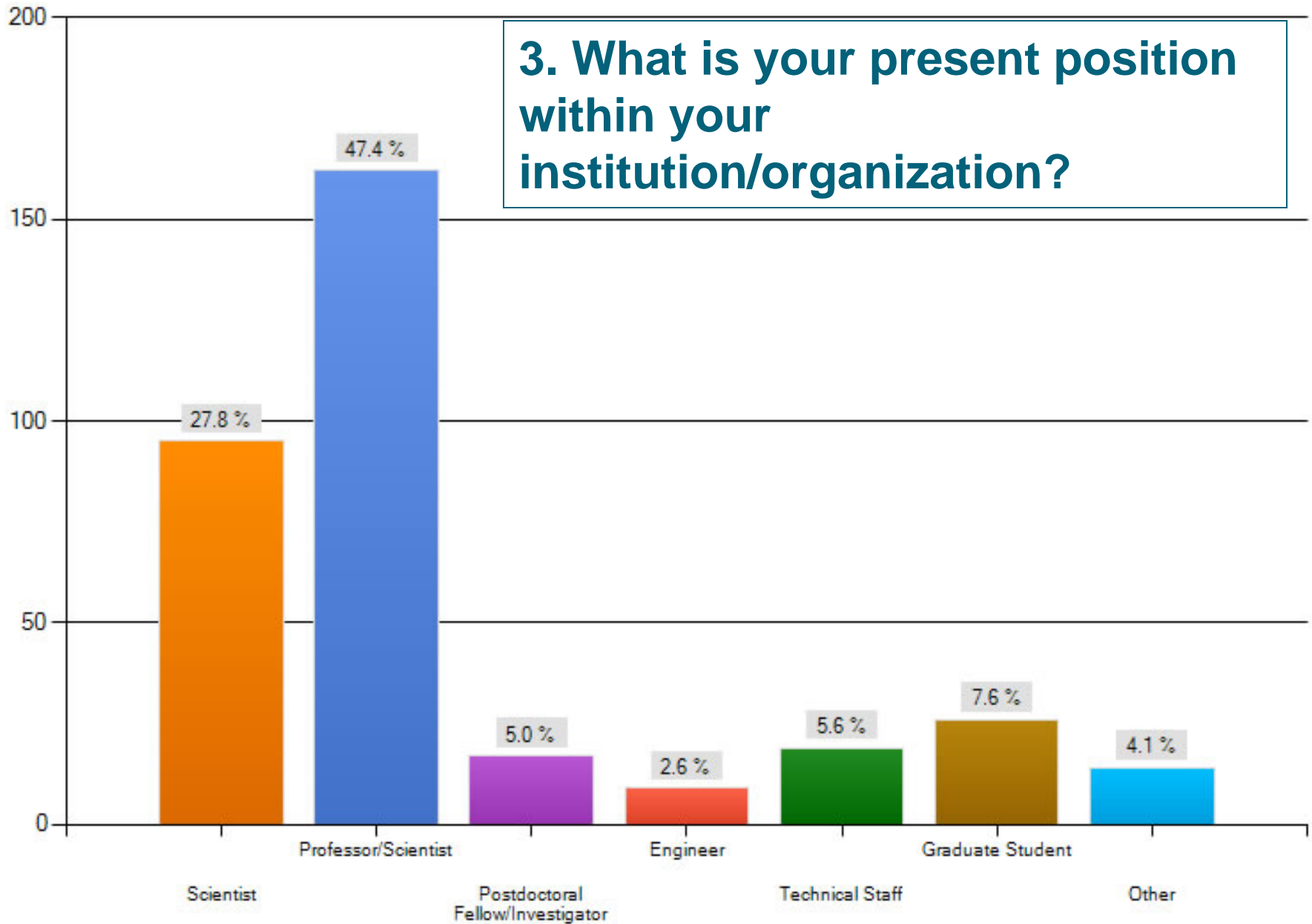


# Part I: Demographics (14 questions)

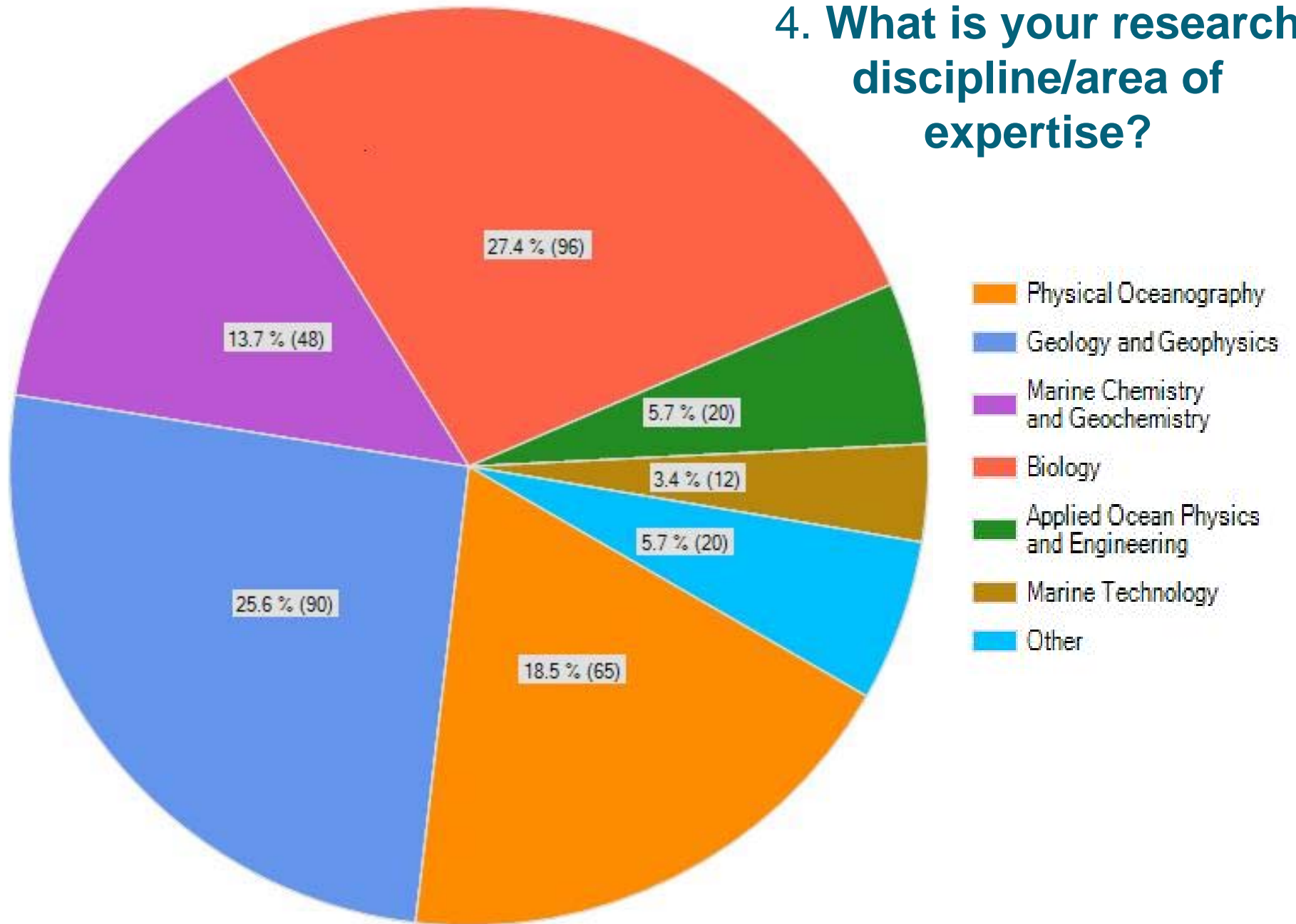
**1. How many years has it been since completion of your formal education?**



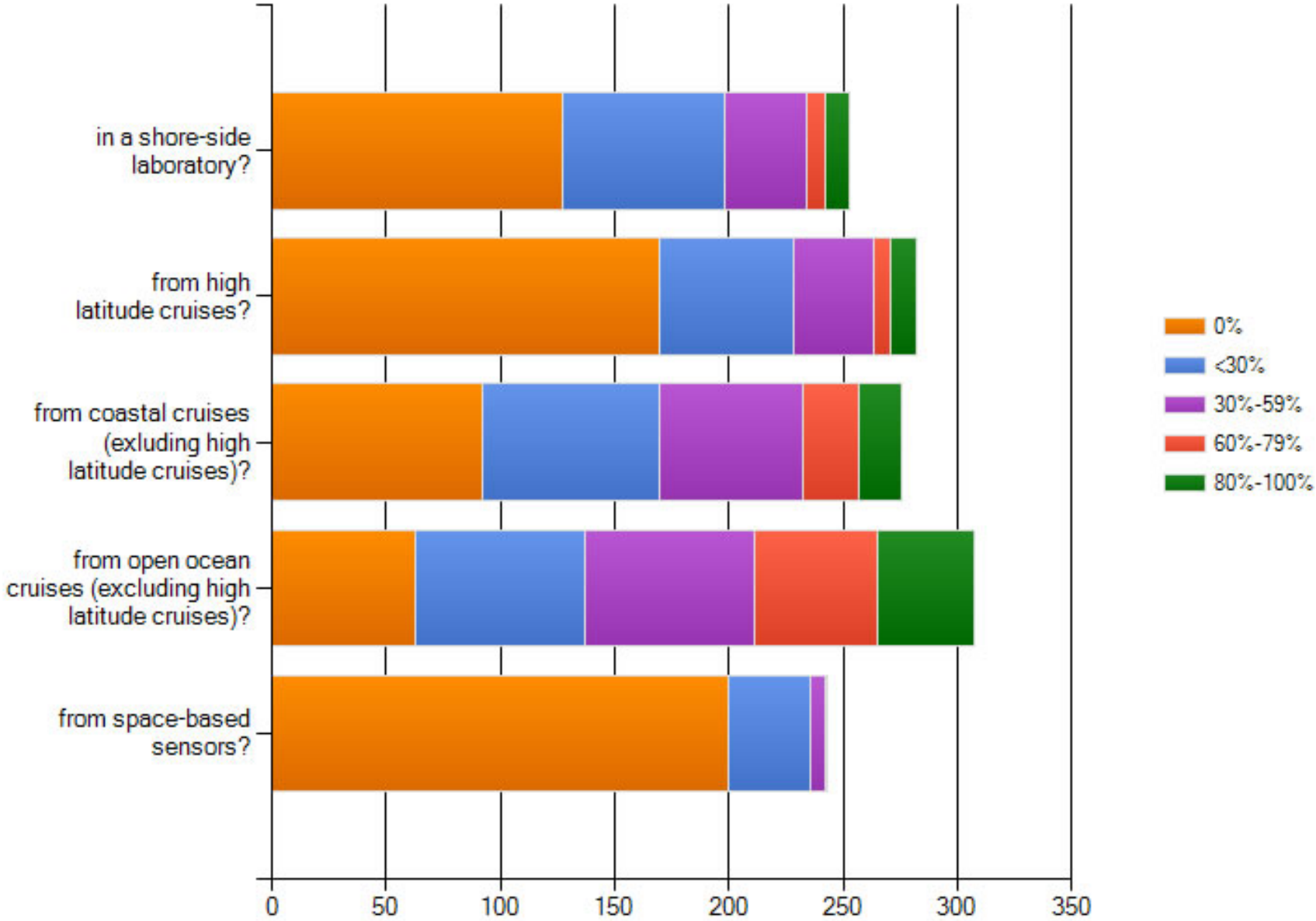
### 3. What is your present position within your institution/organization?



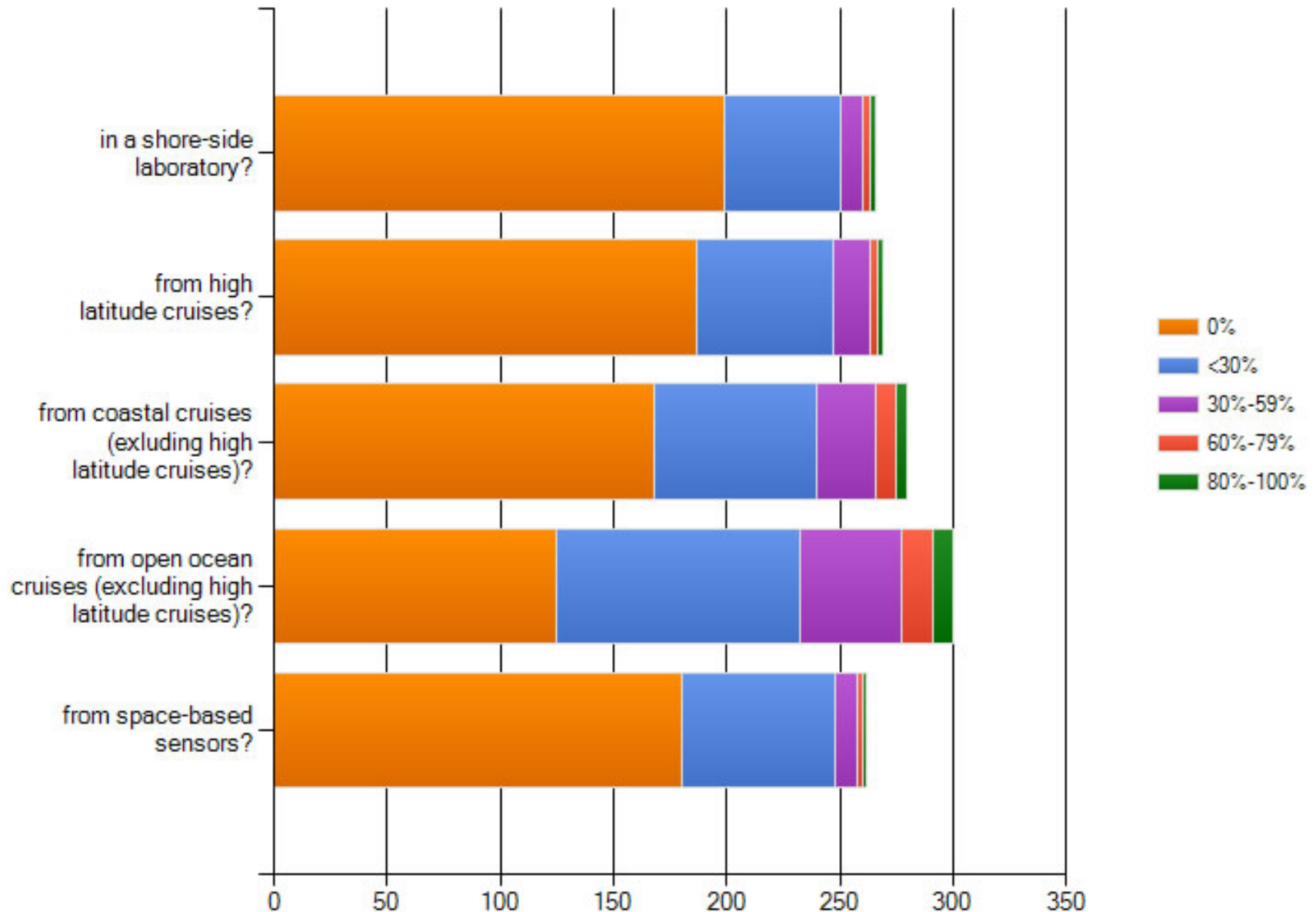
#### 4. What is your research discipline/area of expertise?



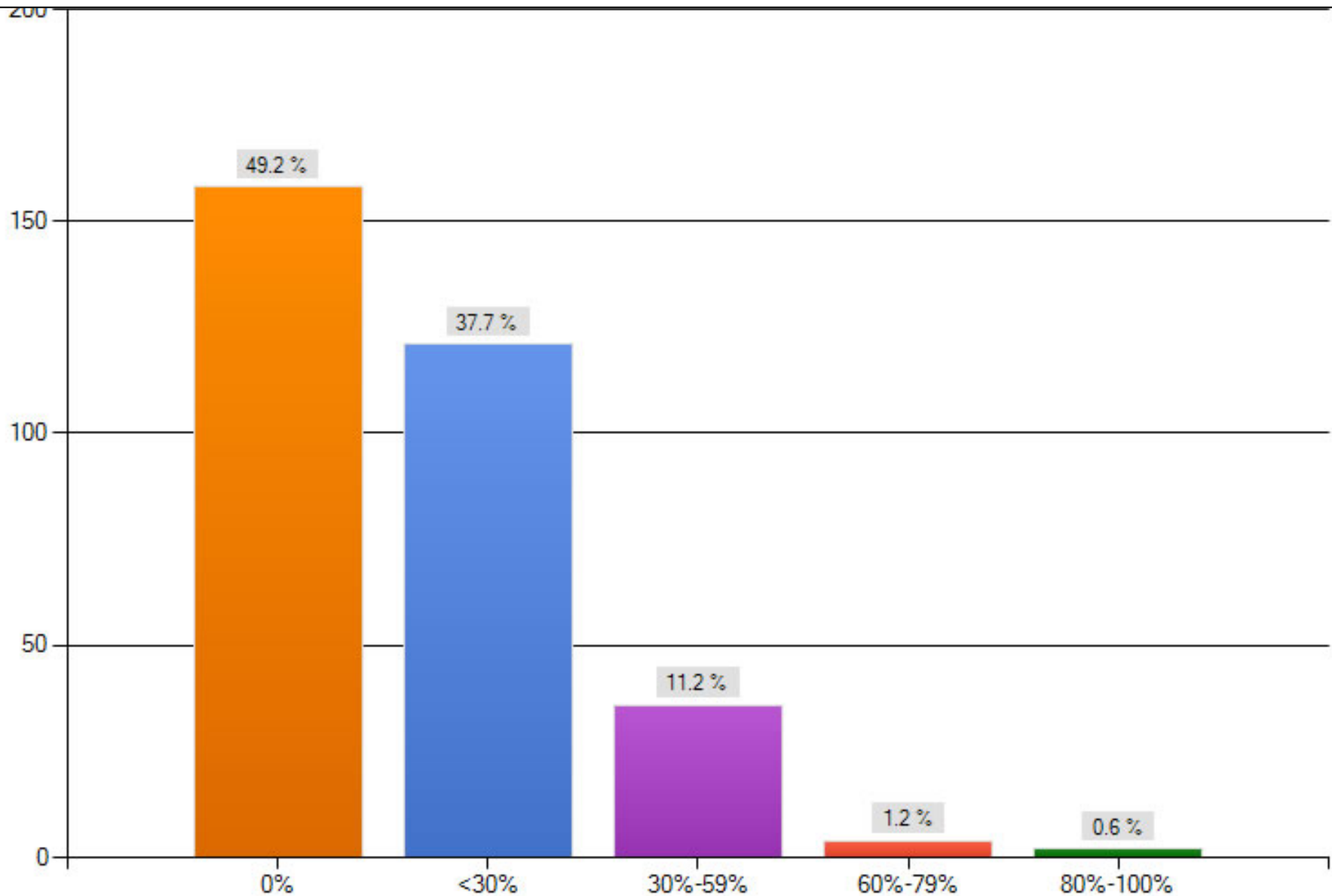
# 6. What fraction of your present research program is based on samples or data collected personally:



## 7. What fraction of your present research is based on samples or data collected by others:

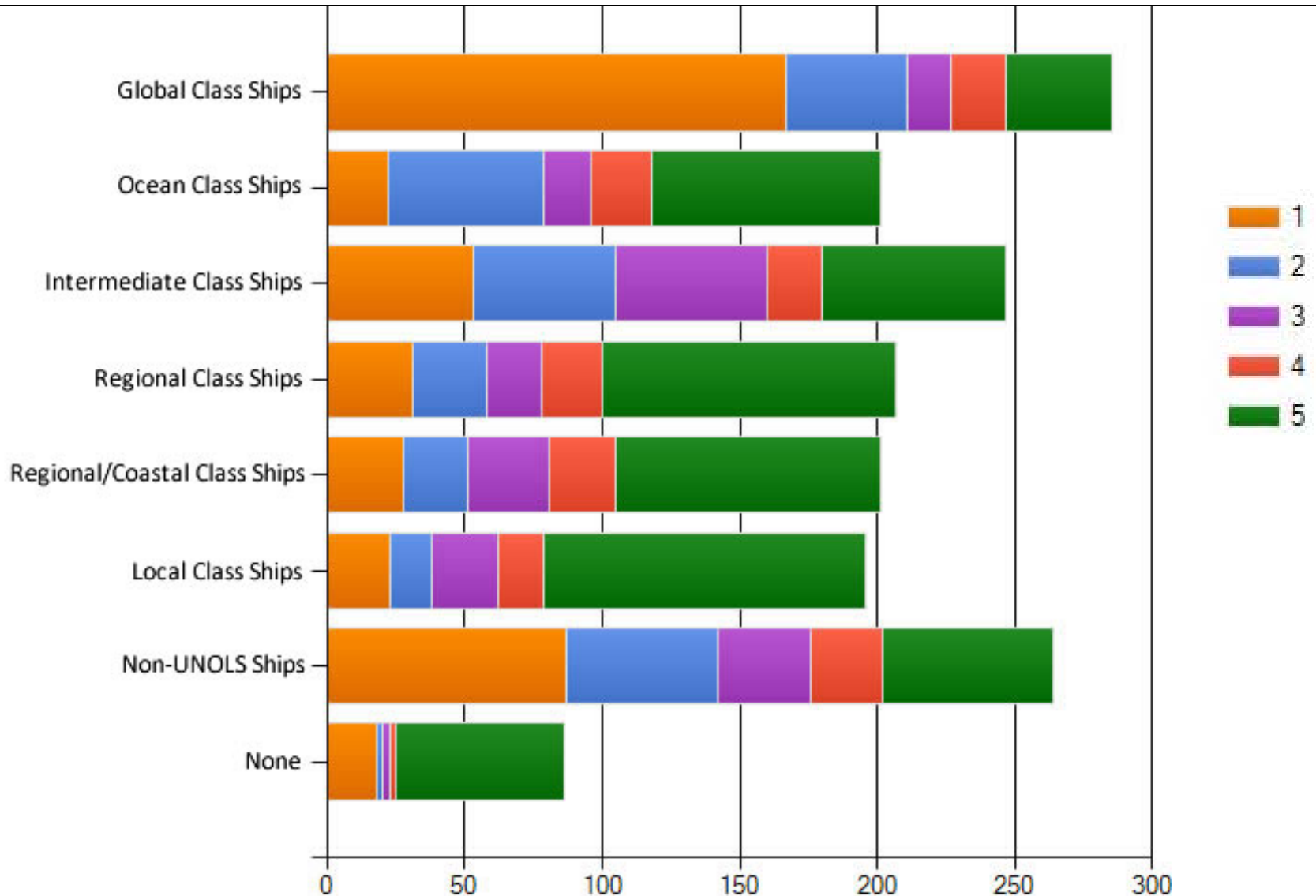


## 8. What fraction of your present research program is based on samples or data from national archive facilities?

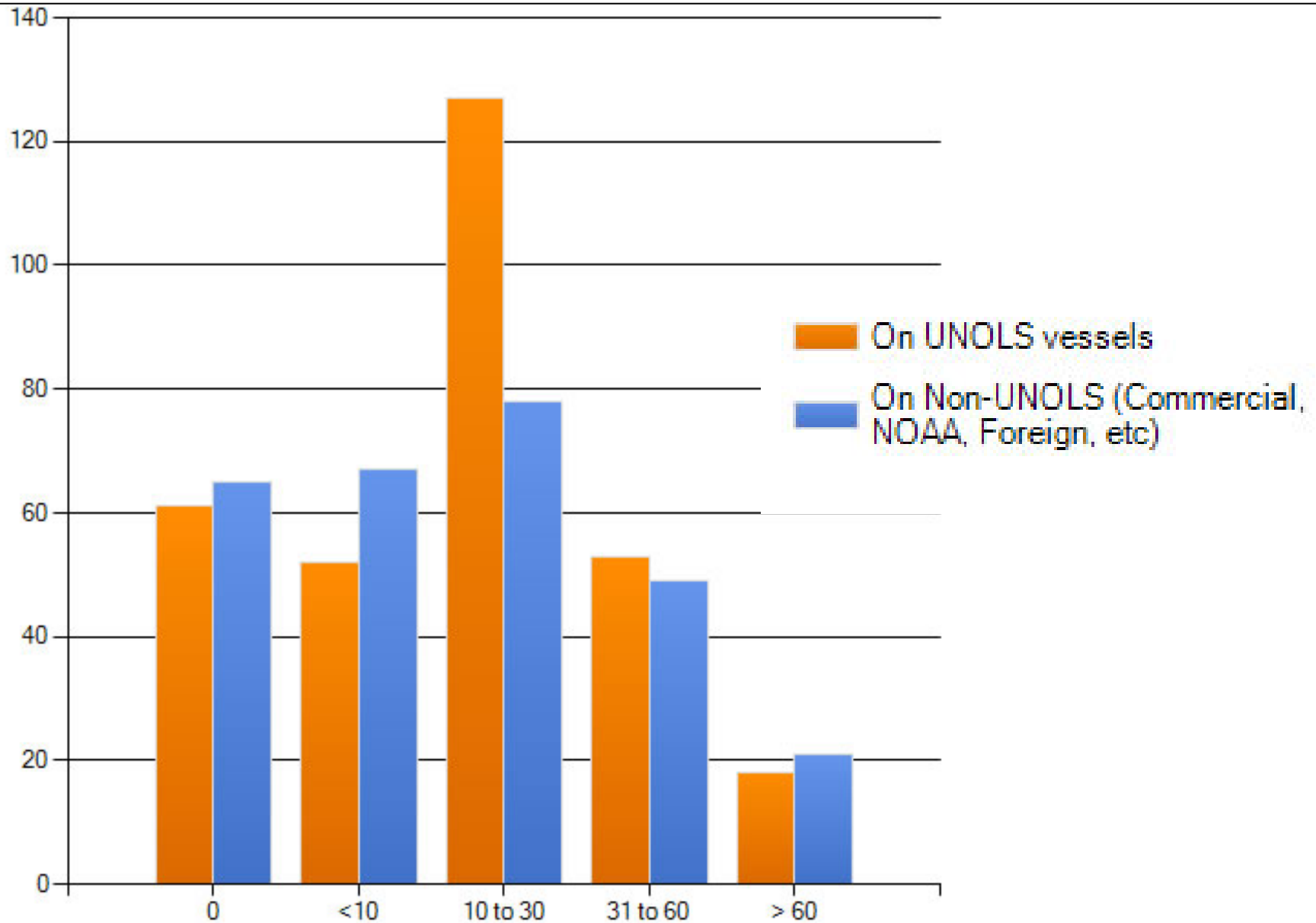




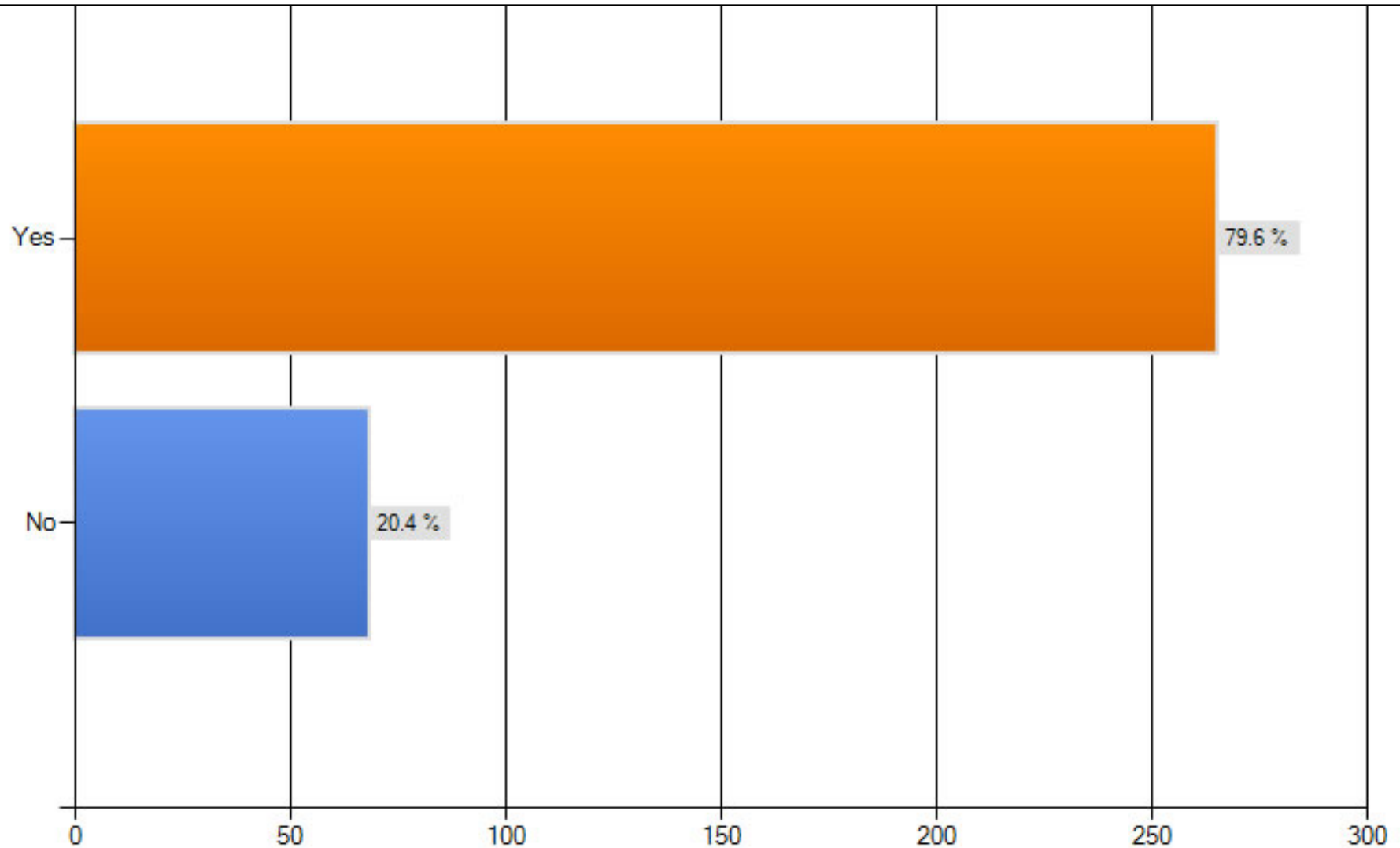
**9. WHAT TYPES OF UNOLS RESEARCH VESSELS DO YOU USE?  
PLEASE PRIORITIZE WITH 1 BEING THE MOST USED FOR YOUR  
RESEARCH AND 5 BEING THE LEAST.**



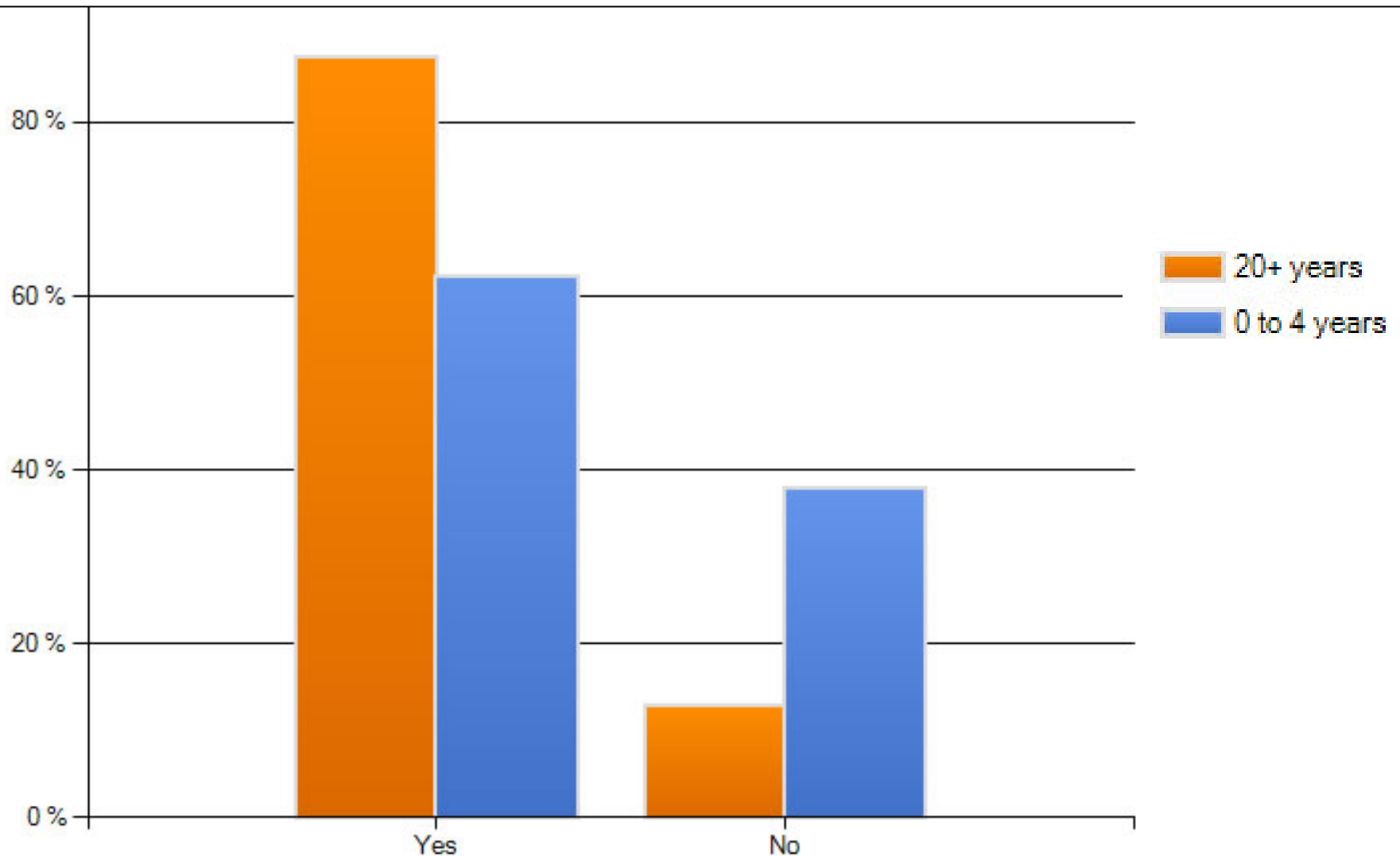
## 10. OVER THE LAST FIVE YEARS, ON AVERAGE HOW MANY DAYS PER YEAR DID YOU SPEND AT SEA?



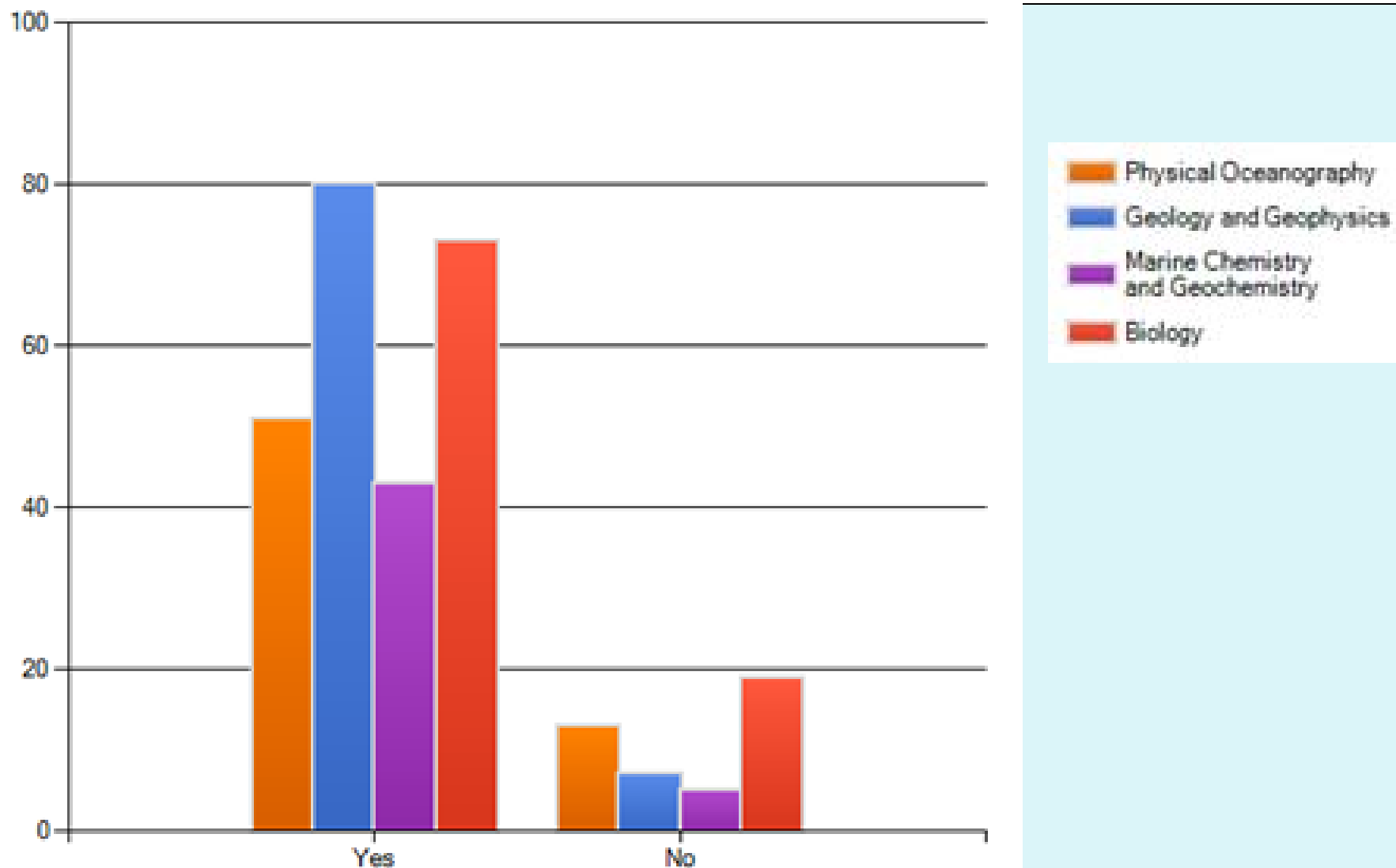
**11. HAVE YOU EVER SUBMITTED (OR ARE LIKELY TO SUBMIT) A PROPOSAL THAT EXPLICITLY INCLUDED A REQUEST FOR SHIP TIME FOR FIELD RESEARCH.**



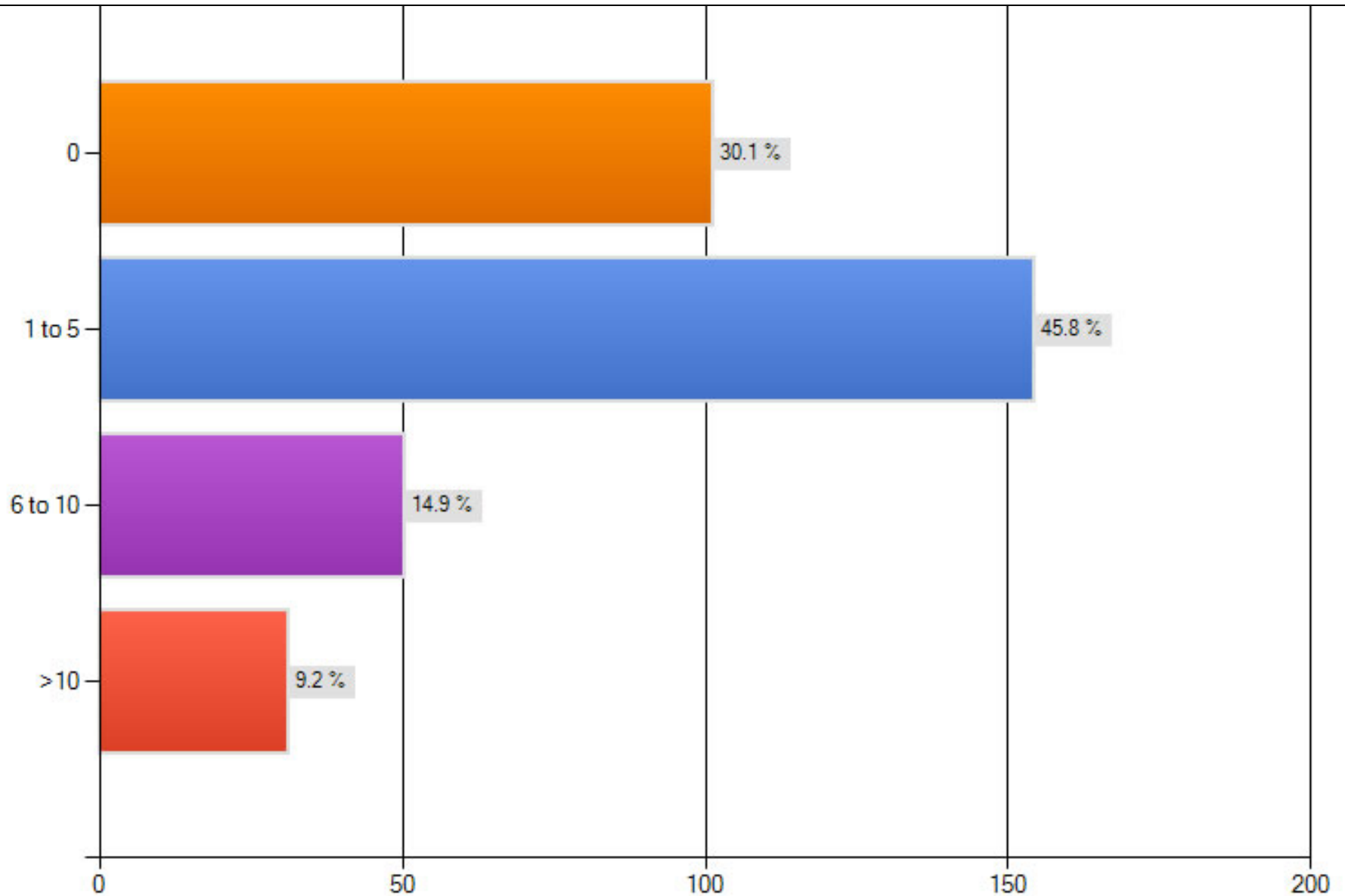
**11. HAVE YOU EVER SUBMITTED (OR ARE LIKELY TO SUBMIT) A PROPOSAL THAT EXPLICITLY INCLUDED A REQUEST FOR SHIP TIME FOR FIELD RESEARCH.**



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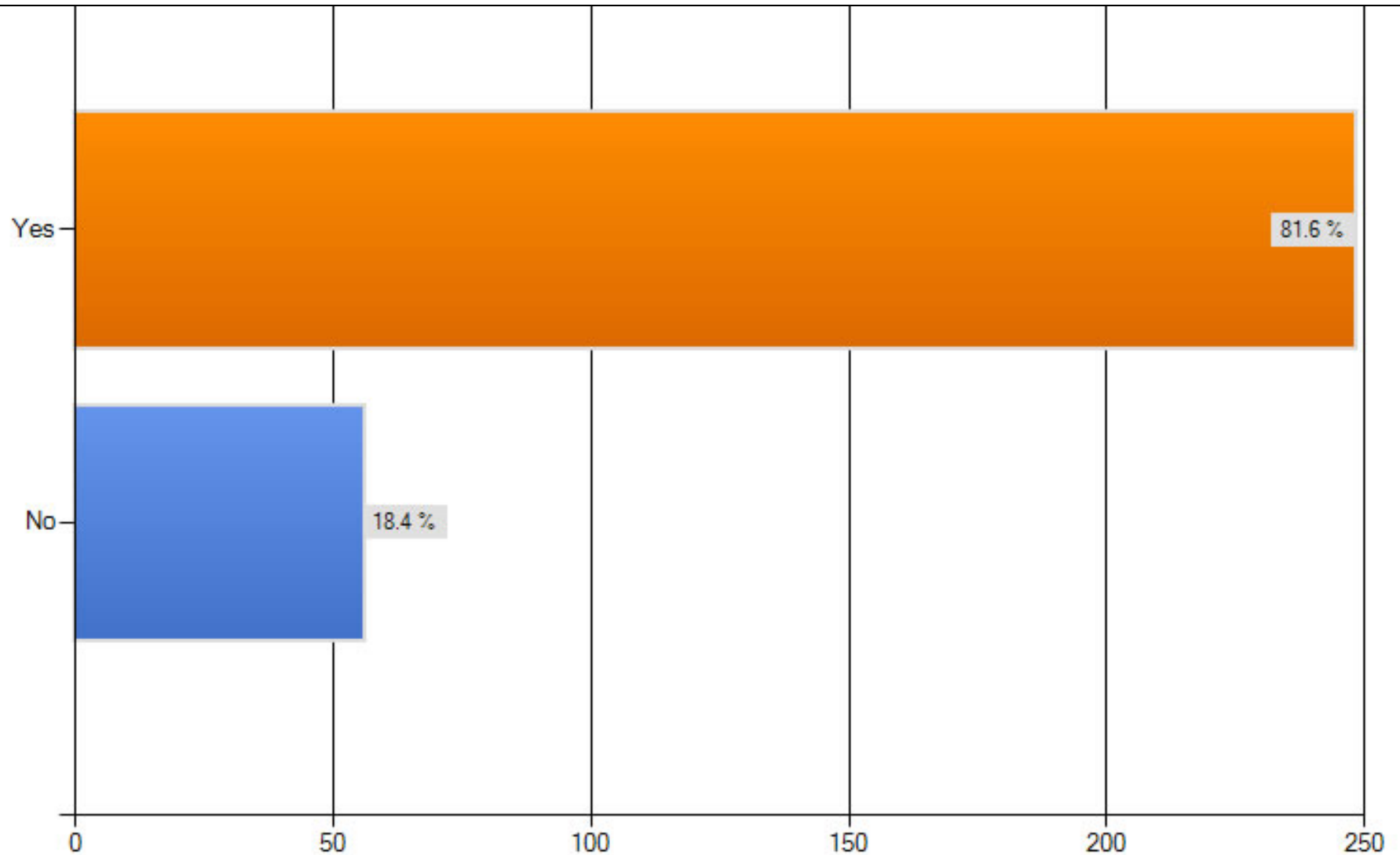
### 13. HOW MANY TIMES IN THE LAST 5 YEARS HAVE YOU BEEN A PI ON A CRUISE?





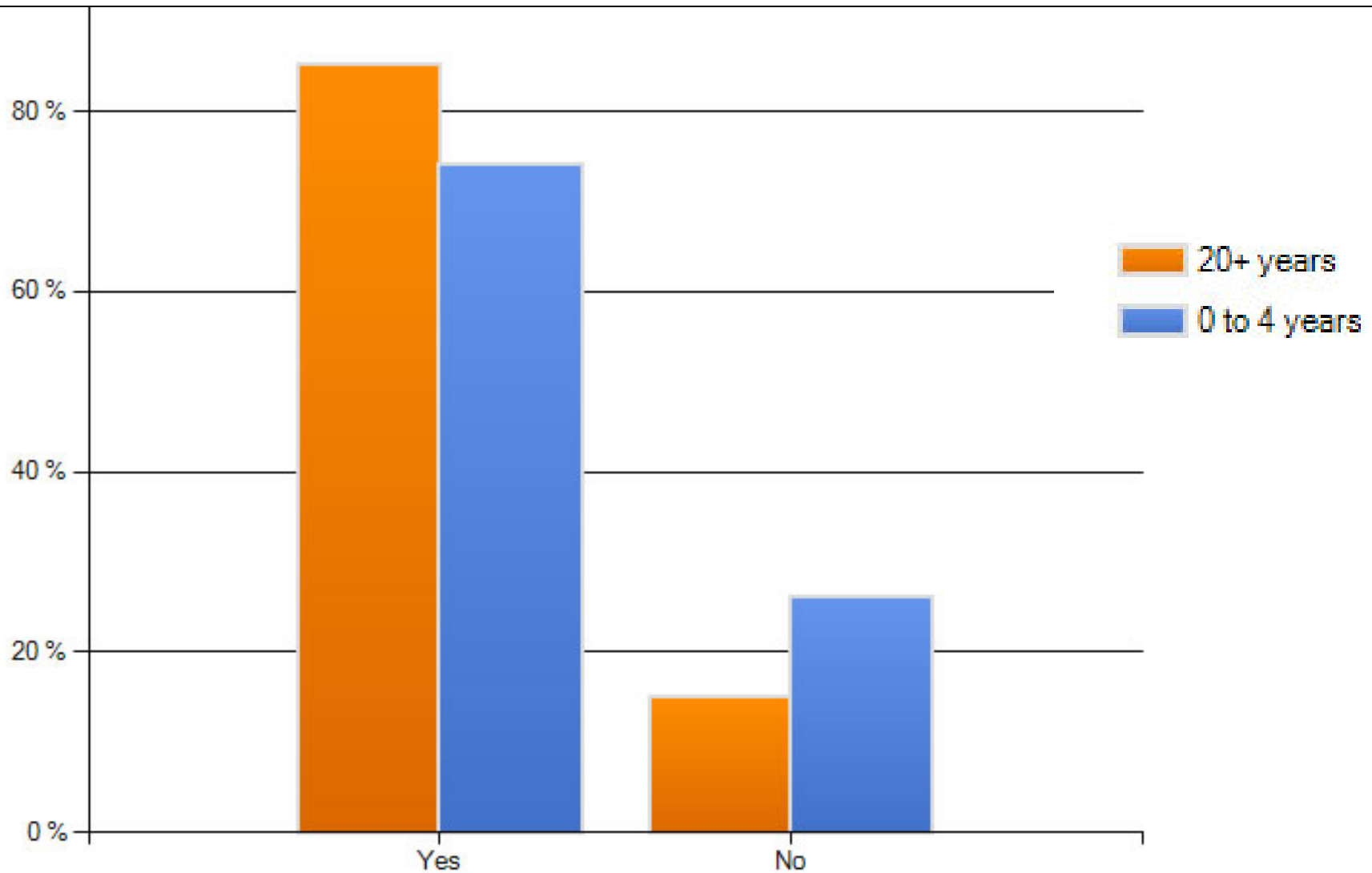
# **Part II: Ship-Based Research Requests (13 questions)**

# 15. DO YOU PLAN TO SUBMIT A PROPOSAL THAT INCLUDES A REQUEST FOR SHIP TIME WITHIN THE NEXT THREE YEARS?

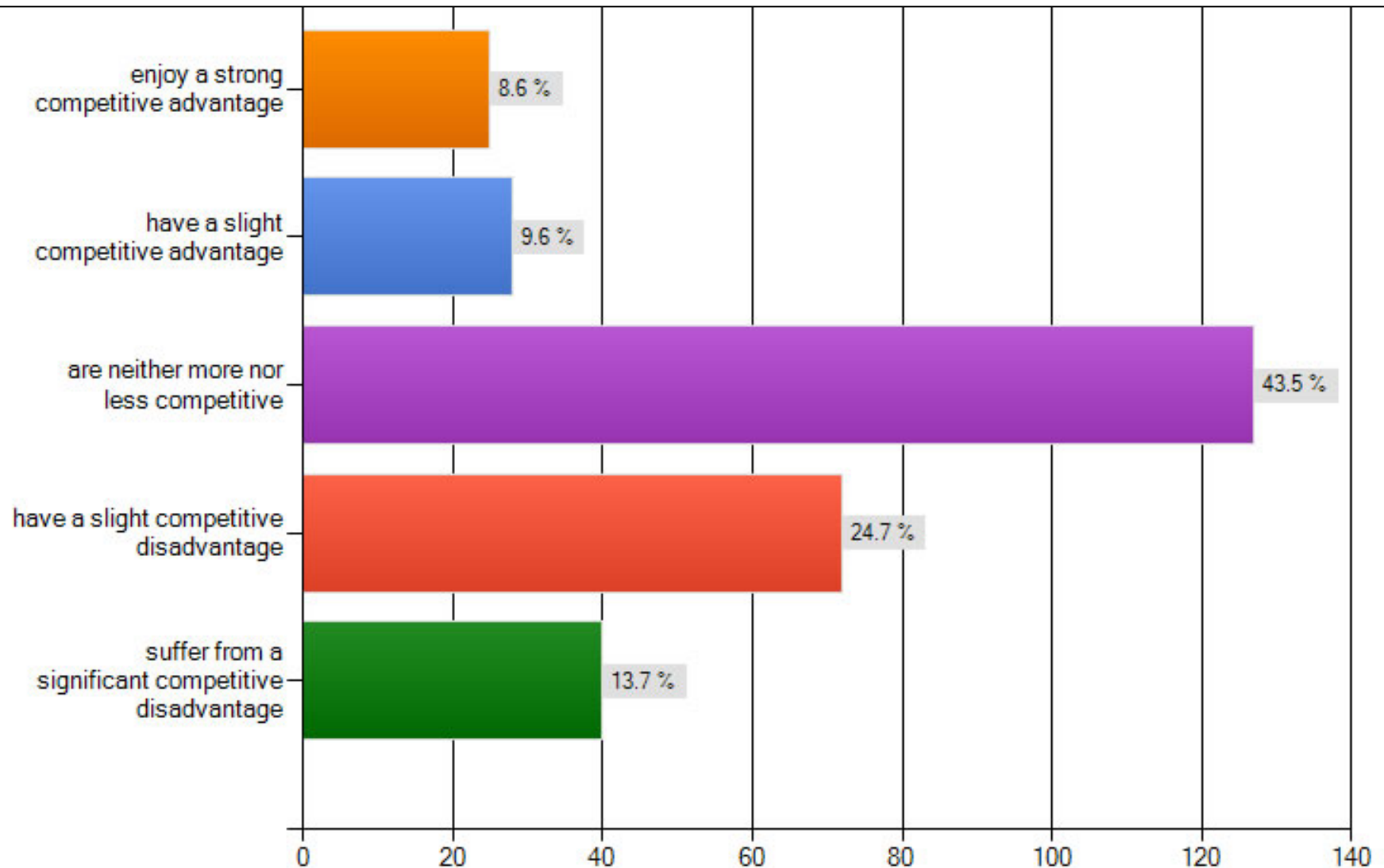




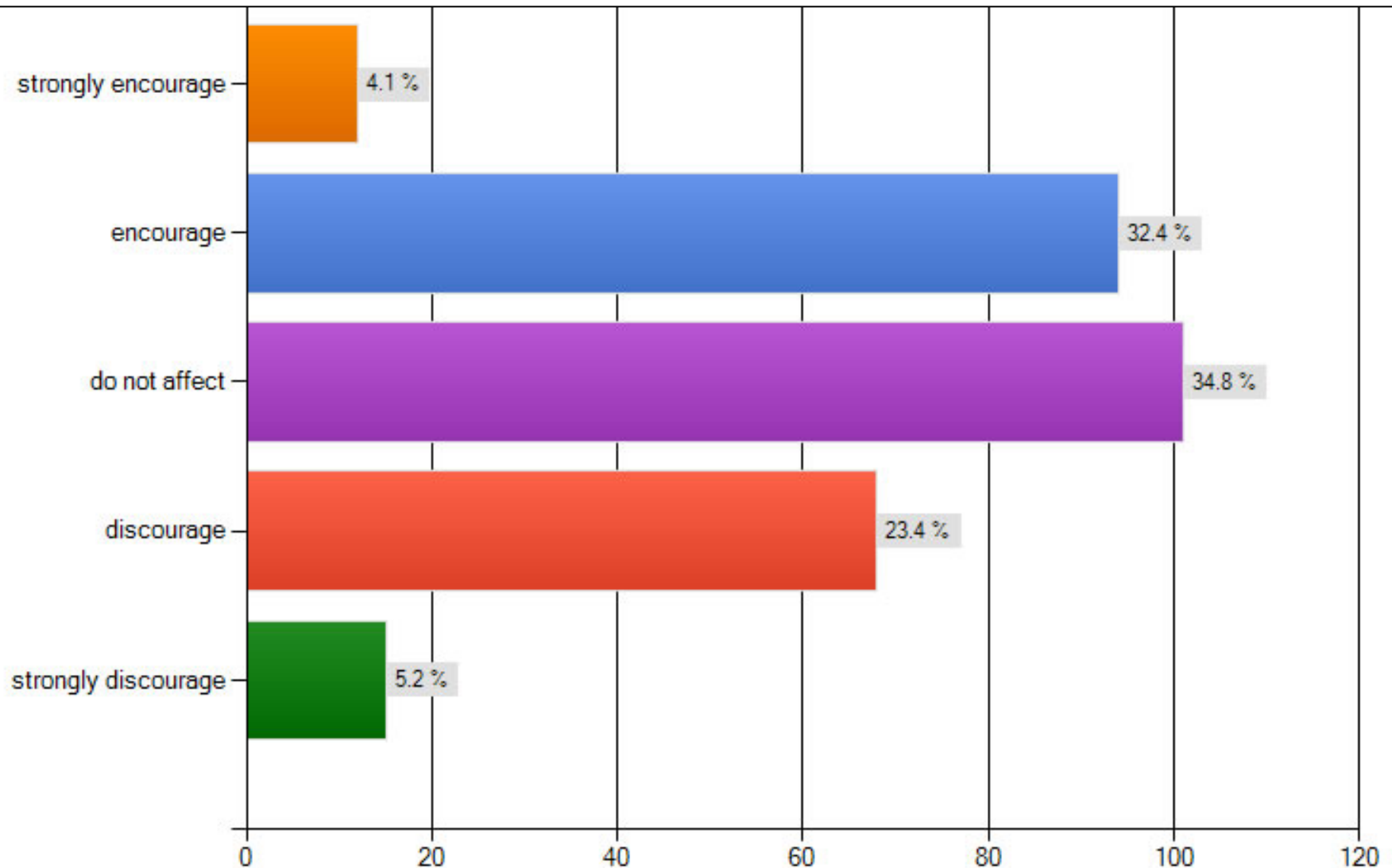
# 15. DO YOU PLAN TO SUBMIT A PROPOSAL THAT INCLUDES A REQUEST FOR SHIP TIME WITHIN THE NEXT THREE YEARS?



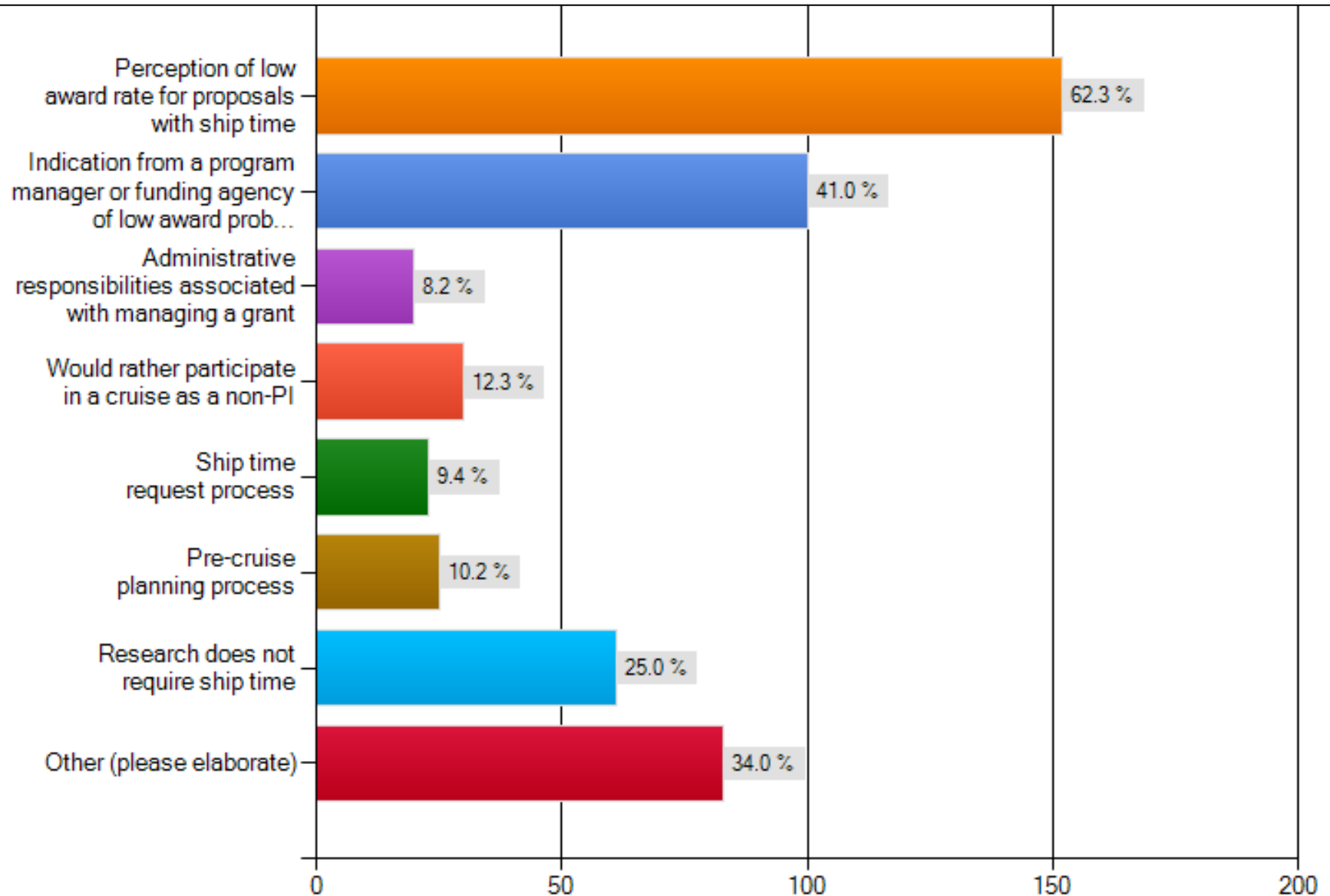
## 16. I FEEL MY SCIENCE PROPOSALS \_\_\_\_\_ COMPARED TO MY PEERS BECAUSE OF MY USE OF SHIPS FOR MY RESEARCH.



## 17. THE CUSTOMS AND ATTITUDES OF THE FUNDING AGENCIES \_\_\_\_\_ THE FULL USE OF THE AVAILABLE SHIP RESOURCES IN MY FIELD OF RESEARCH.



## 18. HAVE YOU EVER BEEN RELUCTANT TO SUBMIT A SHIP TIME PROPOSAL FOR ANY OF THE FOLLOWING REASONS





# Have you ever been reluctant to submit a ship time proposal?

## Comments:

83 Comments were submitted - sampling

- As a young scientist, I feel that submitting a cruise proposal is more complicated than submitting a regular proposal. I also feel that I am unlikely to be funded as a PI on a cruise because I am a young scientist.
- It's hard to justify 4-8 weeks at sea for maybe 3-5 days of ship time
- Being told I'll have trouble getting enough ship time, ie it's all allocated to larger projects.
- Big budget proposals with ship time have lower chance of success and are much more difficult to write...



# Have you ever been reluctant to submit a ship time proposal?

## Comments:

- Cost of ships time is prohibitive for non-NSF projects.
- Don't really understand the process for UNOLS ship time request.
- Expense when compared to other types of research.
- I have been reluctant to submit requests for UNOLS ships as these vessels do not meet my requirements for shallow coastal research

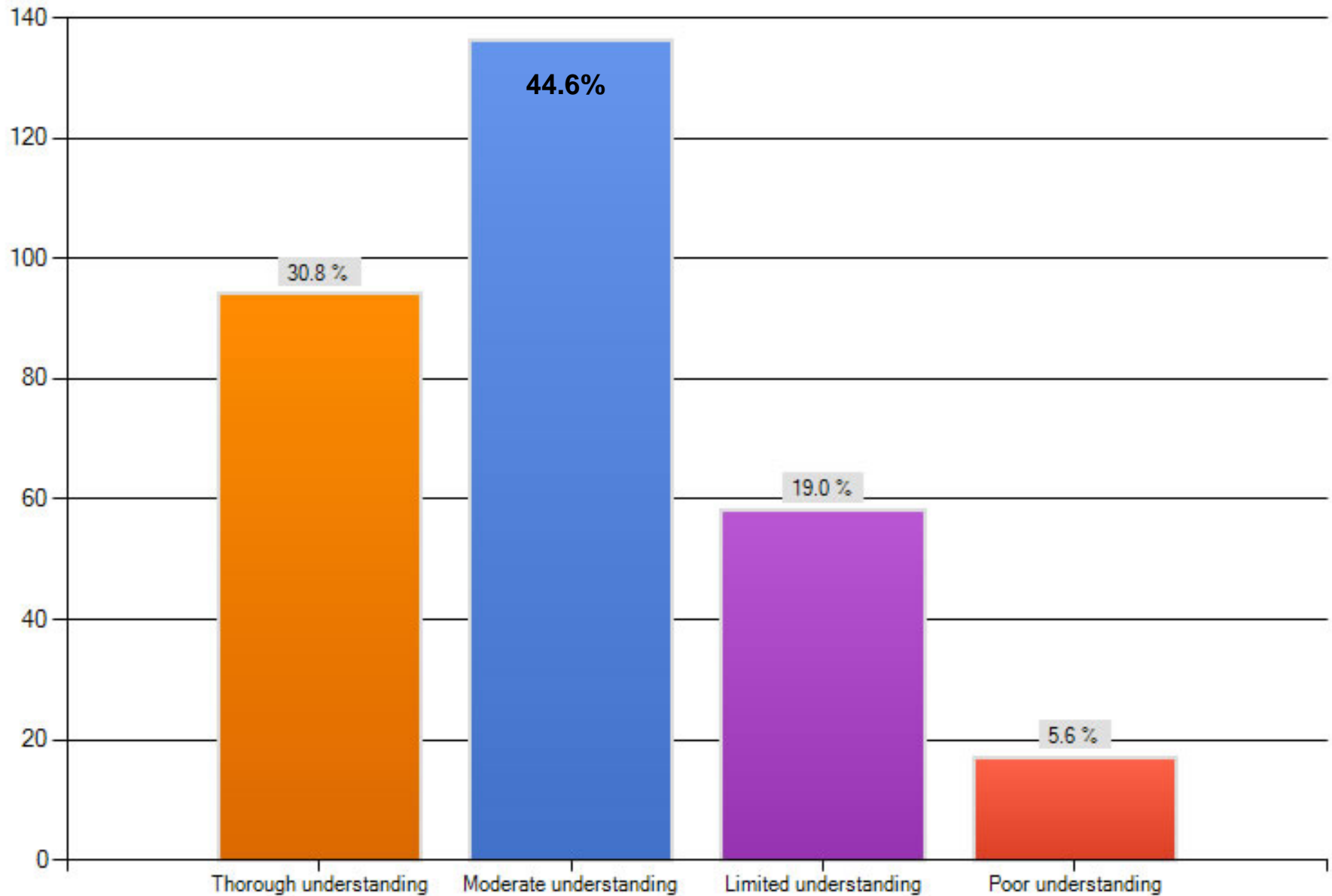


# Have you ever been reluctant to submit a ship time proposal?

## Comments:

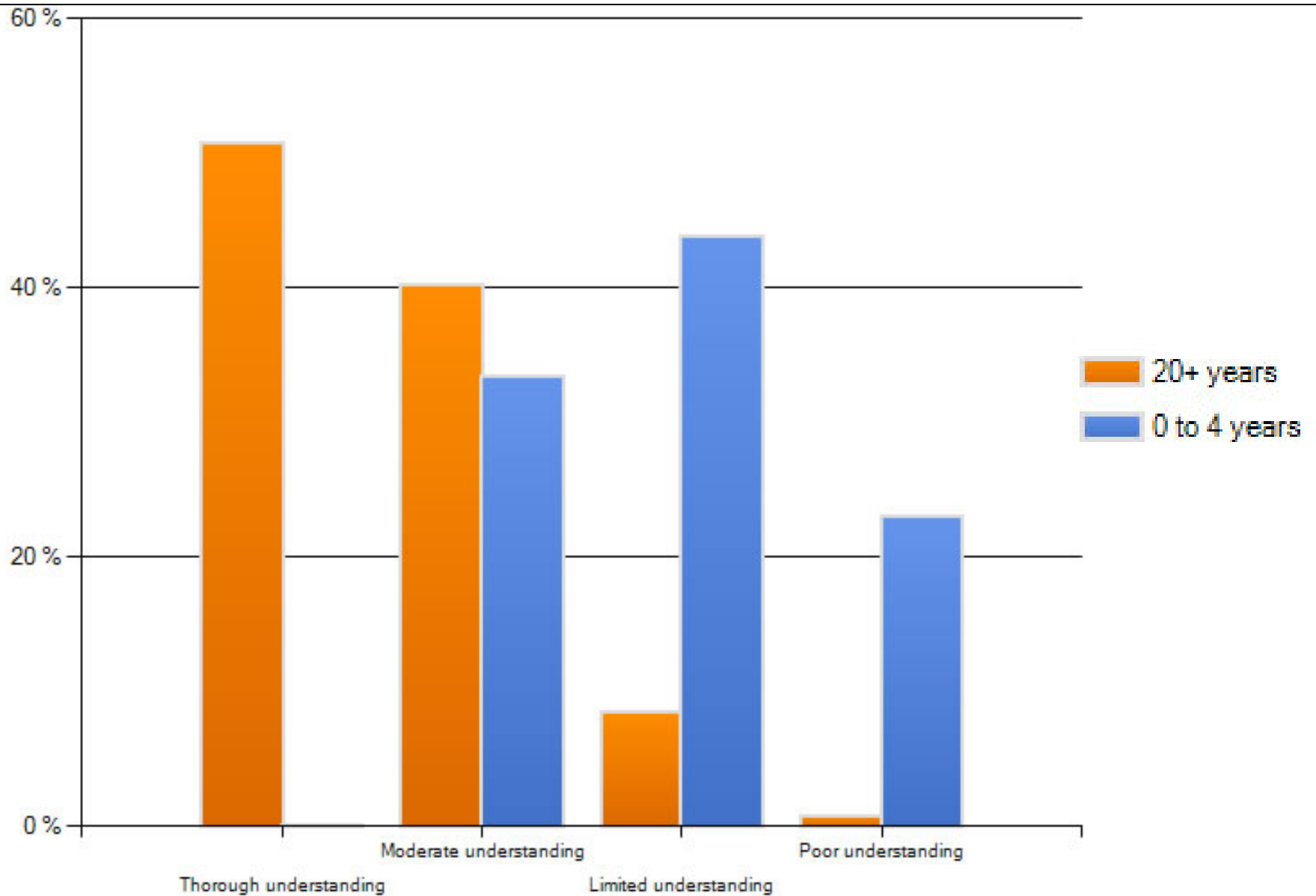
- ...regulations on UNOLS vessels (absolutely dry vessels and no swim calls) make me much more likely to try to join foreign cruises and non-UNOLS cruises.
- Technical support at sea has diminished...
- Other (non UNOLS) ships are available and more flexible.
- The problem isn't the ship time, it's the low funding rate of science itself.
- I have no reluctance to submit ship time proposals.

**19. RATE YOUR KNOWLEDGE OF THE UNOLS ORGANIZATION AND UNOLS' ROLE IN PROVIDING ACCESS TO THE ACADEMIC RESEARCH FLEET.**

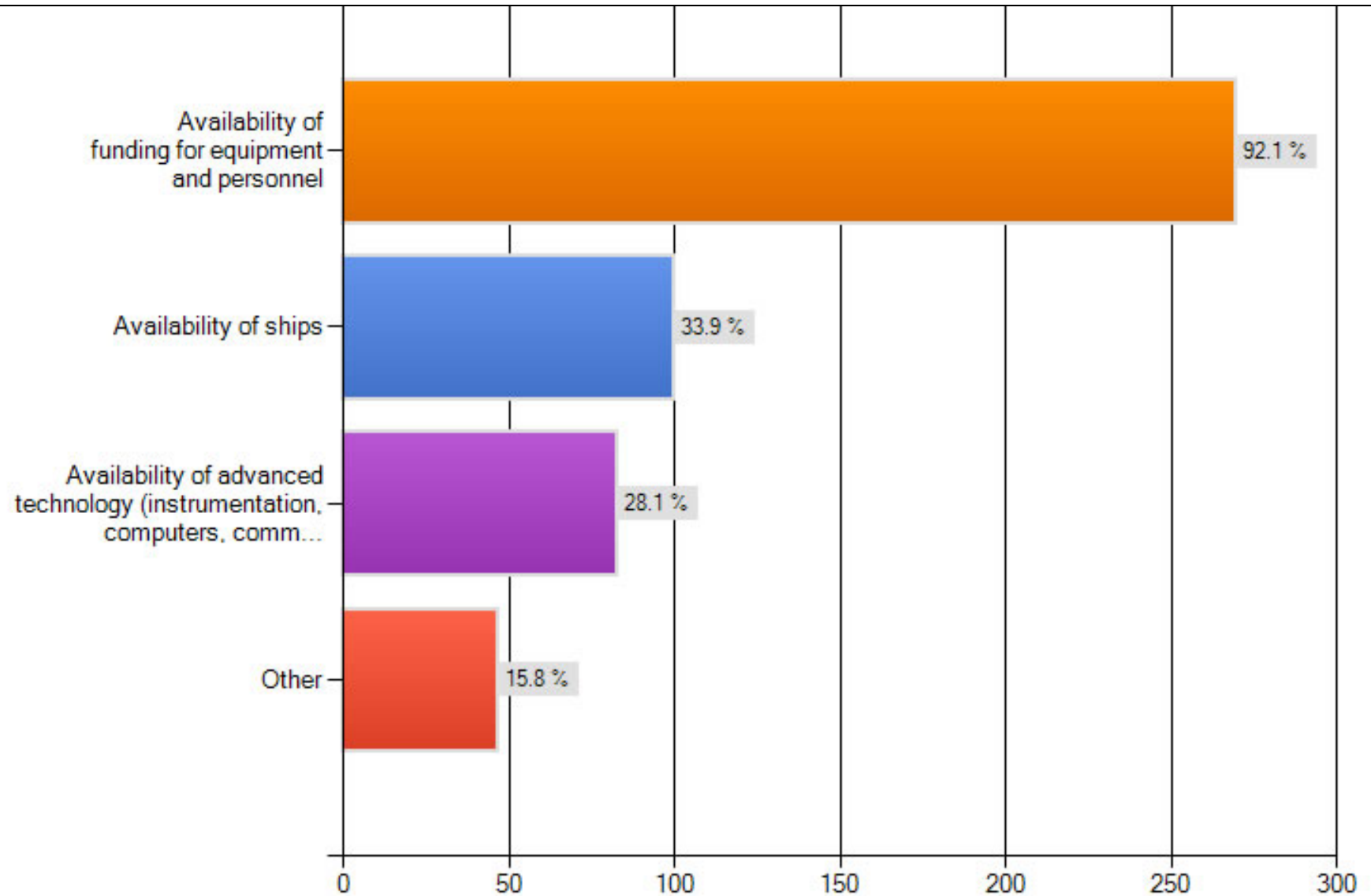




**19. RATE YOUR KNOWLEDGE OF THE UNOLS ORGANIZATION AND UNOLS' ROLE IN PROVIDING ACCESS TO THE ACADEMIC RESEARCH FLEET.**



**21. WHICH OF THESE FACTORS LIMIT THE TYPE OF SCIENCE QUESTIONS YOU ARE ABLE TO ADDRESS TODAY? INDICATE ALL WHICH APPLY**



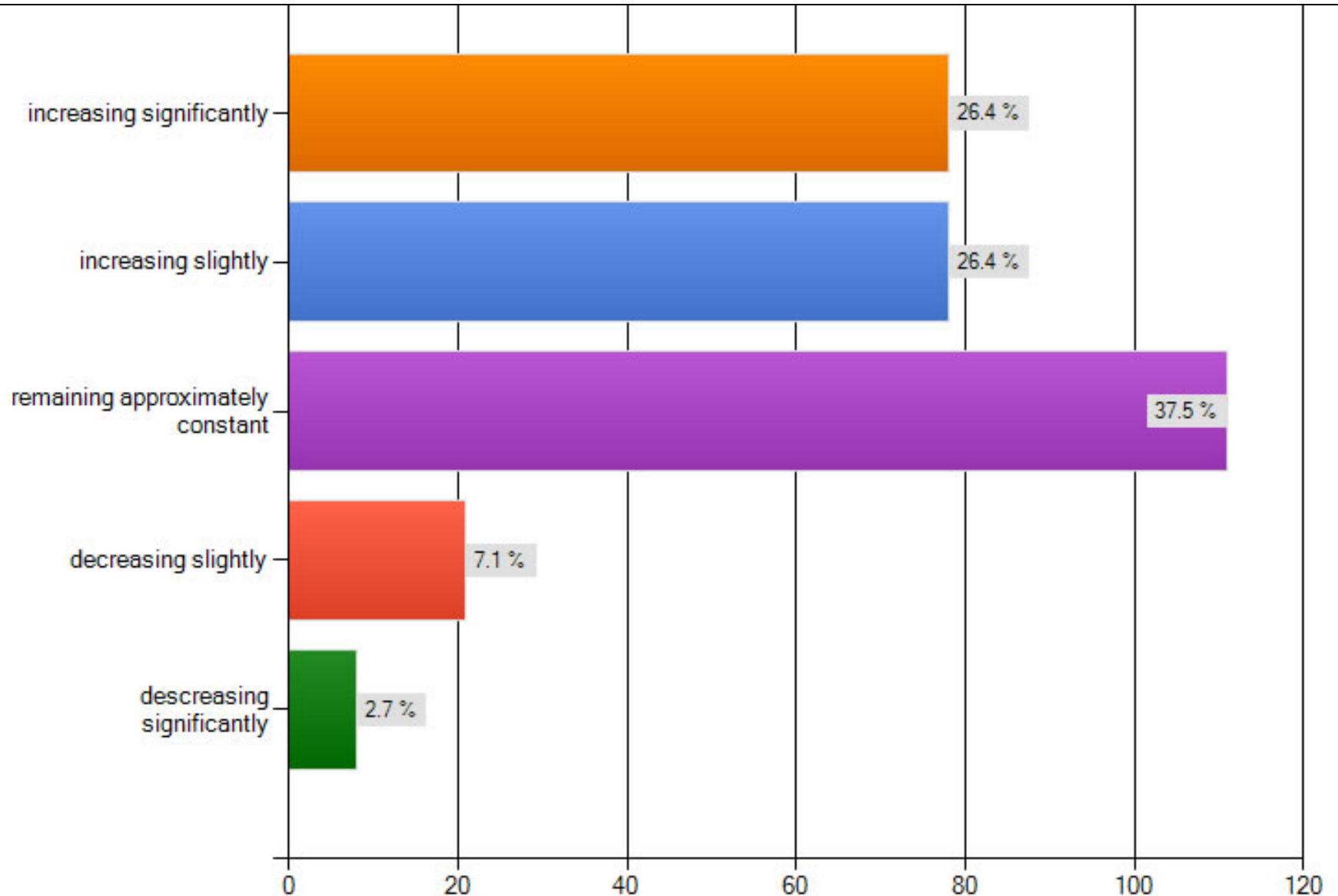


## Which Factors limit the type of science questions you are able to address today

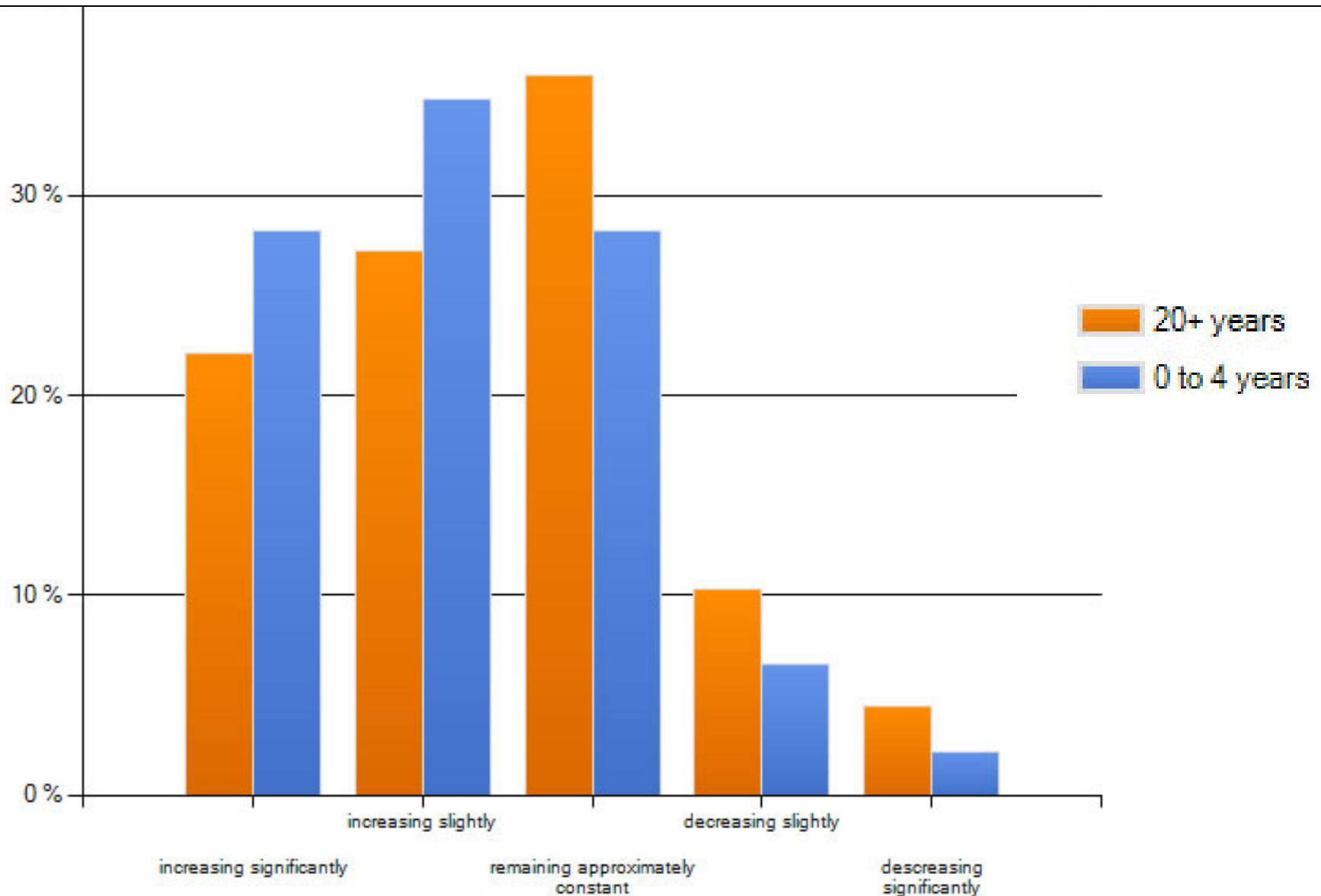
### 47 Comments were submitted

- Availability of deep-submergence assets.
- Access to more remote parts of the ocean
- Availability of ice strengthened vessels for work in the high latitudes.
- Availability of trained postdocs.
- Availability of advanced technology that can be sure to work
- Inability to obtain research permits in a timely fashion
- Lack of readily available and affordable technical support.
- Absence of support for shallow-water submersibles

## 23. IN MY PARTICULAR AREA OF RESEARCH, I SEE THE NEED FOR SHIPS \_\_\_\_\_ OVER THE NEXT 25 YEARS.



## 23. IN MY PARTICULAR AREA OF RESEARCH, I SEE THE NEED FOR SHIPS \_\_\_\_\_ OVER THE NEXT 25 YEARS.





# What factors would positively influence your desire to request ship time for field work in the future?

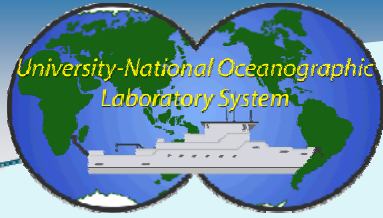
## 226 responses!

- **Funding - Improved budget situation to support science.**
- **Investment and improved access to deep sea assets**
- **More adequate technical support.**
- **Knowledge that the addition of ship time to a proposal does not substantially hurt the chances of being funded.**
- **A mentoring program for young scientists.**
- **A more positive and helpful attitude by program managers.**
- **Availability of appropriate high latitude research vessels**
- **Better MGG facilities**
- **Decreasing administrative burdens for chief scientists**



## **What factors would positively influence your desire to request ship time for field work in the future? (continued)**

- **Encouragement from more senior scientists and peers.**
- **Flexibility in getting to the right spots in the world.**
- **Funding to complete analysis of existing data**
- **Grant support for personnel (students and post docs)**
- **Higher success rate for proposals.**
- **Increase proposal success rate**
- **More funding for analyses in the lab on samples collected at sea.**
- **Newer, more capable vessels**



## **Additional Suggestions that would help to improve access to the sea:**

- **114 suggestions and comments were submitted.**
- **Funding limitations were a major theme**
- **Many comments were a reiteration or elaboration of previous comments.**
- **A lot of thoughtful input was provided.**





# UNOLS Education, Outreach, and Training Initiatives

- UNOLS Volunteer Cruise Opportunities
- UNOLS Outreach Resources (Slides packages, brochures, poster, etc)
- MATE/UNOLS Internship Program
- Early Career Investigator Oceanographic Research Cruise Training
- Student/Early Career Opportunity at the DESSC Winter Meeting
- UNOLS Lectureship Program



# Suggested Next Steps...

- Form a subcommittee of UNOLS and Agency personnel to review and analyze the data
- Identify themes and issues
- Develop strategies for addressing issues.

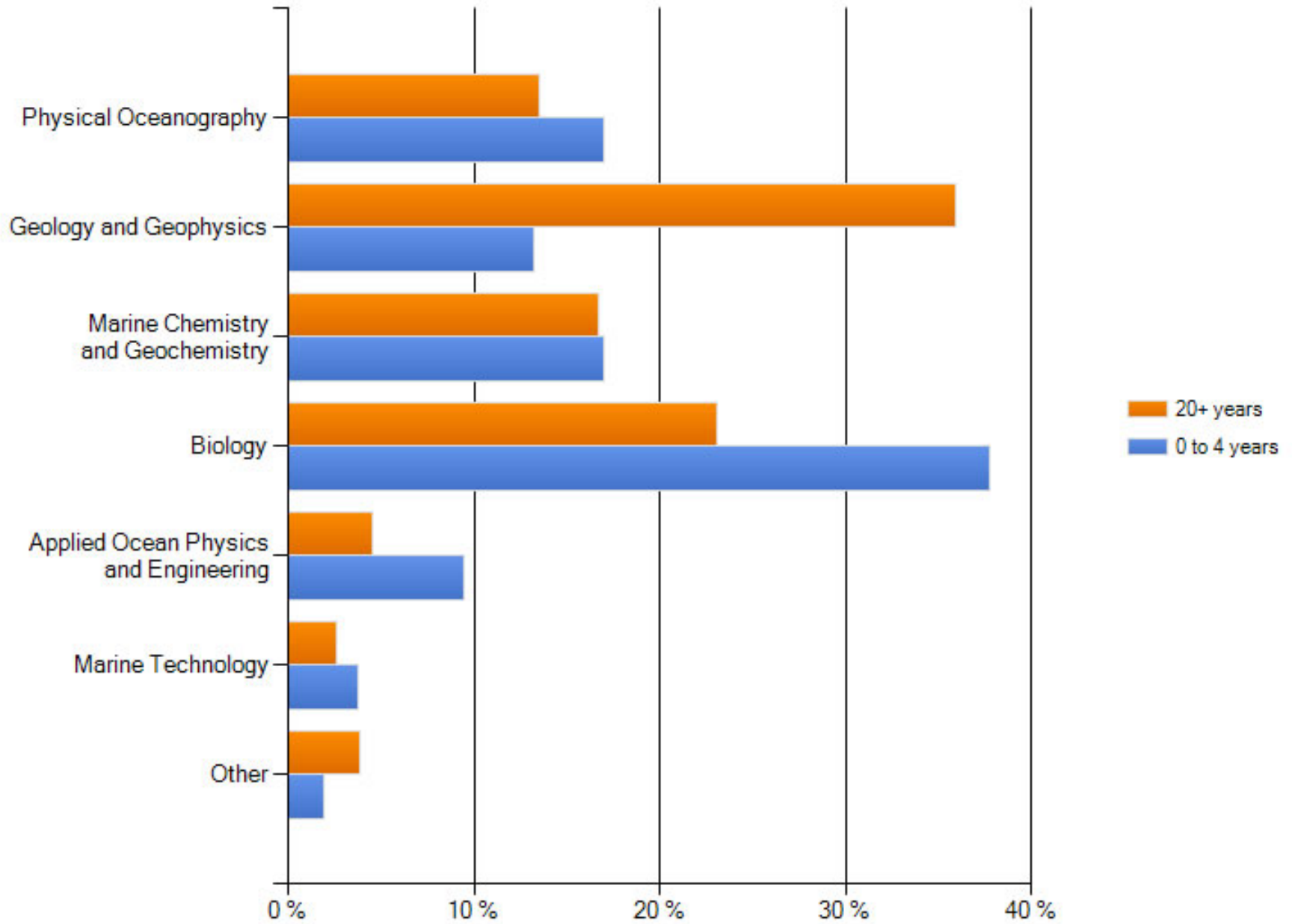


Thank You!

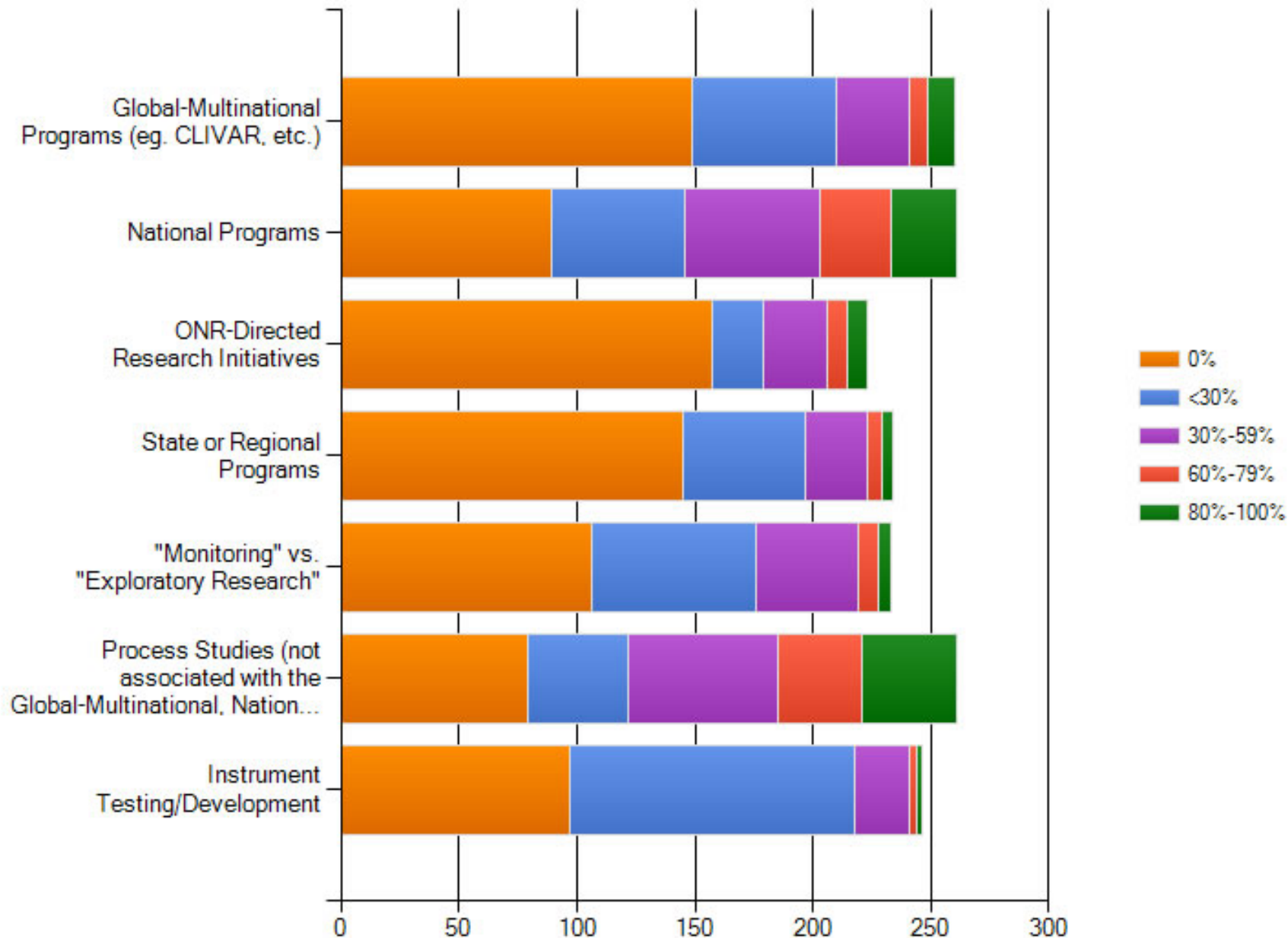


Back-up slides

### What is your research discipline/area of expertise?



**What fraction of your seagoing work is associated with (total ~100%):**

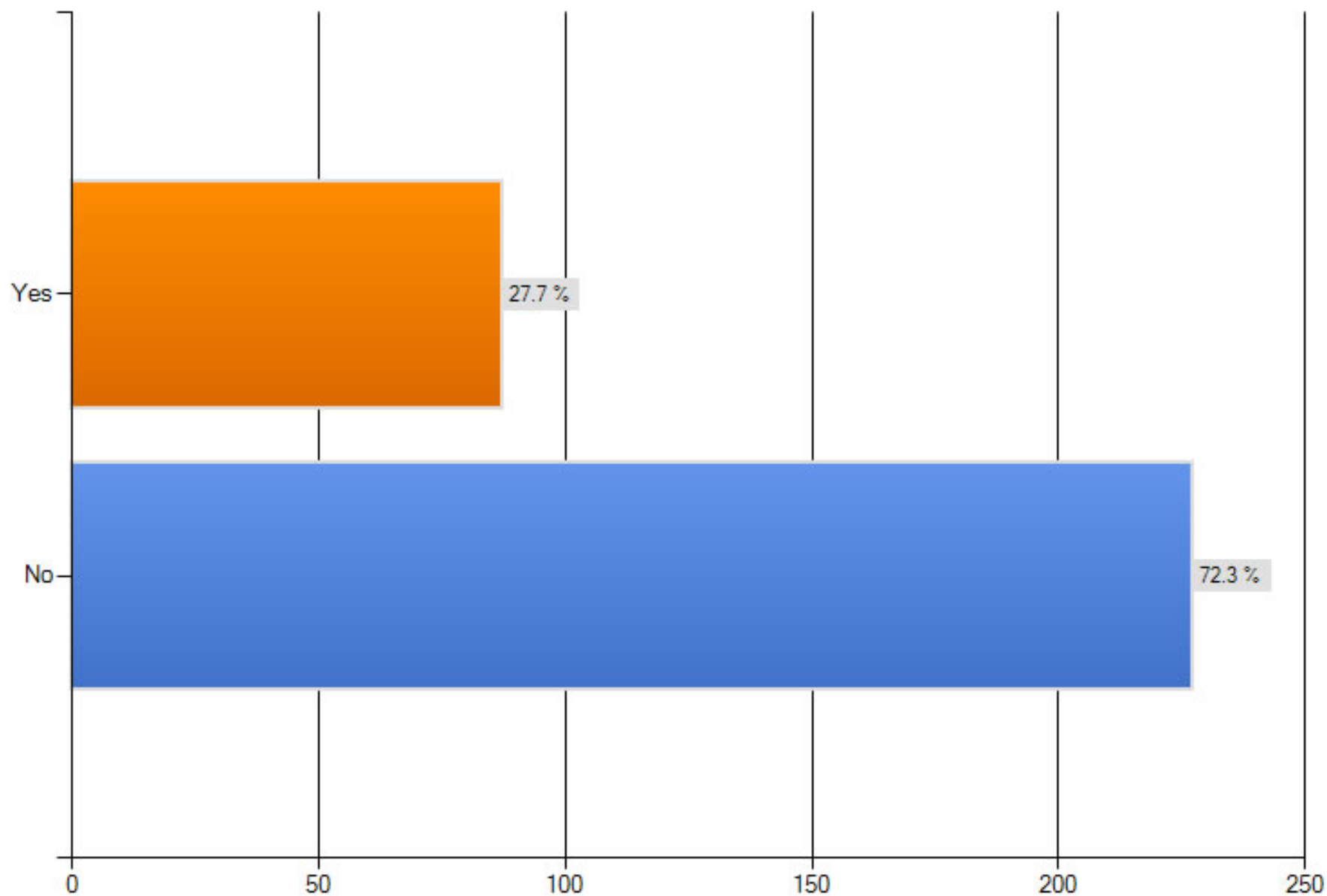




**If "yes" to question 11, how many proposals with ship time have you submitted for cruises during the following periods?**

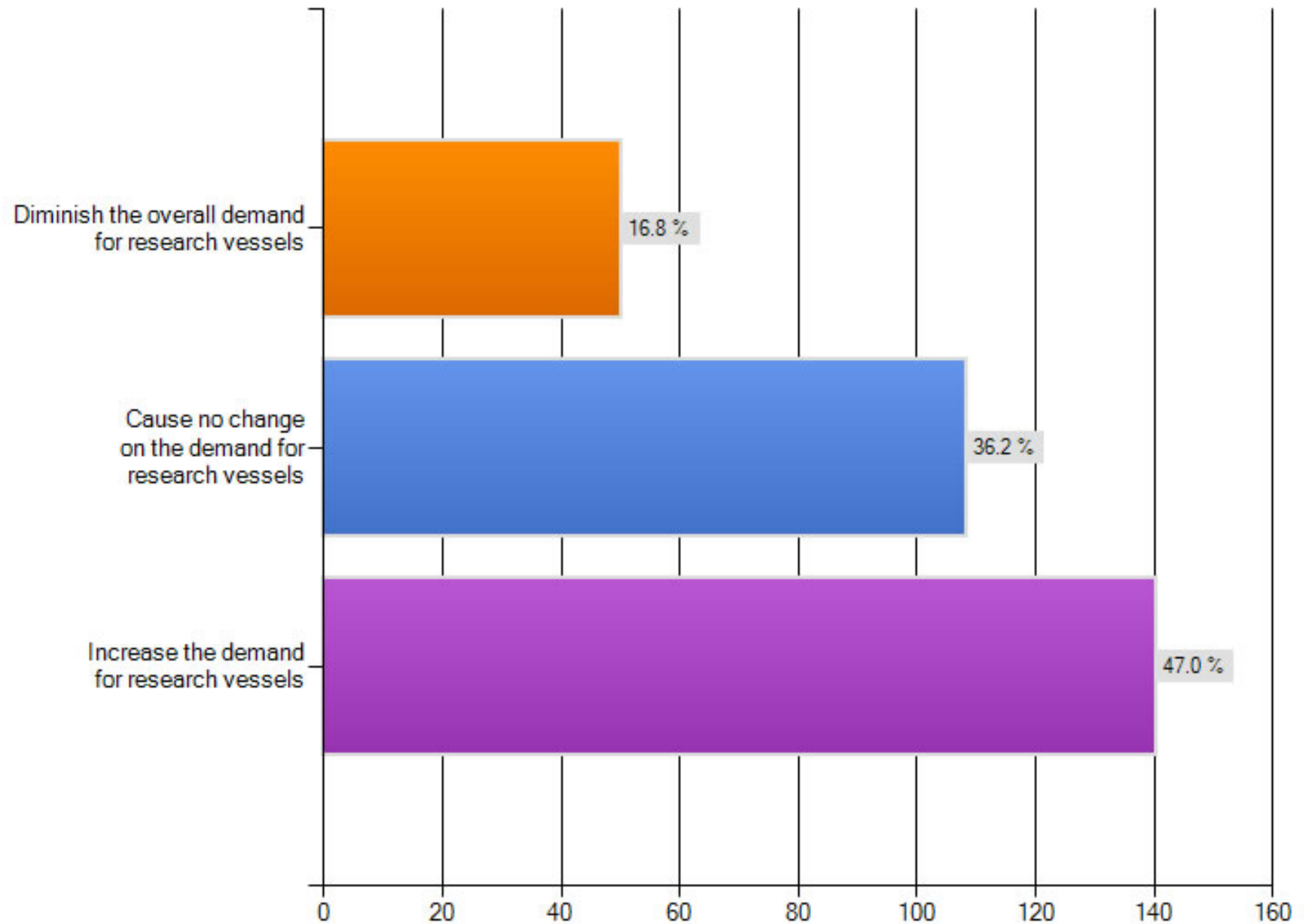
| <b>Answer Options</b> | <b>0</b> | <b>1 to 5</b> | <b>6 to 10</b> | <b>&gt;10</b> | <b>Response Count</b> |
|-----------------------|----------|---------------|----------------|---------------|-----------------------|
| 1995 to 2000          | 90       | 118           | 26             | 5             | 239                   |
| 2001 to 2005          | 66       | 142           | 32             | 6             | 246                   |
| 2006 to 2010          | 55       | 166           | 31             | 7             | 259                   |
| 2011 and beyond       | 60       | 161           | 13             | 8             | 242                   |

**At your institution, does the oceanographic curriculum include a graduation requirement to participate in a research cruise?**

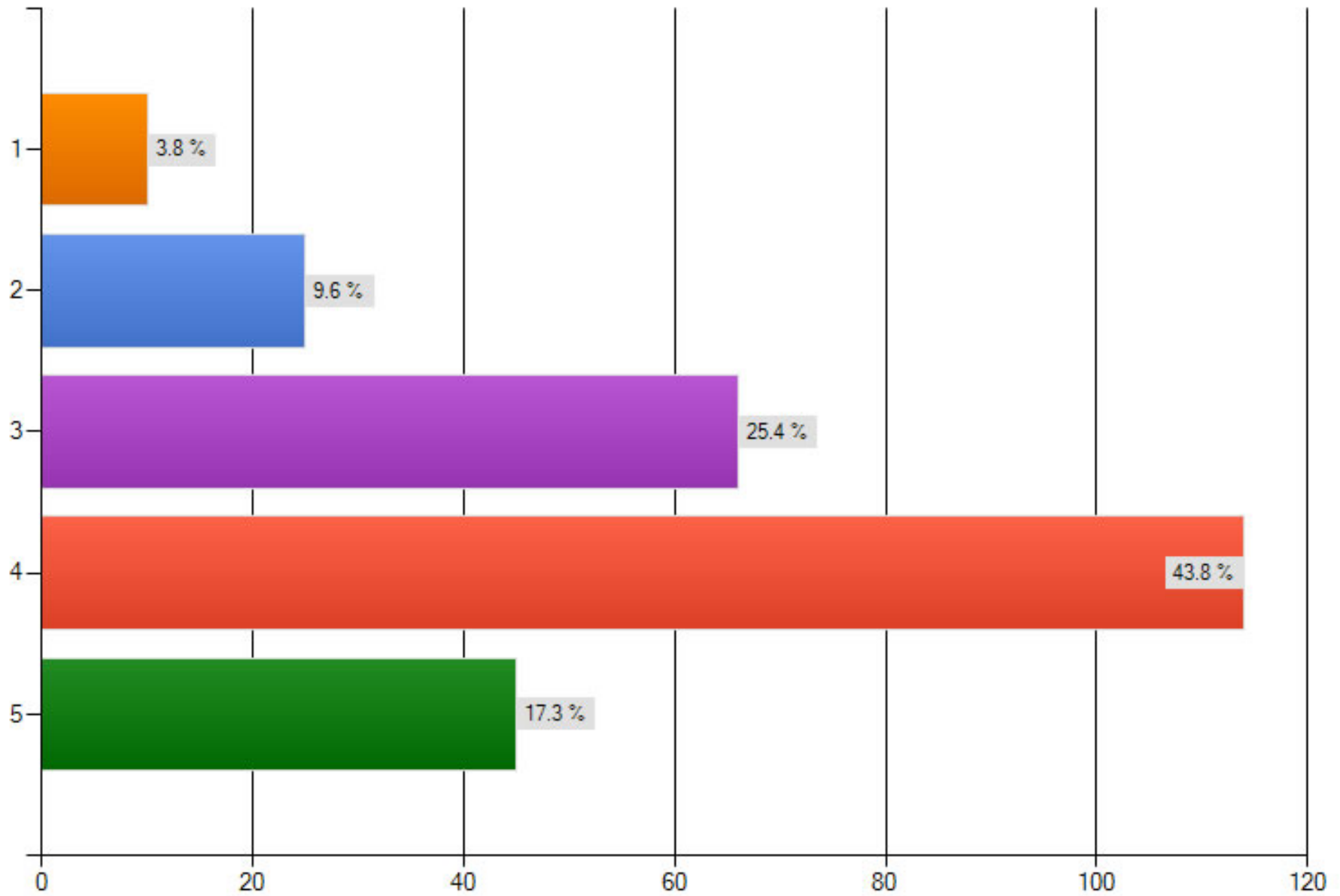




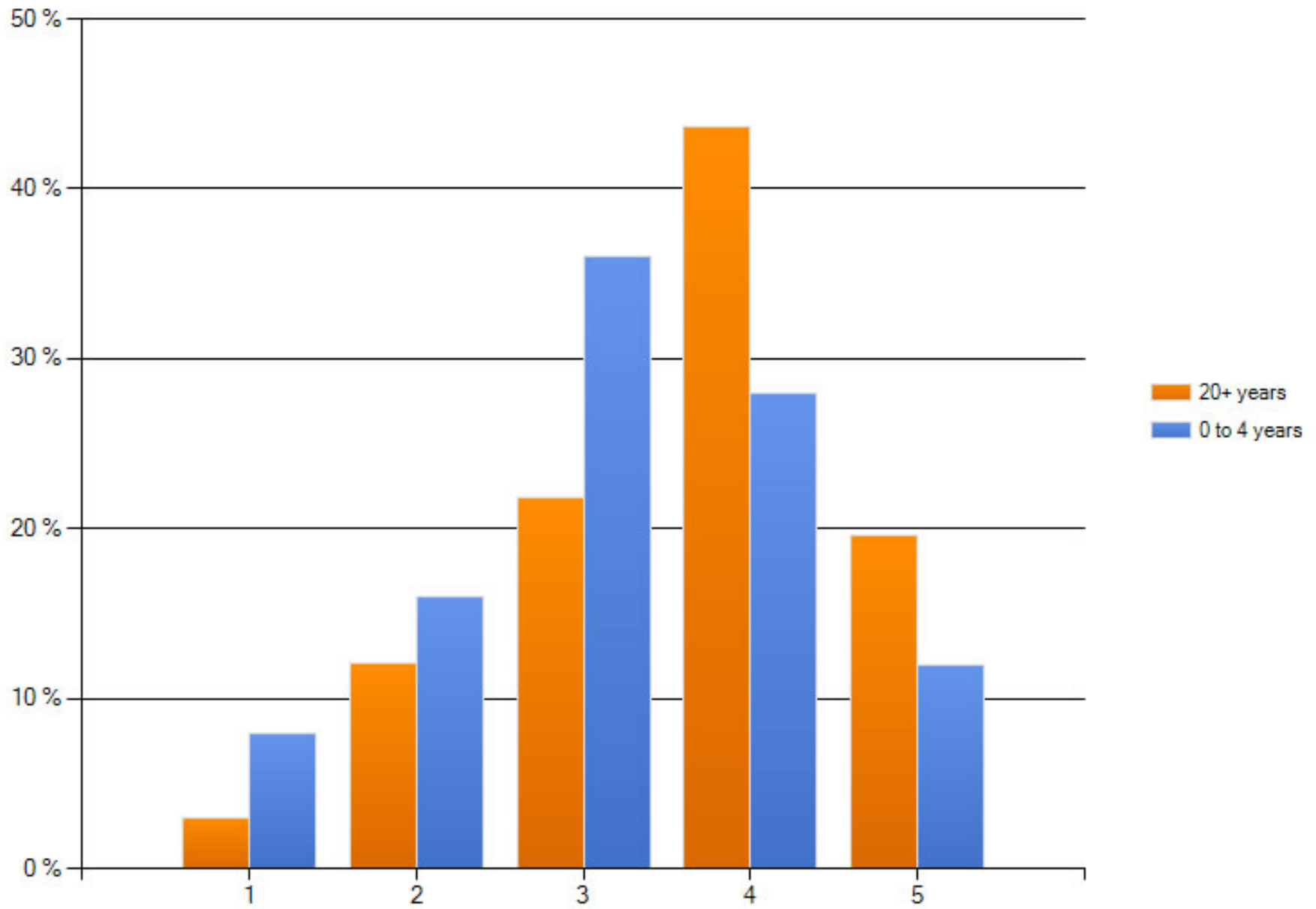
## Do you believe new observational technologies will



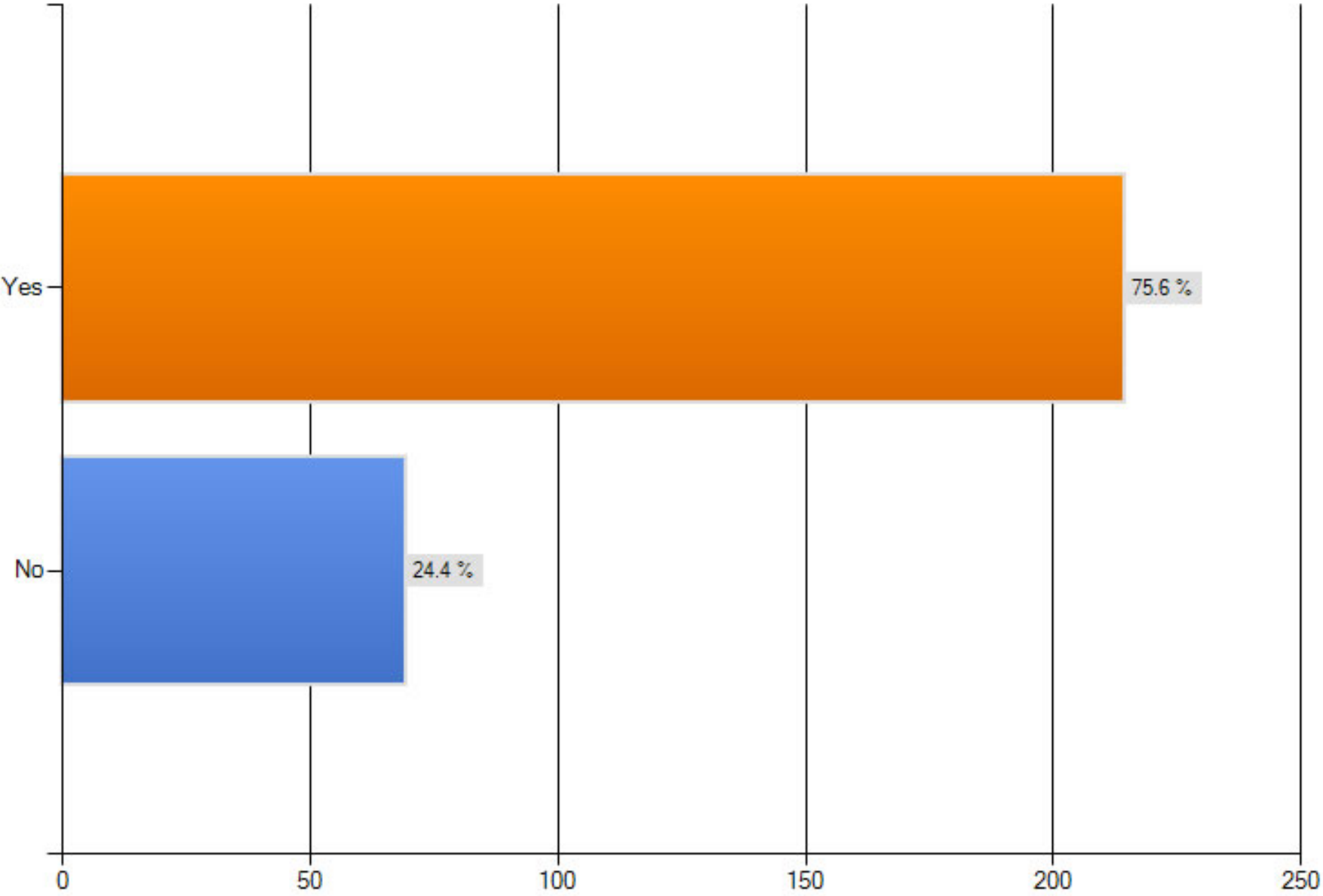
Describe your experience using the UNOLS Ship Time Request System on a scale of 1 to 5 with one being "Difficult to Use" and 5 being "User Friendly."



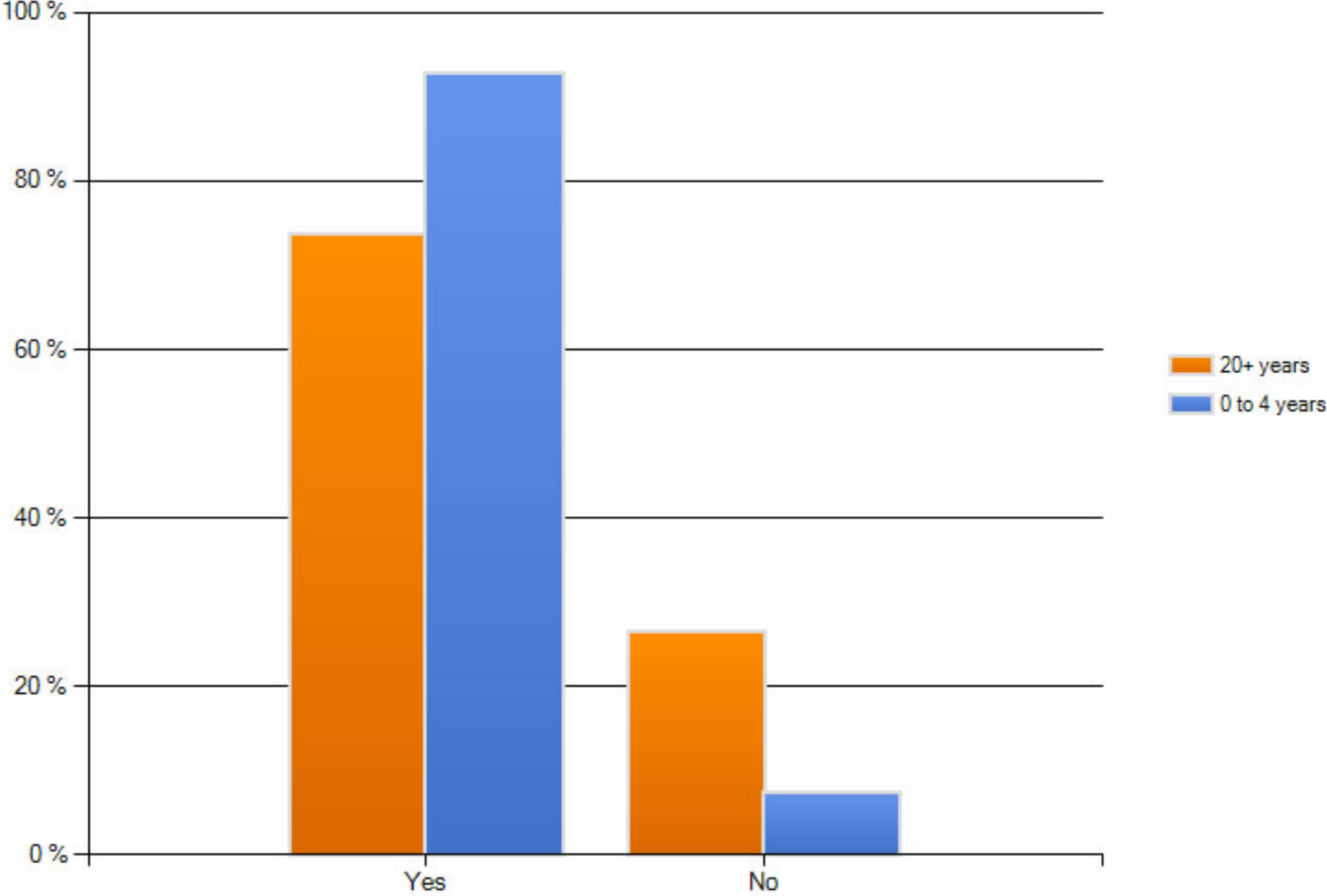
**Describe your experience using the UNOLS Ship Time Request System on a scale of 1 to 5 with one being "Difficult to Use" and 5 being "User Friendly."**



**In your opinion, would training or a mentoring program for potential or new Chief Scientists in pre-cruise planning, at sea operations, and post cruise obligations be beneficial?**



**In your opinion, would training or a mentoring program for potential or new Chief Scientists in pre-cruise planning, at sea operations, and post cruise obligations be beneficial?**





## In your opinion would training for new Ch. Scientists be beneficial?

- Absolutely
- An apprentice program would seem to be highly valuable. Chief scientists should take on the role of mentoring future scientists.
- Actually being Chief Sci is of course worse than you can imagine.
- Best training is just to get involved with another scientists program. Go to sea.
- Even for experienced scientists, keeping up with technological advances can be daunting if one doesn't have a cruise every year or so. Training would help. The on-line tutorials have helped.



## **In your opinion would training for new Ch. Scientists be beneficial?**

- Funding of "student cruises" should be a high UNOLS priority. That is an excellent way to interest and train the next generation of ship users.
- I don't think Chief Scientist "training" is the issue.
- I have been trained by my mentors, but a "Chief Sci handbook" would be nice.
- I think it would be helpful if this was available even at the pre-proposal stage, to aid in the preparation of the proposal as well as to aid the ship time request.



## **In your opinion would training for new Ch. Scientists be beneficial?**

- Not if the funding situation remains as is
- This is a good idea, but does not address the problem.
- This is **CRITICAL**
- Training could be on-line.
- Sign me up!





In maintaining and expanding your field research program, you are challenged to locate the resources that you need, raise the secure these resources, and administer the overall program. Please rate the magnitude of the challenge 1-10, with 1 signifying "a minor problem" and 10 being extremely daunting.

**Resource Availability**

|   | 1              | 2             | 3             | 4             | 5             | 6         | 7         | 8         | 9         | 10         |
|---|----------------|---------------|---------------|---------------|---------------|-----------|-----------|-----------|-----------|------------|
| Shore-side laboratory space   | 49.1%<br>(115) | 17.5%<br>(41) | 10.7%<br>(25) | 4.7% (11)     | 7.7% (18)     | 3.8% (9)  | 1.7% (4)  | 3.0% (7)  | 0.0% (0)  | 1.7% (4)   |
| Shared-use machine shops and lab support facilities   | 38.7%<br>(89)  | 14.3%<br>(33) | 16.1%<br>(37) | 3.9% (9)      | 11.3%<br>(26) | 2.6% (6)  | 3.5% (8)  | 4.8% (11) | 3.0% (7)  | 1.7% (4)   |
| Dedicated shore-side tech support group   | 24.8%<br>(57)  | 7.8% (18)     | 17.8%<br>(41) | 7.8% (18)     | 13.5%<br>(31) | 5.7% (13) | 8.7% (20) | 4.8% (11) | 3.5% (8)  | 5.7% (13)  |
| Access to ships and ship time   | 14.7%<br>(38)  | 11.6%<br>(30) | 17.8%<br>(46) | 10.0%<br>(26) | 14.3%<br>(37) | 6.6% (17) | 7.7% (20) | 6.6% (17) | 5.4% (14) | 5.4% (14)  |
| Access to shared-use ship board instruments/facilities (multi-beam, ROVs, isotope ions, etc.) | 26.4%<br>(61)  | 15.6%<br>(38) | 14.3%<br>(33) | 9.5% (22)     | 13.0%<br>(32) | 4.3% (10) | 7.4% (17) | 1.7% (4)  | 3.0% (7)  | 3.9% (9)   |
| Access to at-sea technical support  | 30.1%<br>(72)  | 20.1%<br>(48) | 16.7%<br>(40) | 9.2% (22)     | 10.9%<br>(26) | 3.3% (8)  | 4.2% (10) | 3.3% (8)  | 0.8% (2)  | 1.3% (3)   |
| Other   | 6.3% (1)       | 0.0% (0)      | 6.3% (1)      | 0.0% (0)      | 12.5% (2)     | 0.0% (0)  | 6.3% (1)  | 6.3% (1)  | 6.3% (1)  | 56.3% (13) |



# Access to Support Funds

|   | 1                           | 2             | 3             | 4             | 5                           | 6         | 7             | 8                           | 9             | 10                          |
|---|-----------------------------|---------------|---------------|---------------|-----------------------------|-----------|---------------|-----------------------------|---------------|-----------------------------|
| Shore-side laboratory space   | 13.6%<br>(30)               | 6.8% (15)     | 11.8%<br>(26) | 7.7% (17)     | 17.2%<br>(38)               | 4.1% (9)  | 8.6% (19)     | <b>18.6%</b><br><b>(41)</b> | 4.5% (10)     | 7.2% (16)                   |
| Shared-use machine shops and lab support facilities   | 12.5%<br>(27)               | 6.5% (14)     | 10.2%<br>(22) | 10.2%<br>(22) | <b>18.1%</b><br><b>(39)</b> | 5.6% (12) | 10.2%<br>(22) | 14.4%<br>(31)               | 5.6% (12)     | 6.0% (13)                   |
| Dedicated shore-side tech support group   | 8.5% (18)                   | 4.7% (10)     | 10.8%<br>(23) | 6.1% (13)     | <b>16.4%</b><br><b>(35)</b> | 6.1% (13) | 8.5% (18)     | 14.1%<br>(30)               | 8.5% (18)     | <b>16.4%</b><br><b>(35)</b> |
| Access to ships and ship time   | 4.9% (12)                   | 3.7% (9)      | 5.7% (14)     | 4.9% (12)     | 11.5%<br>(28)               | 4.9% (12) | 16.0%<br>(39) | 13.9%<br>(34)               | 13.1%<br>(32) | <b>21.3%</b><br><b>(52)</b> |
| Access to shared-use ship board instruments/facilities (multi-beam, ROVs, isotope ions, etc.) | 12.6%<br>(27)               | 7.9% (17)     | 10.2%<br>(22) | 5.6% (12)     | <b>18.1%</b><br><b>(39)</b> | 7.4% (16) | 10.7%<br>(23) | 7.9% (17)                   | 7.0% (15)     | 12.6%<br>(27)               |
| Access to at-sea technical support  | <b>15.5%</b><br><b>(34)</b> | 11.0%<br>(24) | 11.9%<br>(26) | 8.2% (18)     | <b>15.5%</b><br><b>(34)</b> | 5.9% (13) | 5.5% (12)     | 11.9%<br>(26)               | 4.1% (9)      | 10.5%<br>(23)               |
| Other   | 11.8% (2)                   | 5.9% (1)      | 0.0% (0)      | 5.9% (1)      | 0.0% (0)                    | 0.0% (0)  | 11.8% (2)     | 11.8% (2)                   | 5.9% (1)      | <b>47.1%</b>                |



### Administrative Burden

|   | 1             | 2             | 3             | 4         | 5             | 6         | 7         | 8         | 9        | 10        |
|---|---------------|---------------|---------------|-----------|---------------|-----------|-----------|-----------|----------|-----------|
| Shore-side laboratory space   | 30.8%<br>(66) | 21.0%<br>(45) | 14.0%<br>(30) | 7.0% (15) | 12.1%<br>(26) | 2.8% (6)  | 4.7% (10) | 5.1% (11) | 1.9% (4) | 0.5% (1)  |
| Shared-use machine shops and lab support facilities   | 33.5%<br>(69) | 22.8%<br>(47) | 16.0%<br>(33) | 5.8% (12) | 12.6%<br>(26) | 2.4% (5)  | 2.9% (6)  | 1.5% (3)  | 1.9% (4) | 0.5% (1)  |
| Dedicated shore-side tech support group   | 25.6%<br>(52) | 19.7%<br>(40) | 15.3%<br>(31) | 8.9% (18) | 13.8%<br>(28) | 4.4% (9)  | 3.9% (8)  | 4.4% (9)  | 2.5% (5) | 1.5% (3)  |
| Access to ships and ship time   | 15.2%<br>(35) | 21.3%<br>(49) | 17.4%<br>(40) | 5.7% (13) | 20.0%<br>(46) | 4.3% (10) | 4.8% (11) | 6.5% (15) | 2.2% (5) | 2.6% (6)  |
| Access to shared-use ship board instruments/facilities (multi-beam, ROVs, isotope ions, etc.) | 19.7%<br>(41) | 20.7%<br>(43) | 20.2%<br>(42) | 7.7% (16) | 17.3%<br>(36) | 5.3% (11) | 1.9% (4)  | 2.9% (6)  | 2.9% (6) | 1.4% (3)  |
| Access to at-sea technical support  | 31.4%<br>(66) | 25.2%<br>(53) | 11.4%<br>(24) | 8.6% (18) | 12.4%<br>(26) | 2.9% (6)  | 3.3% (7)  | 2.9% (6)  | 0.5% (1) | 1.4% (3)  |
| Other   | 27.8% (5)     | 11.1% (2)     | 11.1% (2)     | 0.0% (0)  | 11.1% (2)     | 0.0% (0)  | 11.1% (2) | 5.6% (1)  | 0.0% (0) | 22.2% (5) |



## **Additional Suggestions that would help to improve access to the sea:**

### **9 pages of comments!**

- **Access to the sea is essential for our field. New observing technologies will allow us to use our ships even more effectively, so it is extremely important to at least maintain our current seagoing capability-- or, even better, augment it.**
- **Thanks for your efforts in organizing this.**
- **Any challenges I have had while requesting ship time have been fixed rapidly and painlessly by the support staff. The STR is the least of my concerns when writing proposals.**
- **As a PI and newer chief Sci, I have been very impressed by the support all the different vessels have given my research program and cruises that are multi-PI research cruises. I actually 'enjoyed' being the Chief Sci because of the good support and prep. Thanks**



## Additional Suggestions that would help to improve access to the sea:

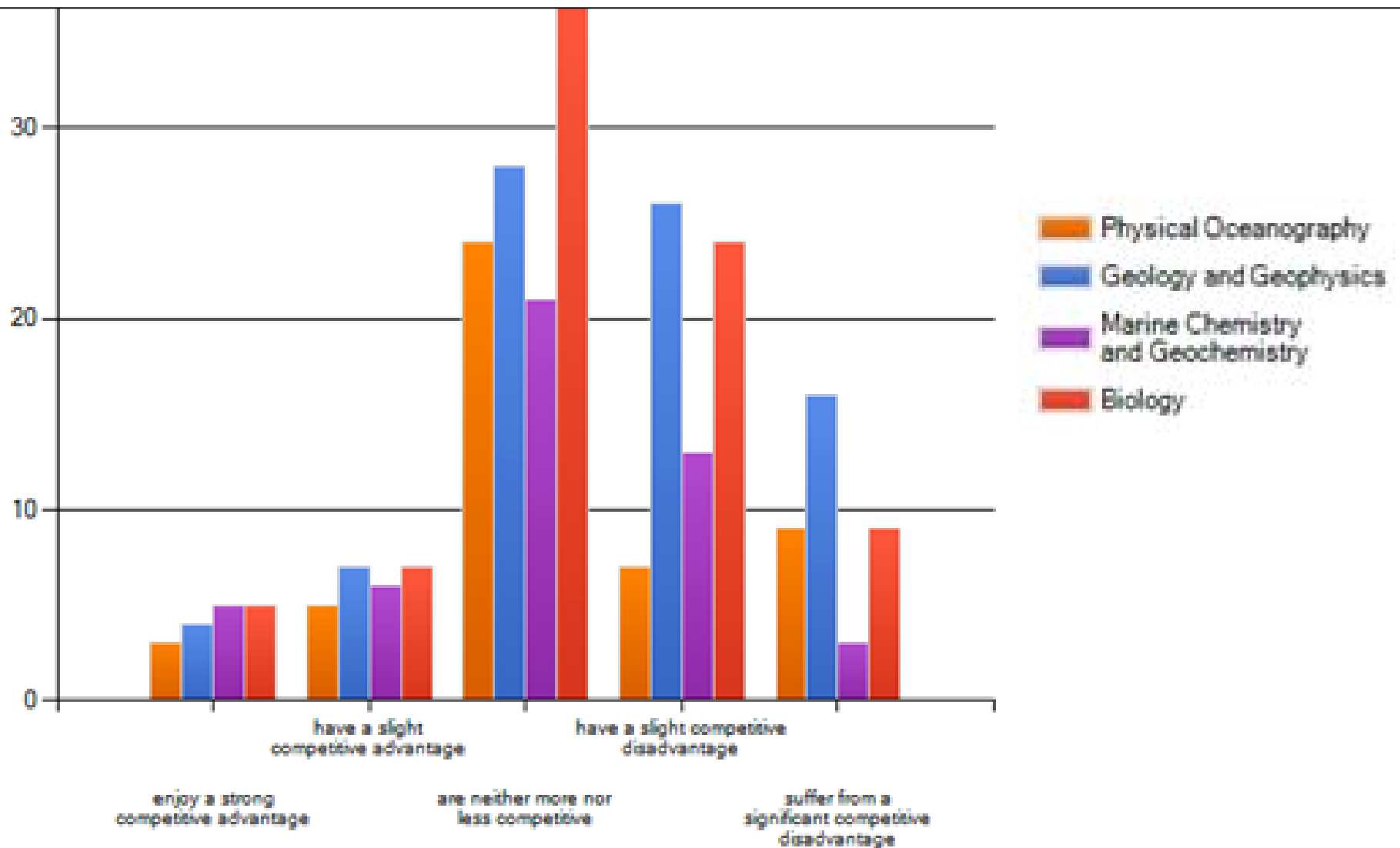
- Change the model for funding seagoing science.
- Encourage tech's and crews to do a cruise on other vessels of the same class every other year or so.
- Every time we replace a class of vessels, the replacements are larger, more costly, and have more bunks. Bigger is often not better.
- I and many of my colleagues feel that we have to keep the budgets on proposals as small as possible, to the extent that we either leave out important aspects of the work, or short-change our laboratory, resulting in a lack of shore-based support. For me personally, that is a limiting factor in how much field work I can propose, because every program generates a large set of samples and lab work.



## Additional Suggestions that would help to improve access to the sea:

- In my opinion we need to engage younger scientists and provide them with seagoing experiences earlier in their career. When their experience only comes when they are graduate students, their career trajectories are already set. I think we need to engage undergraduates in novel ways including inquiry-based cruises where teams are given certain questions. This will involve the use of UNOLS vessels in a slightly different way, but it would help our institution and others we work with.
- More educational and outreach funding to get younger scientists to sea
- More research dollars available from the funding agencies and/or fewer researchers seeking those research dollars would increase my ability to go to sea.

## 16. I FEEL MY SCIENCE PROPOSALS \_\_\_\_\_ COMPARED TO MY PEERS BECAUSE OF MY USE OF SHIPS FOR MY RESEARCH.



## 17. THE CUSTOMS AND ATTITUDES OF THE FUNDING AGENCIES \_\_\_\_\_ THE FULL USE OF THE AVAILABLE SHIP RESOURCES IN MY FIELD OF RESEARCH.

