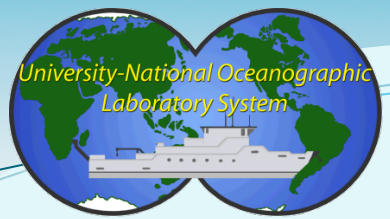
UNOLS Vessel Usage Survey Statistics

- The Survey was announced on Feb 11, 2011
- 260 surveys started as of 3/1/2011
  - 233 completed surveys

- Survey url: **http://www.surveymonkey.com/s/unols_vessel_usage_survey**

Part I: Demographics

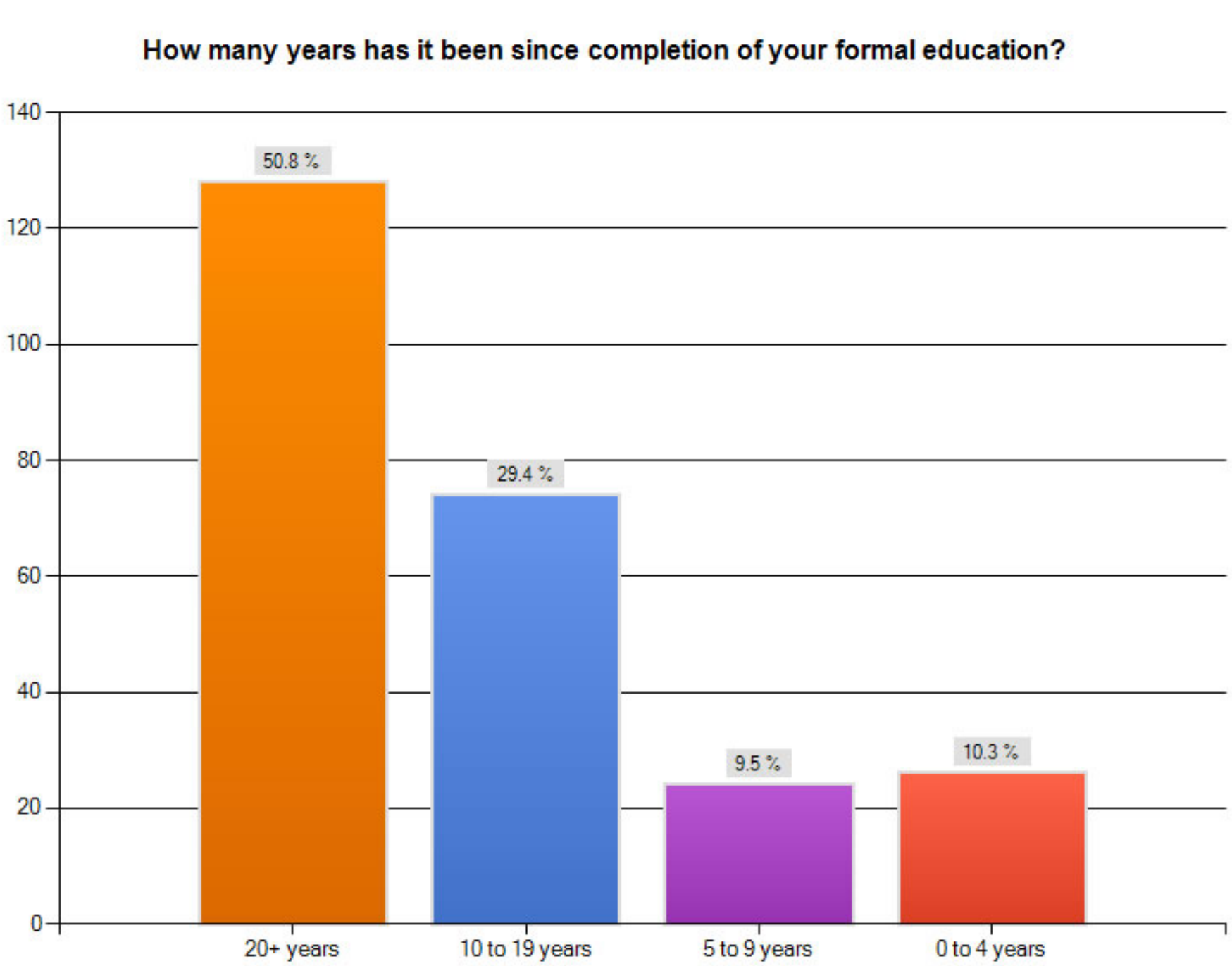


Institutions Represented

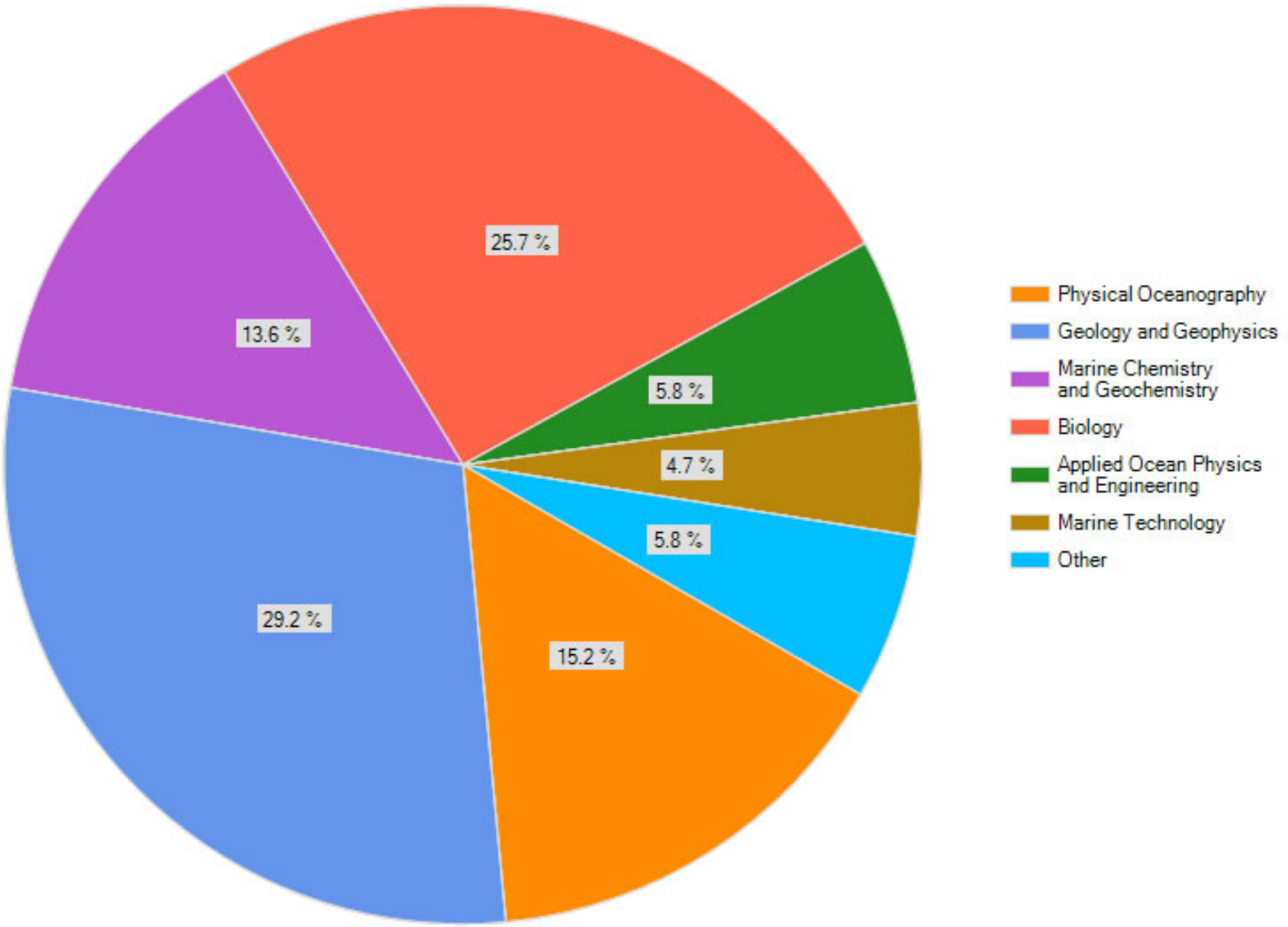
- 55 institutions represented in survey results

Institution	# of Responses
Alaska Geological and Geophysical Survey (DNR)	1
California Institute of Technology	1
Dartmouth College	1
Duke	2
Earth & Space Research	1
Field Museum of Natural History	1
Florida State University	2
HBOI	1
LDEO, Columbia University	3
Large Lakes Observatory UMD	2
Louisiana Universities Marine Consortium	1
MBARI	6
Michigan Technological University	1
MIT	1
Moss Landing Marine Labs	2
Naval Postgraduate School	2
NOAA	9
NRL	1
Old Dominion University	2
Oregon State University	7
Rutgers University	5
Scripps Institution of Oceanography	18
Skidaway Institute of Oceanography	2
Stony Brook University	1
Temple University	1
Texas A&M	3
The University of Tulsa	1

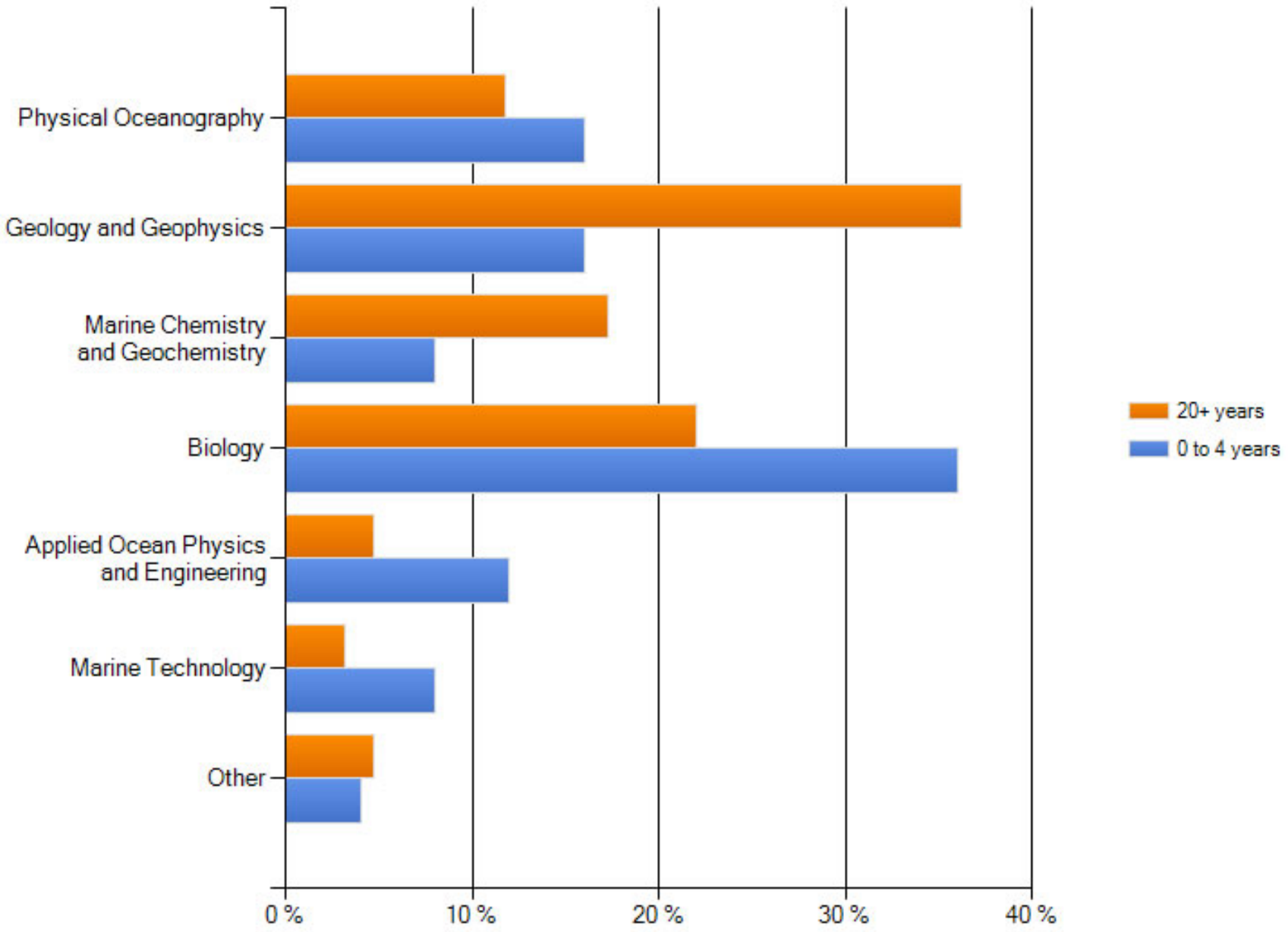
Institution	# of Responses
UC Santa Barbara	2
UK University	1
University of Alaska Fairbanks	5
University of Arizona	1
University of California, Santa Cruz	2
University of Connecticut	1
University of Delaware	2
University of Florida	1
University of Hawaii	11
University of Houston	1
University of Illinois	1
University of Maine	3
University of Maryland	1
University of Massachusetts Amherst	1
University of Miami	5
University of Minnesota- Twin Cities	1
University of Rhode Island, GSO	7
University of Texas	1
University of Texas at Dallas	1
University of Texas, Austin	7
University of Washngton	21
USF College of Marine Science	1
USGS	4
Washington University in Saint Louis	1
Western Washington University	1
Woods Hole Oceanographic Institution	33
Virginia Institute of Marine Science	1

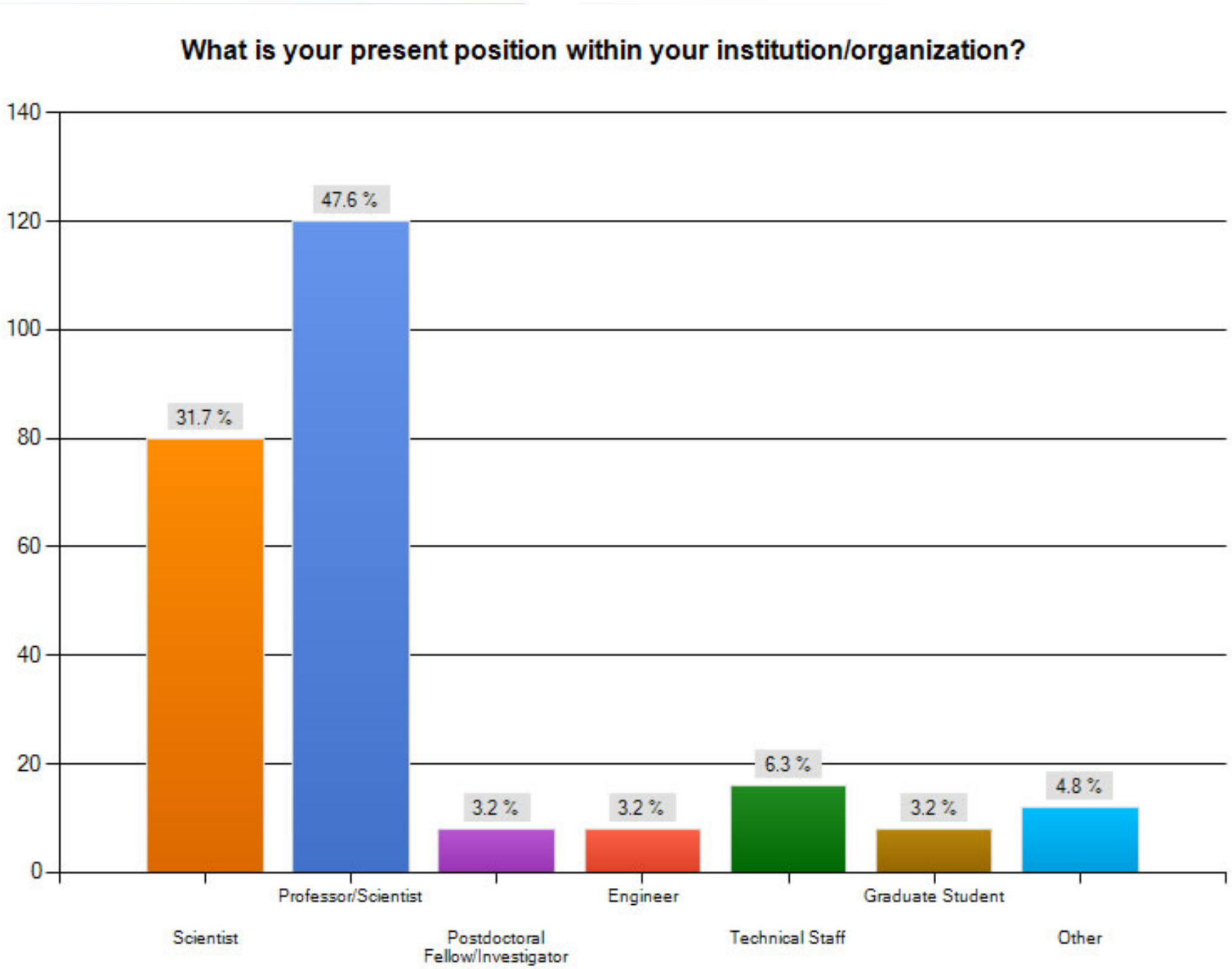

How many years has it been since completion of your formal education?
140
120
100
80
60
40
20
0
50.8 %
29.4 %
9.5 %
10.3 %
20+ years
10 to 19 years
5 to 9 years
0 to 4 years

What is your research discipline/area of expertise?

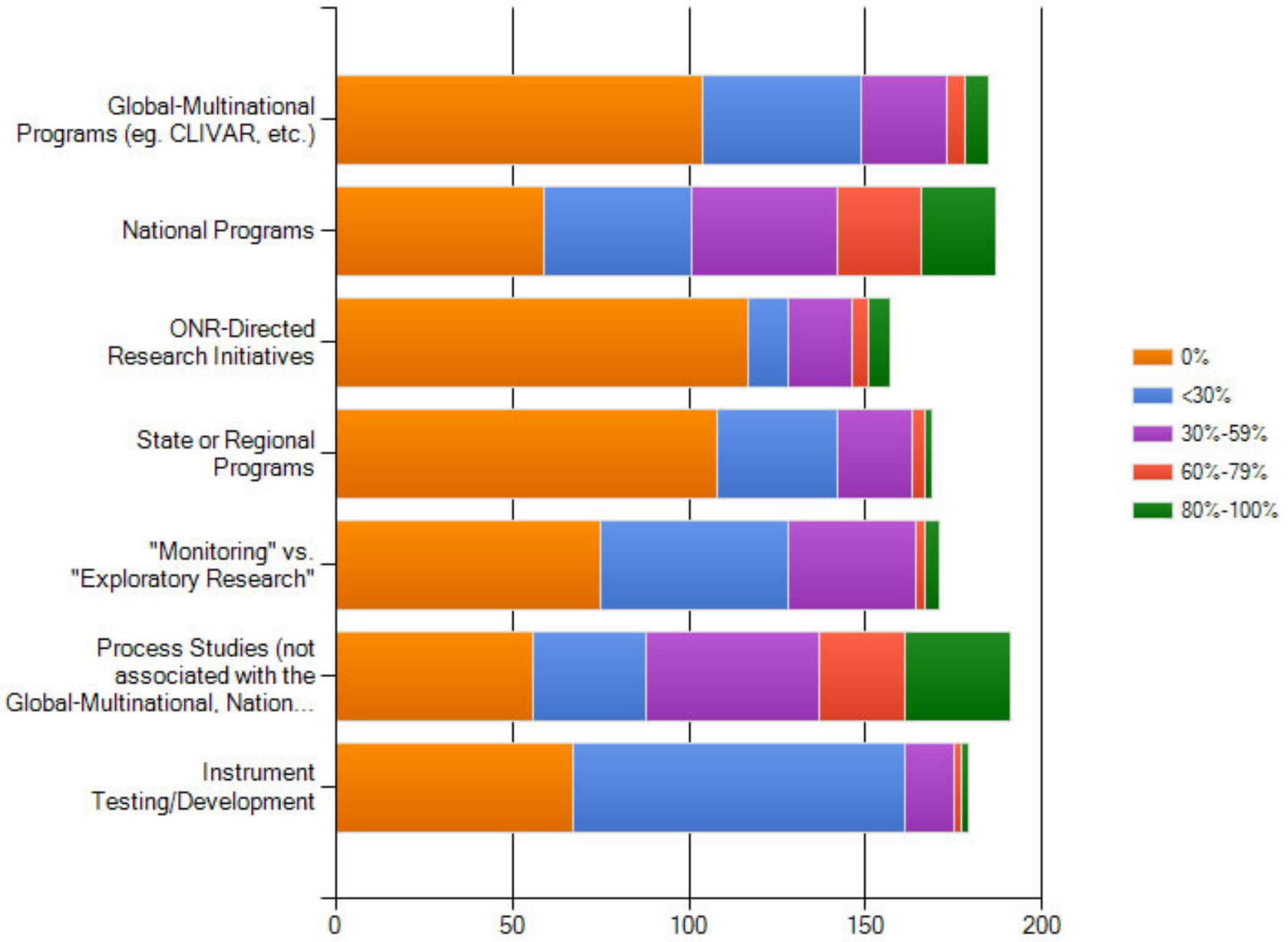


What is your research discipline/area of expertise?

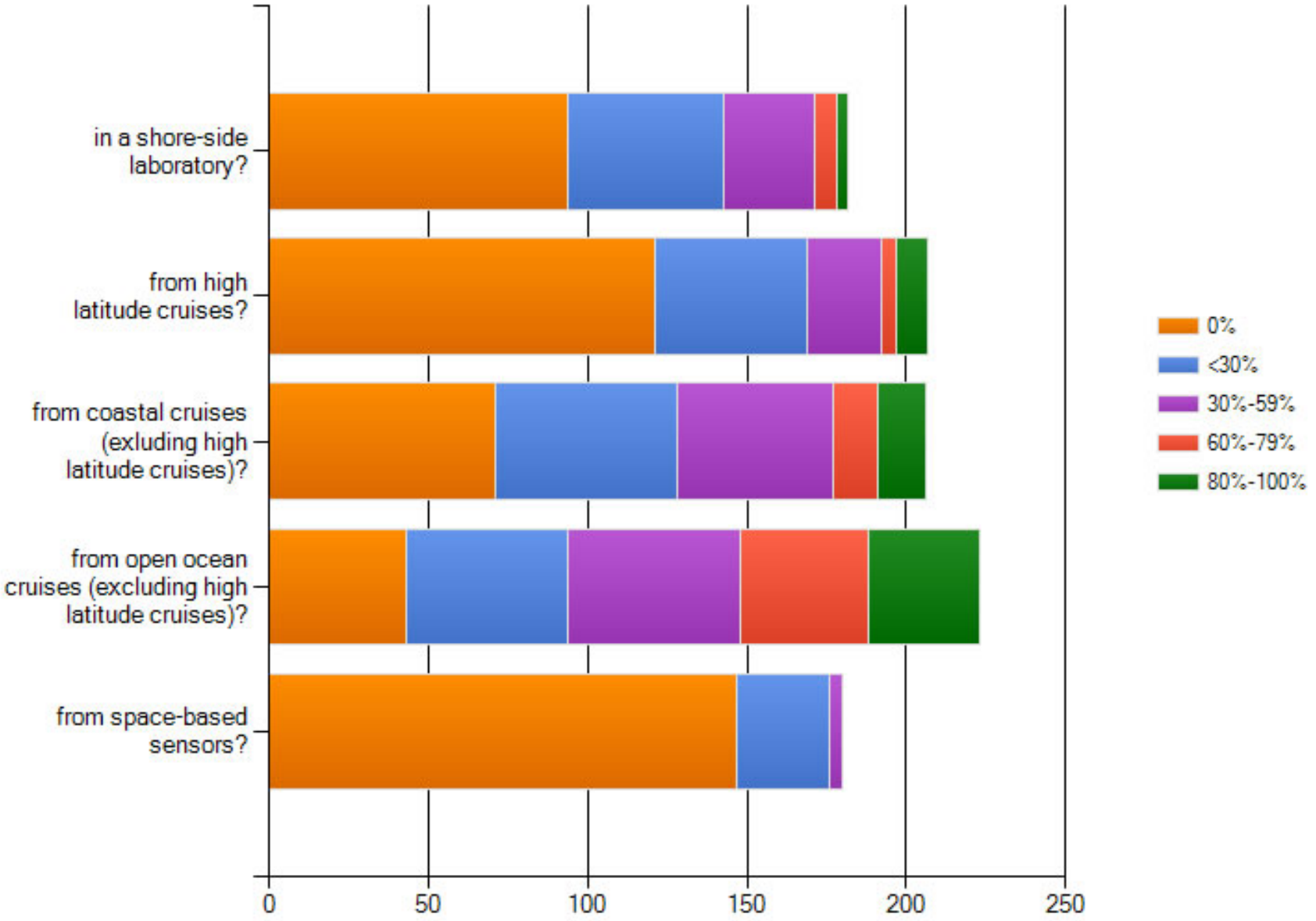



What is your present position within your institution/organization?
140
120
100
80
60
40
20
0
31.7 %
47.6 %
3.2 %
3.2 %
6.3 %
3.2 %
4.8 %
Scientist
Professor/Scientist
Postdoctoral Fellow/Investigator
Engineer
Technical Staff
Graduate Student
Other

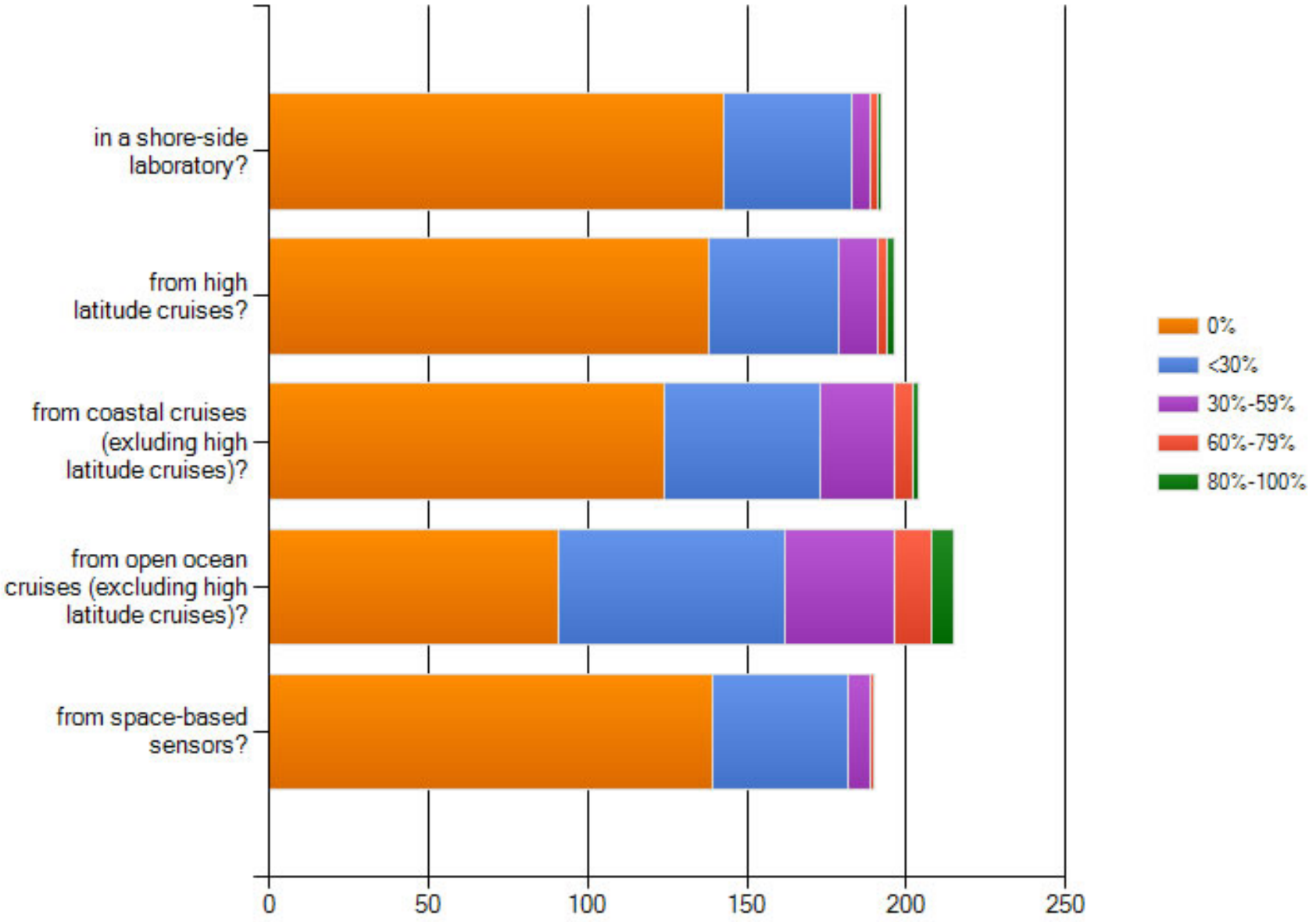
What fraction of your seagoing work is associated with (total ~100%):

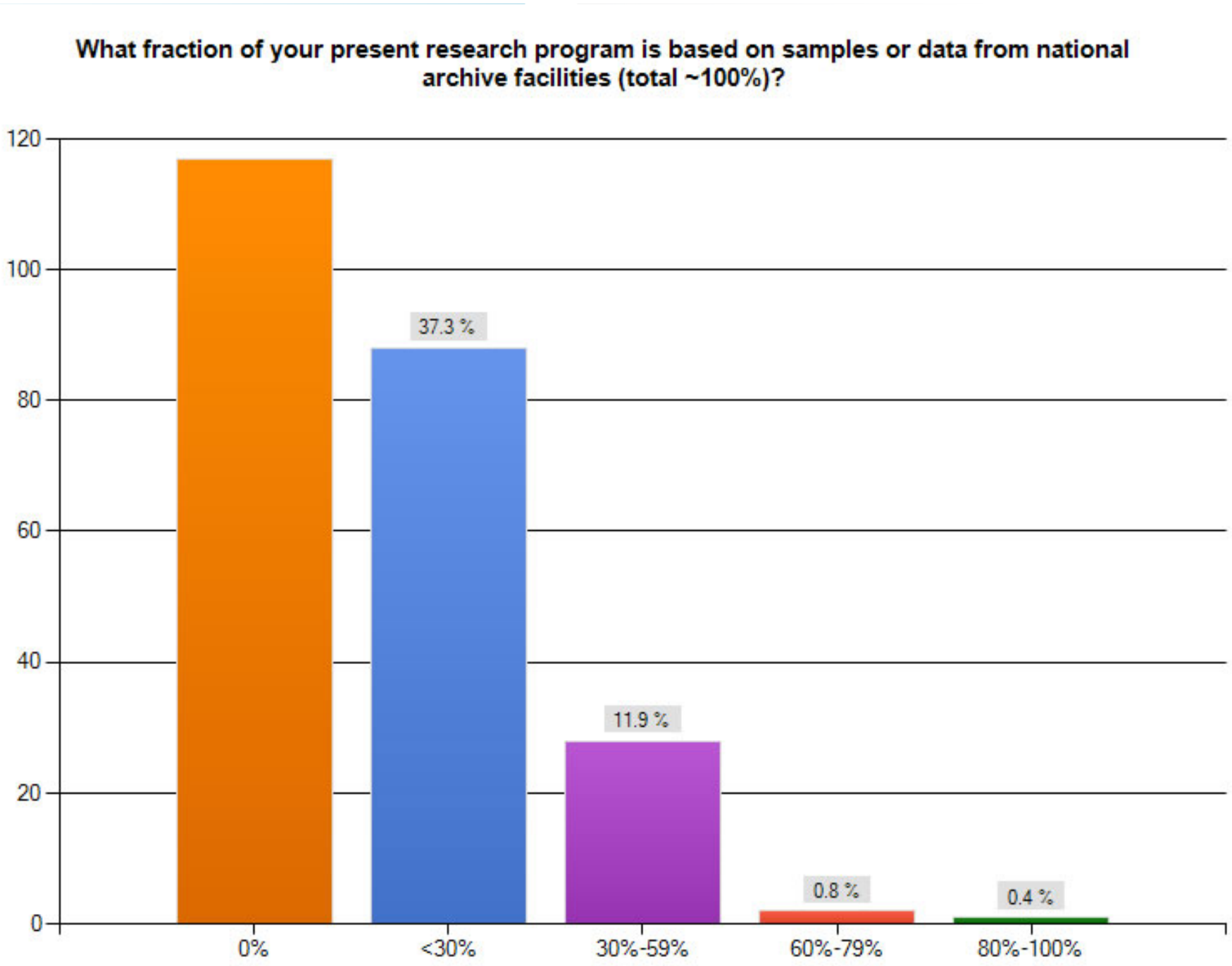


What fraction of your present research program is based on samples or data collected personally (total ~100%):

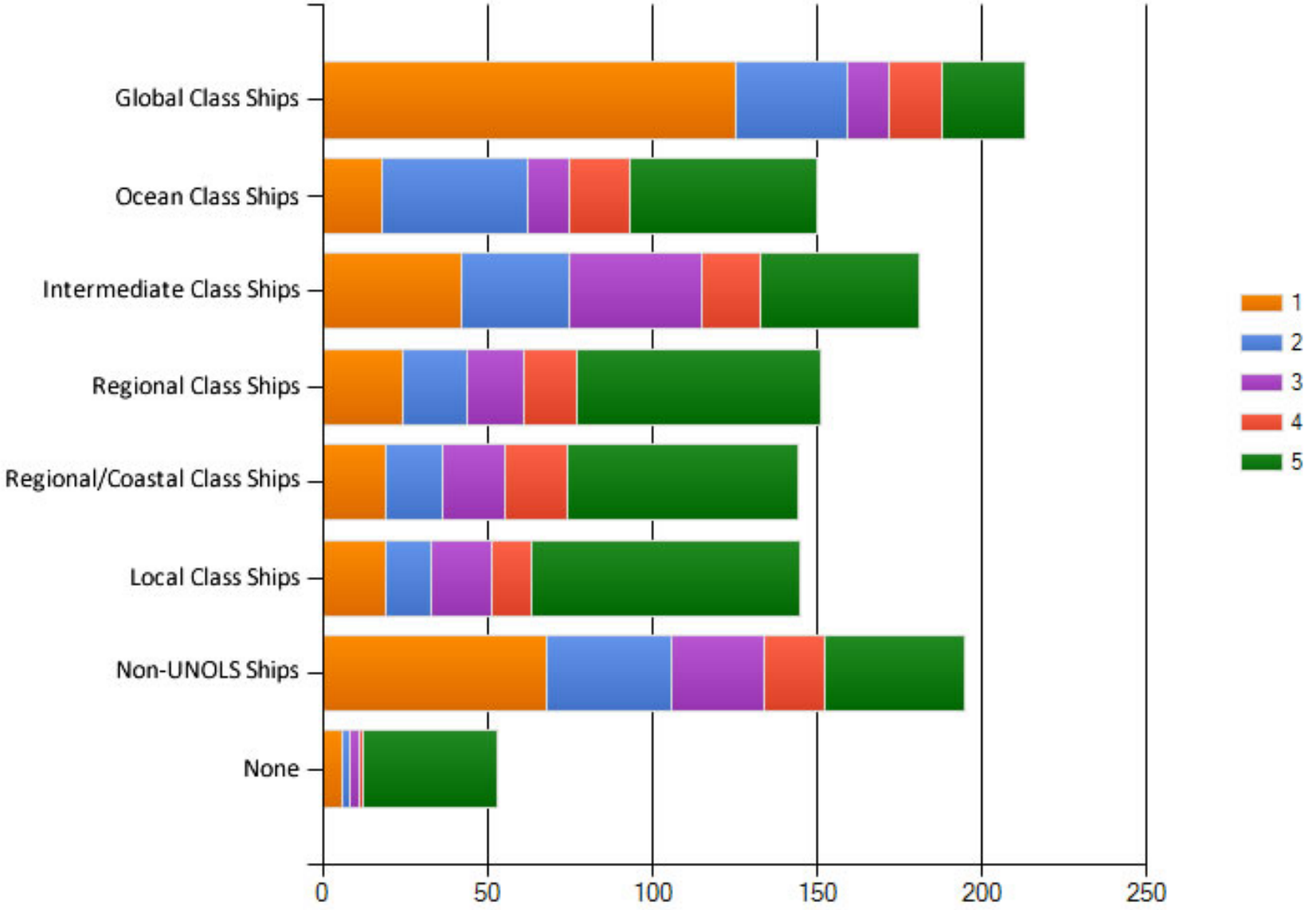


What fraction of your present research is based on samples or data collected by others (total ~100%):

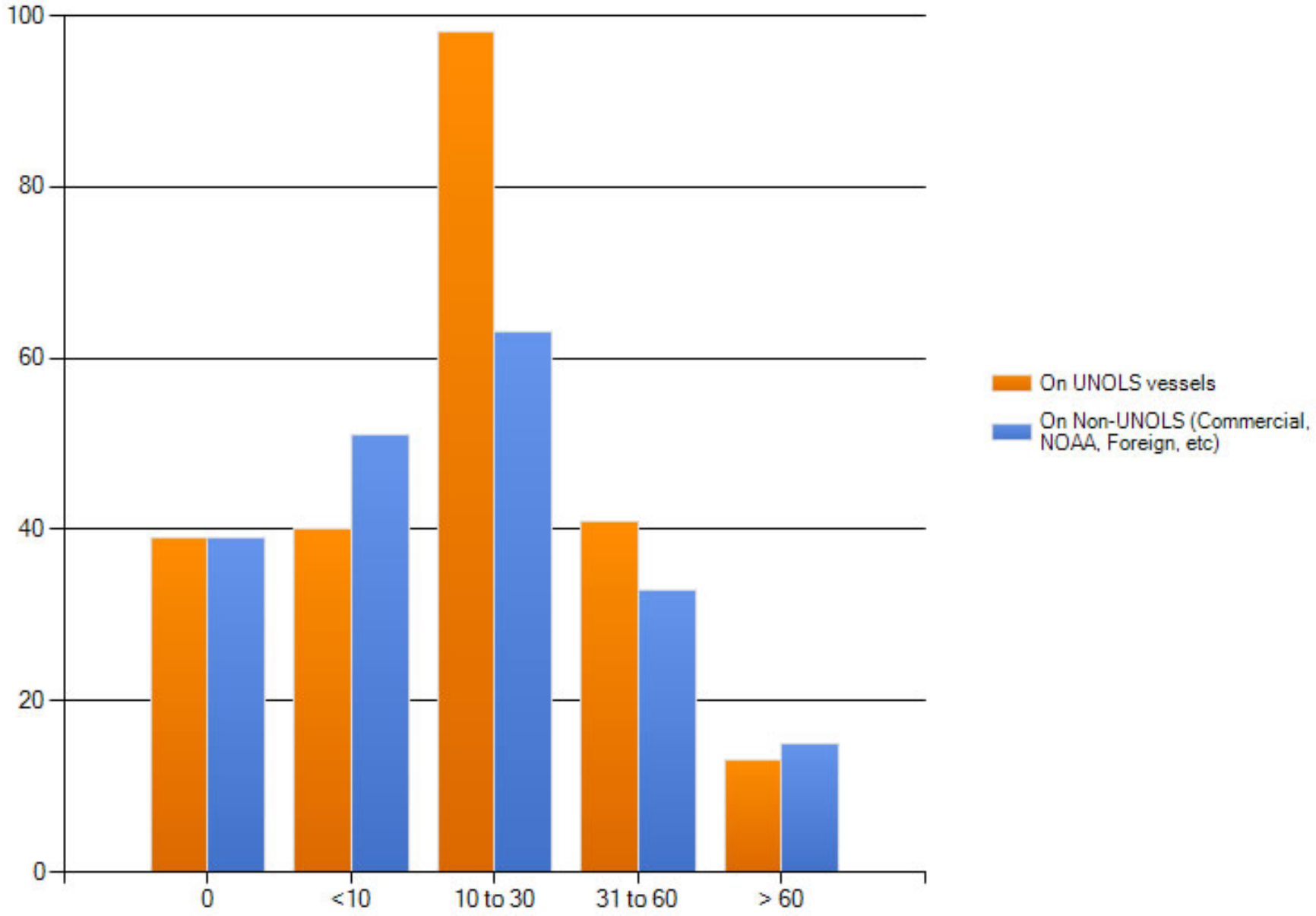



What fraction of your present research program is based on samples or data from national archive facilities (total ~100%)?
120
100
80
60
40
20
0
37.3 %
11.9 %
0.8 %
0.4 %
0%
<30%
30%-59%
60%-79%
80%-100%

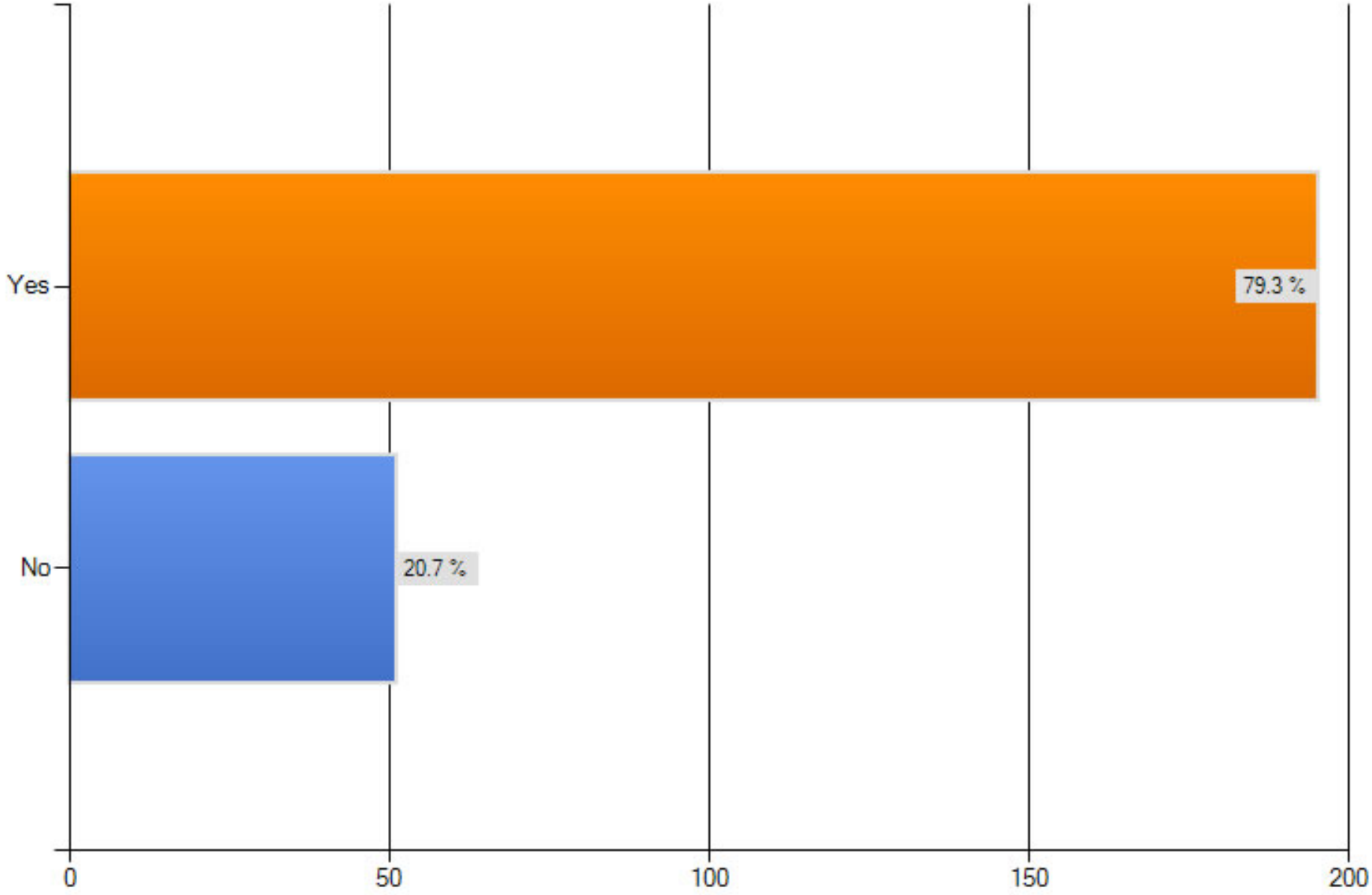
What types of UNOLS research vessels do you use? Please prioritize with 1 being the most used for your research and 5 being the least. Items can be given the same priority.



Over the last five years, on averge how many days per year did you spend at sea? (Any part of a day at sea constitutes a full sea day.)



Have you ever submitted (or are likely to submit) a proposal that explicitly included a request for ship time for field research. (In other words, you would have been required to submit a UNOLS Ship Time Request form)?



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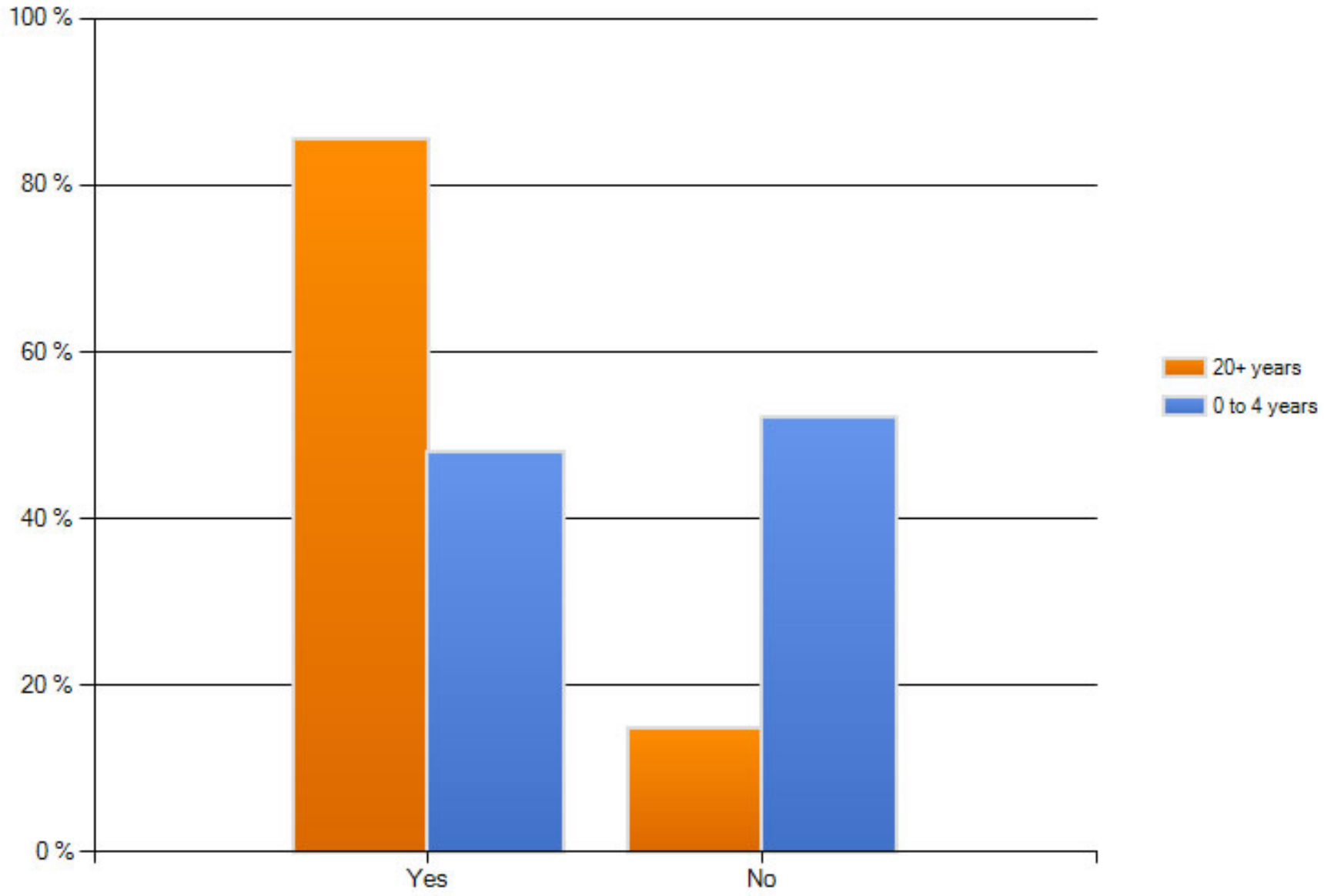
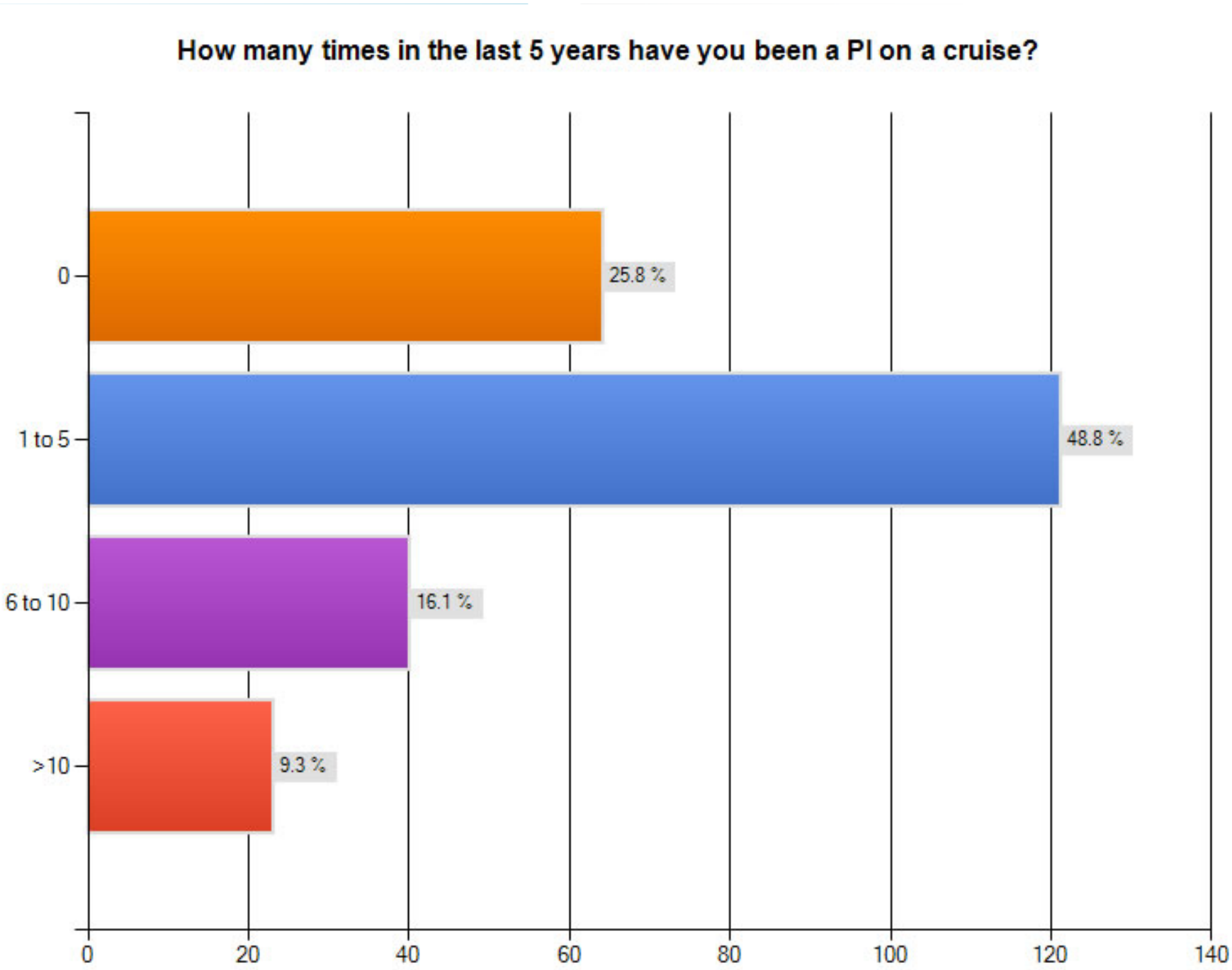
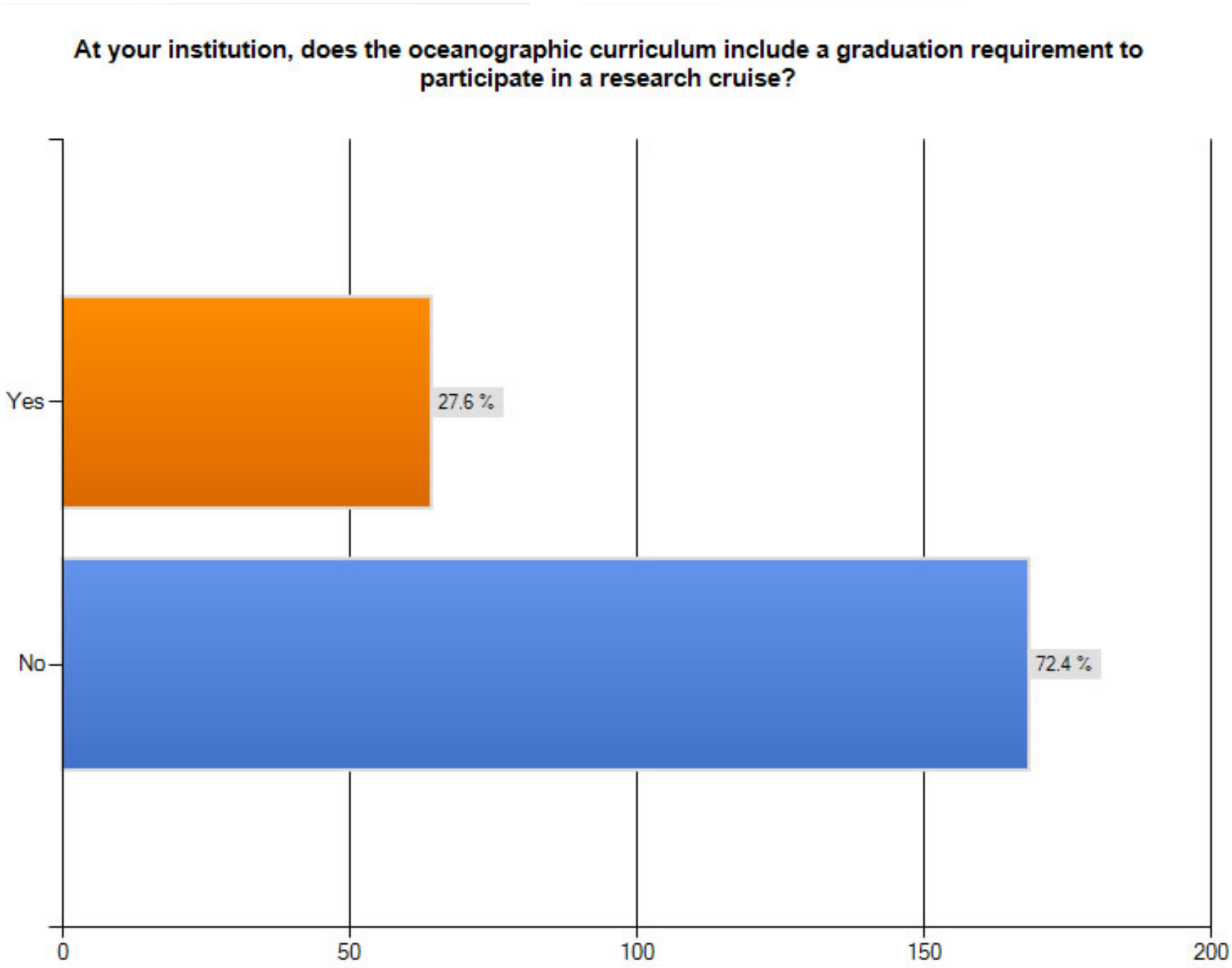


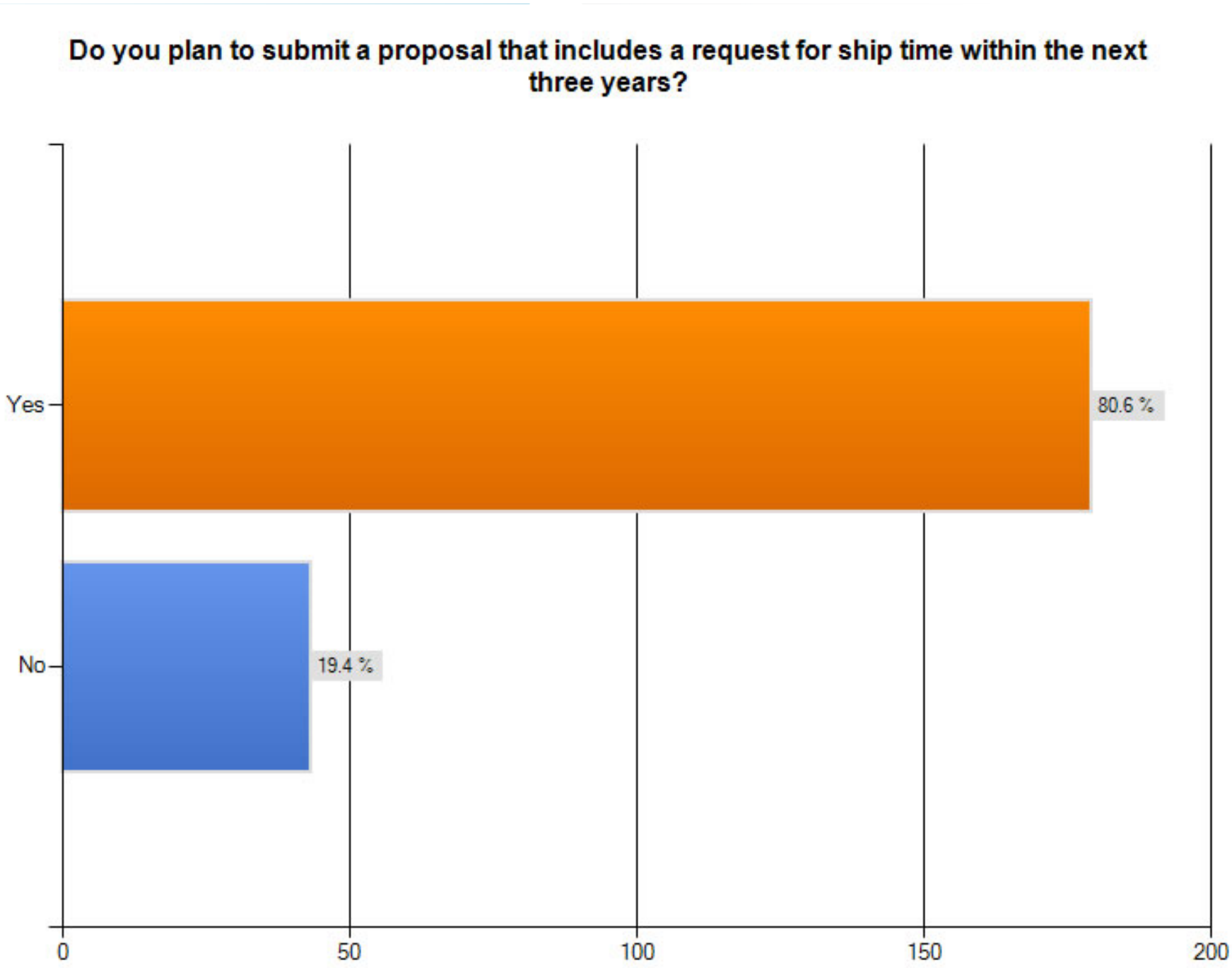
If "yes" to question 11, how many proposals with ship time have you submitted for cruises during the following periods?

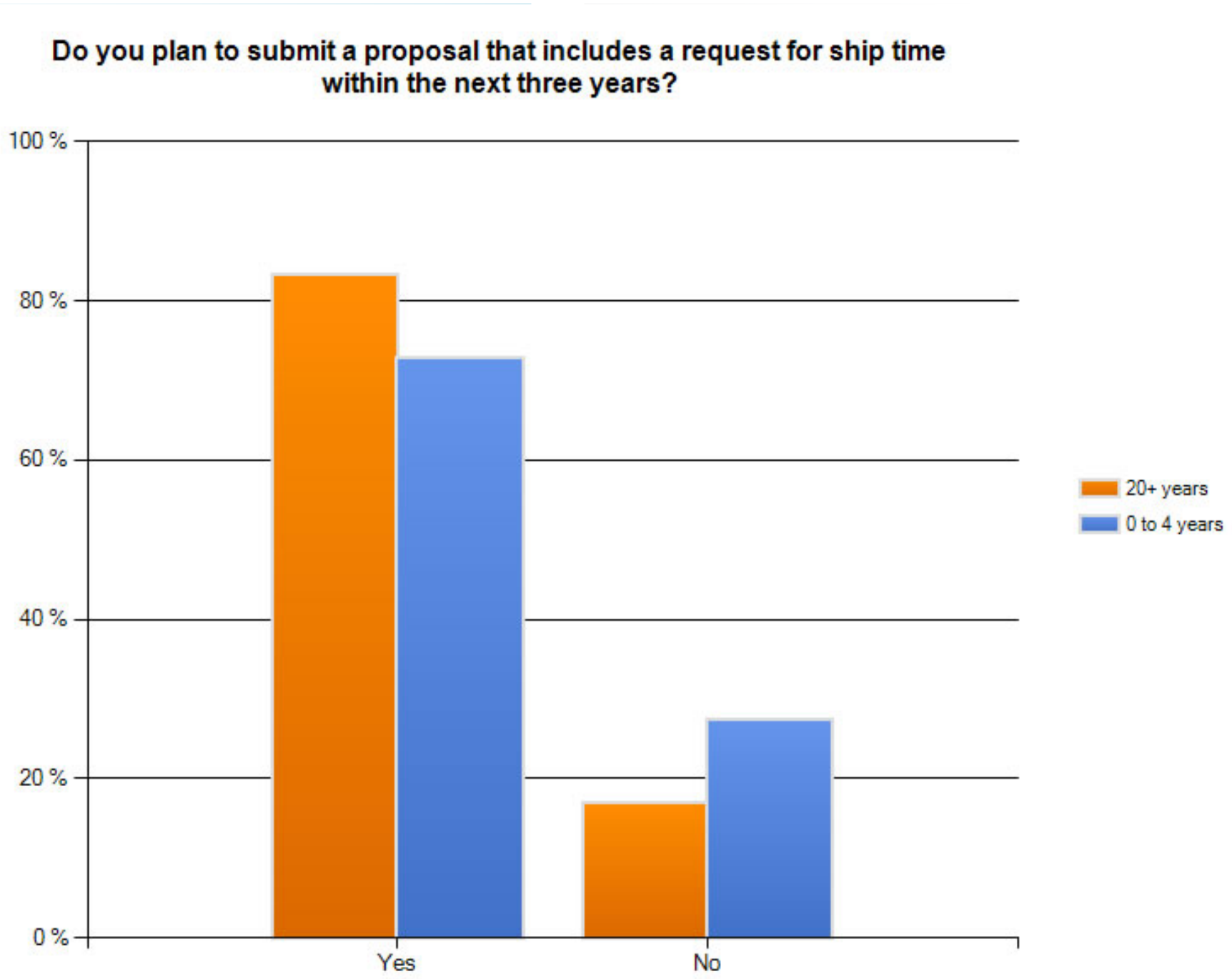
	0	1 to 5	6 to 10	>10	Response Count
1995 to 2000	62	97	22	5	186
2001 to 2005	42	114	26	6	188
2006 to 2010	37	131	23	6	197
2011 and beyond	50	119	10	5	184


How many times in the last 5 years have you been a PI on a cruise?
0
1 to 5
6 to 10
>10
25.8 %
48.8 %
16.1 %
9.3 %
0
20
40
60
80
100
120
140

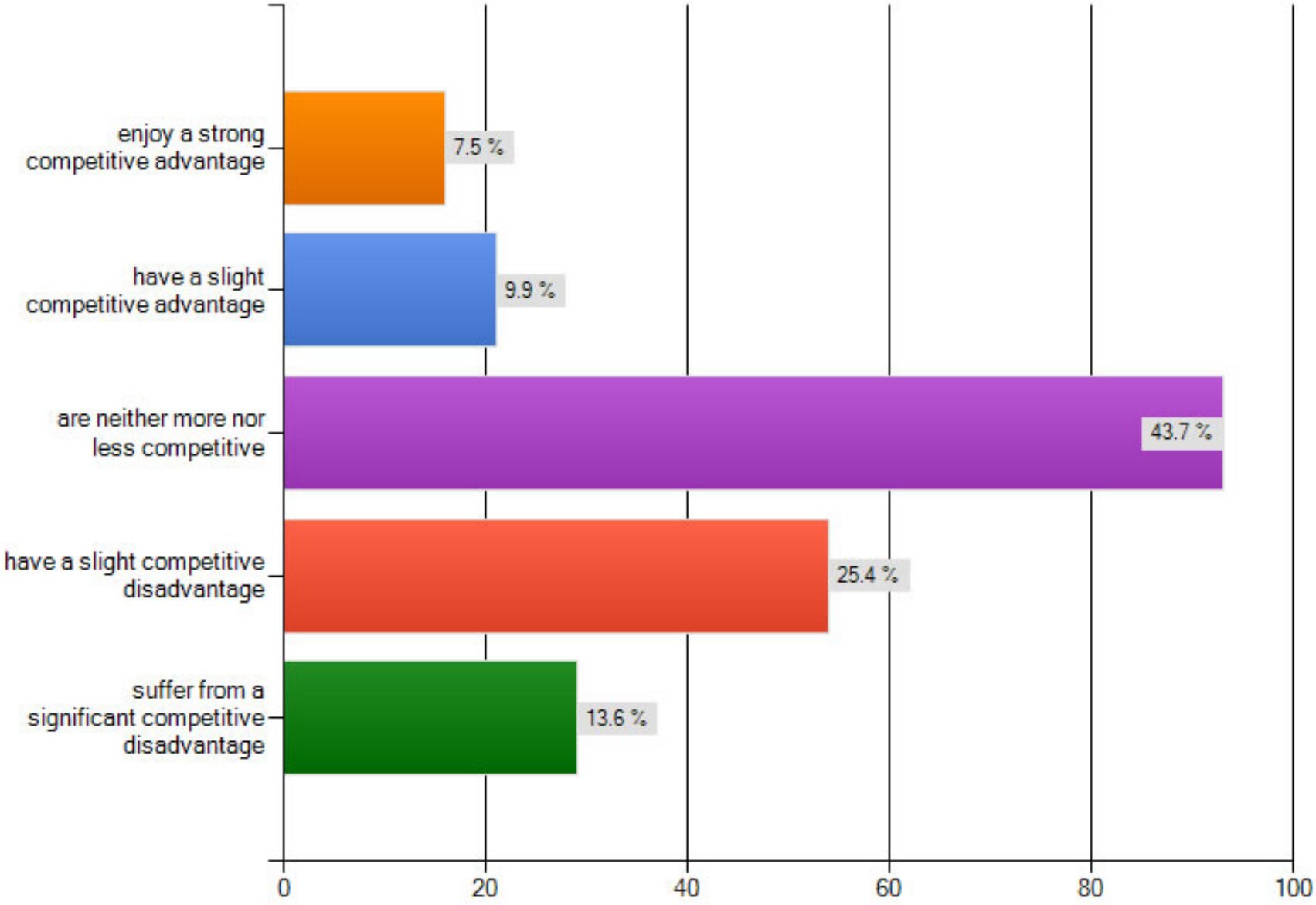

At your institution, does the oceanographic curriculum include a graduation requirement to participate in a research cruise?
Yes
No
27.6 %
72.4 %
0
50
100
150
200

Part II:
Ship-Based Research Requests

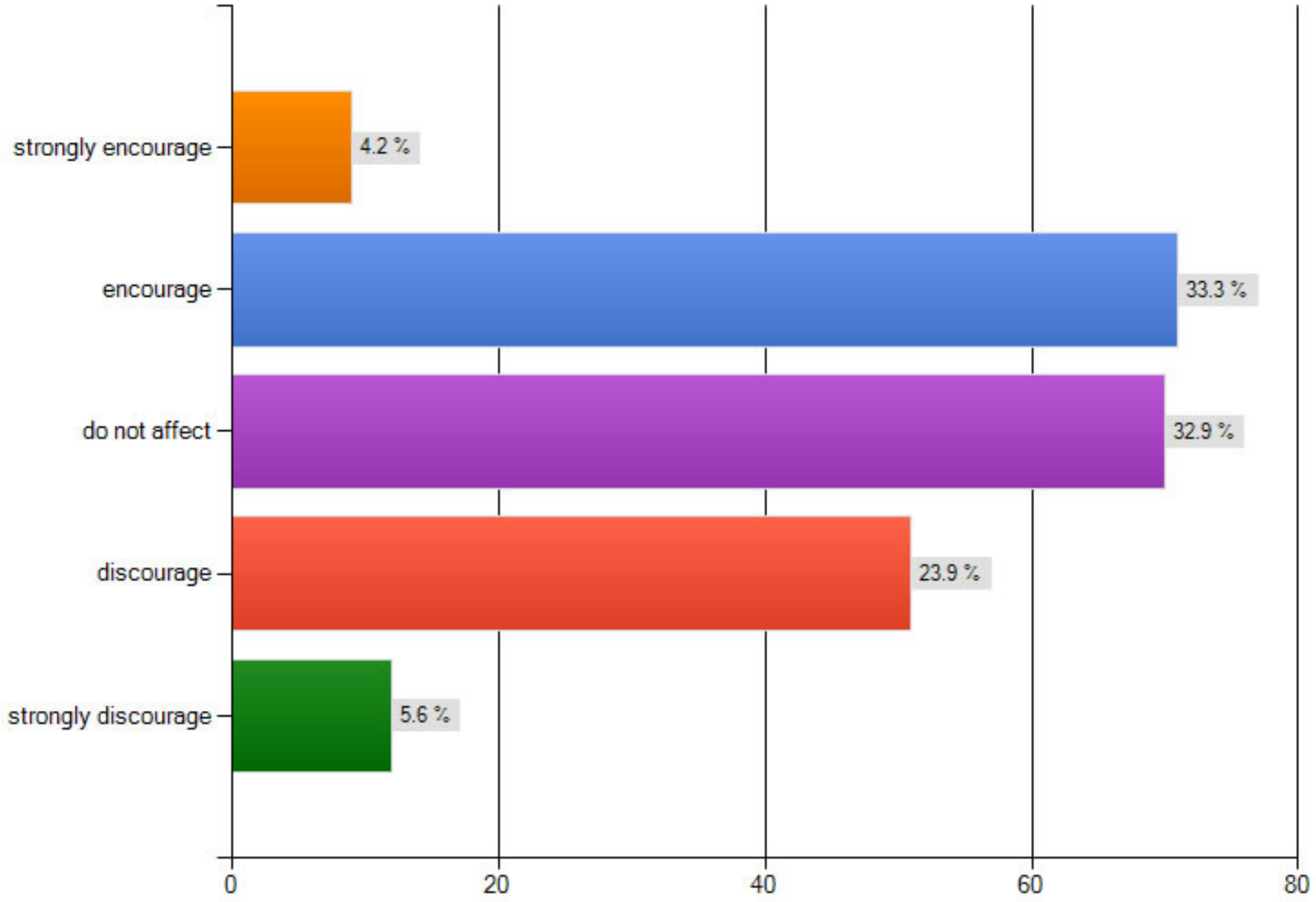

Do you plan to submit a proposal that includes a request for ship time within the next three years?
Yes
No
80.6 %
19.4 %
0
50
100
150
200


Do you plan to submit a proposal that includes a request for ship time within the next three years?
100 %
80 %
60 %
40 %
20 %
0 %
Yes
No
20+ years
0 to 4 years

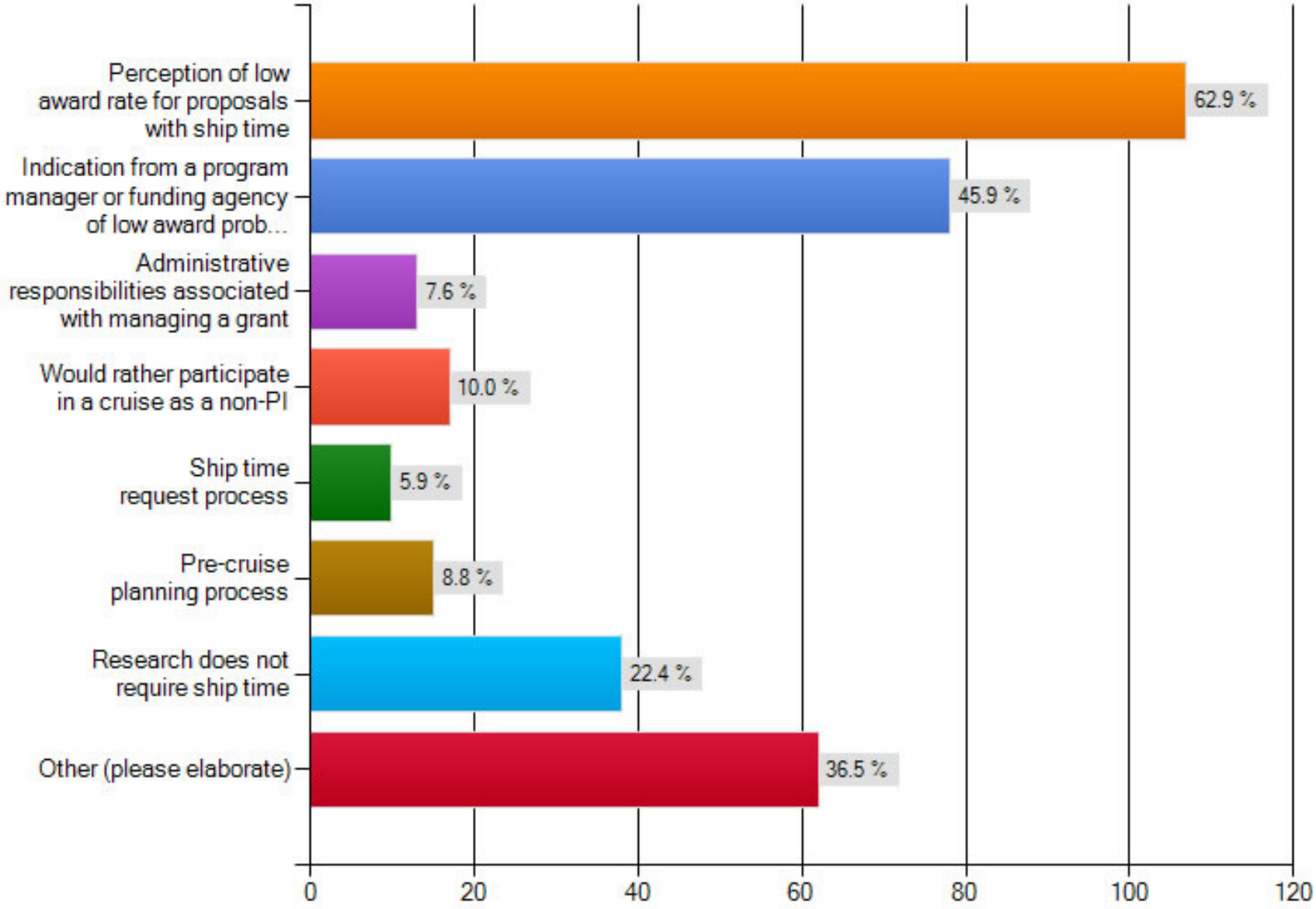
I feel my science proposals _____ compared to my peers because of my use of ships for my research.

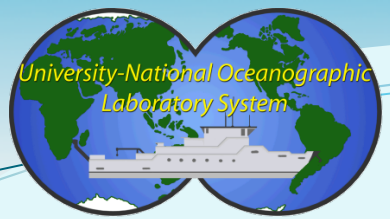


The customs and attitudes of the funding agencies _____ the full use of the available ship resources in my field of research.



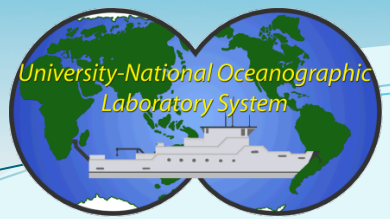
Have you ever been reluctant to submit a ship time proposal for any of the following reasons (check all that apply):





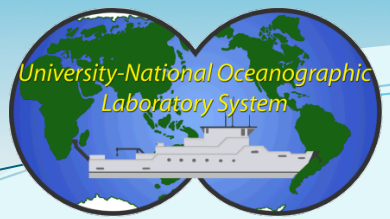
Have you ever been reluctant to submit a ship time proposal? Comments:

- **Other (non UNOLS) ships are available and more flexible.**
- **Ship did not have standard equipment I needed**
- **As a lowly engineer, I've frequently heard PIs unhappy about how expensive ship time is. Not necessarily expensive as a function of the direct cost of the ship, but rather the opportunity cost of being unavailable from all the other projects and expensive of having those personnel onboard the ship.**
- **Some exploratory research seems to be discouraged within NSF, despite the fact that discoveries at sea are common**
- **Using the MCS facility puts one at high risk to completing a seismic project because of poor management and thus lack of consistent performance (this is not in reference to the ship operations but the science support).**



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

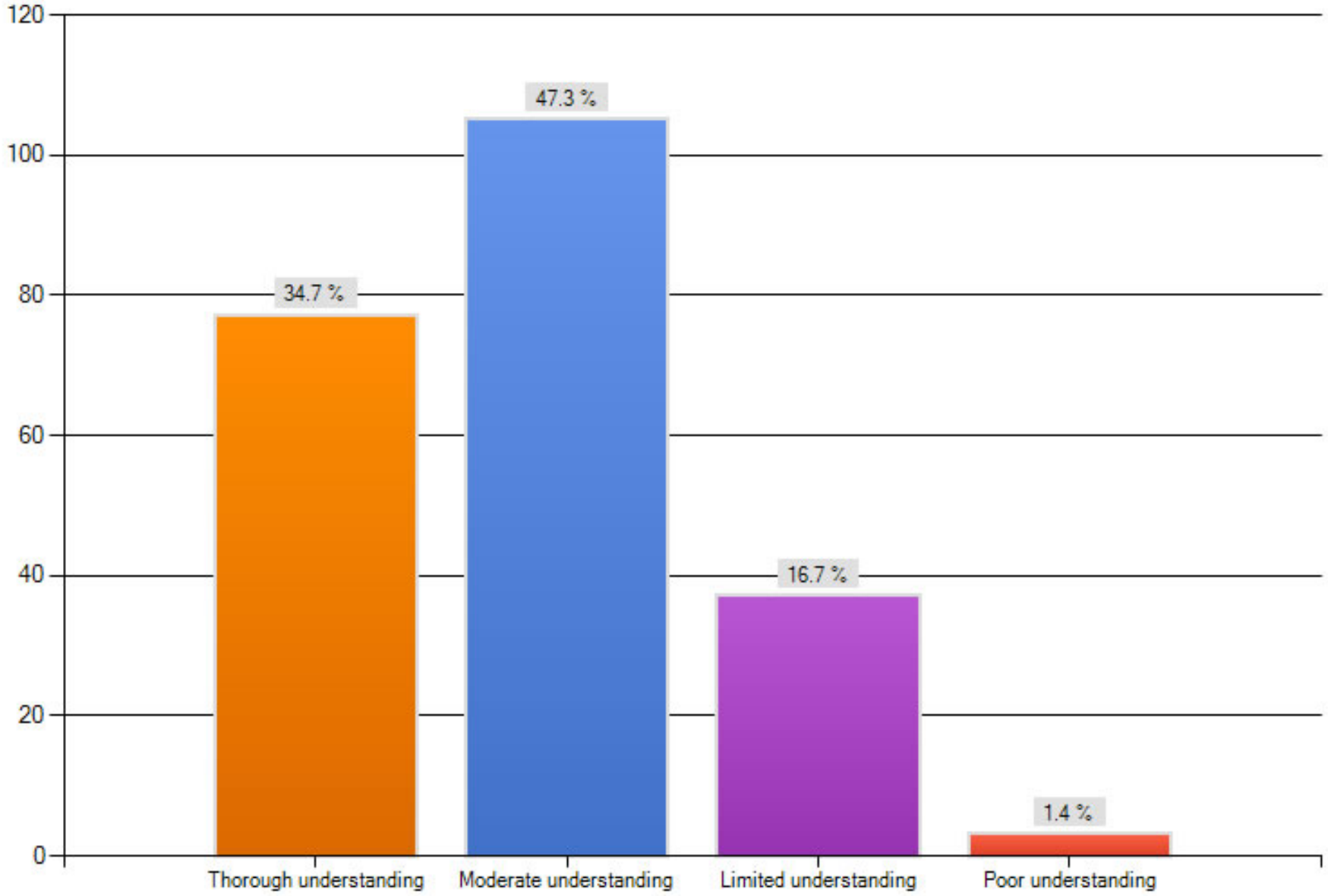
- **Big budget proposal with ship time have lower chance of success and are much more difficult to write, to the point that I can not pull off such a proposal myself as lead**
- **The problem isn't the ship time, it's the low funding rate of science itself.**
- **A major program I have been involved with (Ridge2000) announced that they would not support field programs in the future. Great hesitation and difficulty in obtaining NSF funding for important related seagoing equipment such as towed sonars (HMRG operated).**
- **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.**



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

- **The preferred platform is not scheduld to be in the region for the period of interest.**
- **Proposals for field work are way more expensive than those without it. SO if I have good data or a model I am much more inclined to propose that sort of work--its the feeling that the overall expense of the grant to the program (not so much the shiptime) has a ceiling--the higher it gets, the more difficult it s to get approval, especially the first time round.**
- **Cost of ships time is prohibitive for on-NSF projects.**
- **Ships are expensive, and grants are much larger that need ship time.**
- **Some years (i.e. early 2000's) it seemed like a disadvantage to ask for ship time, now the tide is turning the other direction.**

Rate your knowledge of the UNOLS organization and UNOLS' role in providing access to the Academic Research Fleet.



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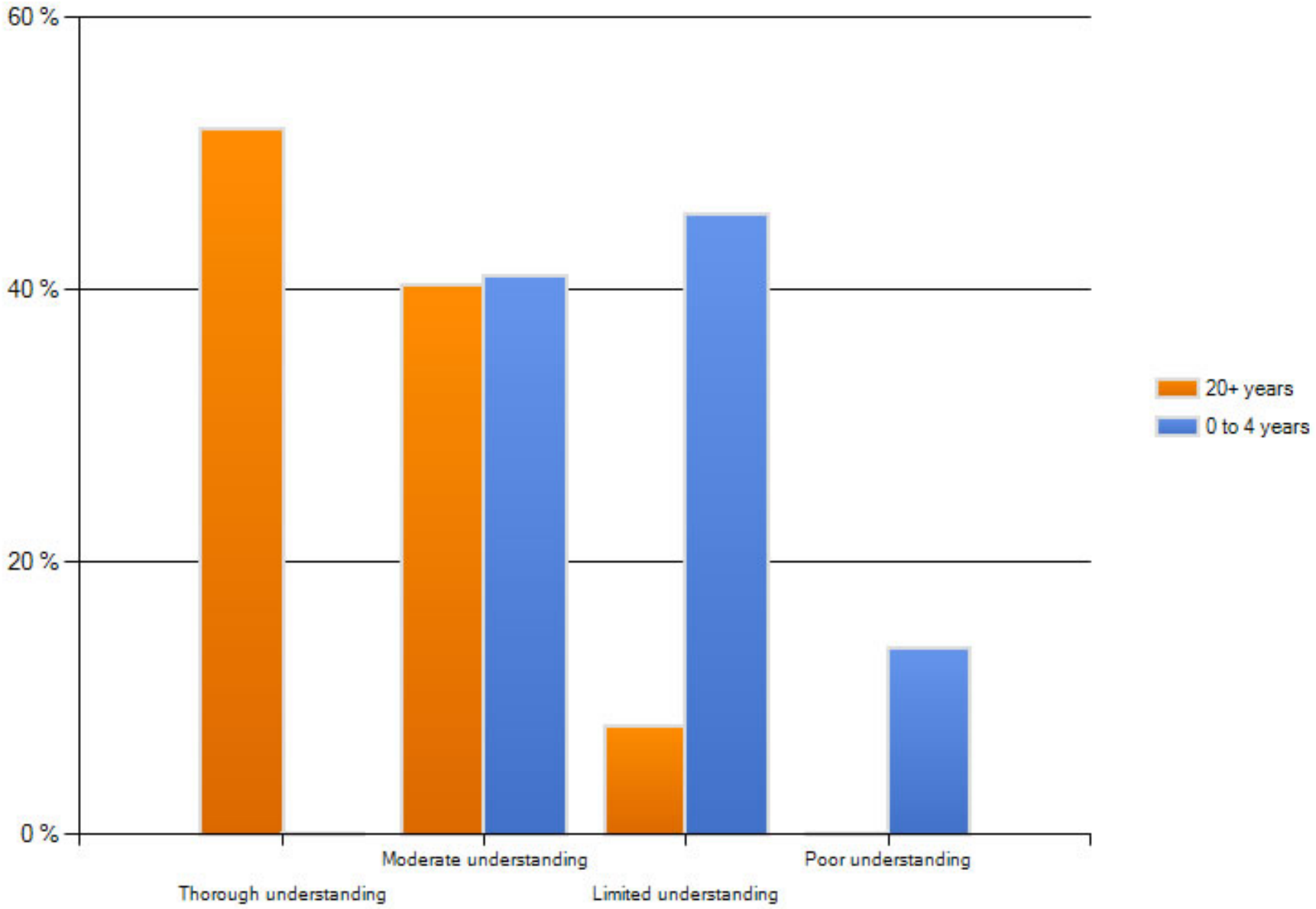
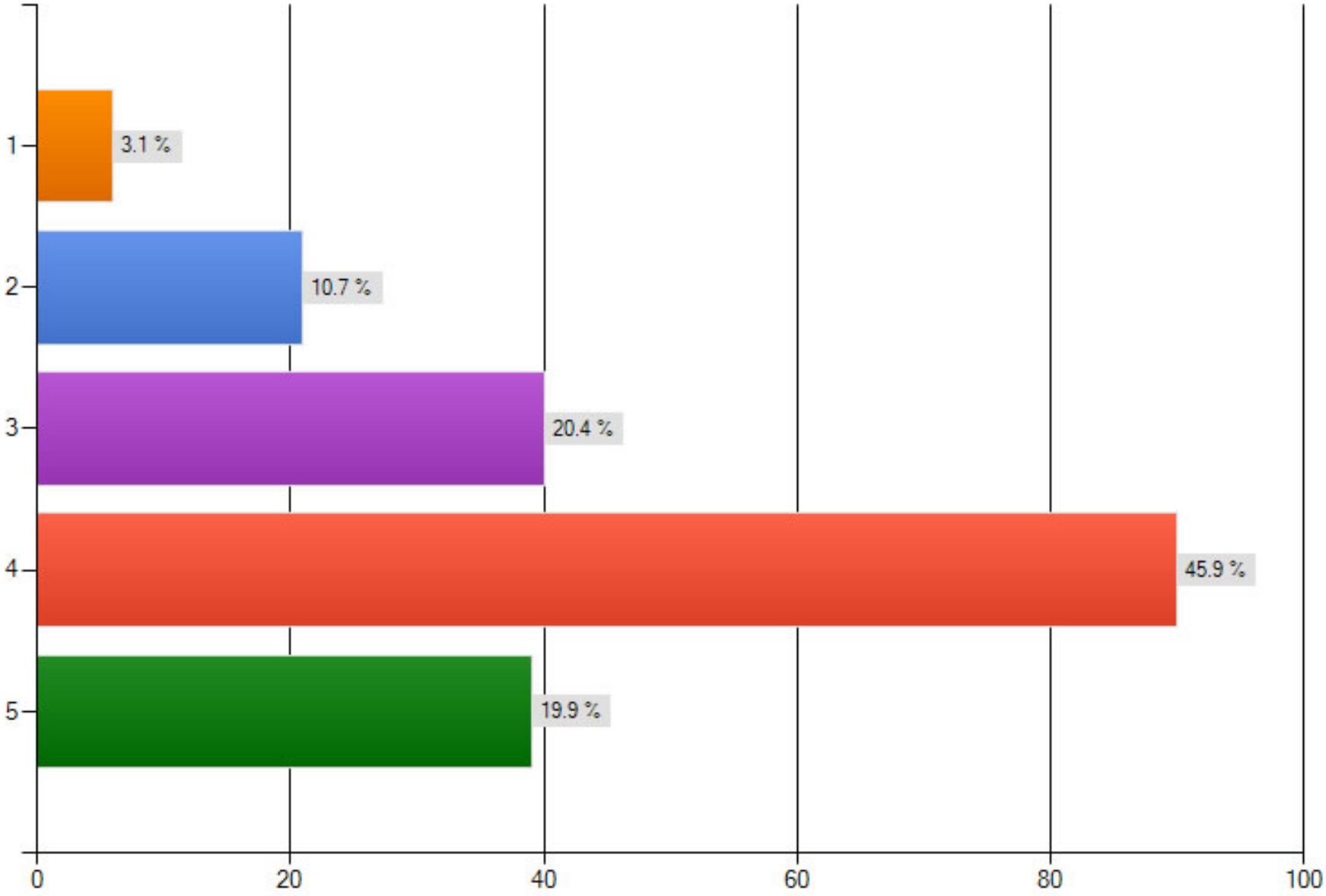
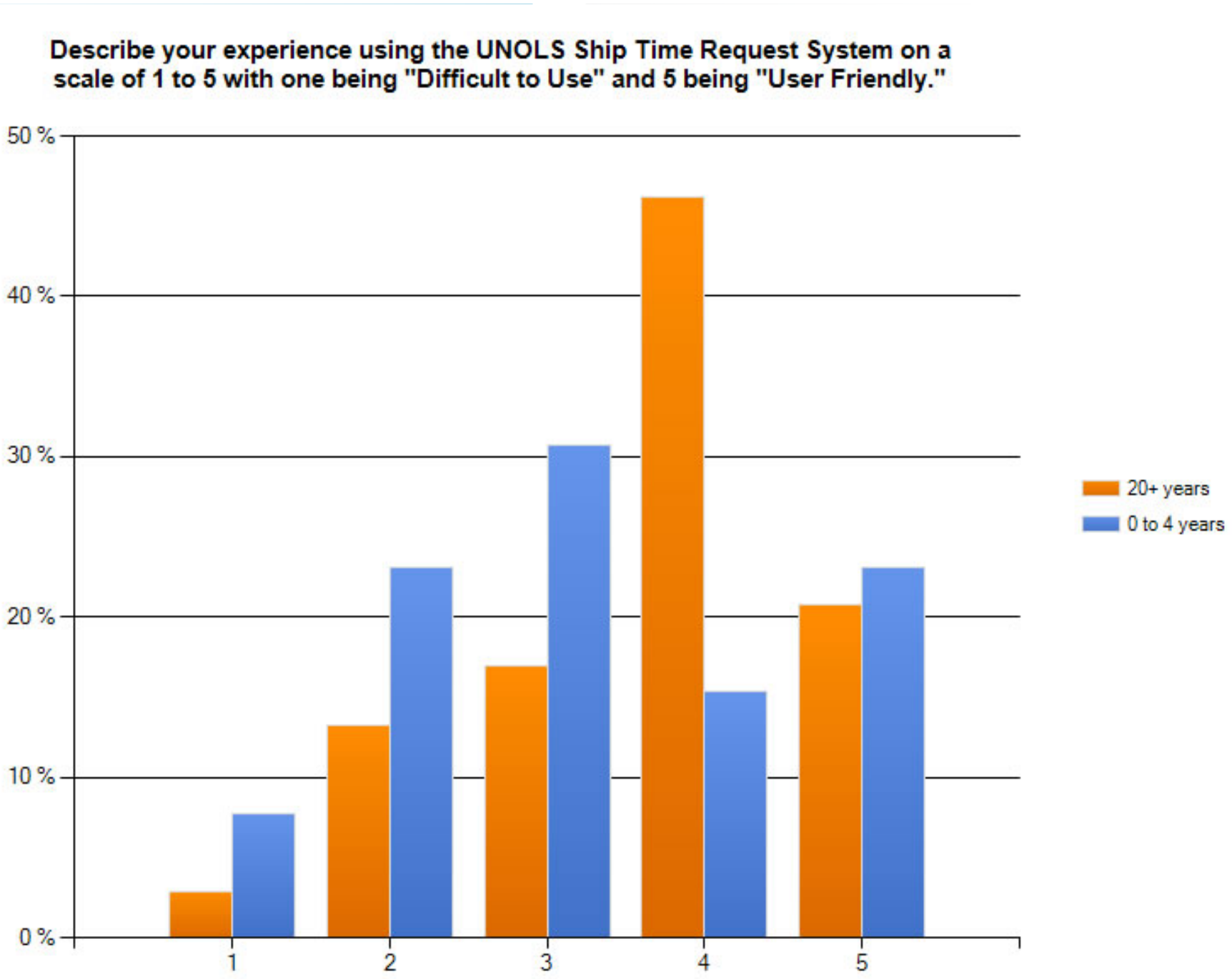
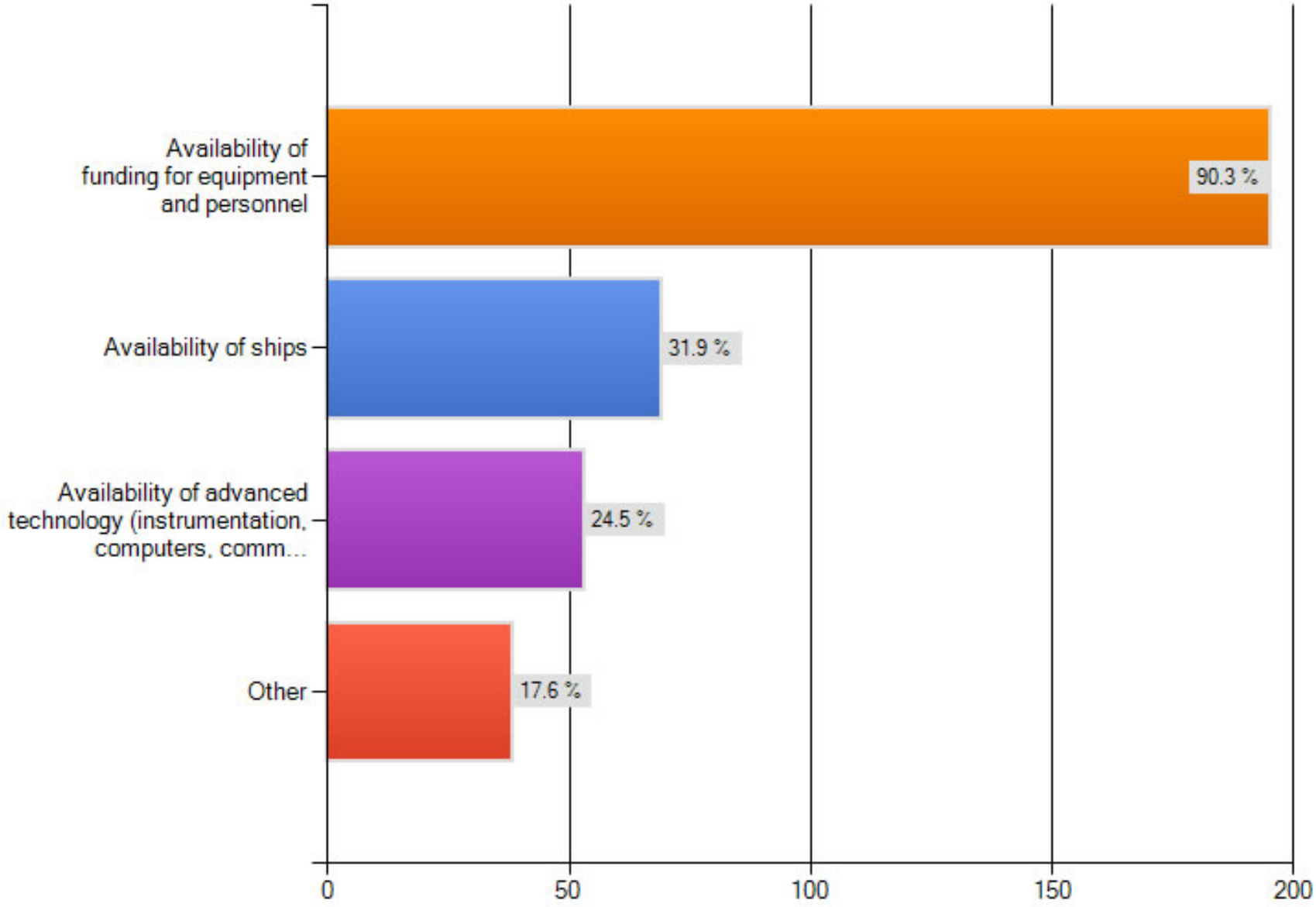


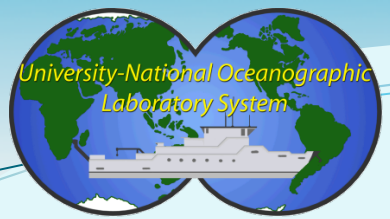
Describe your experience using the UNOLS Ship Time Request System on a scale of 1 to 5 with one being "Difficult to Use" and 5 being "User Friendly."




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."
50 %
40 %
30 %
20 %
10 %
0 %
1
2
3
4
5
20+ years
0 to 4 years

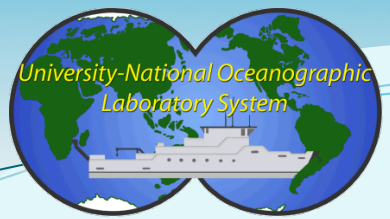
Which of these factors limit the type of science questions you are able to address today? Indicate all which apply.





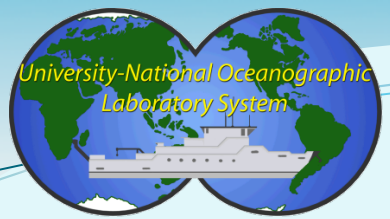
Which Factors limit the type of science questions you are able to address today

- Ability to accomplish molecular biology onboard ships
- availability of research funds overall
- Availability of very basic ship technology, winches and wires that work.
- Availability of experienced, permanent staff that can help in the data collection and processing steps
- Availability of funding for post-cruise research.
- Availability of ice strengthened vessels
- Availability of funds for shiptime / ship operations
- Availability of trained postdocs.
- Availability of advanced technology that can be sure to work (i.e., seismics).
- Availability of ships in the southern ocean



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

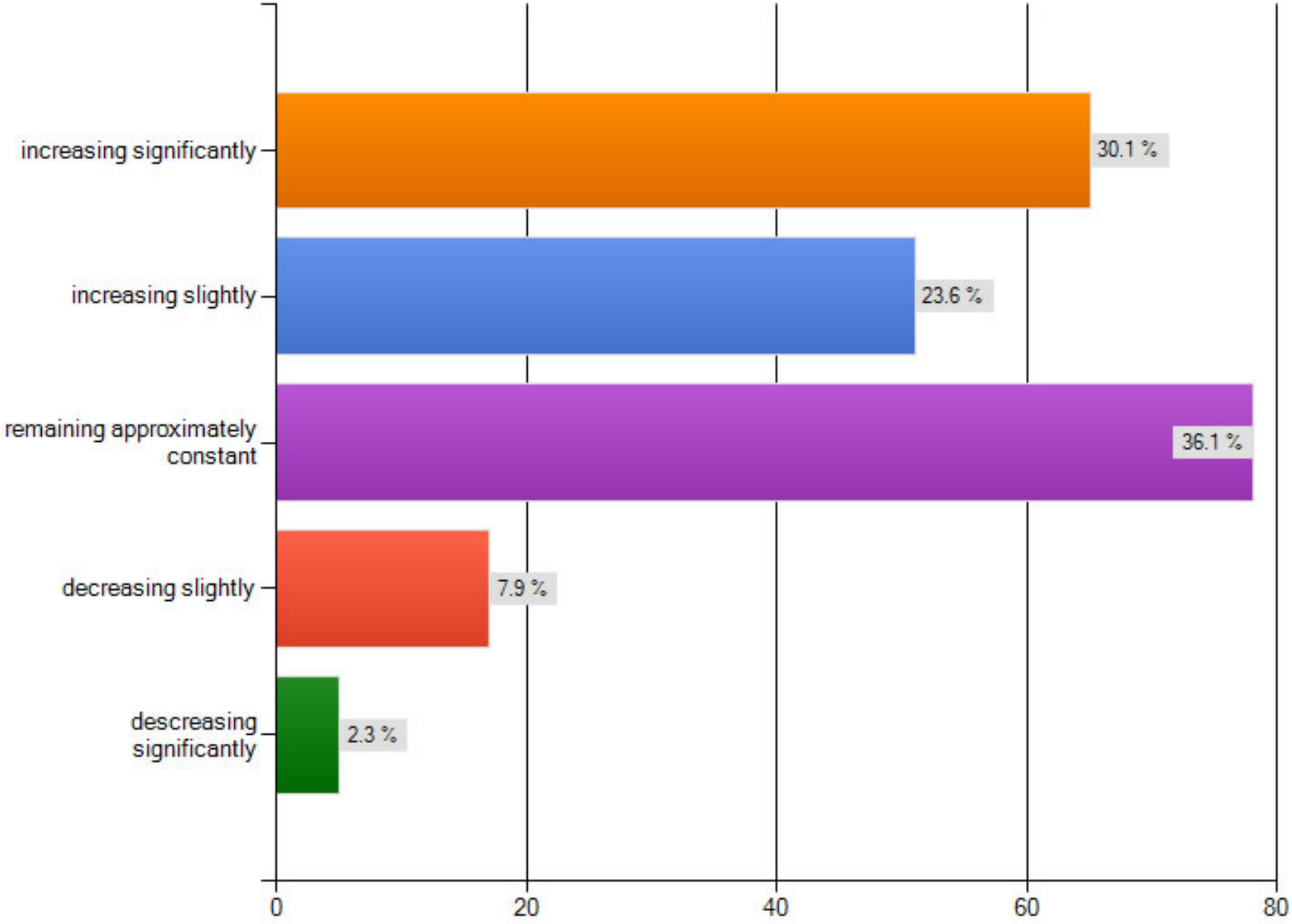
- Great added cost to science budget in proposals utilizing equipment outside of recognized NSF Facilities (for example seismic, HMRG, heat flow, Tow Cam etc.). These tend to fare less well in reviews due to high science budgets.
- I'd love to see more underway measurements from the UNOLS ships, particularly for air-sea interaction issues.
- Inability to obtain research permits in a timely fashion
- Jason and Alvin are not adequate platforms for work in the water column. There are other vehicles are available only with the penalty of costs added to research budgets.
- Lack of readily available and affordable technical support.
- Lack of ROVs and absence of ALVIN from W. Pacific is a problem
- lower probability of funding for higher cost proposals

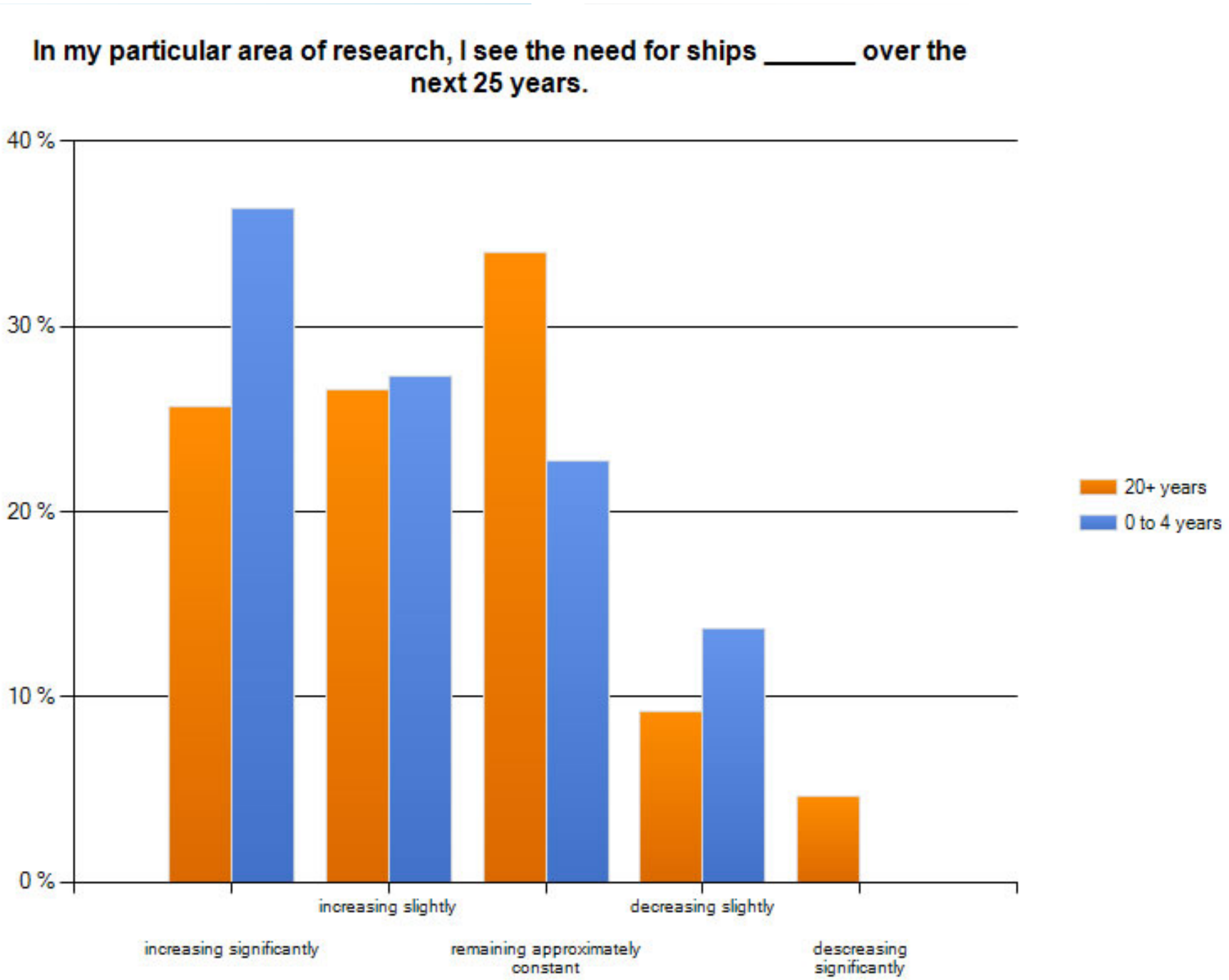


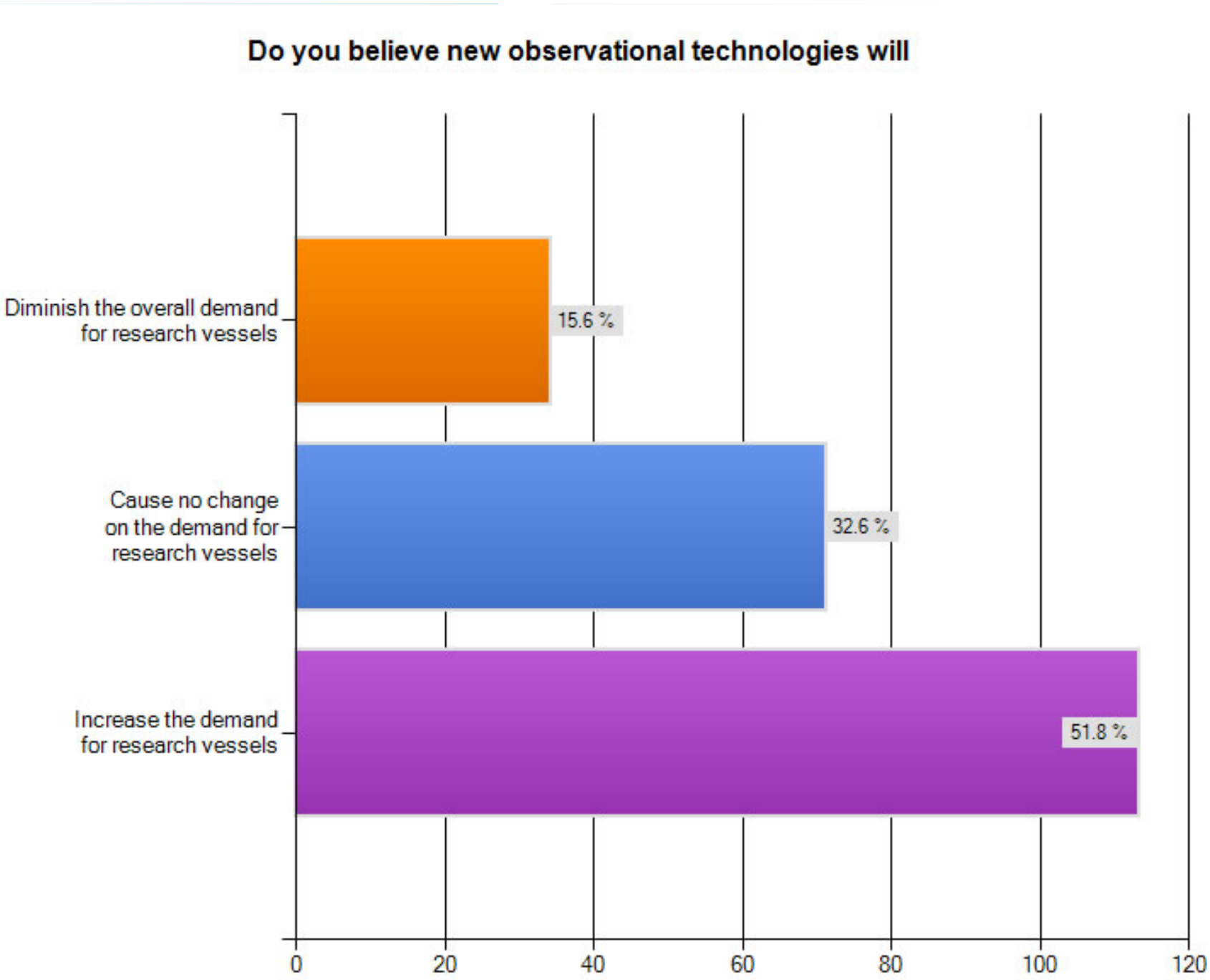
Which Factors limit the type of science questions you are able to address today

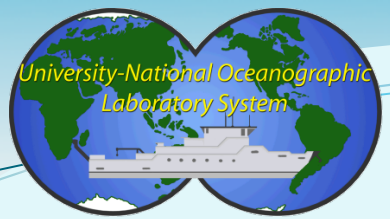
- Research requires OBSIP instruments; these instruments are costly to rent and availability is a few slots below slim
- Other demands on time for teaching and service.
- Sporadic funding from NSF makes it incredibly difficult for young scientists to develop groups with seagoing experience.
- Lack of adequate high resolution multibeam maps.
- Suitability of UNOLS ships for shallow coastal work
- The ability to get long piston cores (15-30 meters).
- The principal impediment is the absence of support for shallow-water submersibles

In my particular area of research, I see the need for ships _____ over the next 25 years.




In my particular area of research, I see the need for ships _____ over the next 25 years.
40 %
30 %
20 %
10 %
0 %
increasing significantly
increasing slightly
remaining approximately constant
decreasing slightly
descreasing significantly
20+ years
0 to 4 years

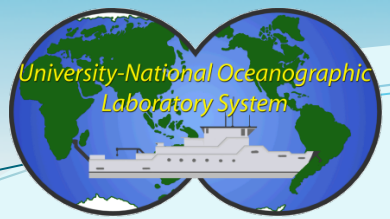

Do you believe new observational technologies will
Diminish the overall demand for research vessels
15.6 %
Cause no change on the demand for research vessels
32.6 %
Increase the demand for research vessels
51.8 %
0
20
40
60
80
100
120



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

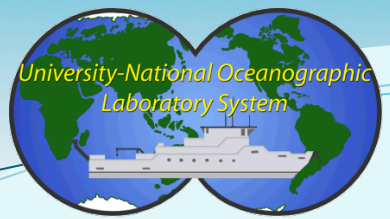
10 pages of comments!

- Improved budget situation at NSF and other agencies to support science.
- The removal of interagency barriers to creating jointly funded projects in oceanography that involve cost-sharing for ship costs (and the science).
- Substantial investment in ROVs and advanced imaging technologies, such a multibeam on an ROV for detailed local mapping and navigation, AUV multibeam mapping systems for pre-dive mapping and regional context for dives.
- Improved access to deep sea assets - HOVs, ROVs, and AUVS
- More adequate technical support.
- A bigger emphasis by NSF, NOAA, ONR and other agencies on developing national and regional programs with focused research questions such as GLOBEC, ECOHAB and BEST. I have had a much higher success rate with proposals that require ship time when backed by a large program.
- A mentoring program for young scientists.



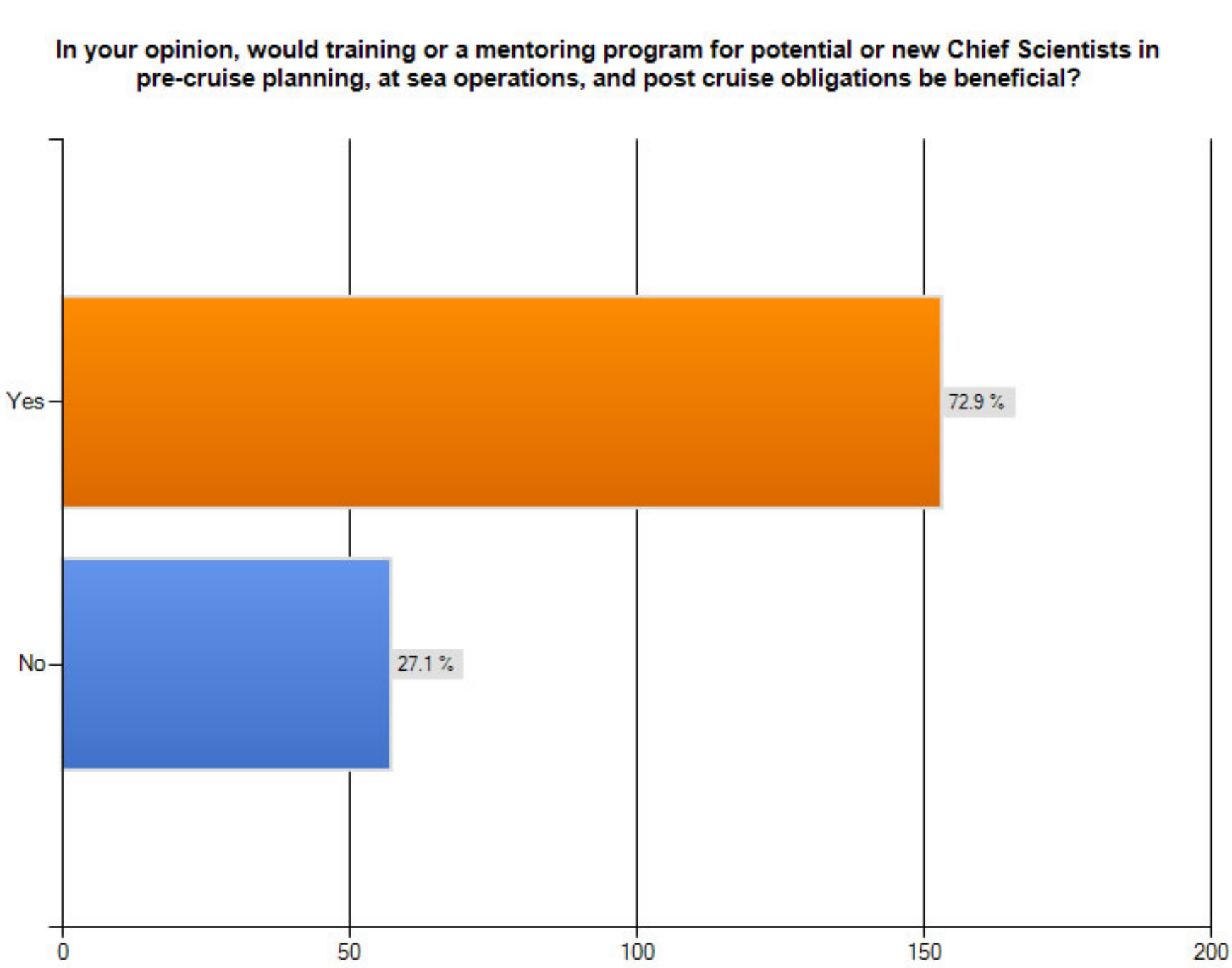
What factors would positively influence your desire to request ship time for field work in the future?

- A more modern fleet
- A more positive and helpful attitude by NSF program managers.
- A regional vessel in the Gulf of Mexico that is bigger and more capable that the PELICAN
- Ship outfitted with latest technology and technicians to run it.
- Adequate funding for the project itself: Personnel, equipment, etc.
- As I said above, the fun factor that exist on foreign vessels (swim calls, occasional beer, taking time away from work to enjoy the people on board) makes me much more likely to seek cruises with foreign colleagues.
- Availability of appropriate high latitude research vessels
- Ability to obtain research permits in a timely fashion.
- Having incentives for new investigators to seek ship time. I'm tired of begging piecemeal ship time from the big names who get it all!

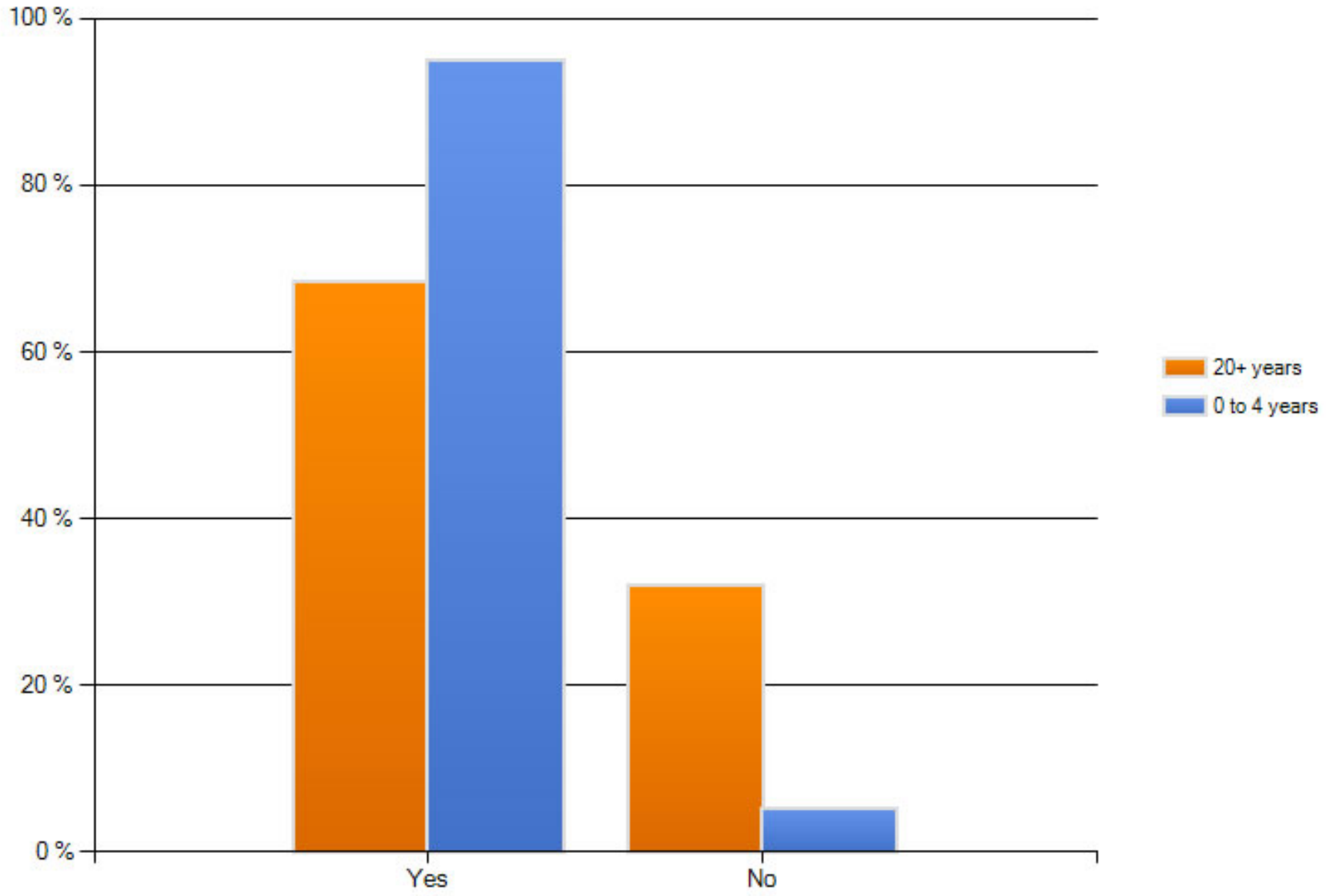


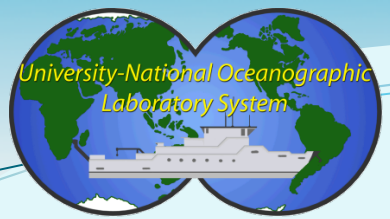
What factors would positively influence your desire to request ship time for field work in the future?

- Funding post-cruise to properly analyze all the data collected.
- Comment on observatories: the people in charge of these things need to reach out WAY MORE to oceanographers than they are.
- Decreasing administrative burdens for chief scientists
- Grant support for personnel (students and post docs)
- Greater assurance that once approved a project will not have to wait years for scheduling on an available ship.
- Having better training for potential PIs who have no previous experience in leading a research cruise.
- Having nearshore vessels in UNOLS
- Improvements to deep-water (6+ km) coring, sampling and seafloor imaging technologies.
- More emphasis on funding individual and small-group programs.
- More Global Class ships.


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?
Yes
No
72.9 %
27.1 %
0
50
100
150
200

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?



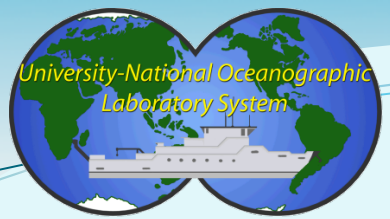


In your opinion would training for new Ch. Scientists be beneficial?

- 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.

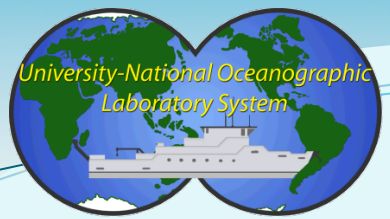
In your opinion would training for new Ch. Scientists be beneficial?

- 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.



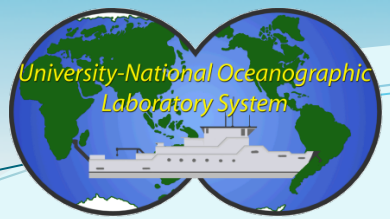
In your opinion would training for new Ch. Scientists be beneficial?

- 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!



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

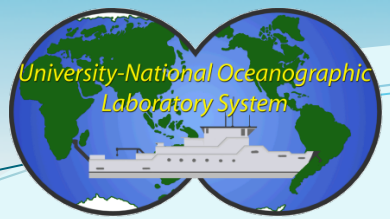
- NSF program managers have to stop coming to community-based planning meetings and workshops and in a variety of ways discouraging the use of ships to do research because of their expense.
- The community gets mixed signals about the availability of ship time.
- At two recent national meetings, I have heard scientists claim that they cannot take ~1 month away from their institutions (family, students, admin, meetings, ...) and go to sea.
- What is manifest is the decline in motivation to do field work generally in favor of the attractions of the virtual world.



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

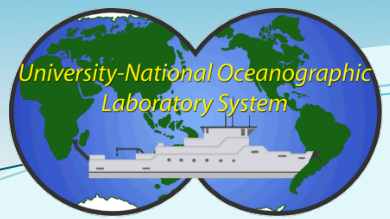
9 pages of comments!

- 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.



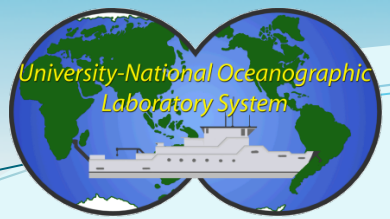
Additional Suggestions that would help to improve access to the sea:

- 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.

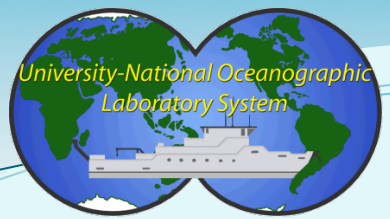
Next Steps

- Keep the survey open for another _____ month(s)
- Reach out to the new investigators for input.
- Review of the survey data and comments
- Identify themes and strategies for addressing issues.
- Etc.

Thank You!



In maintaining and expanding your field research program, you are challenged to locate the resources that you need, raise the funds to secure these resources, and administer the overall program. Please rate the magnitude of the challenge 1-10, with 1 signifying "no problem" and 10 being extremely daunting.											
Resource Availability											
Answer Options	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Response Count**
Shore-side laboratory space	93	27	18	6	12	6	3	7	0	2	174
Shared-use machine shops and lab support facilities	65	25	26	5	21	4	7	9	5	3	170
Dedicated shore-side tech support group	44	13	33	11	23	8	17	6	6	12	173
Access to ships and ship time	31	23	33	17	26	10	14	13	11	13	191
Access to shared-use ship board instruments/facilities (multi-beam, ROVs, isotope ions, etc.)	50	24	28	15	21	8	12	3	7	7	175
Access to at-sea technical support	59	35	28	21	16	4	7	4	1	2	177
Other	1	0	1	0	2	0	0	1	0	4	9



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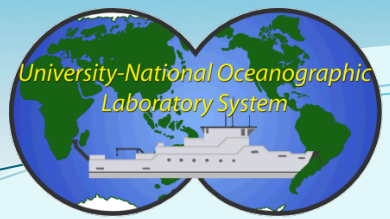
Access to Support Funds

Answer Options	1	2	3	4	5	6	7	8	9	10	Response Count
Shore-side laboratory space	23	11	20	12	32	5	13	27	9	12	164
Shared-use machine shops and lab support facilities	23	10	16	18	25	6	17	23	9	12	159
Dedicated shore-side tech support group	14	8	21	8	29	8	13	16	13	30	160
Access to ships and ship time	10	6	12	12	21	8	26	28	21	36	180
Access to shared-use ship board instruments/facilities (multi-beam, ROVs, isotope ions, etc.)	24	12	14	10	28	10	18	14	15	16	161
Access to at-sea technical support	28	15	17	15	28	7	9	21	8	14	162
Other	2	1	0	0	0	0	2	2	0	4	11



In maintaining and expanding your field research program, you are challenged to locate the resources that you need, raise the funds to secure these resources, and administer the overall program. Please rate the magnitude of the challenge 1-10, with 1 signifying "no problem" and 10 being extremely daunting.

Administrative Burden

Answer Options	1	2	3	4	5	6	7	8	9	10	Response Count
Shore-side laboratory space	50	33	22	13	18	4	7	9	3	0	159
Shared-use machine shops and lab support facilities	50	39	23	11	16	4	5	3	3	1	155
Dedicated shore-side tech support group	39	31	25	13	17	9	5	7	4	3	153
Access to ships and ship time	28	38	30	9	36	6	6	11	4	4	172
Access to shared-use ship board instruments/facilities (multi-beam, ROVs, isotope ions, etc.)	34	32	28	12	24	10	2	6	6	3	157
Access to at-sea technical support	54	35	17	15	18	4	5	5	1	2	156
Other	4	2	1	0	1	0	1	0	0	2	11