Enhancing Library Services for Graduate Students

Survey Results

Enhancing Library Services for Graduate Students
Survey Report and Analysis
C. Todd White
June 25, 2008

The following PowerPoint was presented to the librarians of the Morgan Library and Colorado State University on Monday, June 23, 2008, by C. Todd White, Ph.D.

While many of the slides are self explanatory, this introduction will serve to clarify the purpose of some of the more ambiguous slides while providing commentary and possible interpretations.

The first six introductory slides relate the Ethnographic Advisory Team members, the purpose, and research strategy and schedule. Slide 5 provides an outline of the general categories probed through the survey, and slide 6 related the incentives offered to participants.

Slide 7 illustrates the closeness of fit between the target population of graduate students and the completed sample population. Since we did not conduct a random sample, a good fit between the expected and actual portions was vital to the reliability of the study. As the pie charts show, the ratios among students in the sciences, social sciences, and humanities was very close. A chi-square analysis confirms this, with a critical value with 2 degrees of freedom and a risk level of .05 being 5.99 and the obtained chi-square value being 1.804. This, combined with the high response rate, suggests that we can comfortably extrapolate the survey results onto the entire population of doctoral students.

Slides 8 and 9 suggest that students use laptops and desktop computers equally.

Slides 10 and 11 indicate that windows is the predominant operating systems used by CSU graduate students. It should be noted that the pie chart on slide 11 displays approximate rather than actual ratios. The numbers were generated by totaling those students who acknowledged using the specified operating system on one or more computer: 433 students reported using Windows on one or more computer; 129 students used Mac on one or more computer; and 80 students used Unix on one or more of their computers.

Slide 12 illustrates that Explorer and Firefox are by far the most commonly used web browsers, with Safari making a notable appearance.

Google, Google Scholar, and Wikipedia are common search tools used by today's students, as shown on slide 13. This slide collapses the survey data somewhat. The survey provided a Likert scale ranging from 1–5, with 1 being always use; 2 being most of the time; 3 being sometimes, 4 rarely, and 5 never. In these bar charts, I collapsed responses 1 and 2 and 4 and 5 to yield more general categories of Frequently, Sometimes, and Seldom. All 5-point Likert scales in the study were similarly collapsed to facilitate data analysis.

Slide 15 illustrates usage of CSU search tools Sate, Find Articles, and Find Journals. It was surprising to me that the Find Articles tool was so infrequently used, but one librarian pointed out during the presentation that the students were probably finding articles through a different approach, such as

through the vendors' search tools and databases (JSTOR, Eric, Ebsco, etc.)

In slide 16, I contrast the CSU tools with Google through a bar graph reporting the Frequently Used results. In slide 17, I do the opposite by contrasting the same research tools with the Seldom Used results. This clearly illustrates how popular Google is—and how unpopular the CSU Find Articles tool is. Some discussion ensued during the presentation on why this might be so. While we know that students are prodigious consumers of journal articles, they either are not finding them through this tool or are not aware that they are finding them using this tool. I would suggest that future usability studies would shed light on this and perhaps help the web developers to better design or advertise this resource.

Slides 17 and 18 illustrate usage of other tools: Prospector, the RamPoint Portal, ILLiad, publishers' websites, research databases, and scholarly society websites. Don Albrech noted that my findings accurately reflect what he sees in the usage logs: the RamPoint Portal is a highly underutilized resource. Future usability research could help to understand and correct this.

Slide 19 shows which reference/citation management software graduate students are using. While EndNote is the clear pack leader, the interviews suggest that while many students have purchased and installed EndNote, they lack the training to utilize this and other such applications. While EndNote is known for its ability to generate works cites and references pages, it is not recognized as a database for tracking citations and linking/managing PDF files.

While we were not specifically focused on the student's use of authoring tools, we did ask them about the use of word processors and some of the writing tools and services provided by CSU. While, as expected, a great majority of students used word processors such as Microsoft Word, very few were utilizing the CSU Writing Center, the RamPoint portal, or RamCT. This is reflected in the bar graphs of slide 20.

As seen in slide 21, most of our doctoral students (57%) do not use any form of social networking service such as MySpace or Facebook (265, n=467). Of those that do, most (34%) use Facebook and some use MySpace (21%). Only 4% used other social networking services. These other sites included Classmates.com, LinkedIn, Ning, orkut, LiveJournal, Yahoo!, blogspot, rockcliming.com, and Friendster.

Slide 22 shows that 84 of the 467 student respondents (18%) maintain a personal website or blog; 388 (82%) do not. Similarly, slide 23 shows that these students simply are not using common Web 2.0 tools such as blogs, wikis, social bookmarking services, and RSS feeds.

The next four slides, 24–27, show how many students responded to questions 14 and 15. Note that the response rates on these questions, which asked students to cut-and-paste URLs into up to 10 entry boxes, were very low. Several students commented that this was far to time consuming. Charts on slides 25 and 27 show that very few students provided 10 websites, though all students probably could have done this given the motivation. I should not that the 12 interviewees were selected from those students who did answer question 14 in some detail. Their answers helped me to tailor my interview questions to their particular usage habits.

Slide 28 shows that 100 of 374, or 21% of the students, provided some sort of response in the Comments field. I have printed these responses and will be making them available through the project wiki. Some of these responses are listed in the last two slides of the presentation (31 and 32).

While I would not make too much of this, the fact that 15% of the graduate student respondents did not opt to be included in the drawing for the iPods and other awards suggests that many students were happy to provide responses and did not desire or require any compensation. On the other hand, this may reflect that some of the students simply were reticent to provide any contact information because they did not want to be "bothered" by us again in the future. A great majority of graduate students, 74%, did provide consent for us to contact them for additional questions or interviews. These students had been informed in our pre-questionnaire information email that they could be asked to sit for a videotaped interview. These numbers, combined with the strong response rate, suggest that the doctoral students were glad to be asked to participate in our study and would have gladly come in to be interviewed. I should add that every student I invited to the interview agreed unless there were significant obstacles such as schedule conflicts or if they were out of the area.

Conclusions and Recommendations

As I found in my previous research at the University of Rochester, graduate students are not using Web 2.0 technologies as much as is perhaps expected, nor are they using citation management systems such as EndNote, Refworks, or Zotero. Through the interviews and comments on the survey, however, these students are desirous of training in these resources.

This study has gone a long way to providing insights as to what Web-based research tools and strategies are used by the current cadre of CSU doctoral students. It reveals significant gaps, though, in the goals of the library and the web-based tools it provides and the ways and frequency in which those tools are used. This suggests that the Web/software designers consider this before another search tool is created. While the utility of the search tool cannot be denied, it would be a shame if the tool developed would not be used, such as is currently the case with the Find Articles tool and the RamPoint Portal.

I would strongly suggest that the low usage of these tools be further investigated. Perhaps with proper marketing, outreach, or training, usage would increase and the tools would achieve their potential. Students are hungry for web-based tools that will help them in their research, and there are many Web-based tools available for them. Yet these tools are not being utilized and students are feeling overwhelmed by the options and too proud or embarrassed to ask for help.

As the library considers ways to contact and reach out to graduate students, it should probably not yet do so through Facebook.

Questions 14 and 15 were problematic. One student commented, "#14 & #15 were to onerous for me to deal with. Sorry, but it's the truth!" While we did receive some good information, which has been tabulated in a del.icio.us account (csugss1), I feel that if it were clear that students could simply type in a website rather than having to open another browser

window, locate the website, and paste the URL into the SurveyMonkey form, we probably would have received more responses. This is my only real criticism of the survey design: I think that the response rate, quality of the responses, and commentary by individual students suggest that the survey was very well designed, easy to complete, and did not unduly impose on the students' time.

If CSU Libraries could offer some form of personalized education to doctoral students regarding their research habits and needs, then the quality of our graduate student education would be greatly enhanced. This is knowledge that would benefit these students in many facets of their professional careers—in the quality of their research, their writing, and their teaching.

The Ethnographic Advisory Team

- Allison Cowgill, Principal Investigator
- C. Todd White, Co-Investigator
- Dawn Bastian
- Carmel Bush
- Dennis Ogg
- Greg Vogl
- Brian Westra

Our Purpose

- To design and create a web-based search and information discovery tool that will interface with research resources, Internet-based tools, and repository tools in order to facilitate, support, and improve graduate student research

Research Strategy and Schedule

- Prior to May: established permissions via IRB
- Early May: designed a survey and set it up via SurveyMonkey
- Mid May: Sent e-mail invitations to 1060 doctoral students
- Late May to Early June:
    - Received 474 surveys for a response rate of 44%
    - Selected and interviewed 12 doctoral students
- June: Processed the survey data (Excel, SPSS, del.icio.us) and secured transcripts of interviews

Survey Questions: General Categories

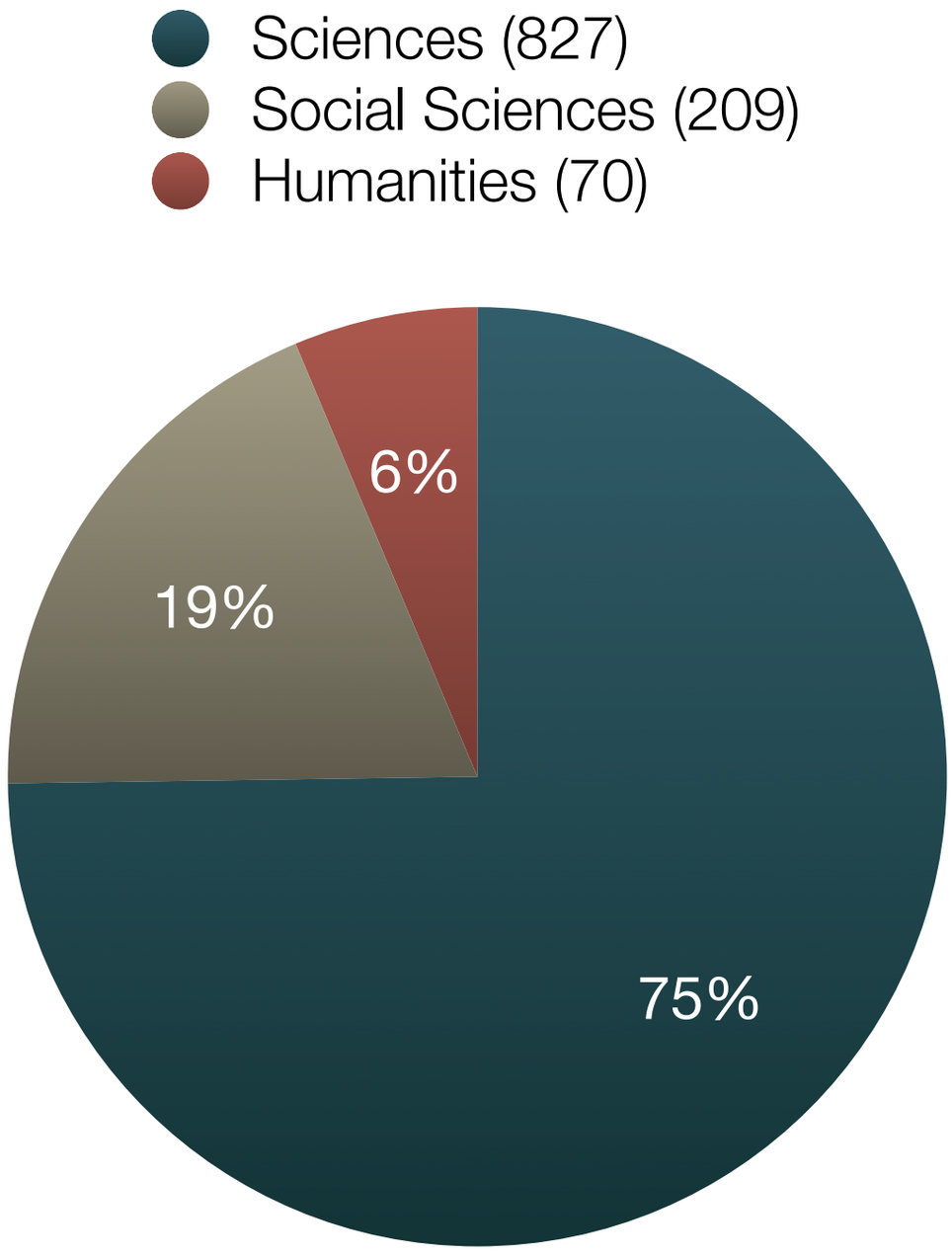
- What computers do you use regularly? Which operating systems?
- What web browser do you regularly use?
- Which online resources do you most use when you do your (dissertation) research? (Likert scale from Always --> Never)
- What reference/citation manager do you use?
- Which resources do you use when you write your research papers?
- Do you use social networking services? Blogs? Wikis? RSS feeds? etc.
- Copy and paste 10 websites/databases you use regularly in your research.

Incentives

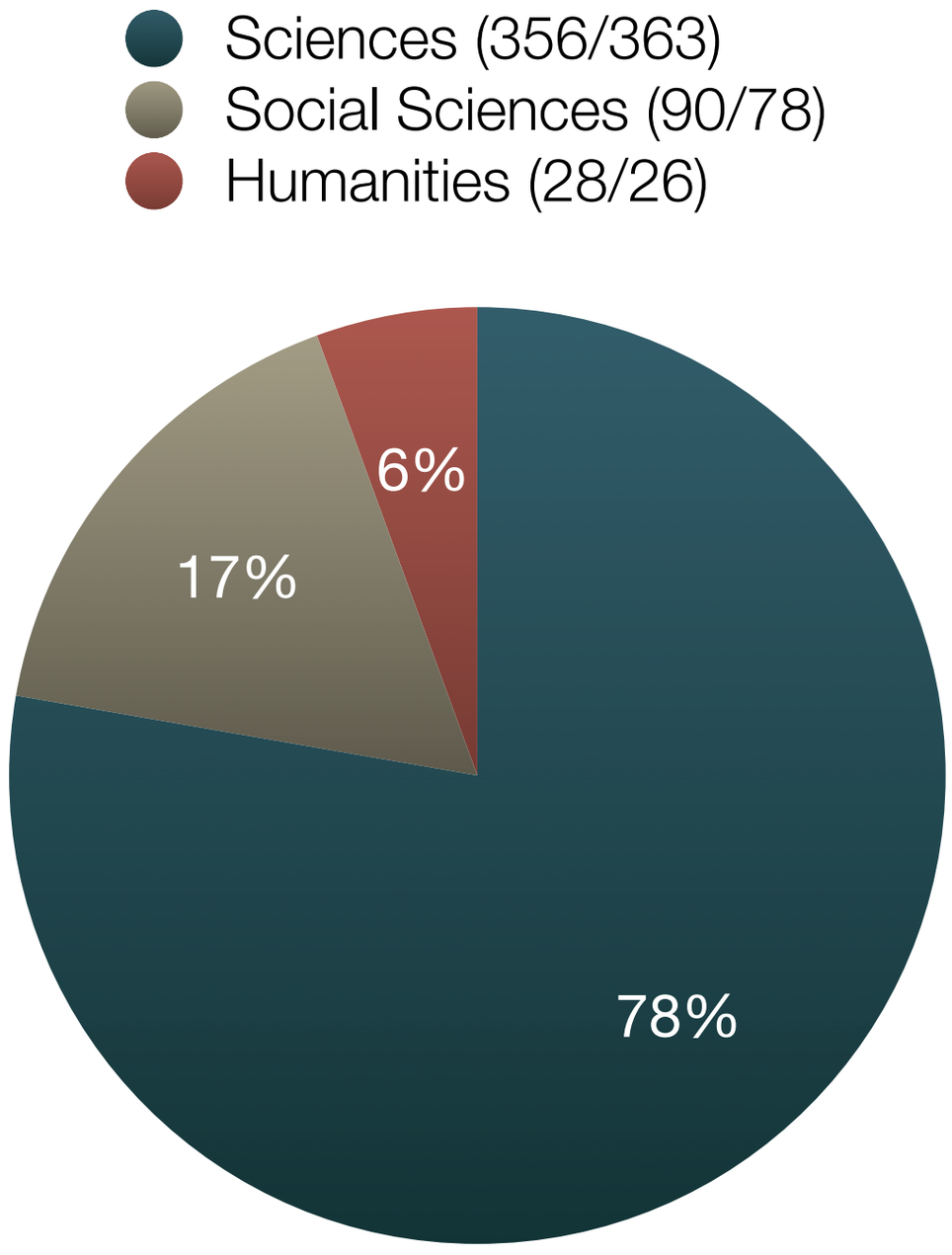
- Awarded randomly to survey respondents:
  - 3 80-gig iPods
  - 25 CSU Libraries flash drives
  - 10 $10 coffee cards

- Given to each interviewee:
  - CSU Libraries flash drive
  - $50 gift card for the campus bookstore
  - $10 coffee card

Target Population vs. Sample Population

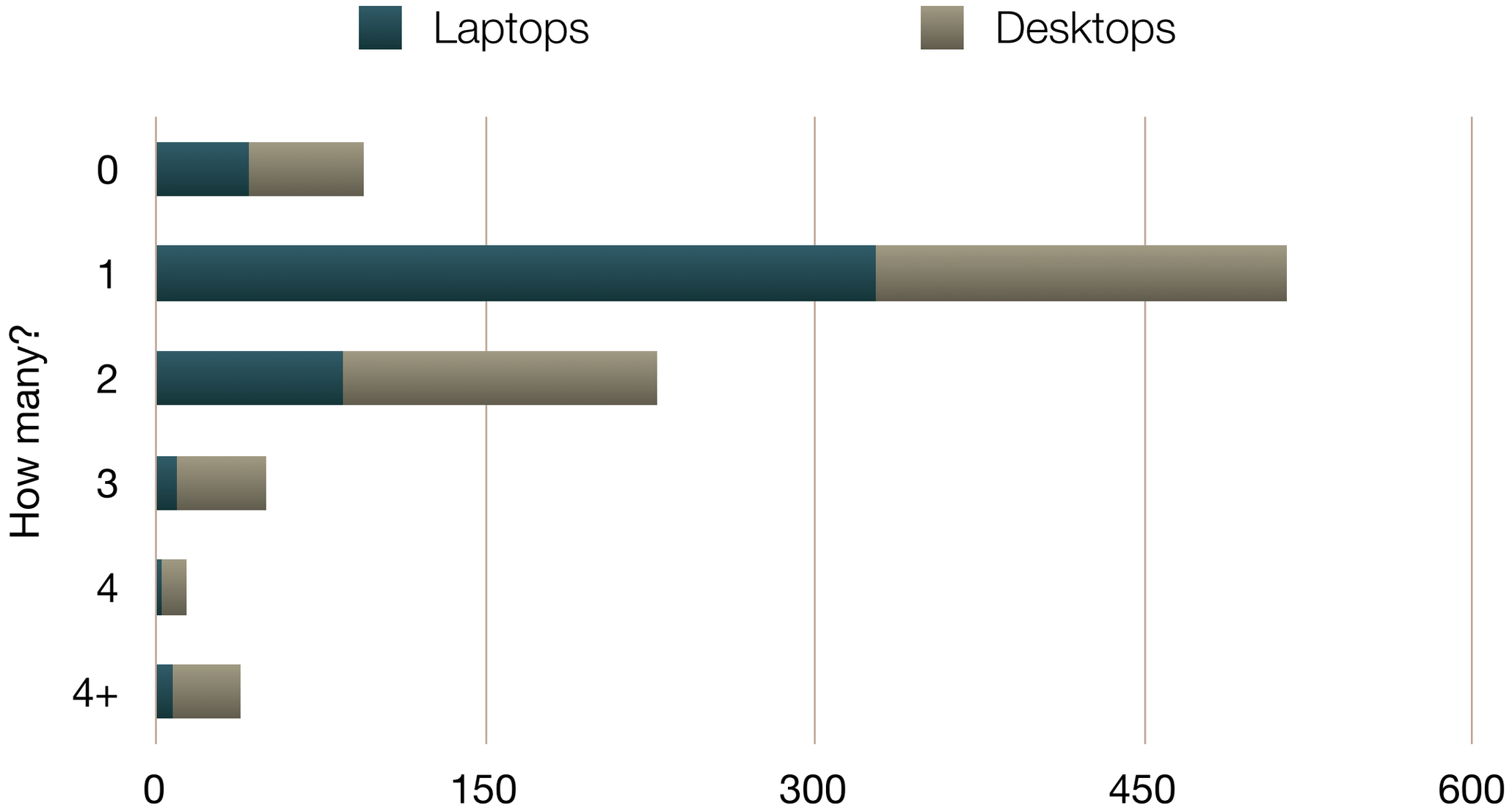


N=1106



N=474/467

What computers do you use regularly? (laptops/desktops)



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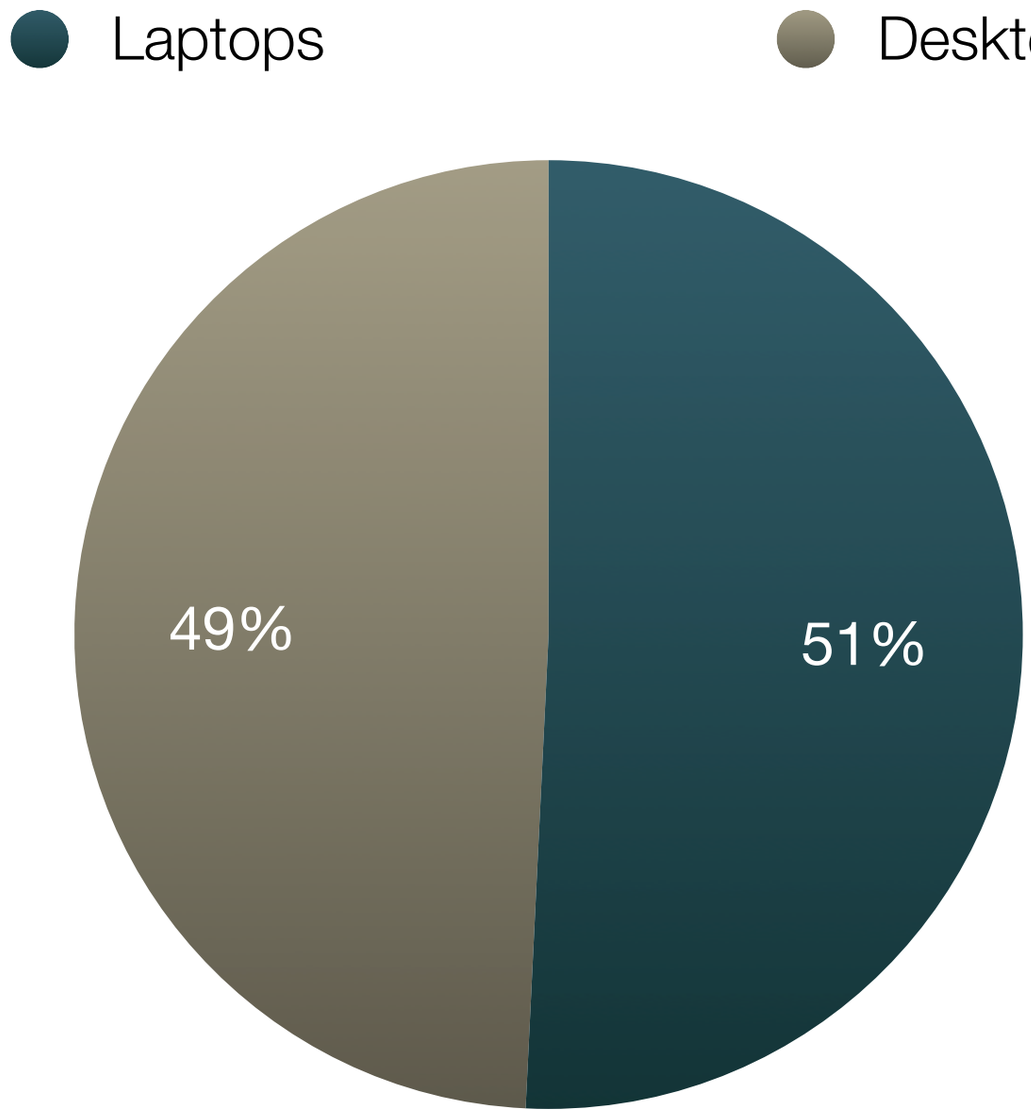
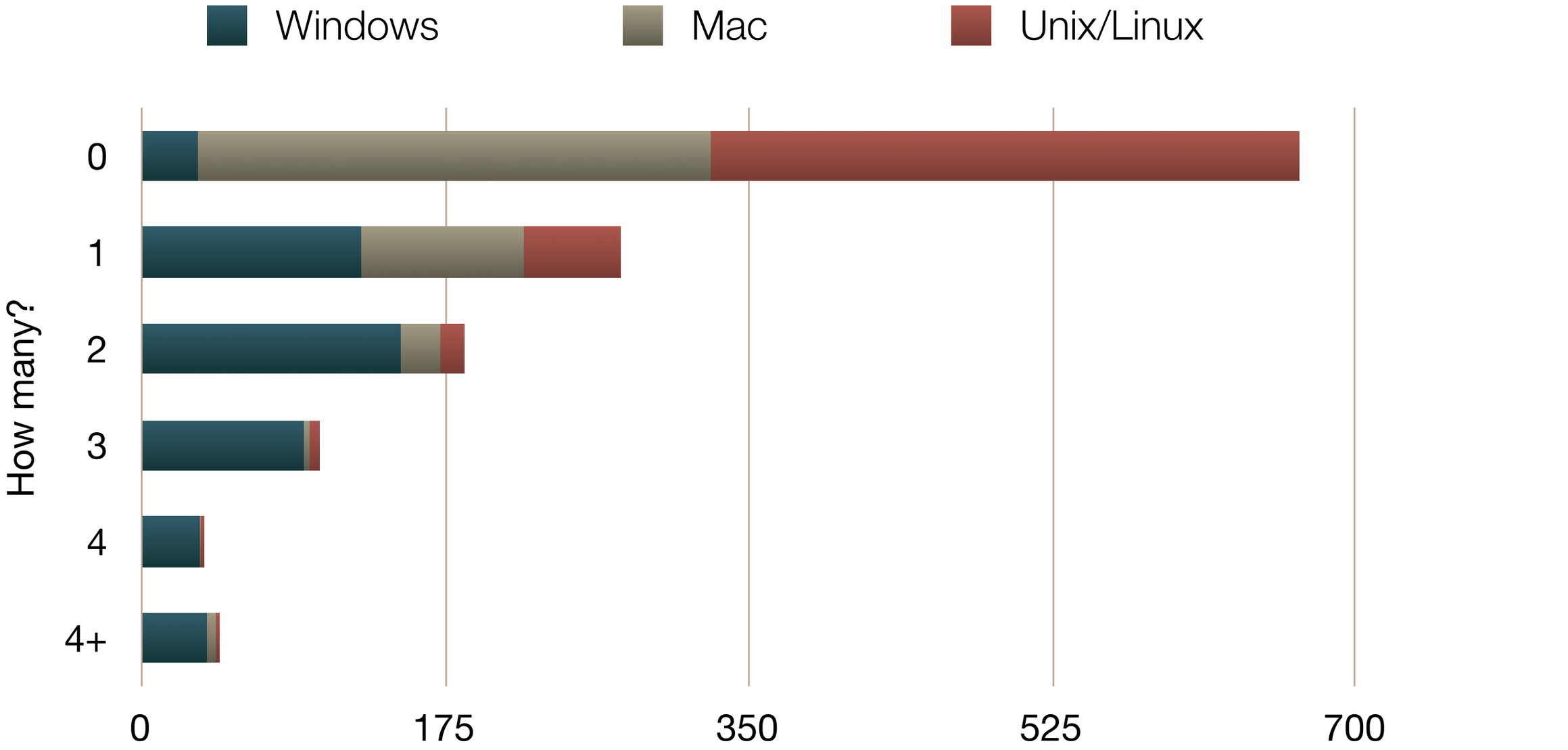
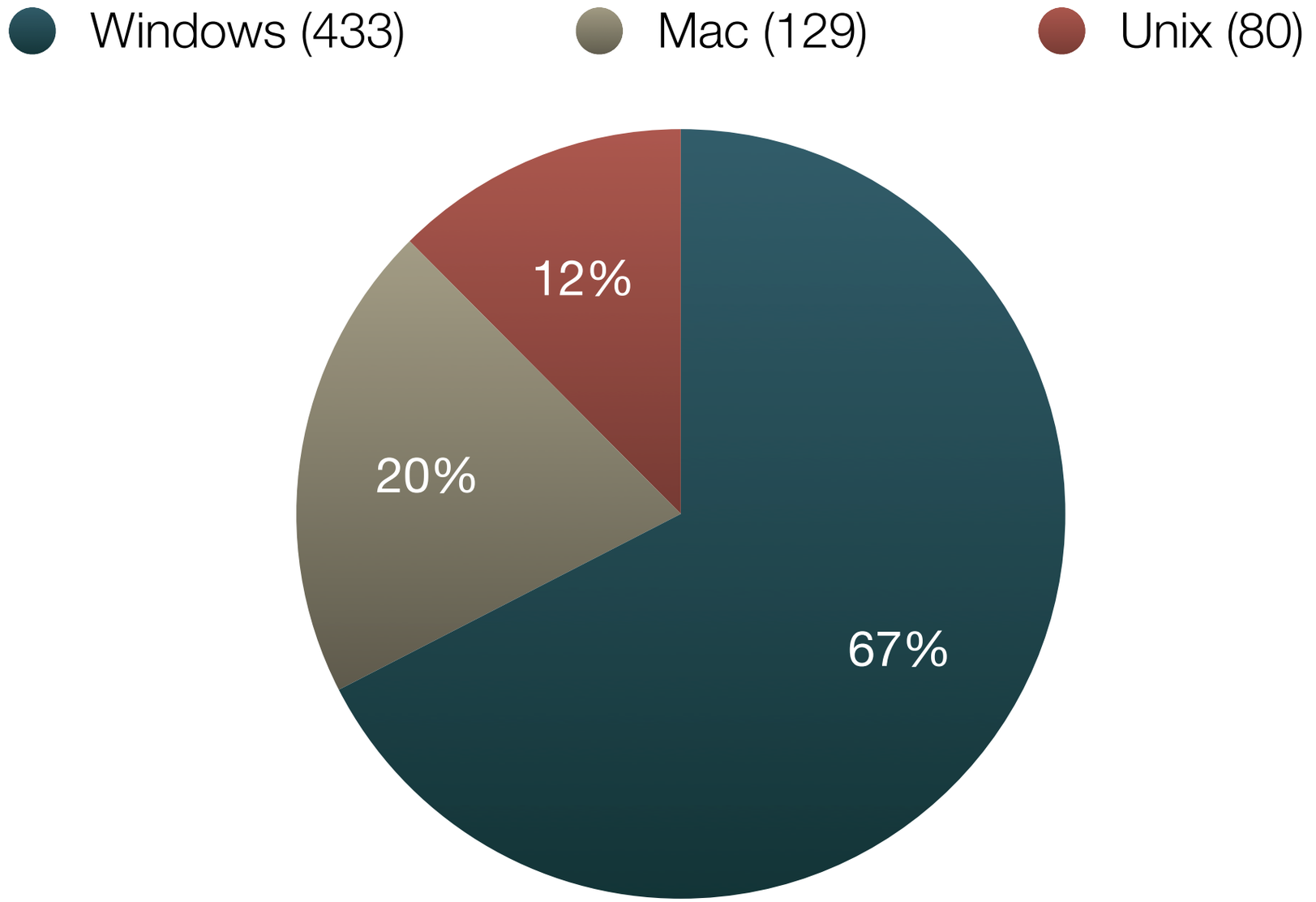


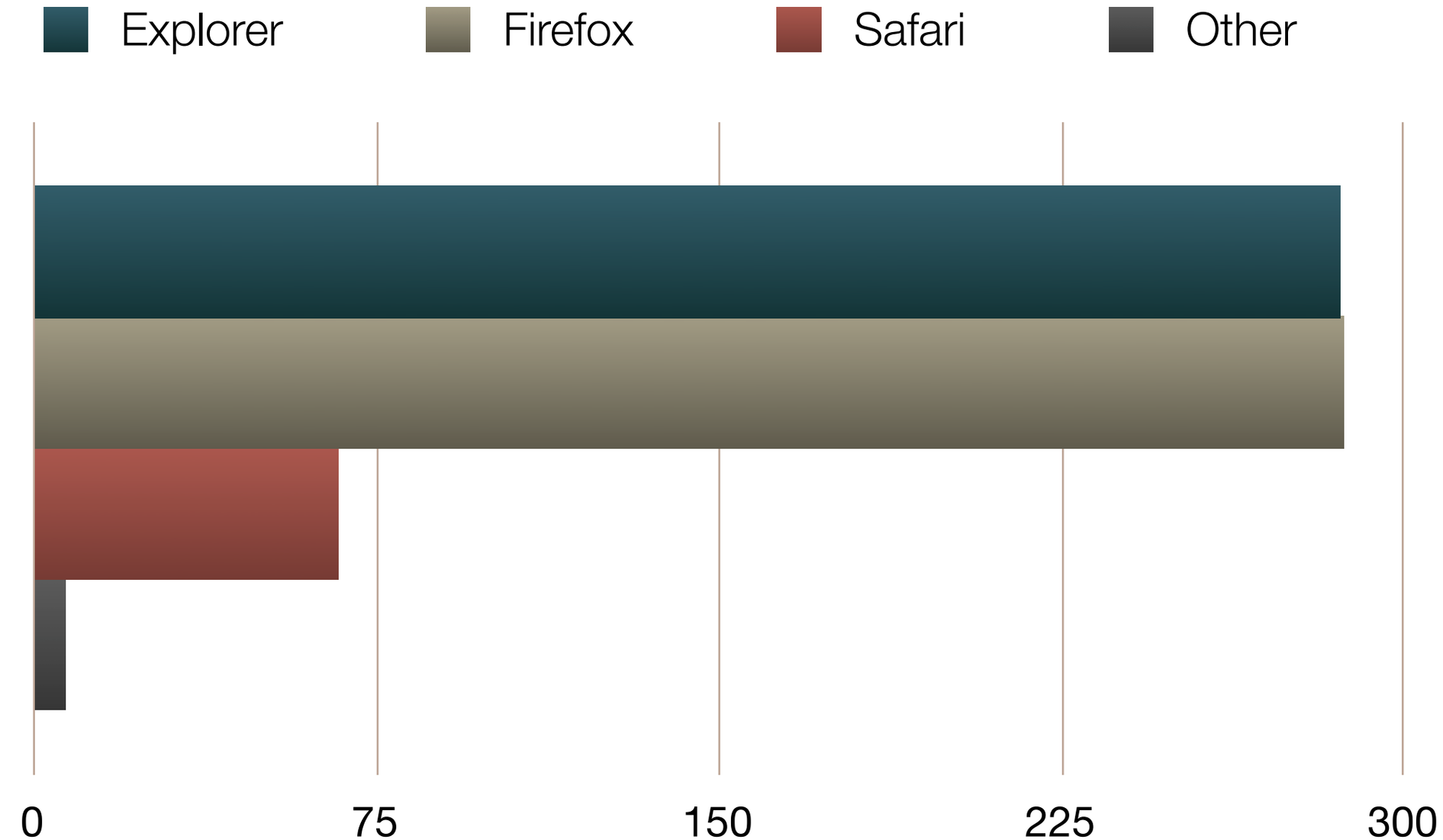
What computers do you use regularly? (operating system)



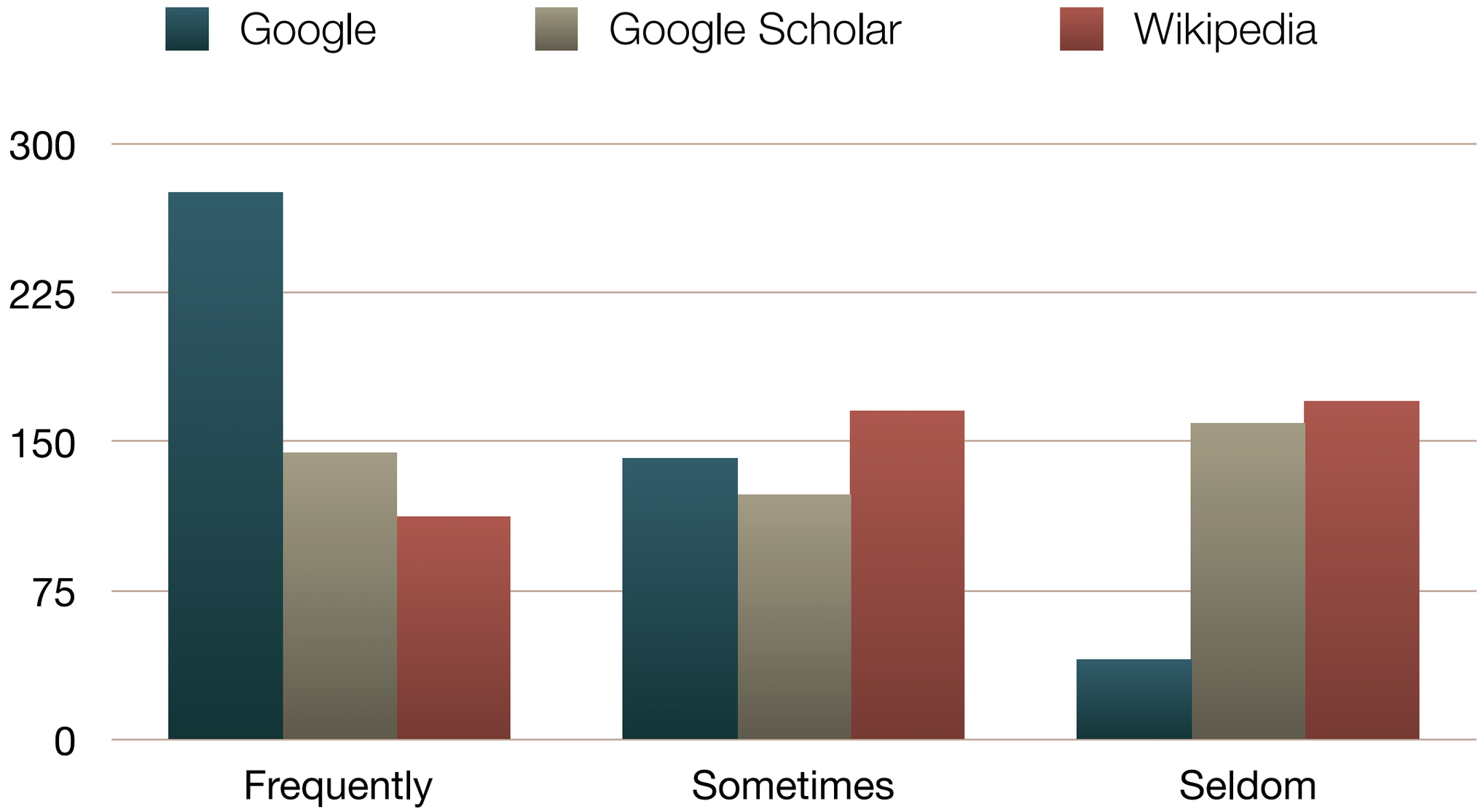
What computers do you use regularly? (operating system)



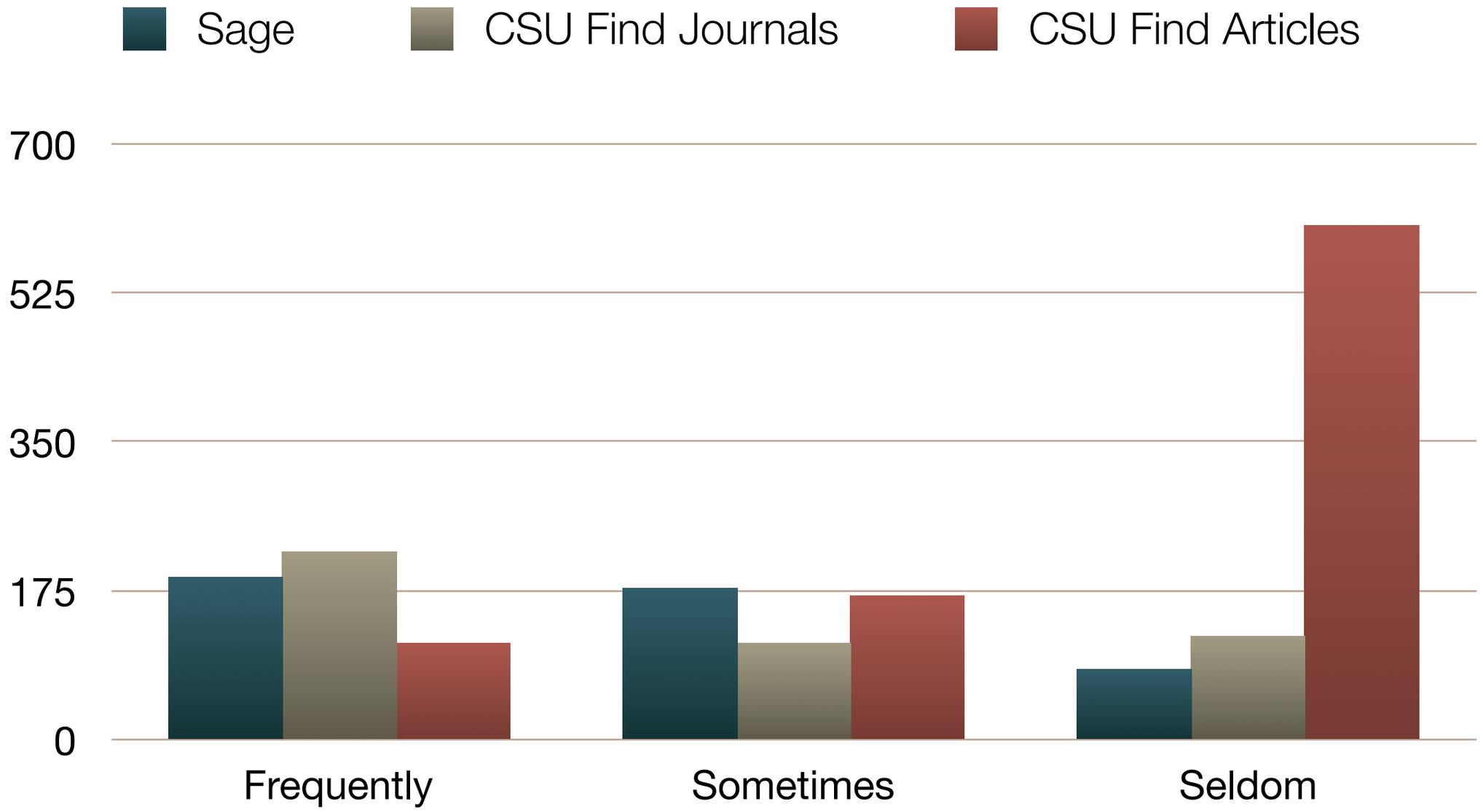
What web browser do you use regularly?



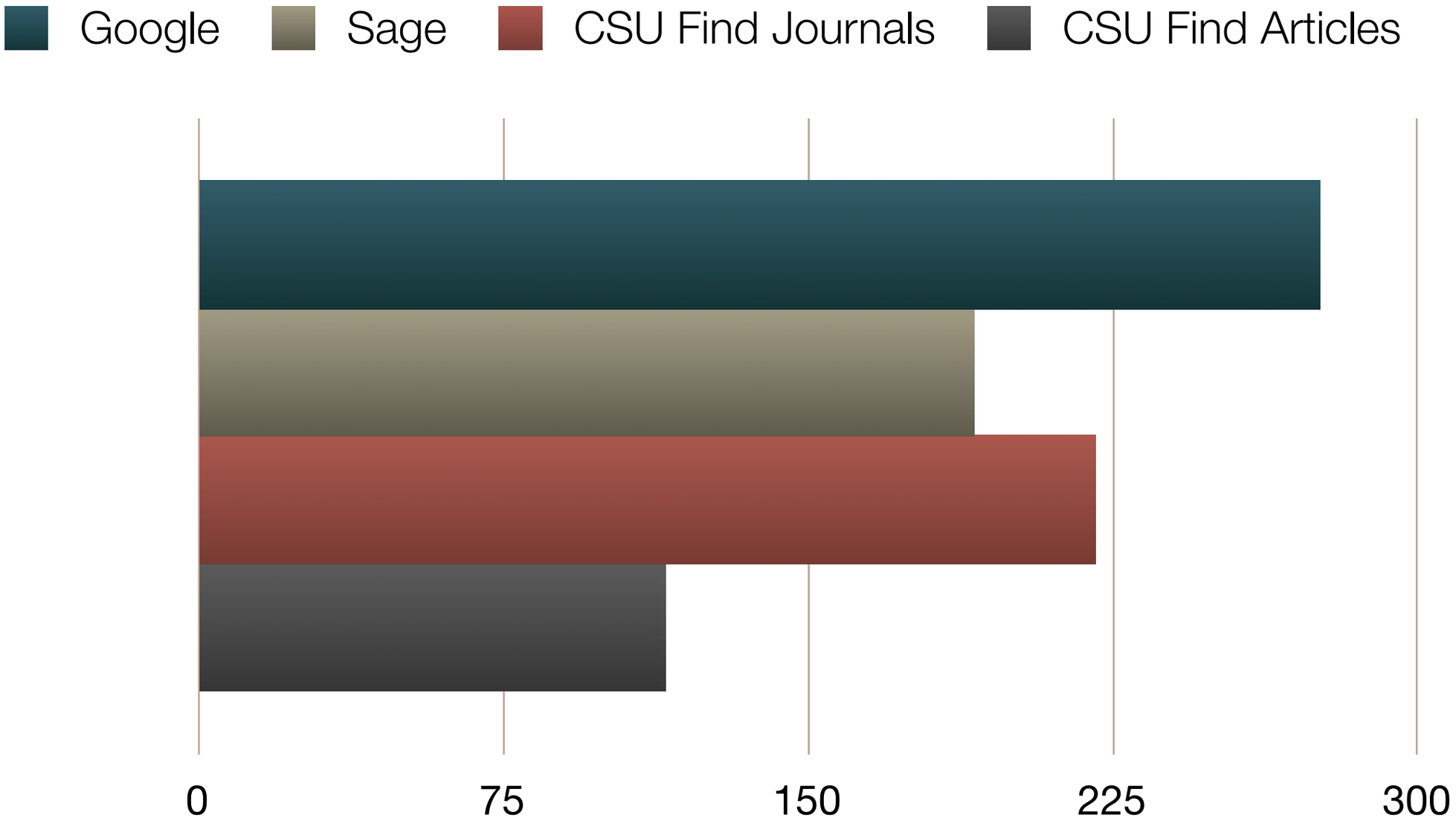
Google, Google Scholar, Wikipedia



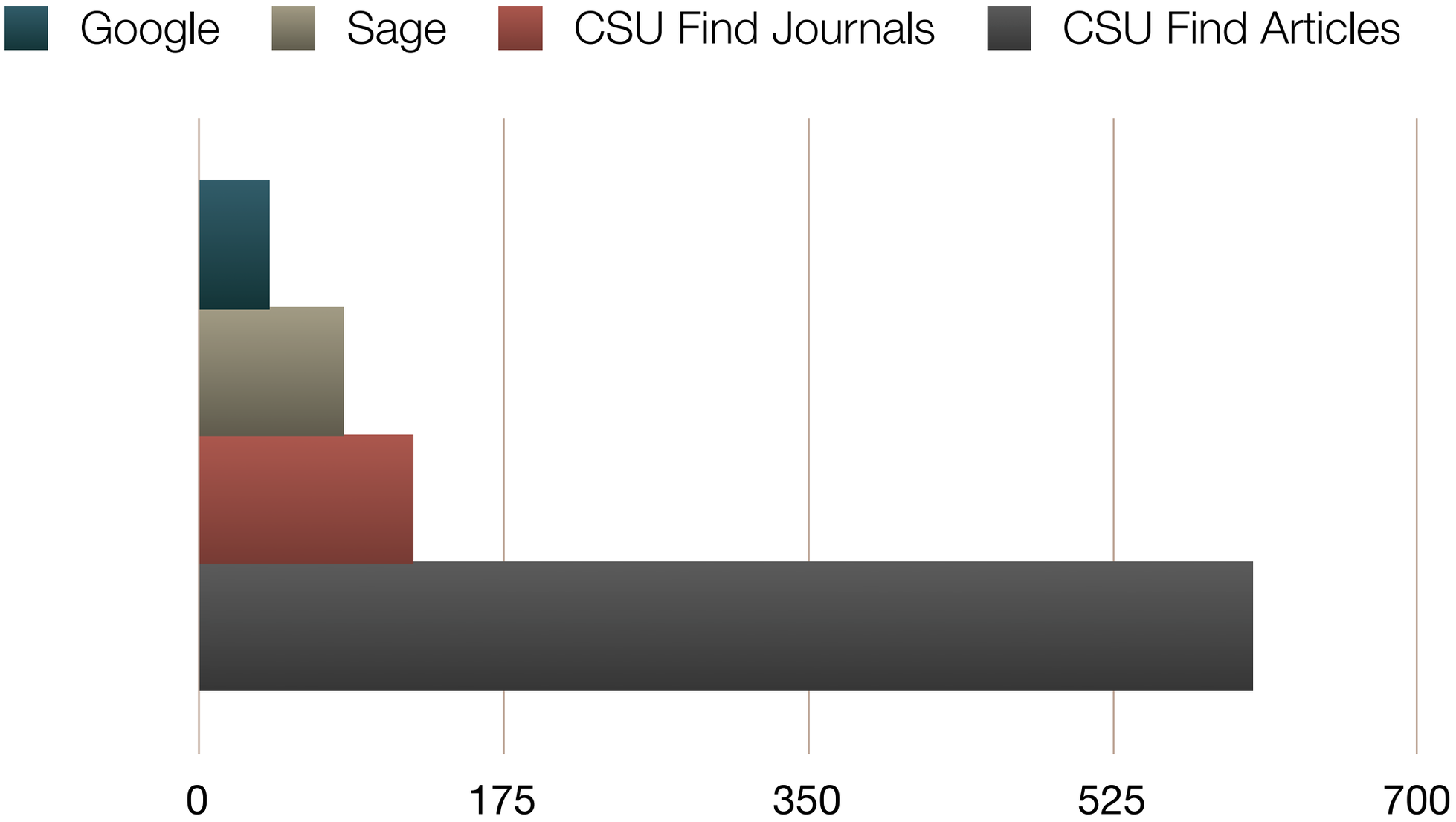
CSU Search Tools



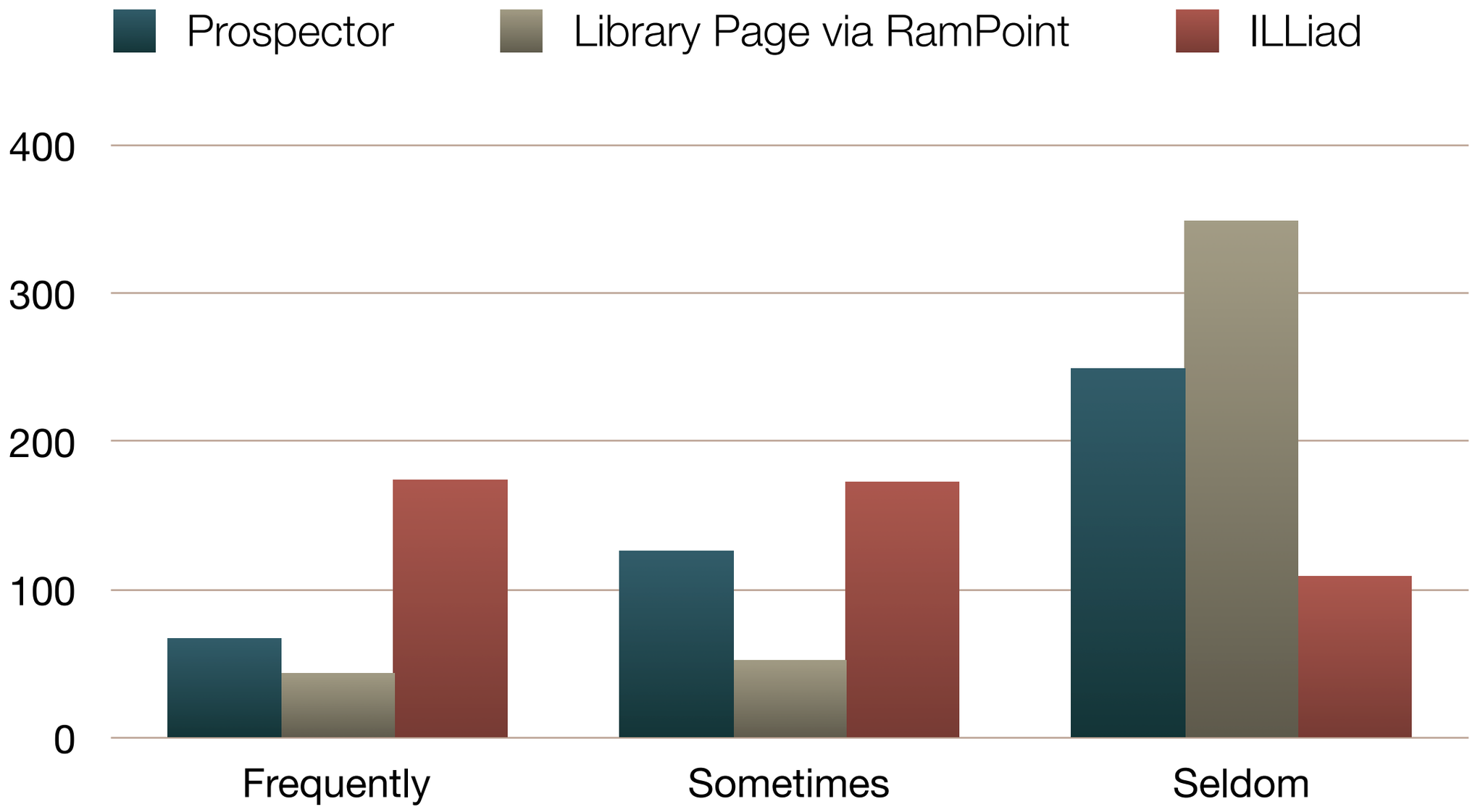
CSU vs Google: Frequently Used results



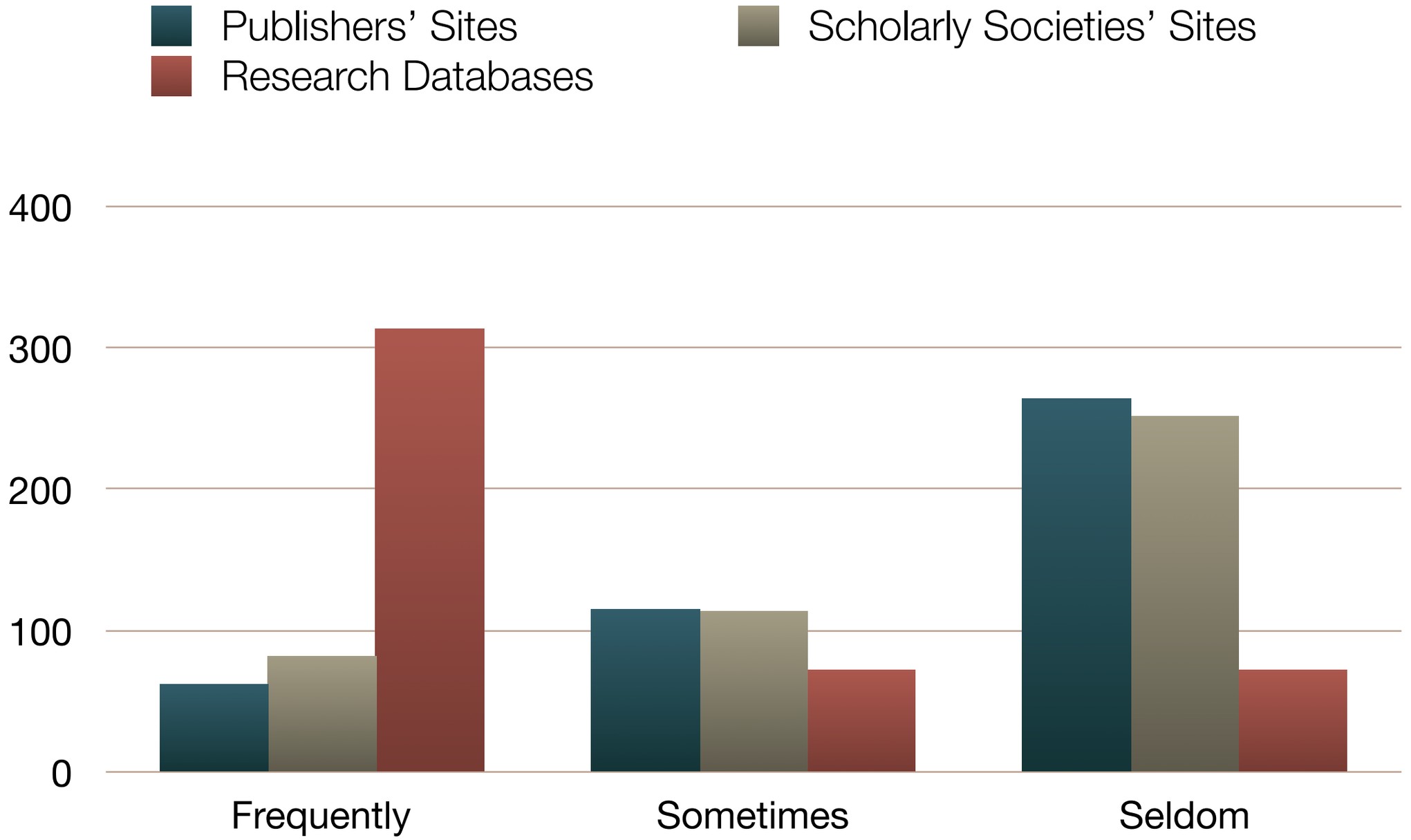
CSU vs Google: Seldom Used results



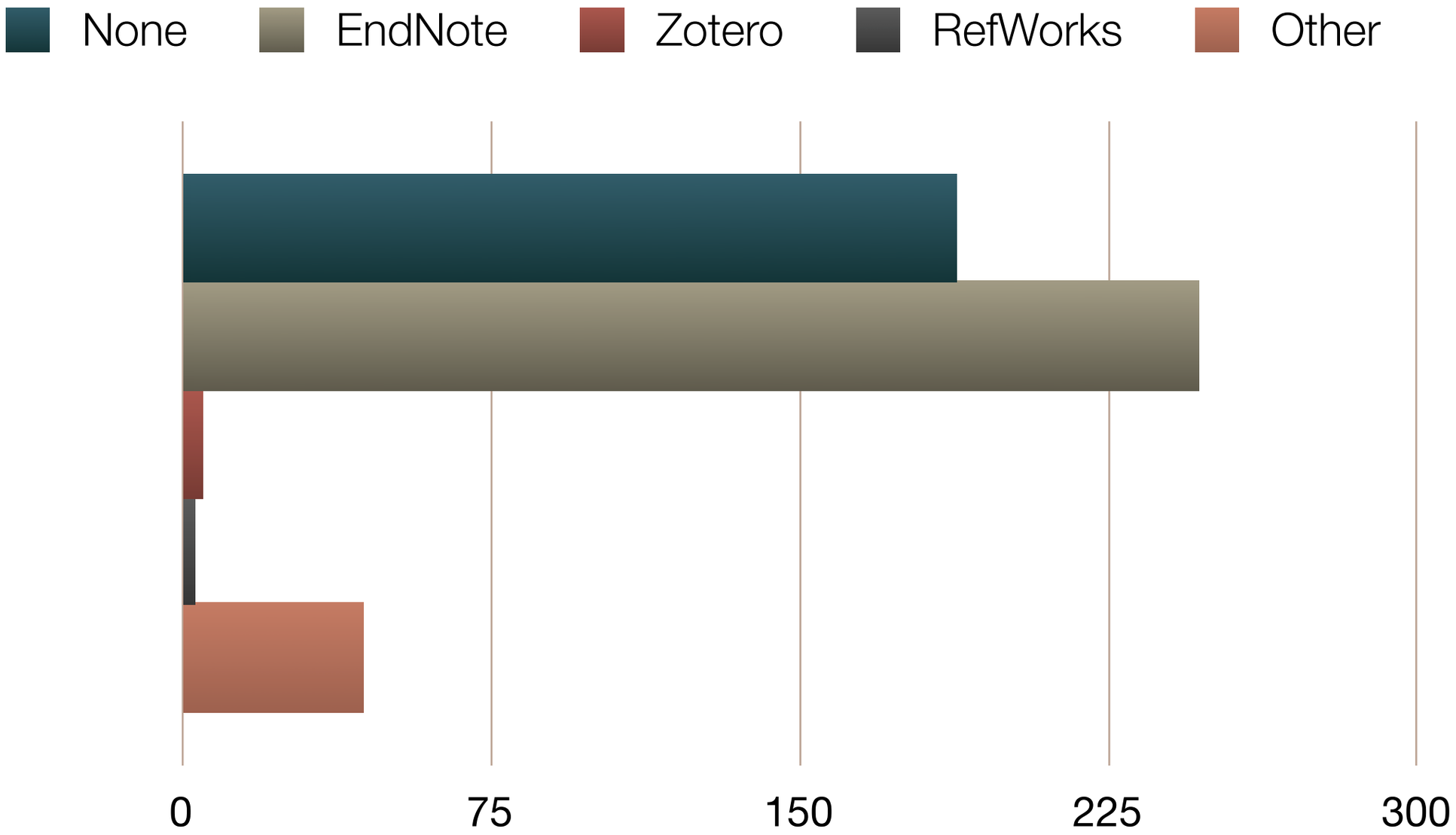
Other Tools


Prospector
Library Page via RamPoint
ILLiad
400
300
200
100
0
Frequently
Sometimes
Seldom

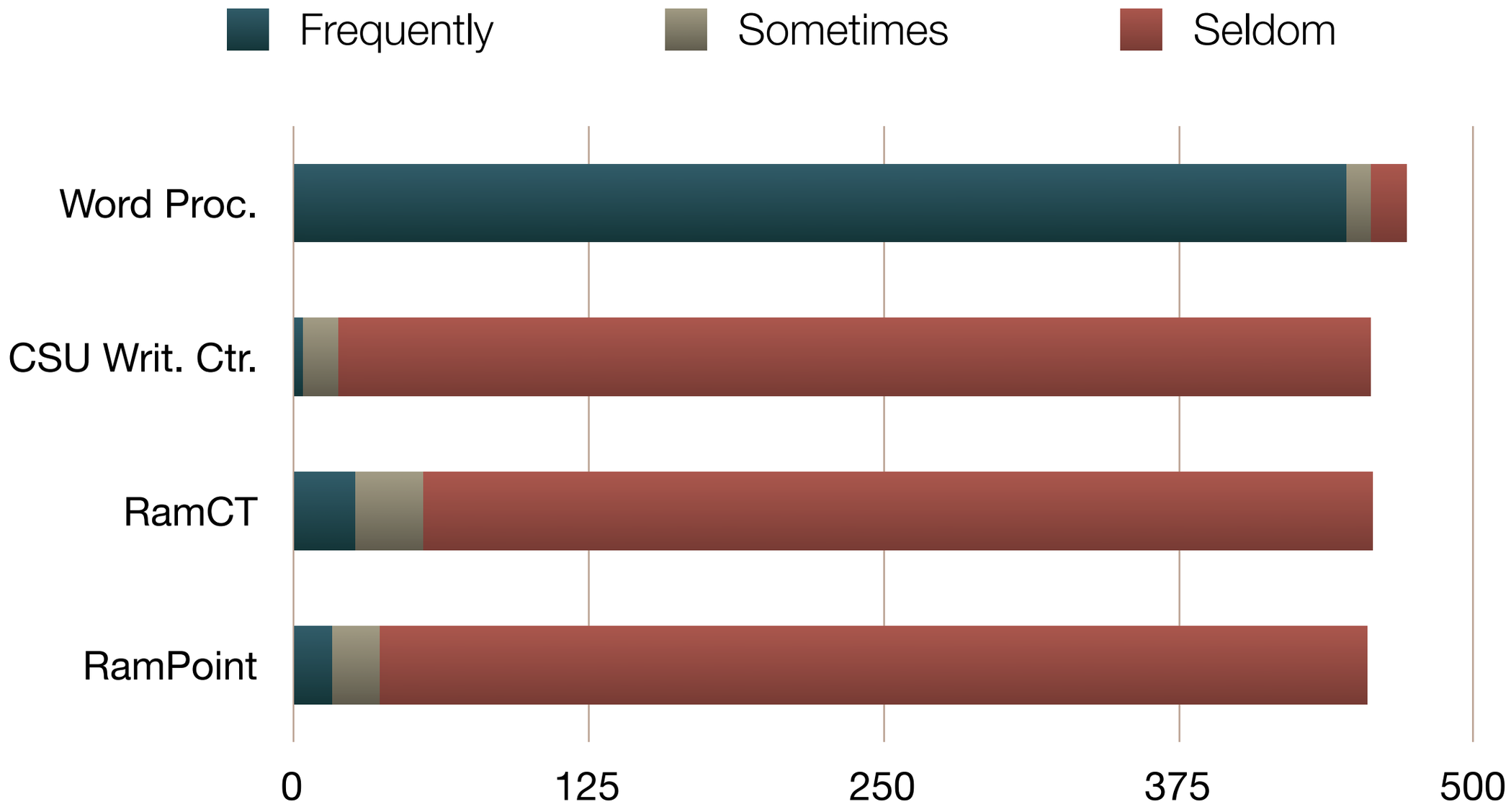
Other Tools


Publishers' Sites
Research Databases
Scholarly Societies' Sites
400
300
200
100
0
Frequently
Sometimes
Seldom

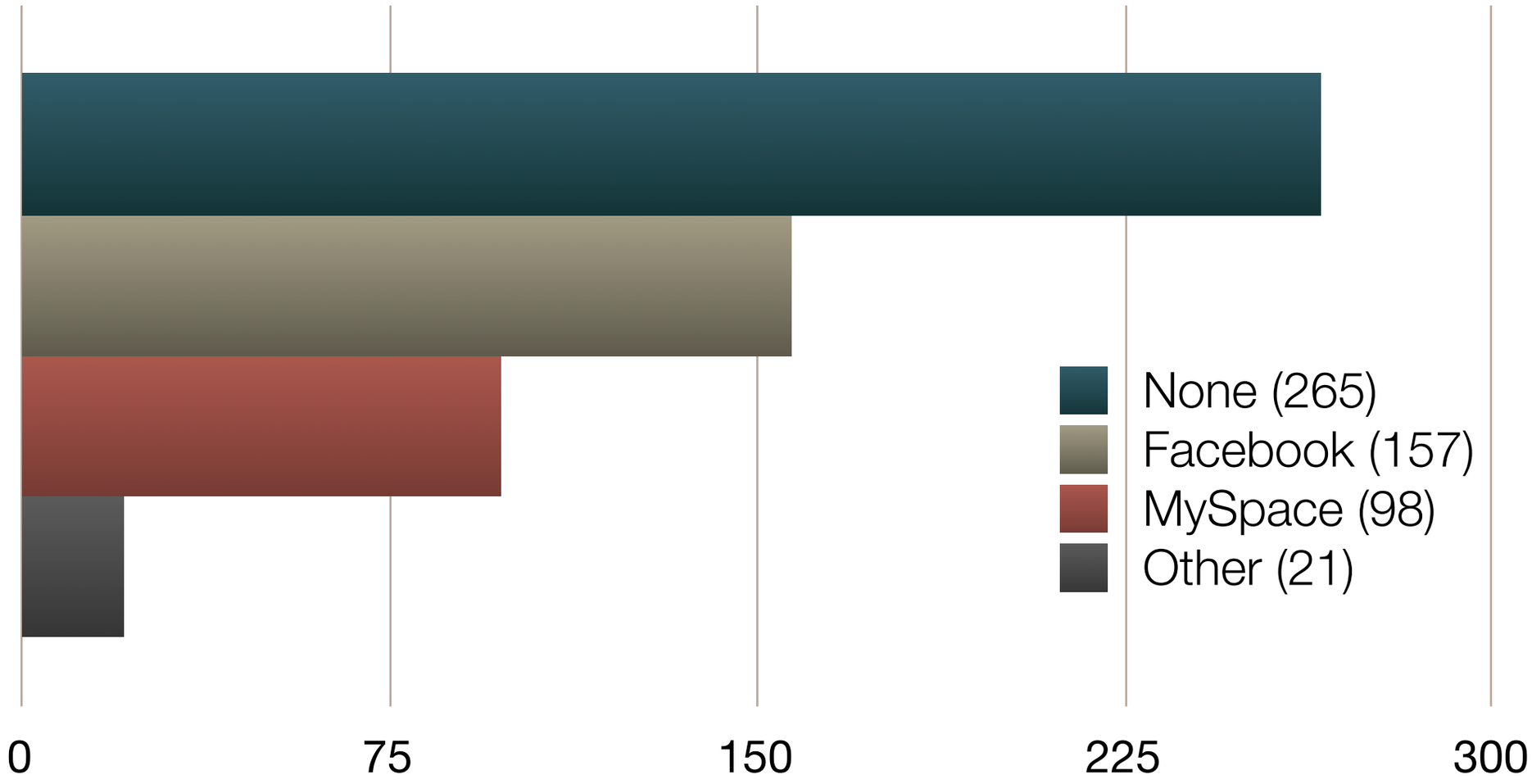
Reference / Citation Managers



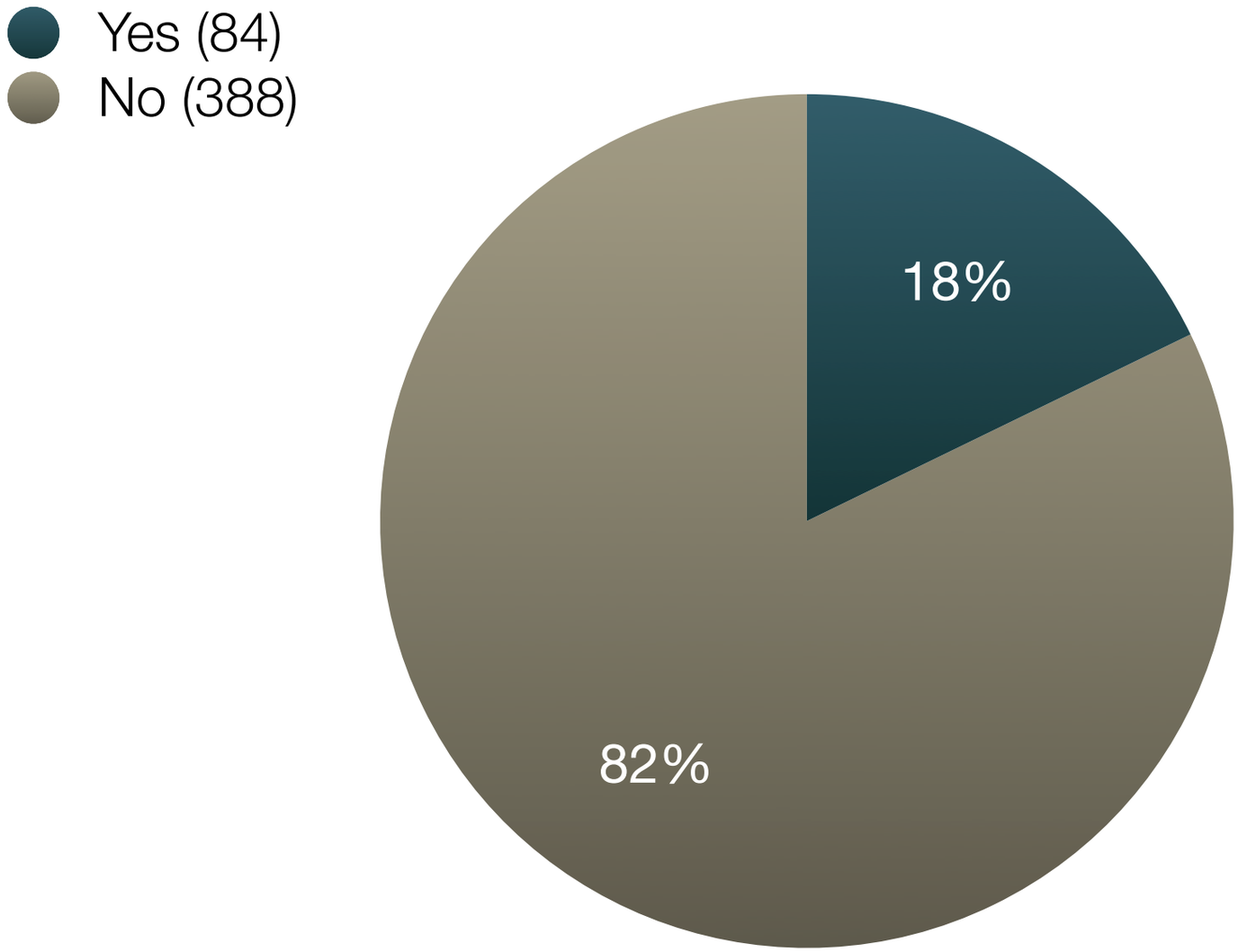
Authoring Tools



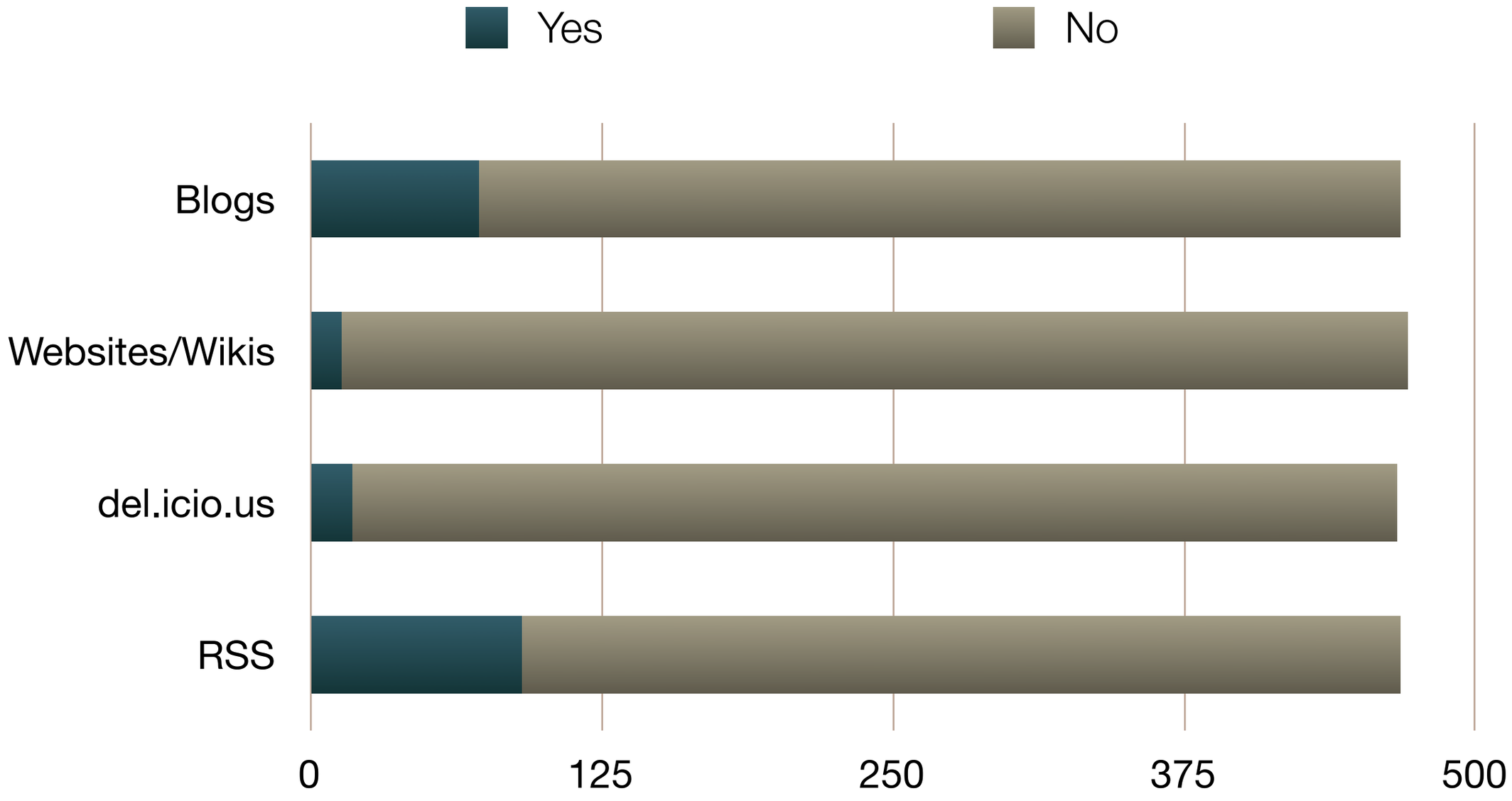
Social Networking Service



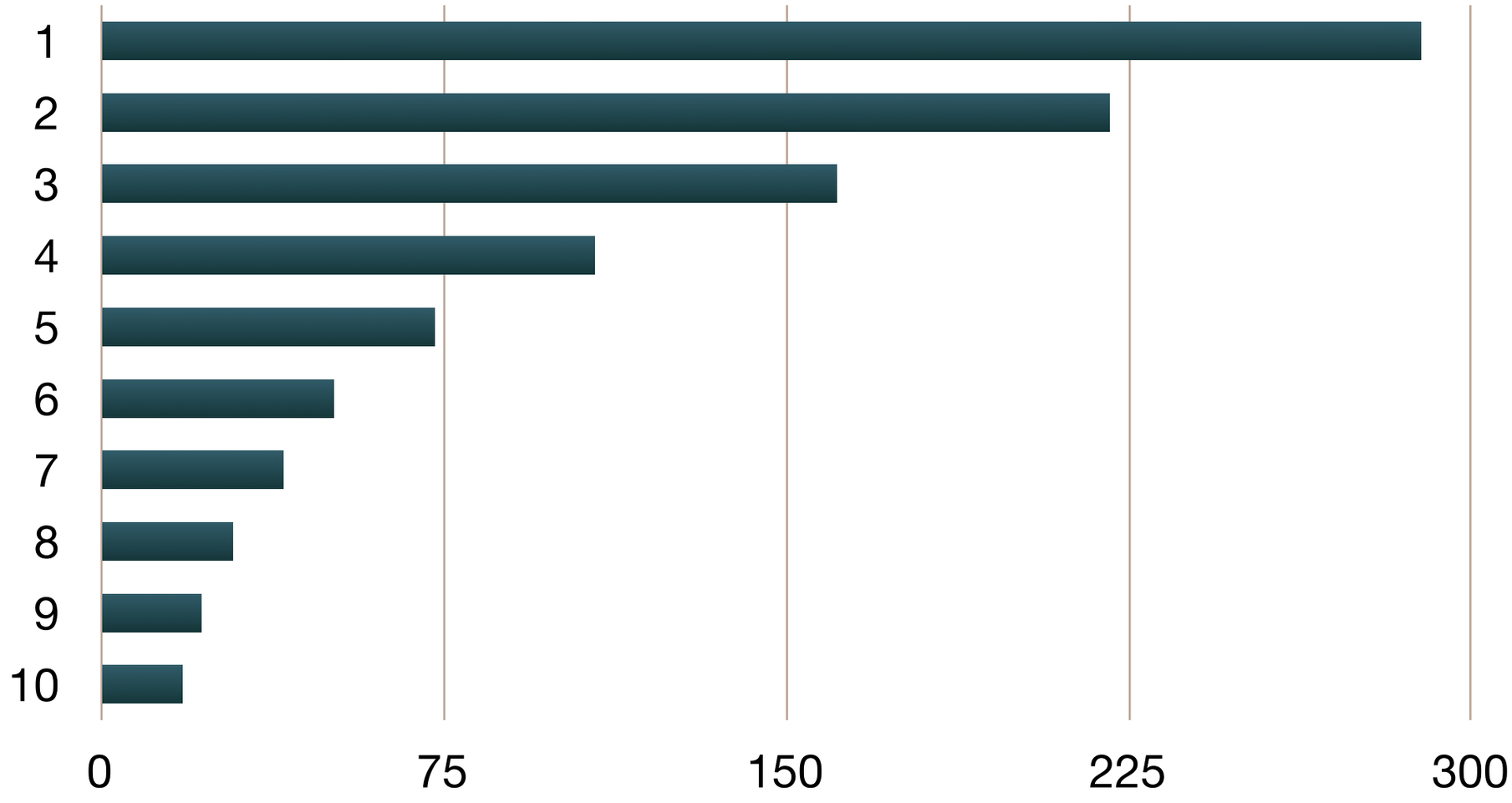
Maintain Website or Blog



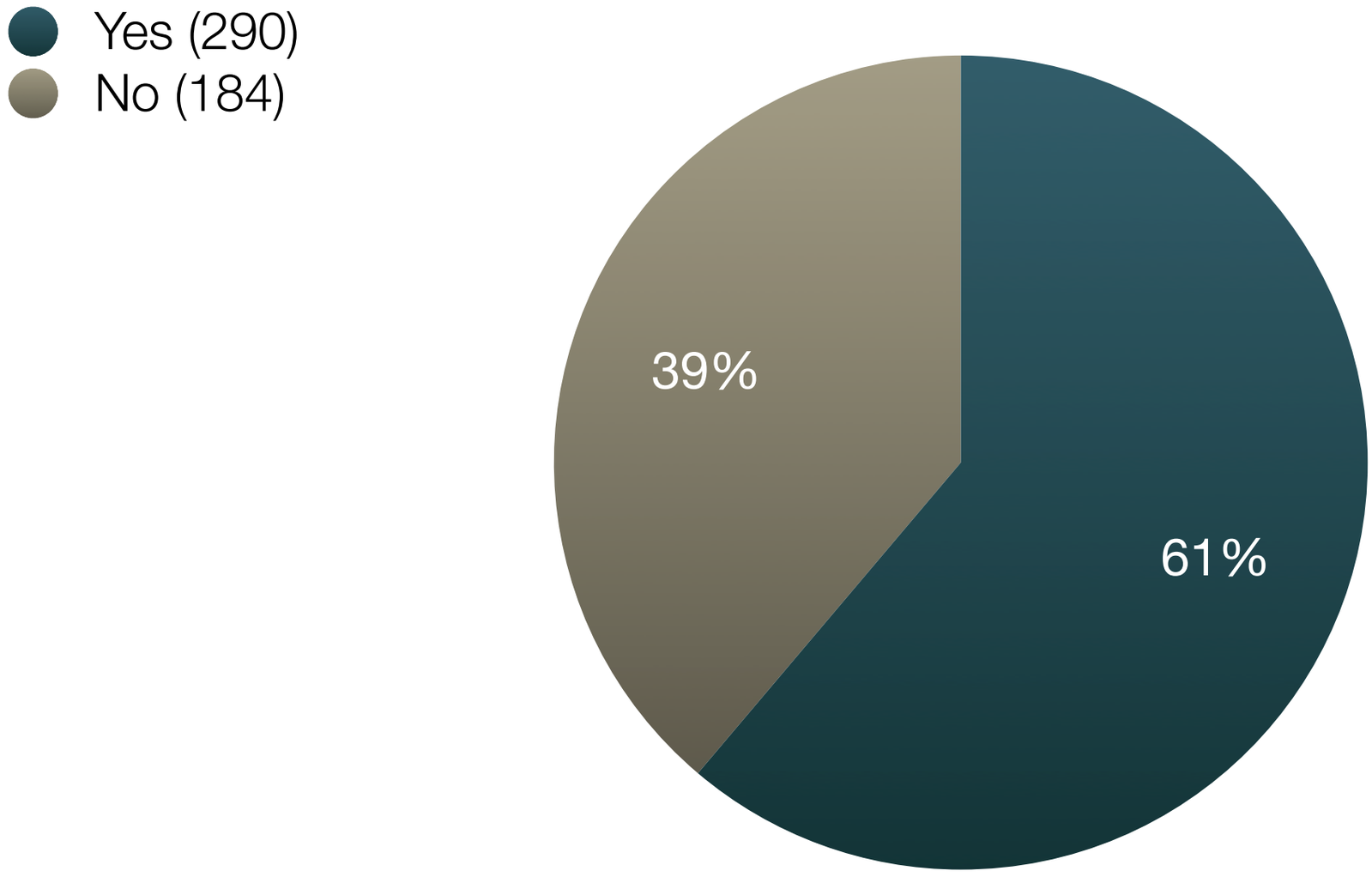
Web 2.0 Tools: Use/Contribute



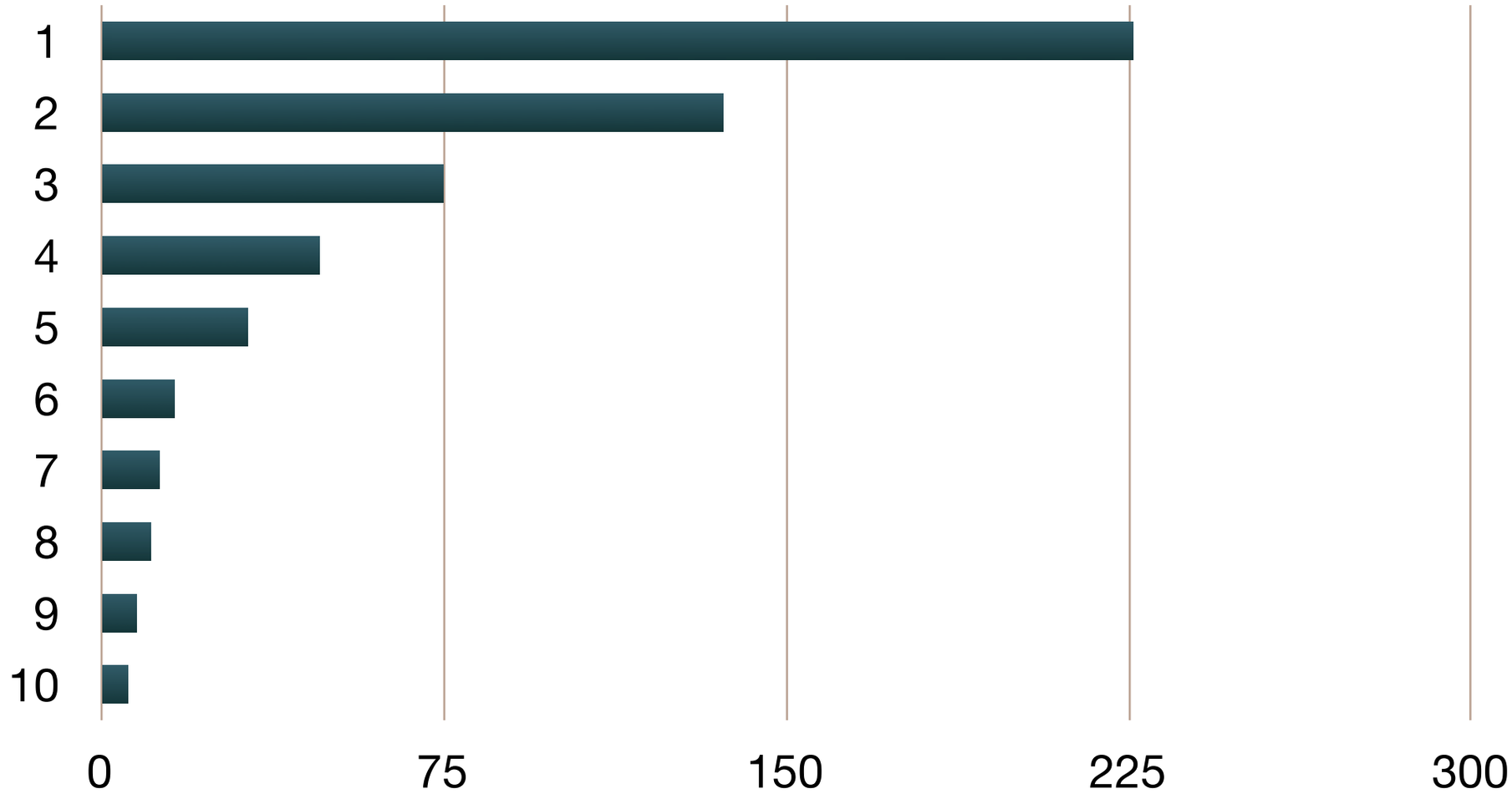
Total of Frequently Used Websites Listed (question #14; ten max.)



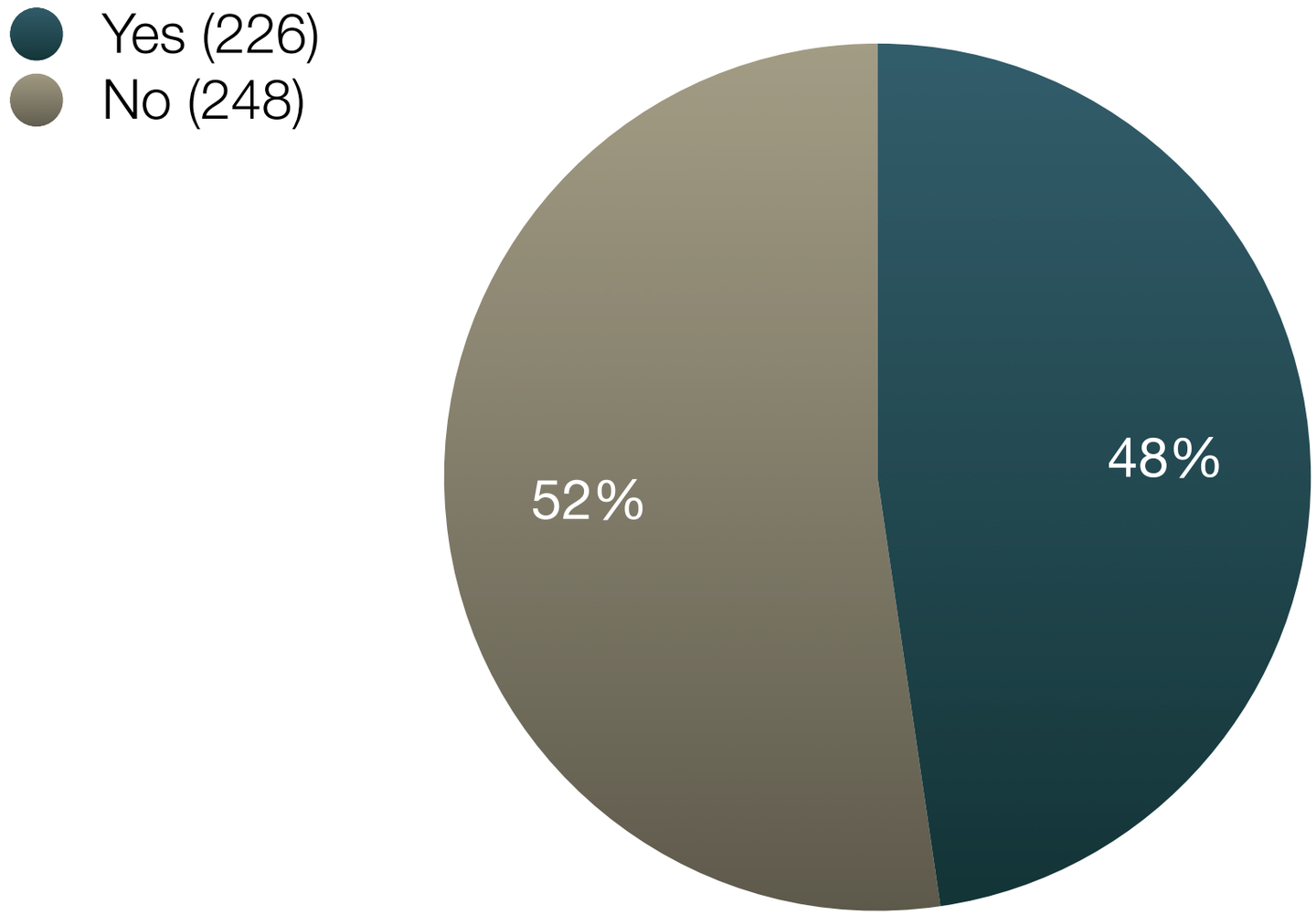
Answered question 14?



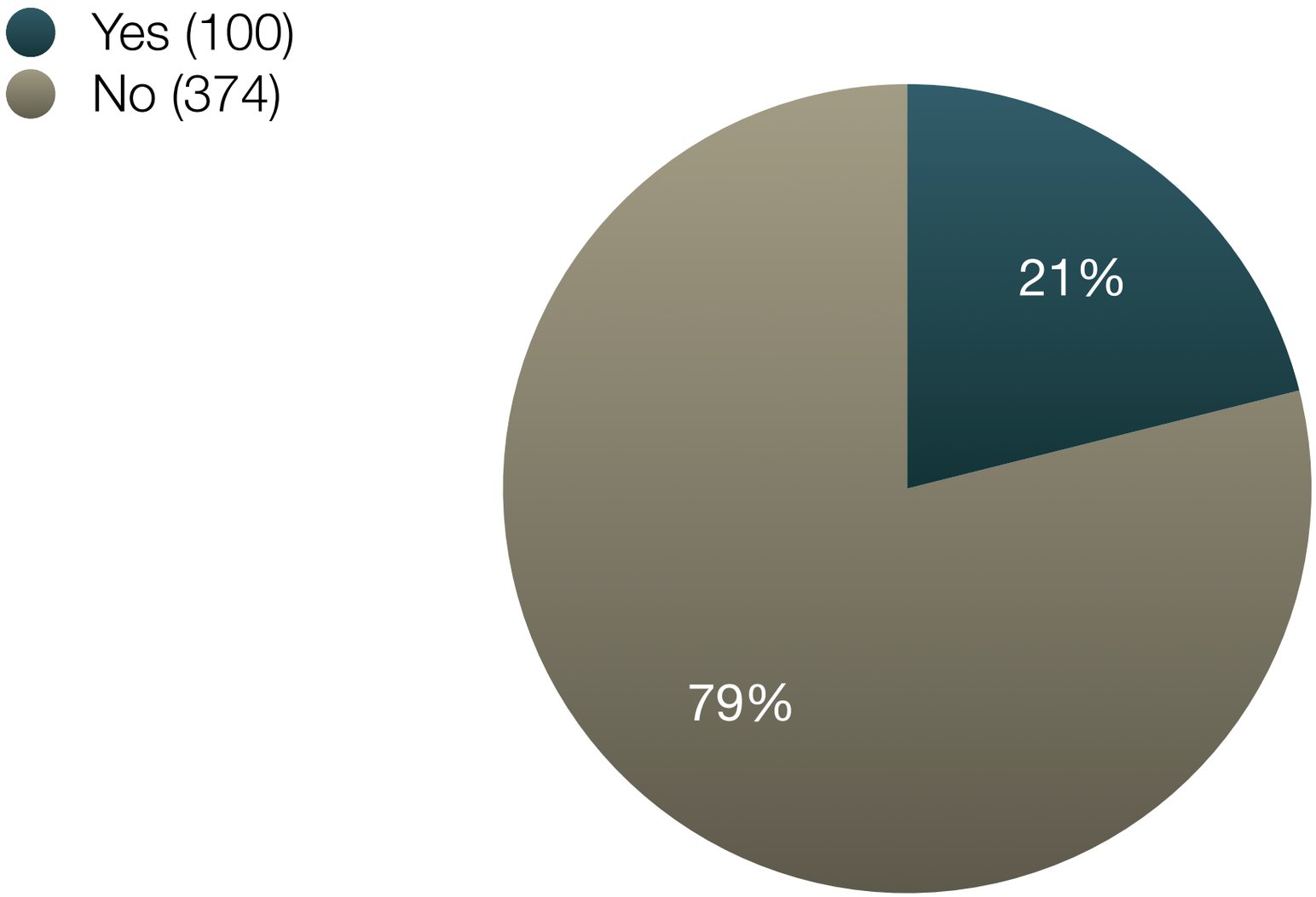
Total of Frequently Used Databases Listed (question 15; ten max.)



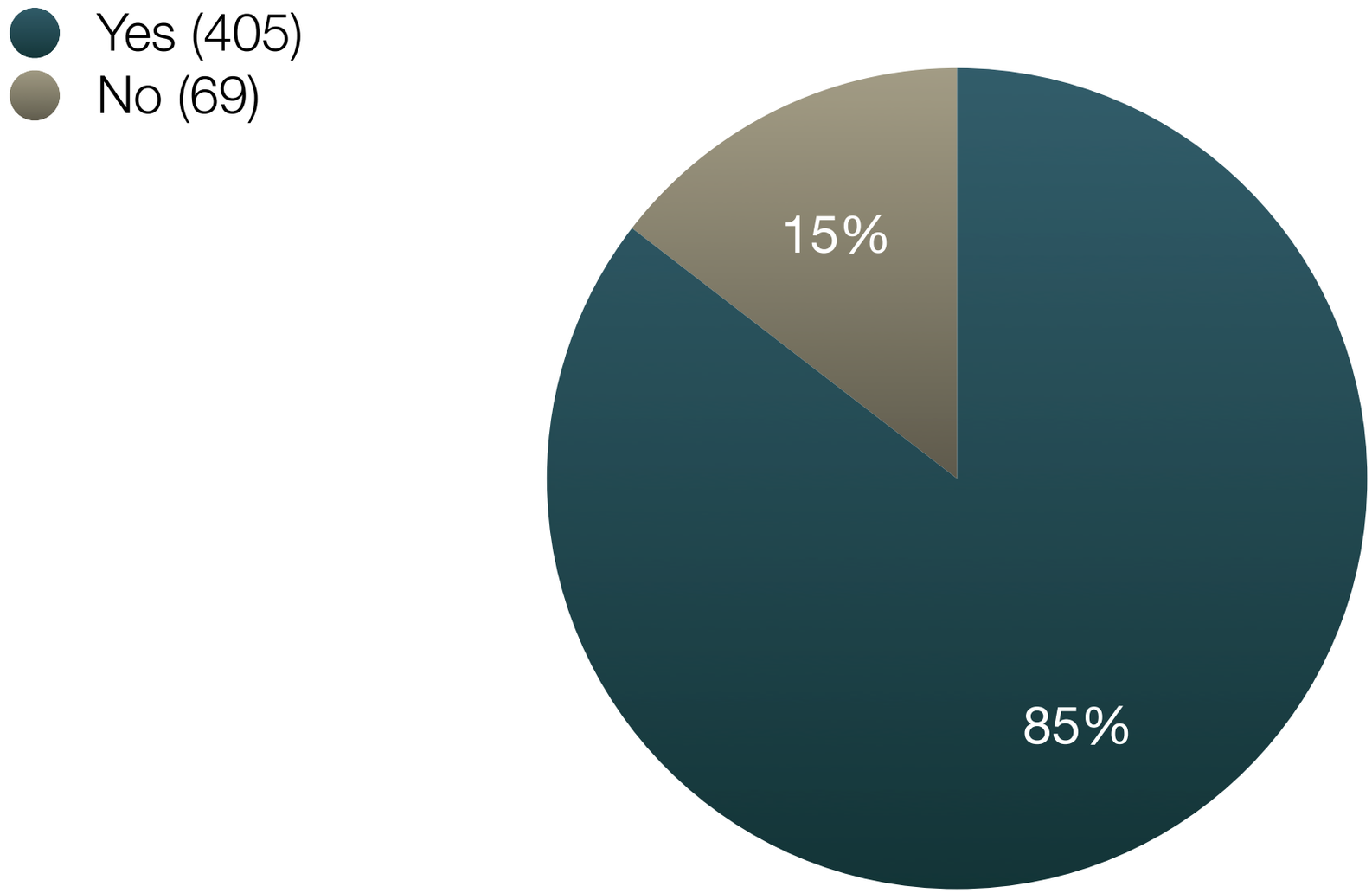
Answered question 15?



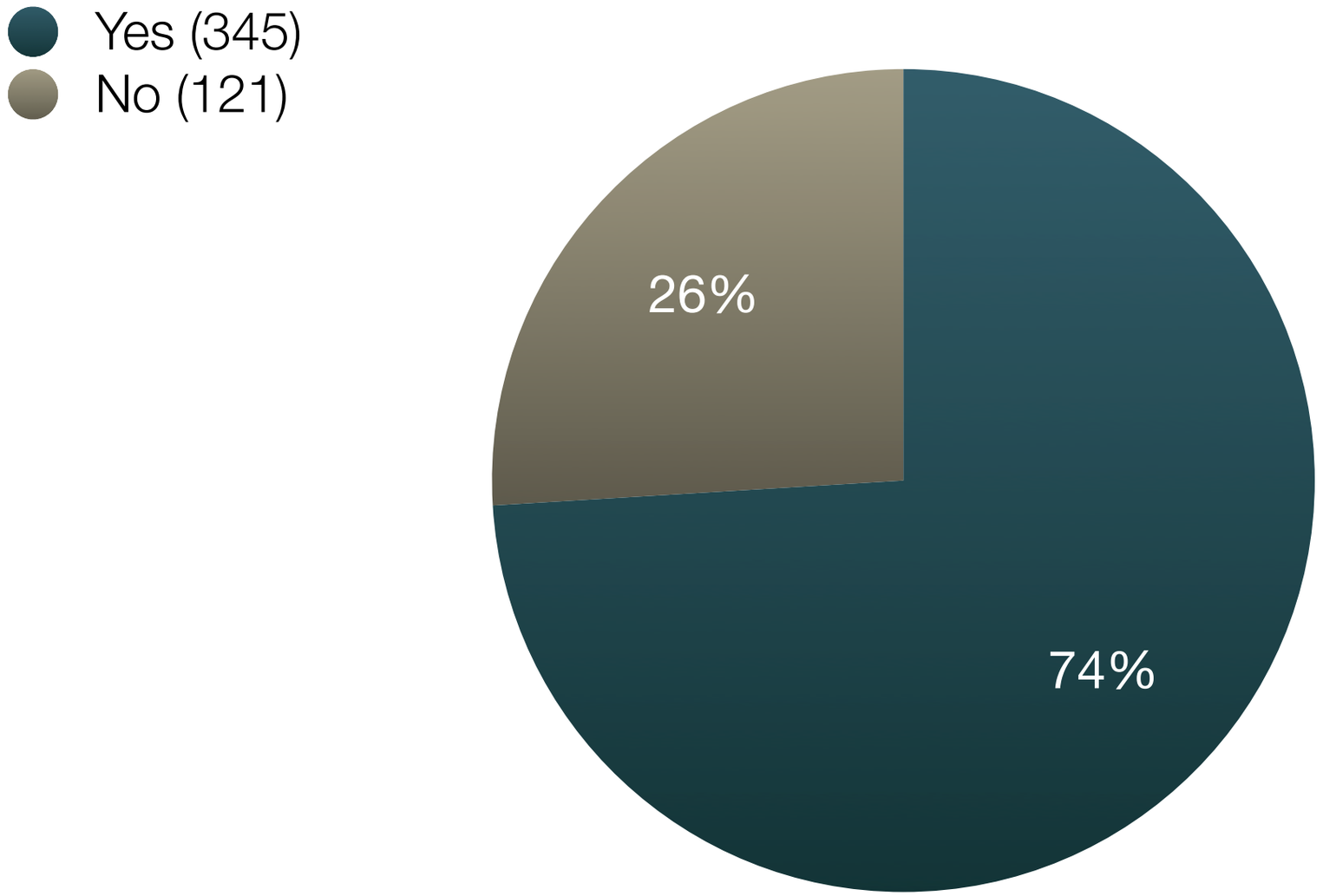
Made comments



iPod Drawing?



Okay to contact?



Selected Comments from the Survey

- Please get SCOPUS! I've used it a couple of times, once when the CSU library was test-driving it, and once on a 30-day trial, and I LOVE it! I would also like to see a subscription to BIOSIS — At a previous institution, I started a research project that requires BIOSIS and was quite shocked to find that CSU does not subscribe to it. I wasn't aware of the article search feature on the library site; it looks useful — I might start using it.

- I don't know how graduate students did it before you could get articles on line through direct online and through inter-library loan. I really appreciate those services through the library.

- Thanks! Your questions have given me additional ideas for research areas to look into (blogs and RSS feeds etc.) I did not list any URLs for databases and websites because up to this point I have only used the CSU library's databases (web of science is the one I use most often)

- For some of the questions, a check box for "What's that? Never heard of it" would have been useful.

Selected Comments from the Survey

- I am relatively new to my Ph.D. program and am interested in learning more about ways to enhance my research. I think I need a workshop on quick tools for research, because I've heard of some things, but am not familiar on how they all work. My websites or databases that I use are dependent on the subject/topic I am looking into for a paper. I haven't decided my dissertation topic yet, but will soon.

- I would be interested in learning about how some of these tools might help me in my research

- I am a novice and could use some assistance in searches as you have mentioned. I think I use the above but I am not sure — I get emails with information.

- Thanks for asking us! As grad students, we sometimes feel like we aren't appreciated like the undergrads.