Analysis of The Carpentries Long-Term Surveys

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Contents

In the fourth quarter of 2019 The Carpentries collected feedback from community members who took a Carpentries workshop within six months. Find more information about this data collection period on our blog. We are excited to release the results of our long-term survey, and invite community members to use this data to champion The Carpentries far and near.

We released our first long-term survey results in October 2017. You can find the report and its source in the assessment GitHub repository.

The results included in this report only cover the data collected in 2019 (between November 1st, 2019 and January 2nd, 2020). This report includes the analysis of 176 responses but most questions are optional and specific questions have less answers.
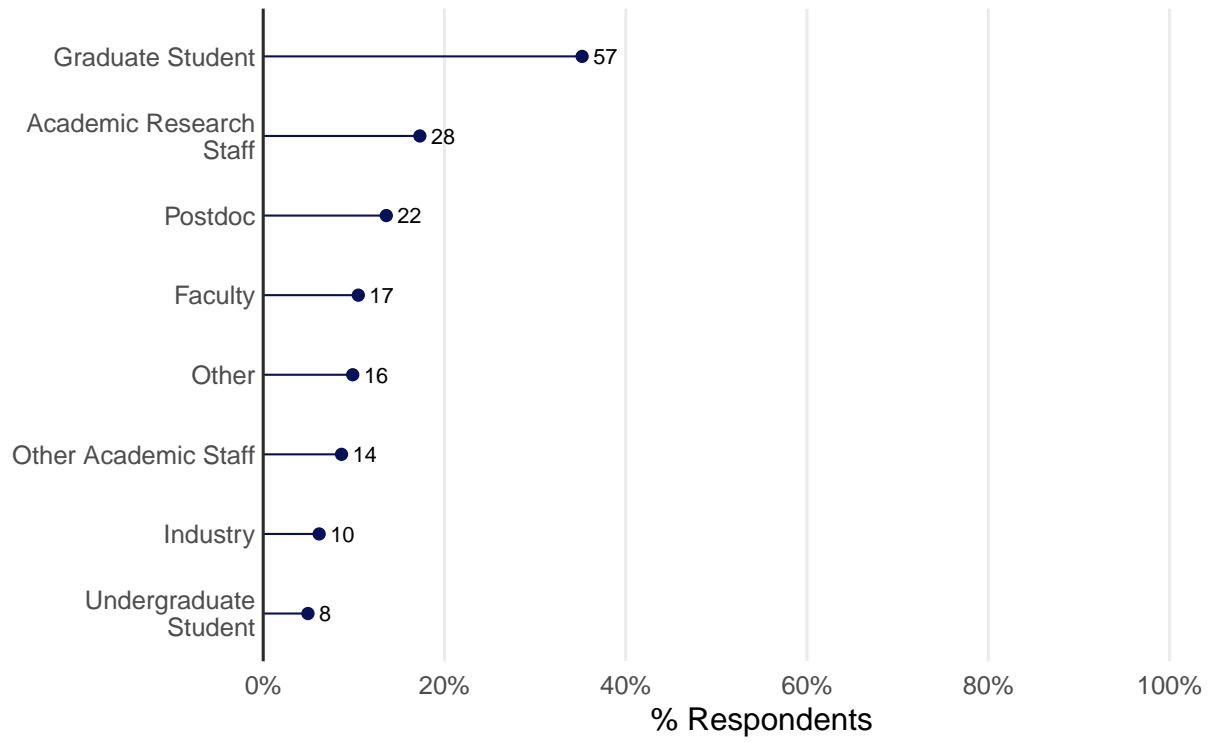
Respondents Career Stage

The majority of long-term survey respondents are graduate students. "Other academic staff" includes Librarians, Research Software Engineers, IT Staff, and Government Research Staff.

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What is your current career stage? (n = 162)

Career Stage	Count
Graduate Student	57
Academic Research Staff	28
Postdoc	22
Faculty	17
Other	16
Other Academic Staff	14
Industry	10
Undergraduate Student	8

% Respondents

Multiple answsers allowed

What is your field of research, work, or study? Check all that apply. (n = 162)

Field	Value
Biomedical/Health Sciences	46
Life Sciences	41
Agricultural or Environmental Sciences	28
Social Sciences	20
Computer Science	17
Mathematics or Statistics	15
Physical Sciences	13
Earth Sciences	13
Engineering	10
Library Sciences	9
Humanities	7
Business	5

% Respondents
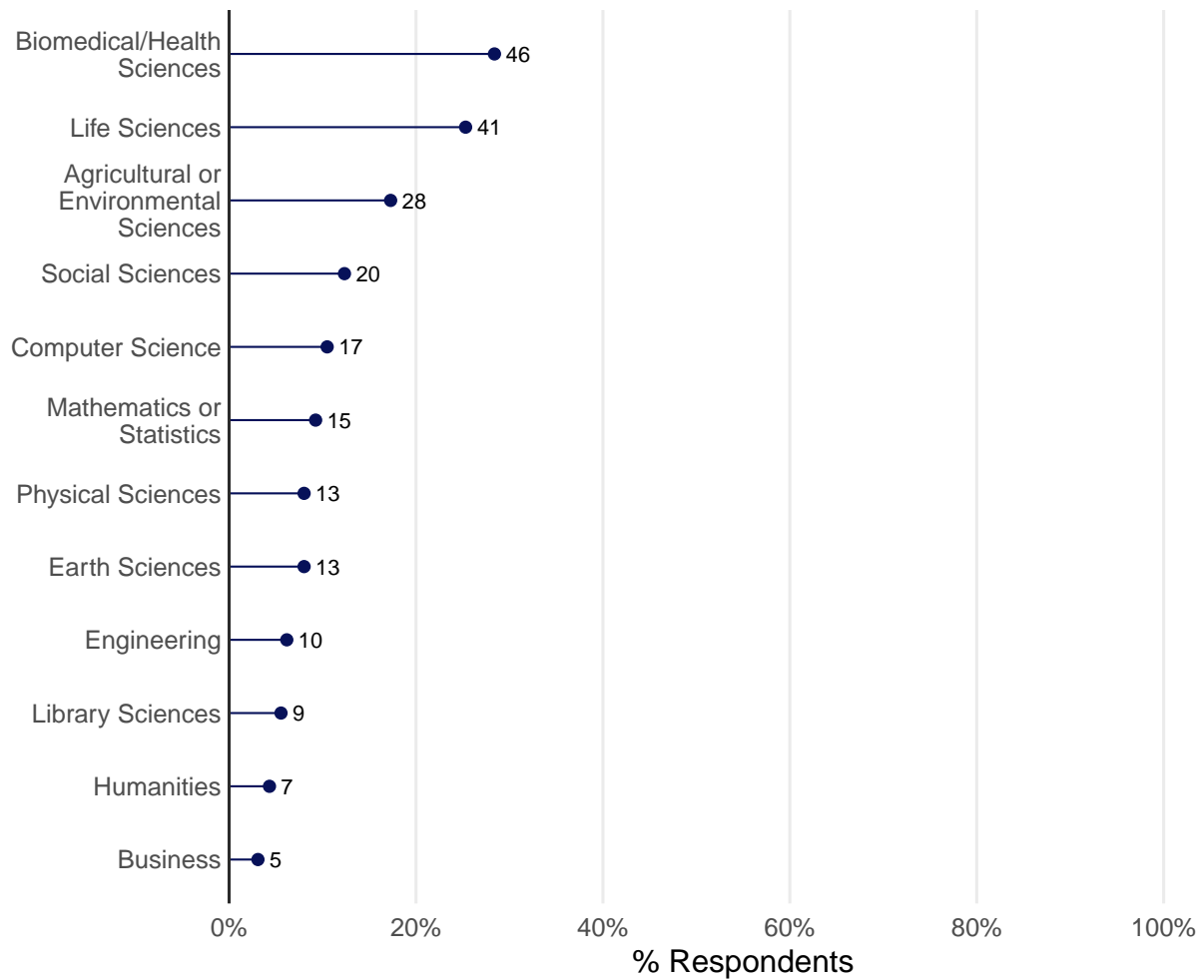
Multiple answsers allowed
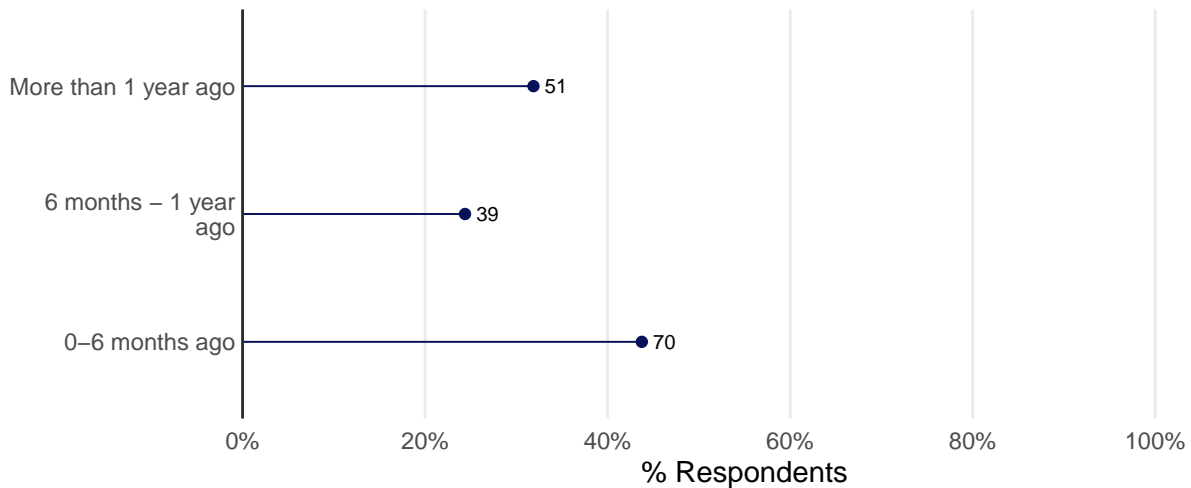
Number of Carpentries Workshops Completed

How many Carpentries (Software, Data, Library) workshops have you completed as a learner?
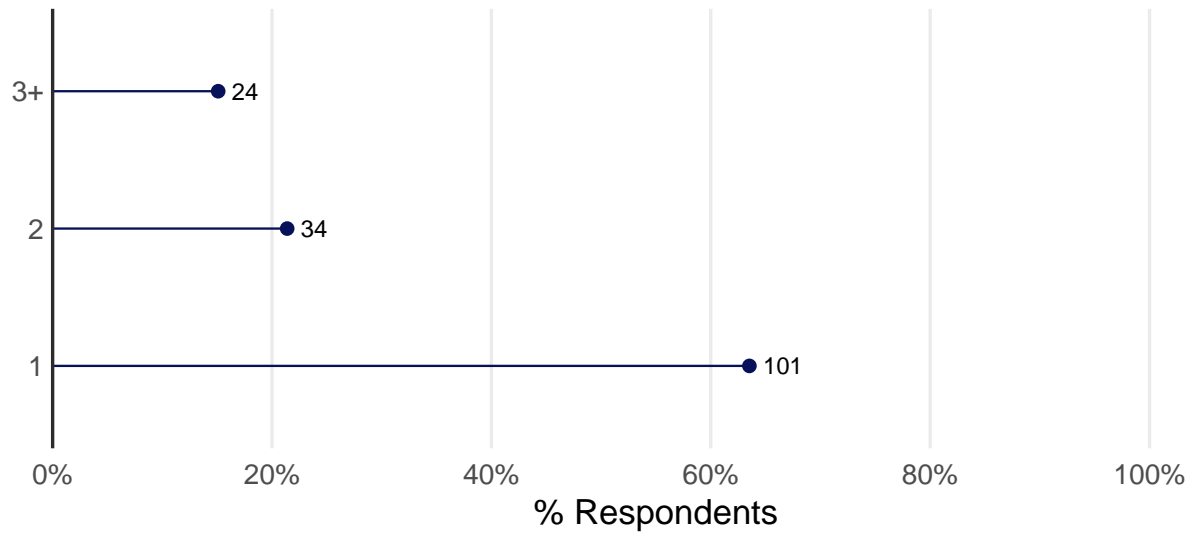
Number of answers reported on the graph
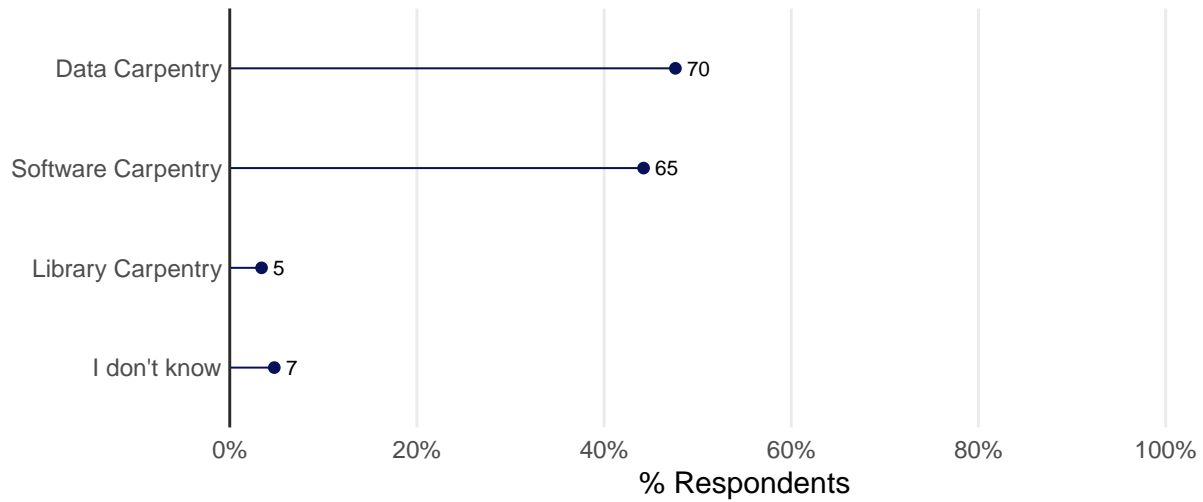
Time Since Completing a Carpentries Workshop

How long ago did you last complete a Carpentries workshop?

Number of answers reported on the graph
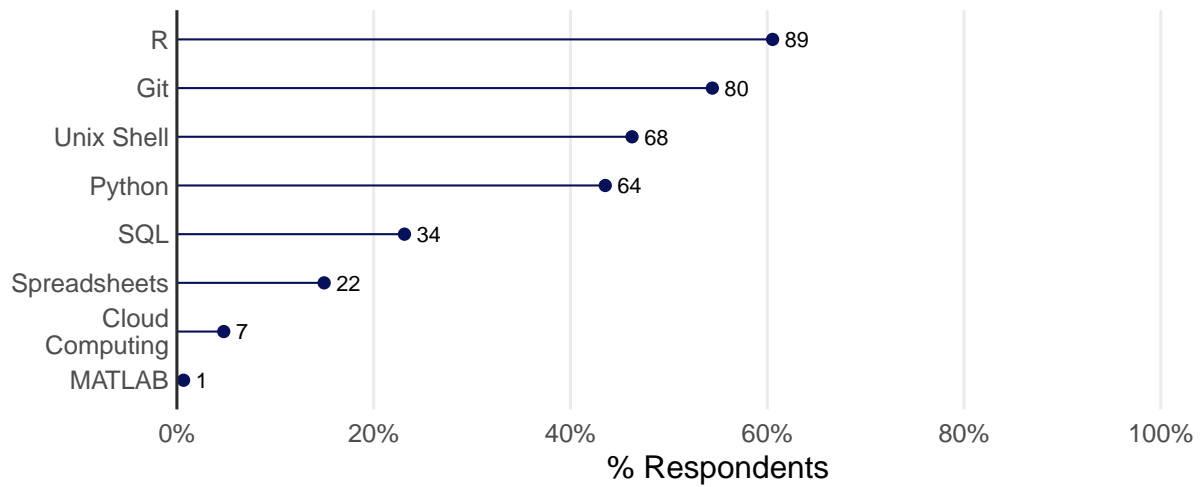
Last Carpentries Workshop Attended

Which Carpentries workshop did you last attend?

Data Carpentry — 70
Software Carpentry — 65
Library Carpentry — 5
I don't know — 7

% Respondents

Number of answers reported on the graph

Content Covered at Last Carpentries Workshop

What content was covered at the last Carpentries workshop you attended? Select all that apply. (n = 147)

R — 89
Git — 80
Unix Shell — 68
Python — 64
SQL — 34
Spreadsheets — 22
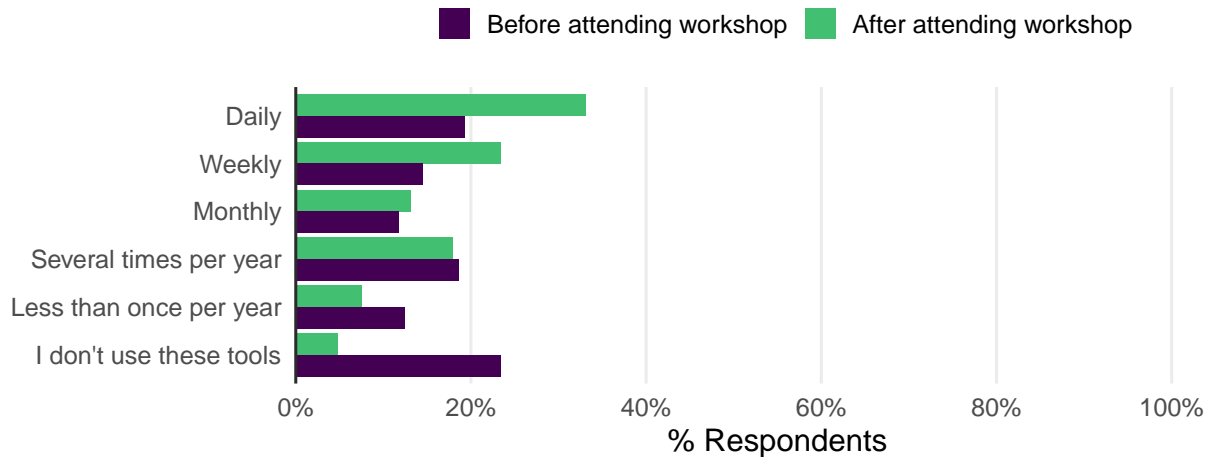Cloud Computing — 7
MATLAB — 1

% Respondents

Multiple answswers allowed

Which of the following behaviors have you adopted as a result of attending a Carpentries workshop? Check all that apply. (n = 134)

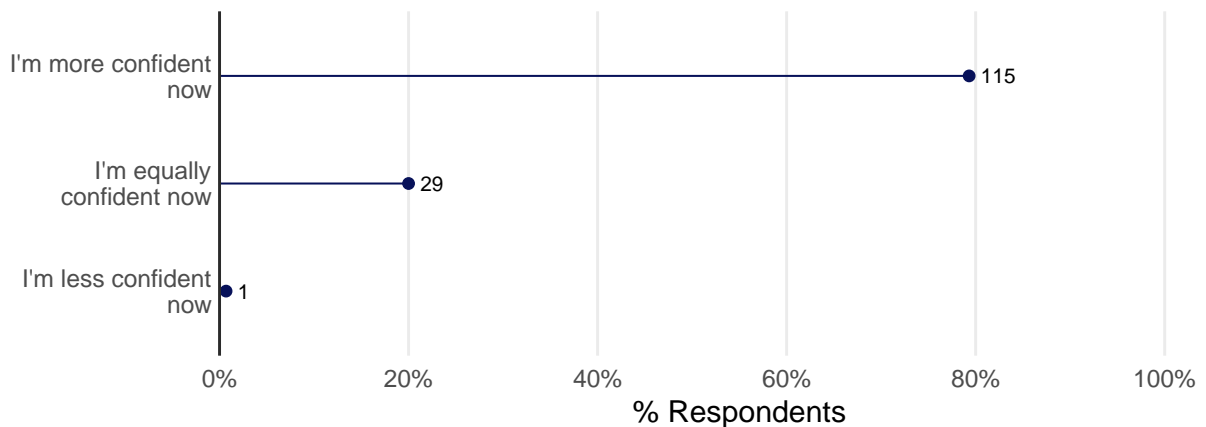% Respondents
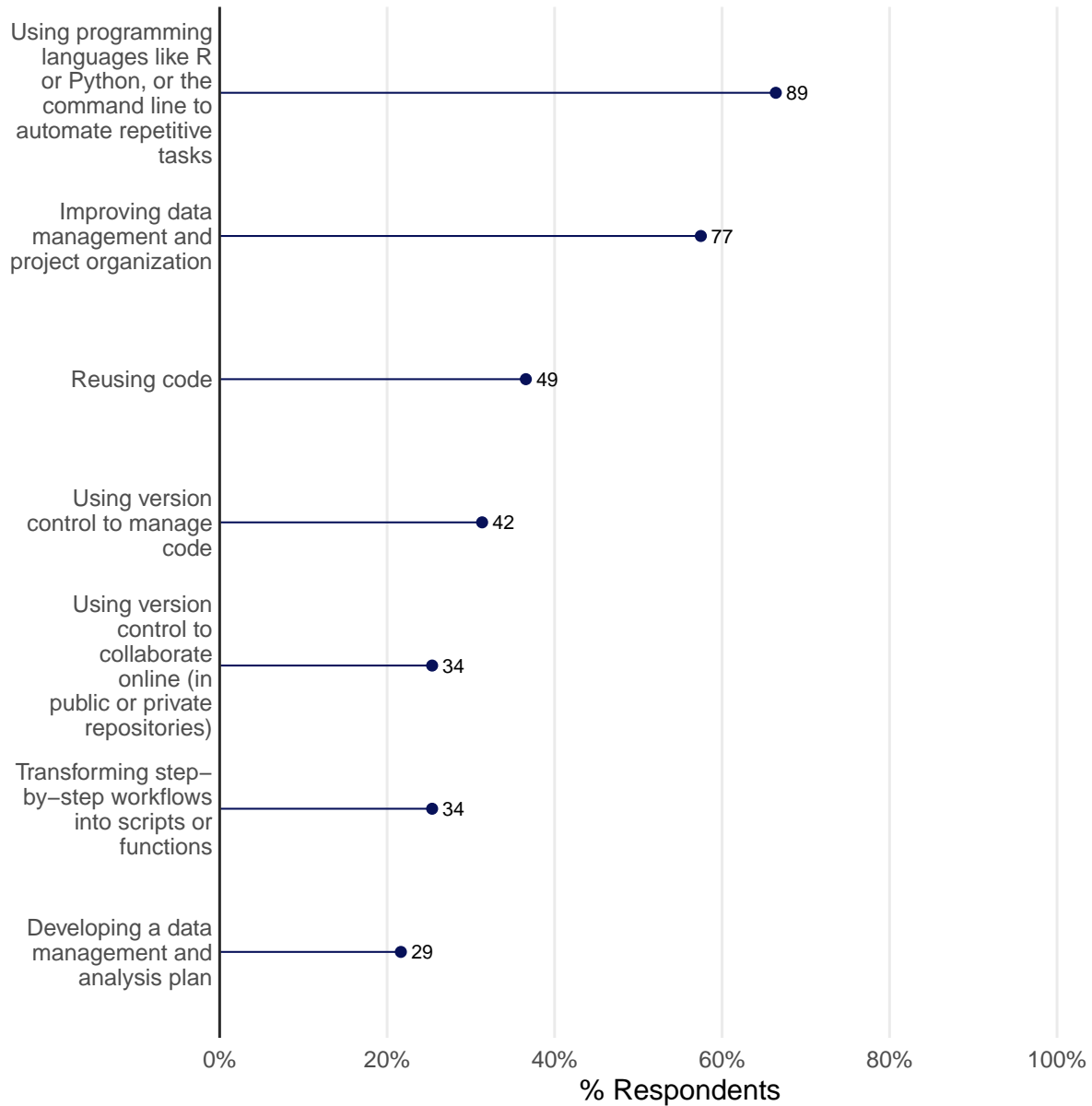
Multiple answers allowed

Comparison of Programming Usage Pre- and Post-Carpentries Workshop

How has the frequency of usage of programming languages, databases, version control and/or the shell, changed before and after the workshop?

■ Before attending workshop   ■ After attending workshop

Daily
Weekly
Monthly
Several times per year
Less than once per year
I don't use these tools

0%   20%   40%   60%   80%   100%

% Respondents

Change in Confidence in Tools Covered at Workshop

**How would you rate your change in confidence in the tools that were covered during your Carpentries workshop(s) compared to before the workshop?**

I'm more confident now — 115

I'm equally confident now — 29

I'm less confident now — 1

0%   20%   40%   60%   80%   100%

% Respondents

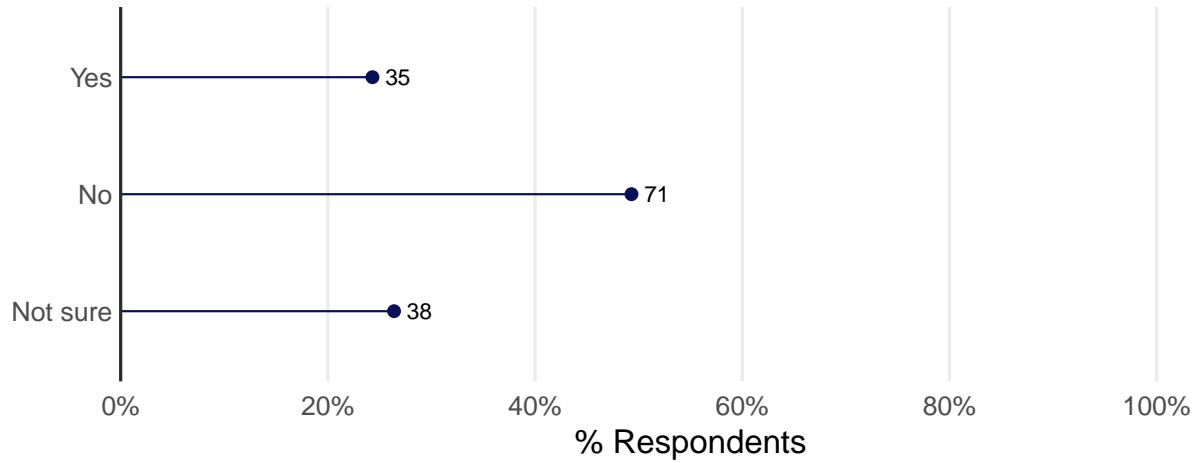Number of answers reported on the graph

If you are using the tools you learned in a Carpentries workshop, how are they helping you? Check all that apply. (n = 142)
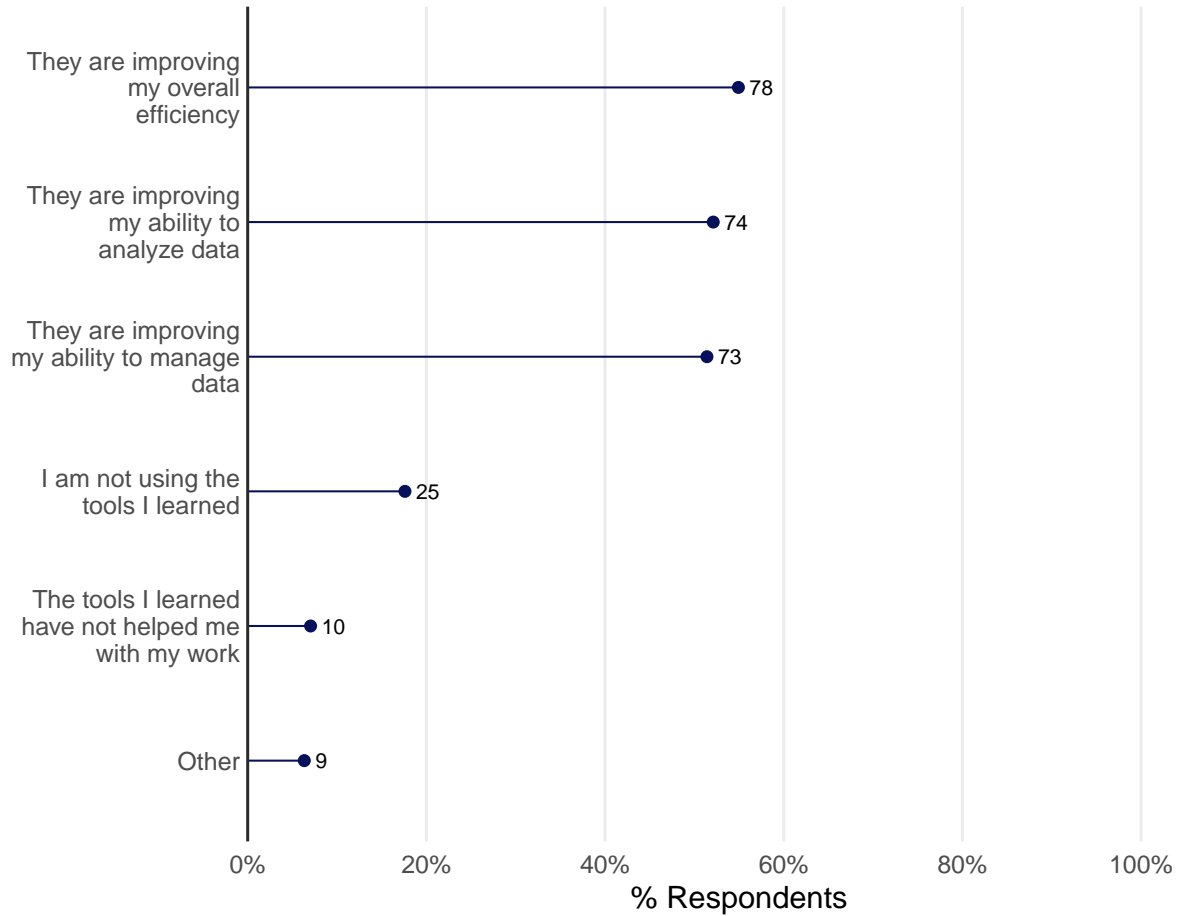
Multiple answsers allowed

Has attending a Carpentries workshop contributed to your writing of a research article, thesis, dissertation, or grant proposal?

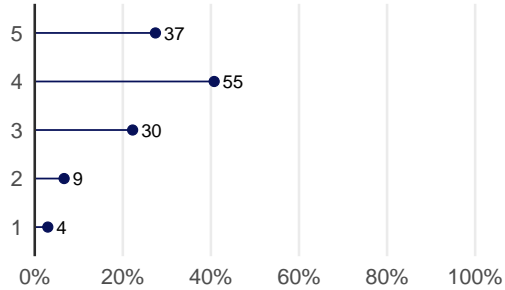|	
Yes	● 35
No	● 71
Not sure	● 38

% Respondents

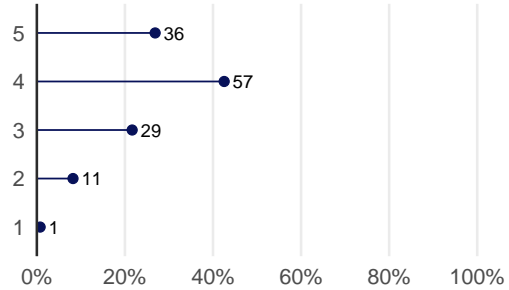Number of answers reported on the graph

Potential Impact on Respondents

(1: Strongly disagree, 3: Neutral, 5: Strongly agree)

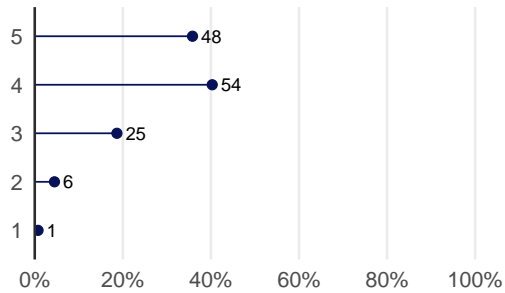### I have used skills I learned at the workshop to advance my career. (n = 135)

Level	Value
5	37
4	55
3	30
2	9
1	4

I have improved my coding practices as a result of completing the workshop. (n = 134)

Level	Value
5	36
4	57
3	29
2	11
1	1

I have gained confidence in working with data as a result of completing the workshop. (n = 134)

Level	Value
5	48
4	54
3	25
2	6
1	1

I have made my analyses more reproducible as a result of completing the workshop. (n = 135)

Level	Value
5	36
4	41
3	46
2	10
1	2
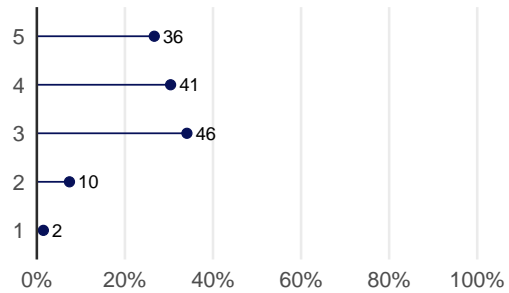
I have been motivated to seek more knowledge about the tools I learned at the workshop. (n = 135)

Level	Value
5	54
4	66
3	10
2	2
1	3
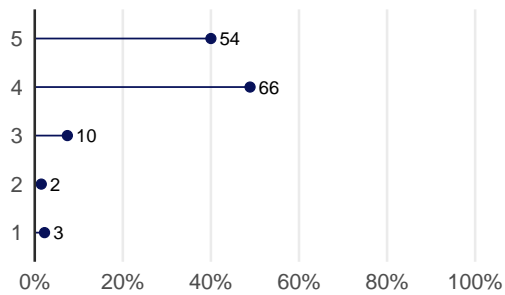
I have received professional recognition for my work as a result of using the tools I learned at the workshop. (n = 133)

Level	Value
5	10
4	26
3	59
2	31
1	7
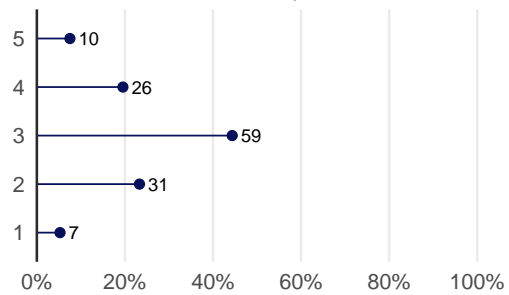
My research productivity has improved as a result of completing the workshop. (n = 134)

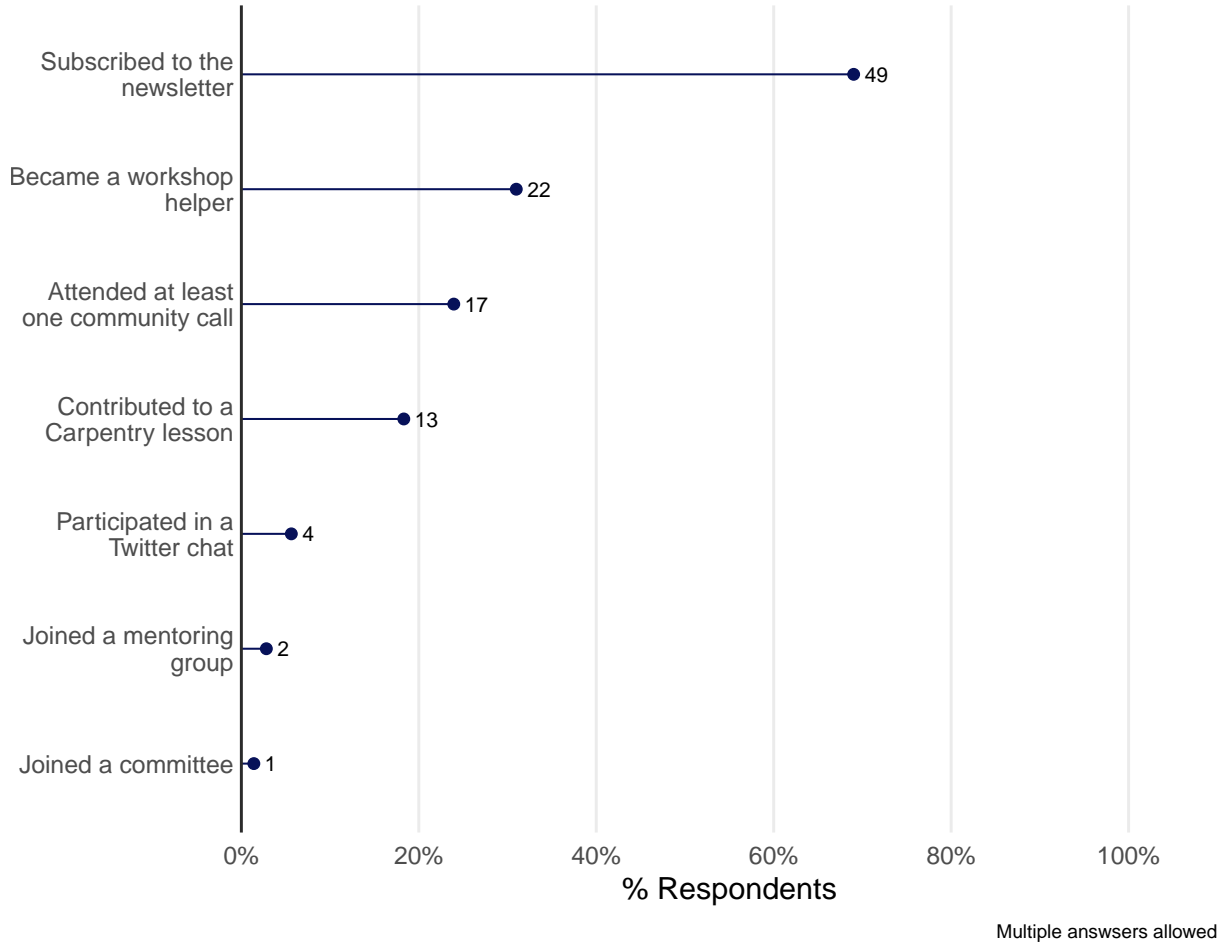| Level	Value
5	27
4	48
3	45
2	13
1	1

% Respondents

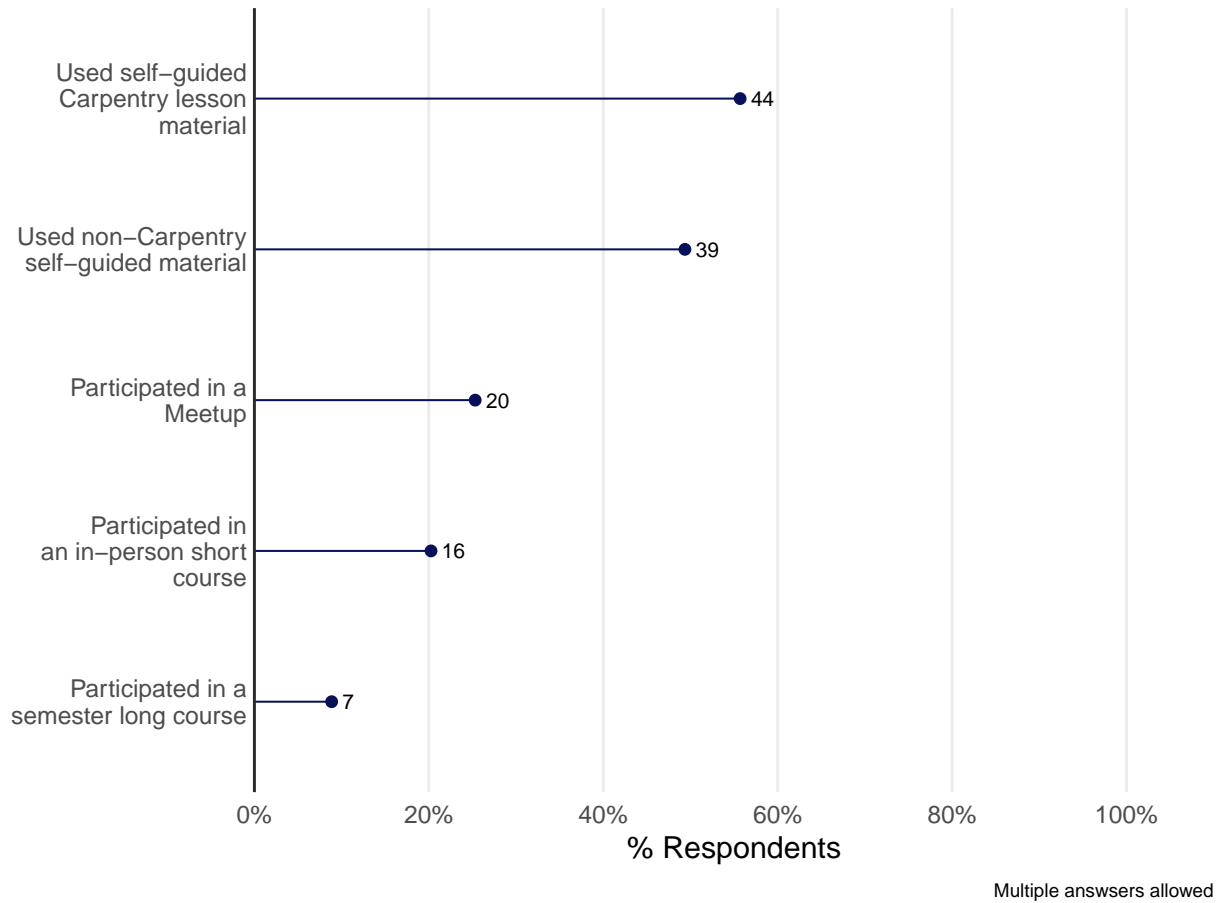Number of answers reported on the graph

10
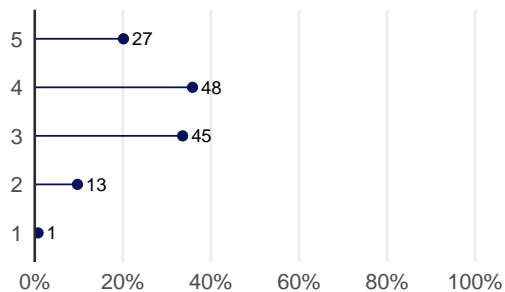
Involvement in Carpentries Community Post-Workshop

Please indicate your involvement in the Carpentries community since attending a Carpentries workshop. Check all that apply. (n = 71)

% Respondents

Multiple answsers allowed

Respondents Participating in Learning Activities

Which of the following learning activities (for data management and analysis) have you participated in since attending a Carpentries workshop? Check all that apply. (n = 79)

% Respondents

Multiple answswers allowed

Have you recommended a Carpentries workshop to a friend or colleague?
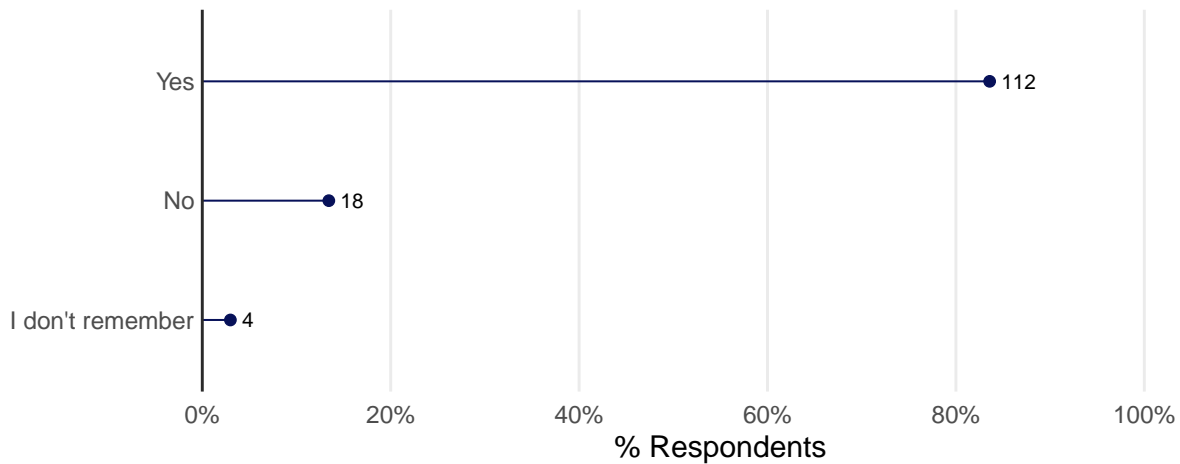
Number of answers reported on the graph

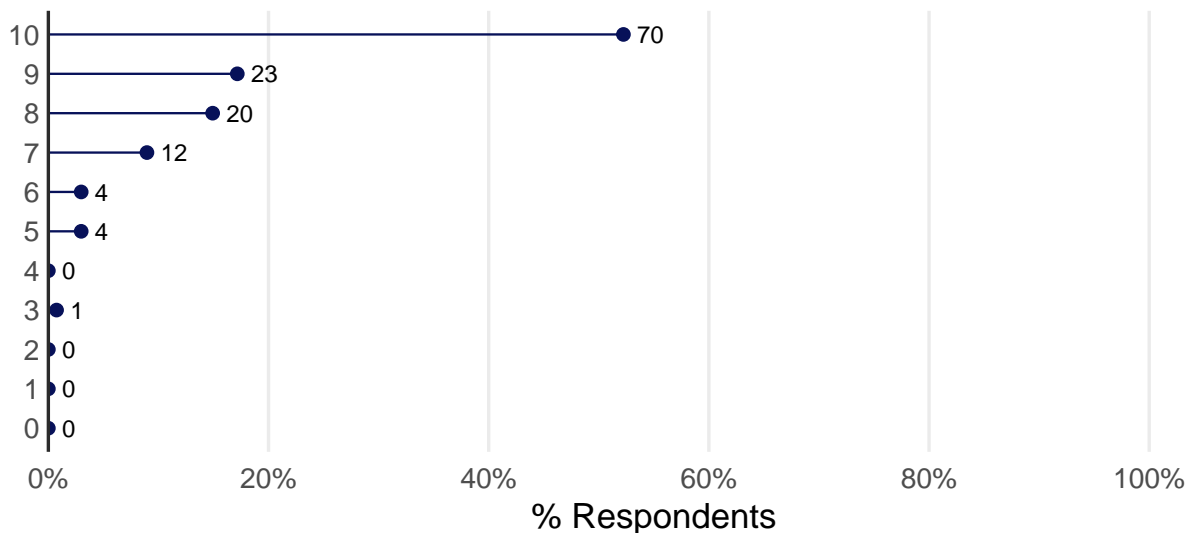## How likely are you to recommend a Carpentries workshop to a friend or colleague?

Number of answers reported on the graph

Net Promoter Score

The Net Promoter Score (NPS) for our workshops according to the long-term survey is 63. The NPS varies between -100 and +100. It is calculated by substracting the percentage of respondents who are considered "Promoters" (rating of 9 or 10) and the percentage of respondents who are considered "Detractors" (rating

equal or below 6). A positive NPS is deemed good, a NPS above 50 is deemed excellent, and an NPS above 70 is exceptional.
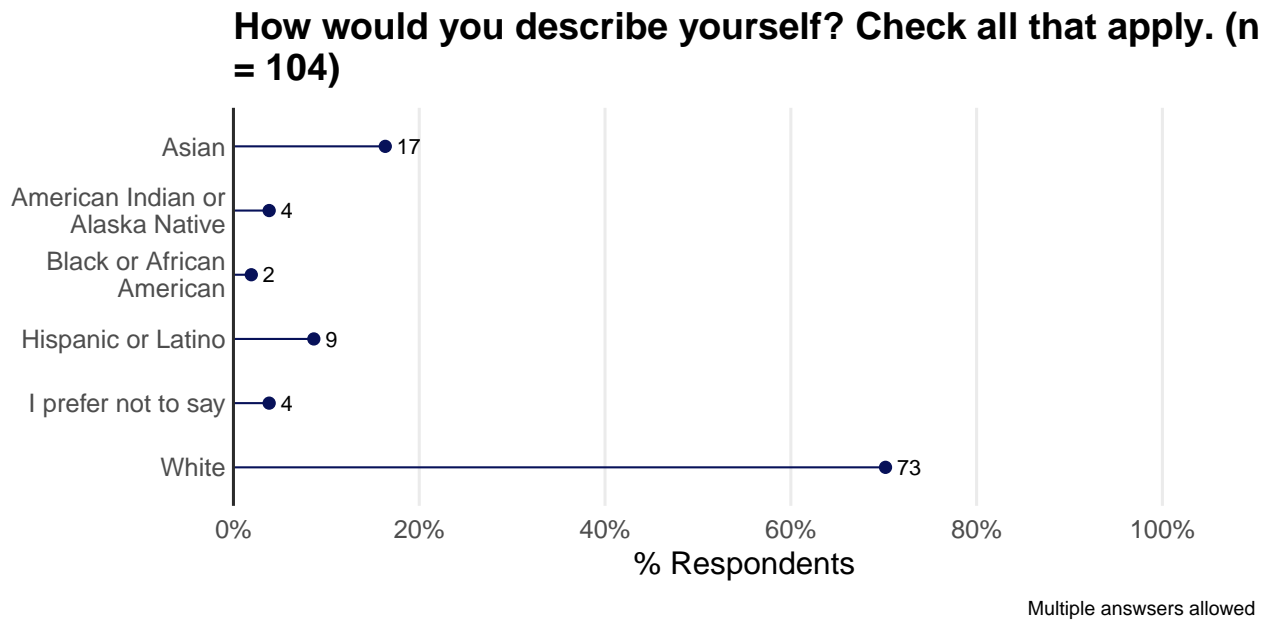
Respondents' Gender Identity

Note: Gender identity responses apply to U.S. survey respondents only.

To which gender identity do you most identify?

Number of answers reported on the graph
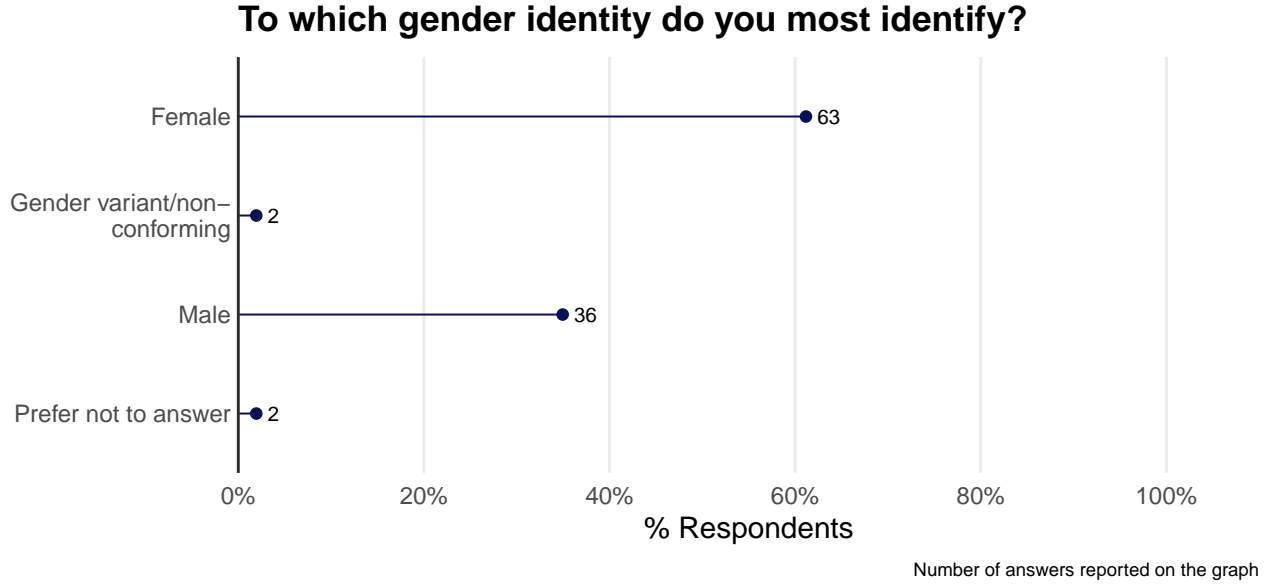
Respondents' Racial/Ethnic Identity

Note: Racial/ethnic identity responses apply to U.S. survey respondents only.

How would you describe yourself? Check all that apply. (n = 104)

Multiple answers allowed

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Label on Plot	Description in Survey
I prefer not to say	I prefer not to say
White	White (A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.)
Hispanic or Latino	Hispanic or Latino(a) (A person of Spanish-speaking origin or ancestry and/or Latin American origin or ancestry – includes Portuguese and Brazilians.)
Black or African American	Black or African American (A person having origins in any of the Black racial groups of Africa – includes Caribbean Islanders and other of African origin.)
Asian	Asian (A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.)
American Indian or Alaska Native	American Indian or Alaska Native (A person having origins in any of the original peoples of North and South America (including Central America), and who maintains a tribal affiliation or community attachment.)