

Summary Analysis of the 2017 GitHub Open Source Survey

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1 Abstract

This report is a high-level summary analysis of the 2017 GitHub Open Source Survey dataset,¹ presenting frequency counts, proportions, and frequency or proportion bar plots for every question asked in the survey.

2 Overview

2.1 The 2017 Open Source Survey

This report analyzes the open dataset from the 2017 Open Source Survey, which was conducted by staff at GitHub, with help, support, and feedback from many others [Zlotnick et al., 2017a]. The survey was run in 2017, asking over 50 questions on a variety of topics. The survey's designers explain the motivation, design, and distribution of the survey on the project's website:

"In collaboration with researchers from academia, industry, and the community, GitHub designed a survey to gather high quality and novel data on open source software development practices and communities. We collected responses from 5,500 randomly sampled respondents sourced from over 3,800 open source repositories on GitHub.com, and over 500 responses from a non-random sample of communities that work on other platforms. The results are an open data set about the attitudes, experiences, and backgrounds of those who use, build, and maintain open source software." [Zlotnick et al., 2017b]

2.2 Purpose and goal of this report

The GitHub survey team presented analyses of some questions when releasing the survey [Zlotnick et al., 2017b], but there were many more questions asked that are relevant to researchers and community members. This report is an exploratory analysis of all questions asked in the survey, providing a basic summary of the responses to each question. This report presents and plots summary statistics – mostly frequency counts, proportions, then a frequency or proportion bar graph

¹<https://opensourcesurvey.org/2017/>

– of all questions asked in the survey. Most questions are presented individually, with panel questions grouped together as appropriate. There are no correlations, regressions, or descriptive breakouts between subgroups. Likert-style questions (e.g. Strongly agree <-> strongly disagree) have not been recoded to numerical, scalar values. There are no discussions or interpretations of results. This is left for future work.

The purpose of this report is to facilitate future research on this dataset by giving an overview of the kinds of questions asked in the survey, as well as provide a single, stable reference for citing broad claims in the data. This report is the PDF version of a Jupyter Notebook, which can be run to reproduce the results of the tables and graphs in this report. The Jupyter notebook and a copy of the data is public on GitHub² and the Open Science Framework³. Others are encouraged to extend it as they see fit, as this report and the notebooks are licensed CC-BY-4.0.⁴ The "Out[number]" notes before each table and chart are linked to the Jupyter notebook, so you can easily navigate to the notebook cell where the applicable code can be found. If you find this report useful, please cite both this report [Geiger, 2017] and the original survey [Zlotnick et al., 2017a] as detailed in the bibliography at the end of this report.

2.3 Software used

This analysis was conducted in Python [van Rossum, 1995] version 3.6, using Pandas dataframes [McKinney, 2010] for data parsing and transformation, SciPy [Jones et al., 2001] and NumPy [van der Walt et al., 2011] for quantitative computations, and Matplotlib [Hunter, 2007] and Seaborn [Waskom et al., 2014] for visualization. It was conducted in Jupyter Notebooks [Kluyver et al., 2016] using the IPython kernel [Pérez and Granger, 2007], and nbconvert (also discussed in [Kluyver et al., 2016]) was used to convert the notebook into LaTeX for publication in this report.

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²<https://github.com/staeiou/github-survey-analysis>

³<https://osf.io/enrq5/>

⁴<https://creativecommons.org/licenses/by/4.0/>

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| | | |
|----------|---|-----------|
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4 Analysis

4.1 Contributor identity

4.1.1 People participate in open source in different ways. Which of the following activities do you engage in?

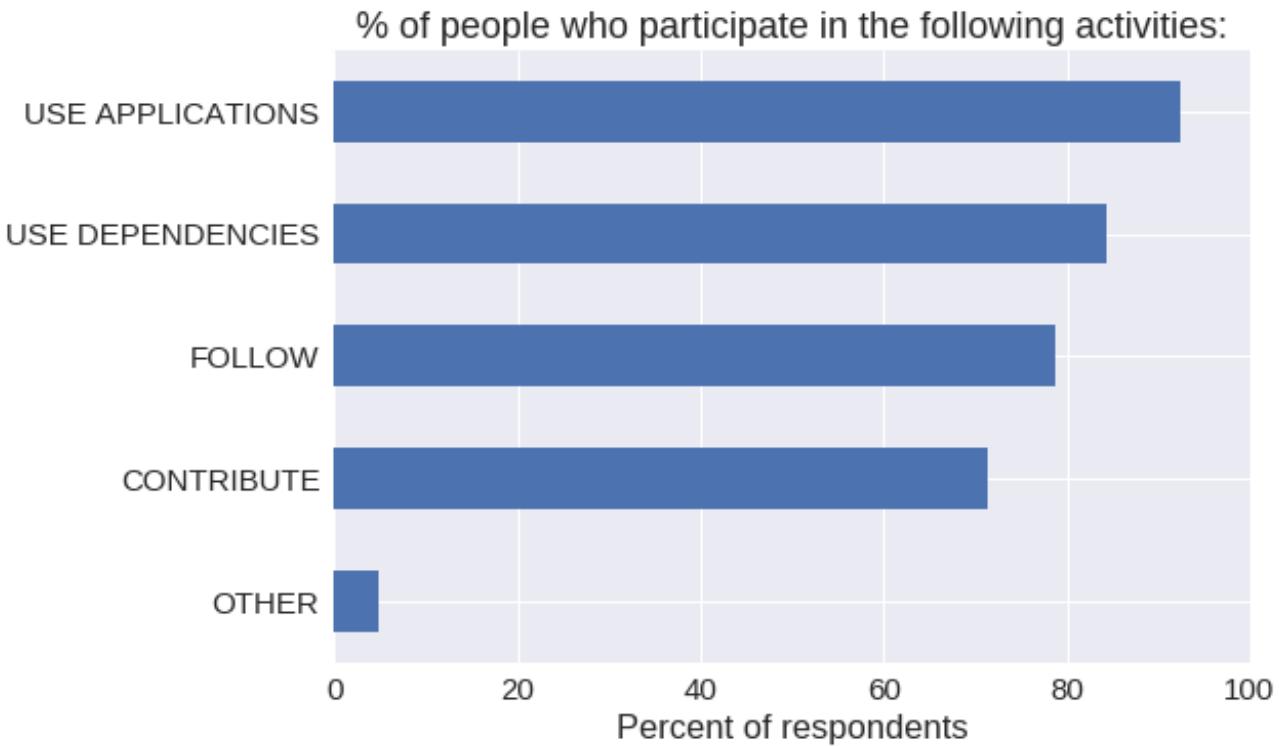
PARTICIPATION.TYPE.*

Out [29] :

| | No | Yes |
|-------------------------------------|------|------|
| PARTICIPATION.TYPE.FOLLOW | 1287 | 4742 |
| PARTICIPATION.TYPE.USE.APPLICATIONS | 454 | 5575 |
| PARTICIPATION.TYPE.USE.DEPENDENCIES | 946 | 5083 |
| PARTICIPATION.TYPE.CONTRIBUTE | 1722 | 4307 |
| PARTICIPATION.TYPE.OTHER | 5742 | 287 |

Out [30] :

| | percent |
|-------------------------------------|---------|
| PARTICIPATION.TYPE.OTHER | 4.76% |
| PARTICIPATION.TYPE.CONTRIBUTE | 71.44% |
| PARTICIPATION.TYPE.FOLLOW | 78.65% |
| PARTICIPATION.TYPE.USE.DEPENDENCIES | 84.31% |
| PARTICIPATION.TYPE.USE.APPLICATIONS | 92.47% |



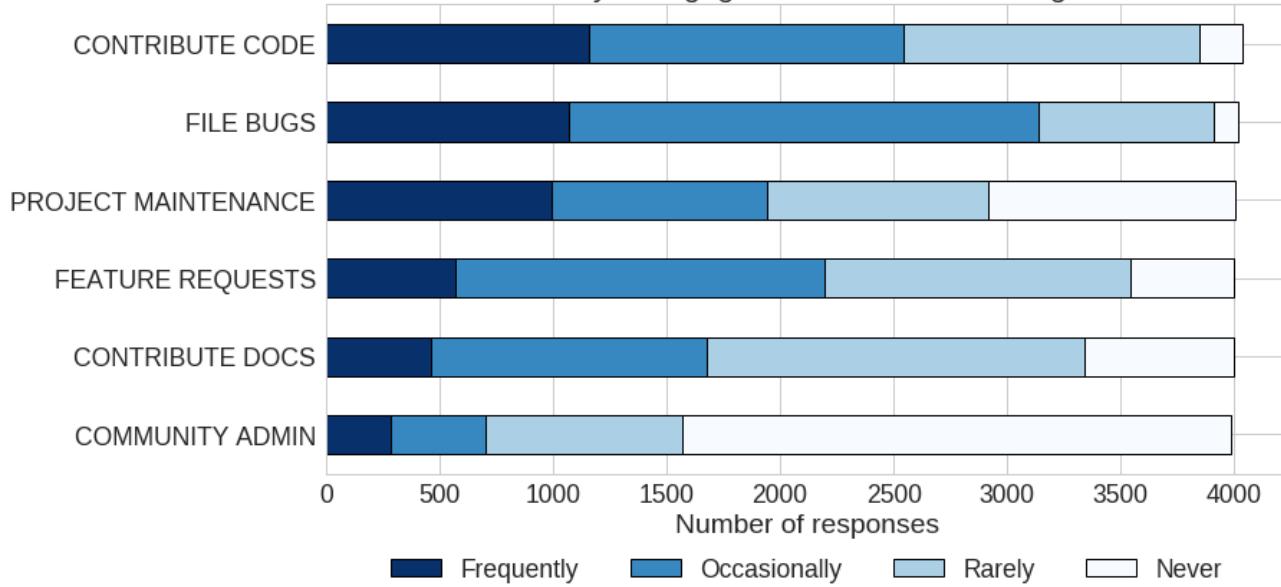
4.1.2 How often do you engage in each of the following activities?

CONTRIBUTION.TYPE.*

Out [32] :

| | Frequently | Occasionally | Rarely | Never |
|--------------------------------------|------------|--------------|--------|-------|
| CONTRIBUTOR.TYPE.COMMUNITY.ADMIN | 287 | 417 | 867 | 2412 |
| CONTRIBUTOR.TYPE.CONTRIBUTE.DOCS | 460 | 1214 | 1665 | 661 |
| CONTRIBUTOR.TYPE.FEATURE.REQUESTS | 573 | 1625 | 1346 | 451 |
| CONTRIBUTOR.TYPE.PROJECT.MAINTENANCE | 996 | 944 | 974 | 1090 |
| CONTRIBUTOR.TYPE.FILE.BUGS | 1067 | 2073 | 768 | 106 |
| CONTRIBUTOR.TYPE.CONTRIBUTE.CODE | 1160 | 1383 | 1301 | 189 |

How often do you engage in each of the following activities?



4.1.3 Employment status

EMPLOYMENT.STATUS

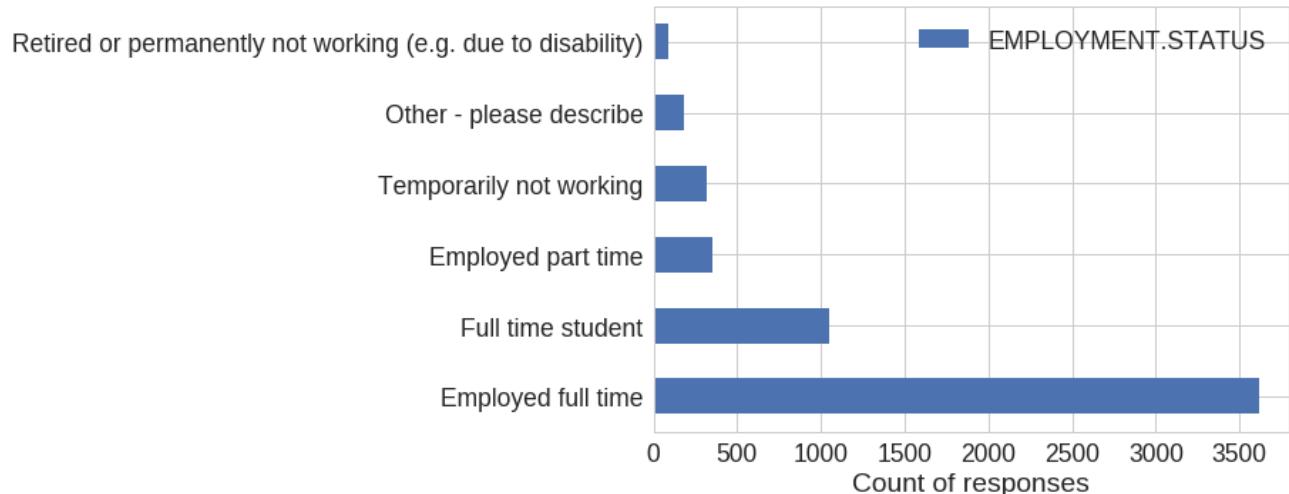
Out [34] :

| | count |
|--|-------|
| Employed full time | 3615 |
| Full time student | 1048 |
| Employed part time | 349 |
| Temporarily not working | 314 |
| Other - please describe | 184 |
| Retired or permanently not working (e.g. due to... | 90 |

Out [35] :

| | percent |
|--|---------|
| Employed full time | 64.55% |
| Full time student | 18.71% |
| Employed part time | 6.23% |
| Temporarily not working | 5.61% |
| Other - please describe | 3.29% |
| Retired or permanently not working (e.g. due to... | 1.61% |

Employment status



4.1.4 In your main job, how often do you write or otherwise directly contribute to producing software?

PROFESSIONAL.SOFTWARE

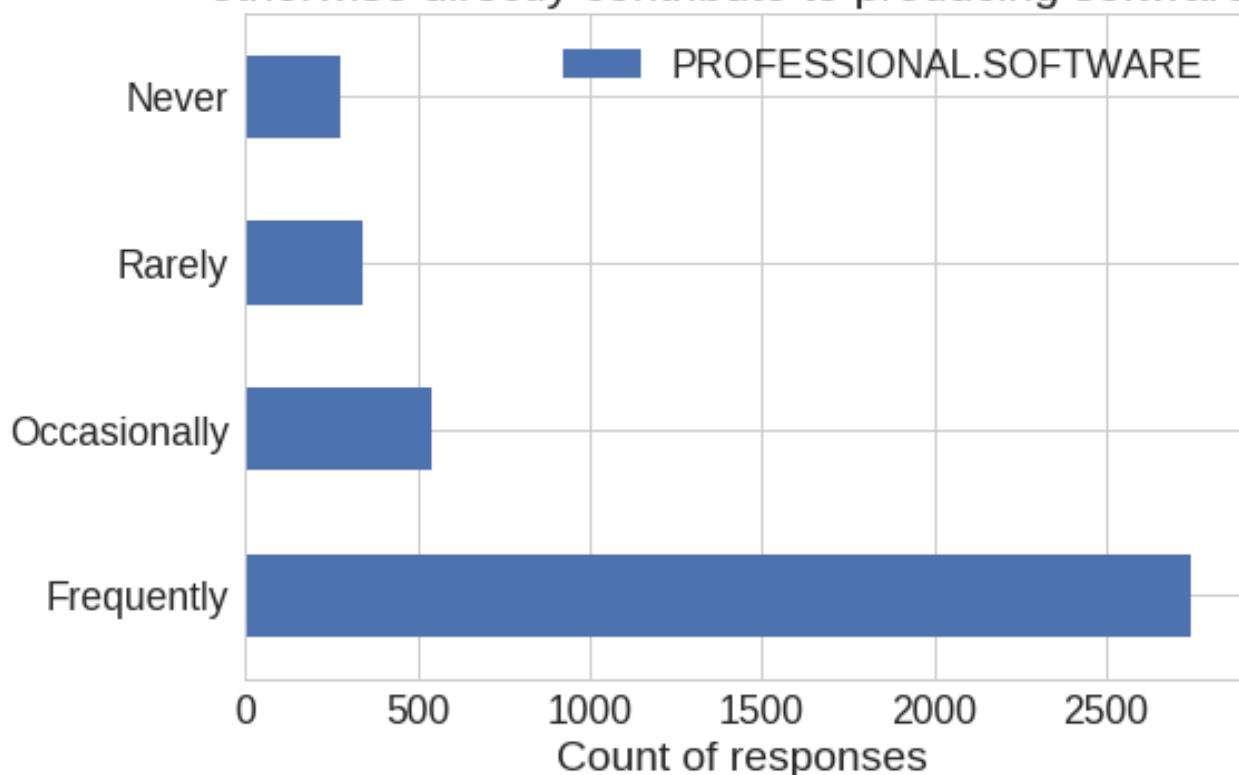
Out[37] :

| | count |
|--------------|-------|
| Frequently | 2747 |
| Occasionally | 542 |
| Rarely | 339 |
| Never | 279 |

Out[38] :

| | percent |
|--------------|---------|
| Frequently | 70.31% |
| Occasionally | 13.87% |
| Rarely | 8.68% |
| Never | 7.14% |

In your main job, how often do you write or otherwise directly contribute to producing software?



4.1.5 How interested are you in contributing to open source projects in the future?

FUTURE.CONTRIBUTION.INTEREST

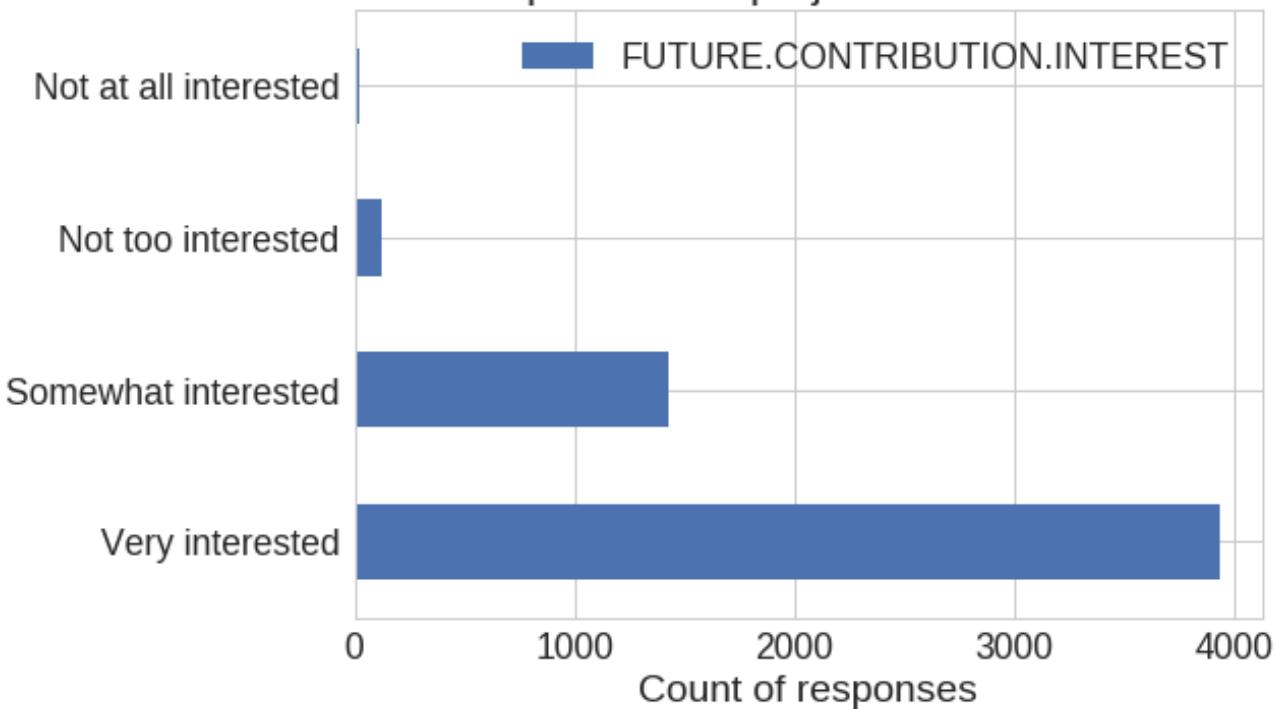
Out [40] :

| | count |
|-----------------------|-------|
| Very interested | 3929 |
| Somewhat interested | 1430 |
| Not too interested | 125 |
| Not at all interested | 24 |

Out [41] :

| | percent |
|-----------------------|---------|
| Very interested | 71.33% |
| Somewhat interested | 25.96% |
| Not too interested | 2.27% |
| Not at all interested | 0.44% |

How interested are you in contributing
to open source projects in the future?



4.1.6 How likely are you to contribute to open source projects in the future?

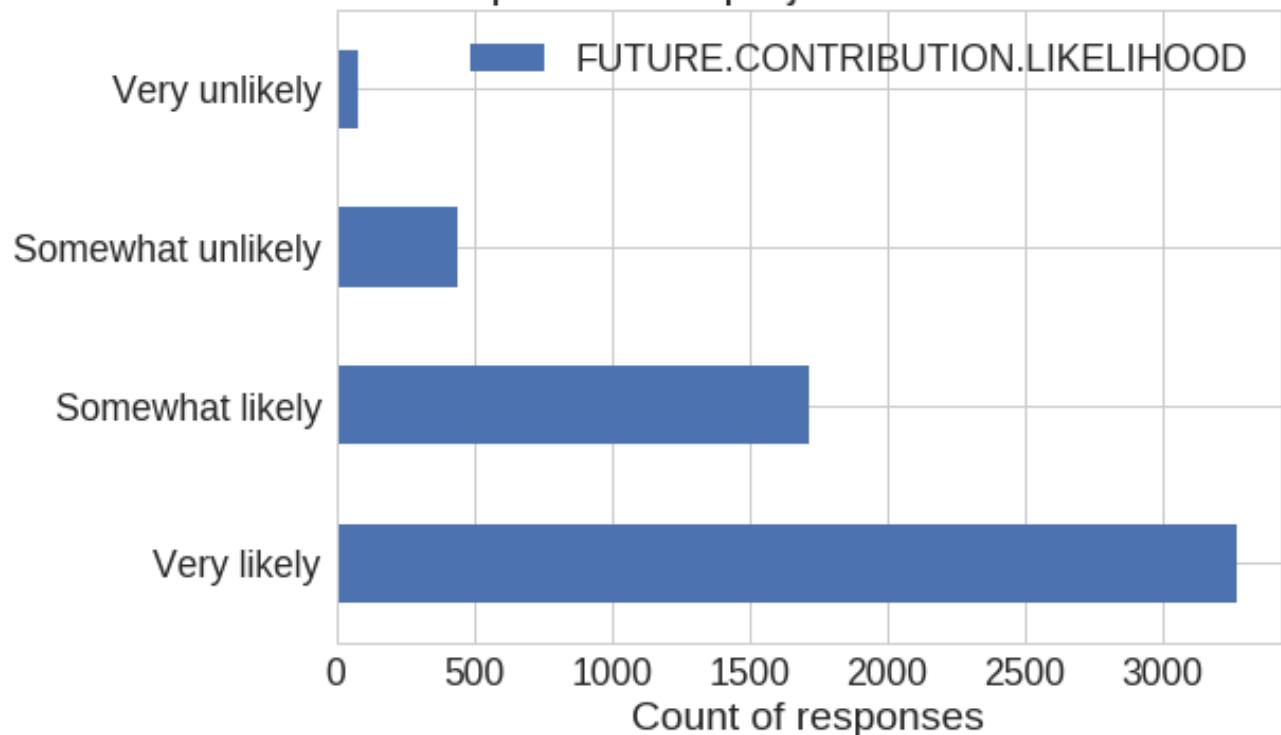
Out [43] :

| | count |
|-------------------|-------|
| Very likely | 3271 |
| Somewhat likely | 1719 |
| Somewhat unlikely | 440 |
| Very unlikely | 81 |

Out [44] :

| | percent |
|-------------------|---------|
| Very likely | 59.35% |
| Somewhat likely | 31.19% |
| Somewhat unlikely | 7.98% |
| Very unlikely | 1.47% |

How likely are you to contribute to open source projects in the future?



4.2 Priorities and values

4.2.1 When thinking about whether to use open source software, how important are the following things?

OSS.USER.PRIORITIES.*

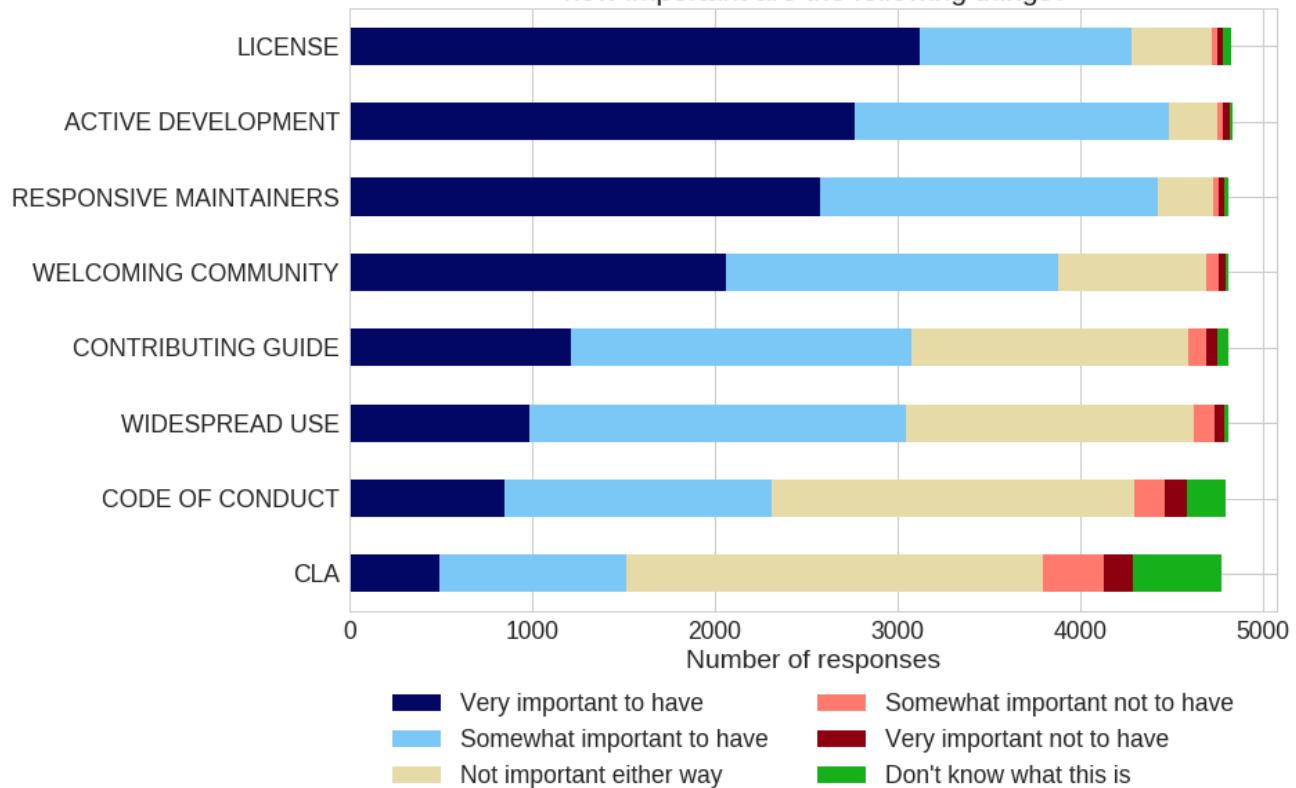
Out [47] :

| | Very imp to have | Somewhat imp to have | Neither | Somewhat imp to not have | Very imp to not have | Don't know |
|------------------------|---------------------|-------------------------|---------|--------------------------------|-------------------------|---------------|
| CLA | 490 | 1024 | 2282 | 336 | 157 | 488 |
| CODE.OF.CONDUCT | 848 | 1461 | 1993 | 166 | 120 | 209 |
| WIDESPREAD.USE | 984 | 2067 | 1576 | 114 | 47 | 28 |
| CONTRIBUTING.GUIDE | 1212 | 1866 | 1516 | 95 | 62 | 62 |
| WELCOMING.COMMUNITY | 2062 | 1822 | 812 | 67 | 33 | 18 |
| RESPONSIVE.MAINTAINERS | 2575 | 1850 | 302 | 31 | 35 | 20 |
| ACTIVE.DEVELOPMENT | 2768 | 1722 | 267 | 30 | 31 | 16 |
| LICENSE | 3125 | 1160 | 435 | 31 | 33 | 47 |

Out [49] :

| | Very imp to have | Somewhat imp to have | Neither | Somewhat imp to not have | Very imp to not have | Don't know |
|------------------------|---------------------|-------------------------|---------|--------------------------------|-------------------------|---------------|
| CLA | 10.26% | 21.44% | 47.77% | 7.03% | 3.29% | 10.22% |
| CODE.OF.CONDUCT | 17.68% | 30.46% | 41.55% | 3.46% | 2.50% | 4.36% |
| WIDESPREAD.USE | 20.43% | 42.92% | 32.72% | 2.37% | 0.98% | 0.58% |
| CONTRIBUTING.GUIDE | 25.18% | 38.77% | 31.50% | 1.97% | 1.29% | 1.29% |
| WELCOMING.COMMUNITY | 42.83% | 37.85% | 16.87% | 1.39% | 0.69% | 0.37% |
| RESPONSIVE.MAINTAINERS | 53.50% | 38.44% | 6.27% | 0.64% | 0.73% | 0.42% |
| ACTIVE.DEVELOPMENT | 57.26% | 35.62% | 5.52% | 0.62% | 0.64% | 0.33% |
| LICENSE | 64.69% | 24.01% | 9.00% | 0.64% | 0.68% | 0.97% |

When thinking about whether to *use* open source software,
how important are the following things?



4.2.2 When thinking about whether to contribute to an open source project, how important are the following things?

OSS.CONTRIBUTOR.PRIORITIES.*

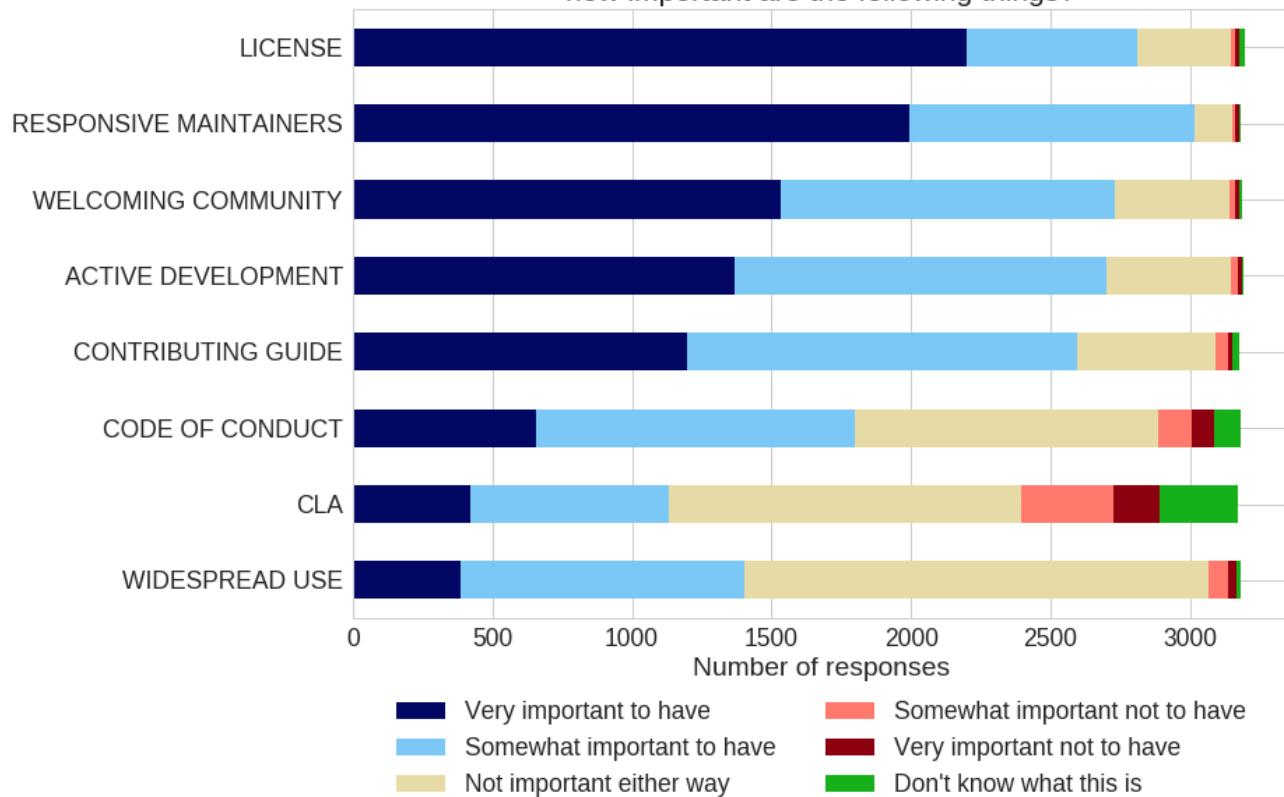
Out [52] :

| | Very imp to have | Somewhat imp to have | Neither | Somewhat imp to not have | Very imp to not have | Don't know |
|------------------------|---------------------|-------------------------|---------|--------------------------------|-------------------------|---------------|
| WIDESPREAD.USE | 387 | 1016 | 1666 | 70 | 30 | 12 |
| CLA | 419 | 712 | 1266 | 327 | 166 | 280 |
| CODE.OF.CONDUCT | 655 | 1145 | 1085 | 119 | 84 | 96 |
| CONTRIBUTING.GUIDE | 1198 | 1396 | 500 | 41 | 18 | 24 |
| ACTIVE.DEVELOPMENT | 1368 | 1333 | 448 | 21 | 18 | 5 |
| WELCOMING.COMMUNITY | 1533 | 1199 | 411 | 21 | 15 | 7 |
| RESPONSIVE.MAINTAINERS | 1994 | 1022 | 138 | 7 | 16 | 7 |
| LICENSE | 2199 | 610 | 337 | 16 | 15 | 18 |

Out [54] :

| | Very imp to have | Somewhat imp to have | Neither | Somewhat imp to not have | Very imp to not have | Don't know |
|------------------------|---------------------|-------------------------|---------|--------------------------------|-------------------------|---------------|
| WIDESPREAD.USE | 12.17% | 31.94% | 52.37% | 2.20% | 0.94% | 0.38% |
| CLA | 13.22% | 22.46% | 39.94% | 10.32% | 5.24% | 8.83% |
| CODE.OF.CONDUCT | 20.57% | 35.96% | 34.08% | 3.74% | 2.64% | 3.02% |
| CONTRIBUTING.GUIDE | 37.71% | 43.94% | 15.74% | 1.29% | 0.57% | 0.76% |
| ACTIVE.DEVELOPMENT | 42.84% | 41.75% | 14.03% | 0.66% | 0.56% | 0.16% |
| WELCOMING.COMMUNITY | 48.12% | 37.63% | 12.90% | 0.66% | 0.47% | 0.22% |
| RESPONSIVE.MAINTAINERS | 62.63% | 32.10% | 4.33% | 0.22% | 0.50% | 0.22% |
| LICENSE | 68.83% | 19.09% | 10.55% | 0.50% | 0.47% | 0.56% |

When thinking about whether to *contribute* to an open source project,
how important are the following things?



4.2.3 How often do you try to find open source options over other kinds of software?

SEEK.OPEN.SOURCE

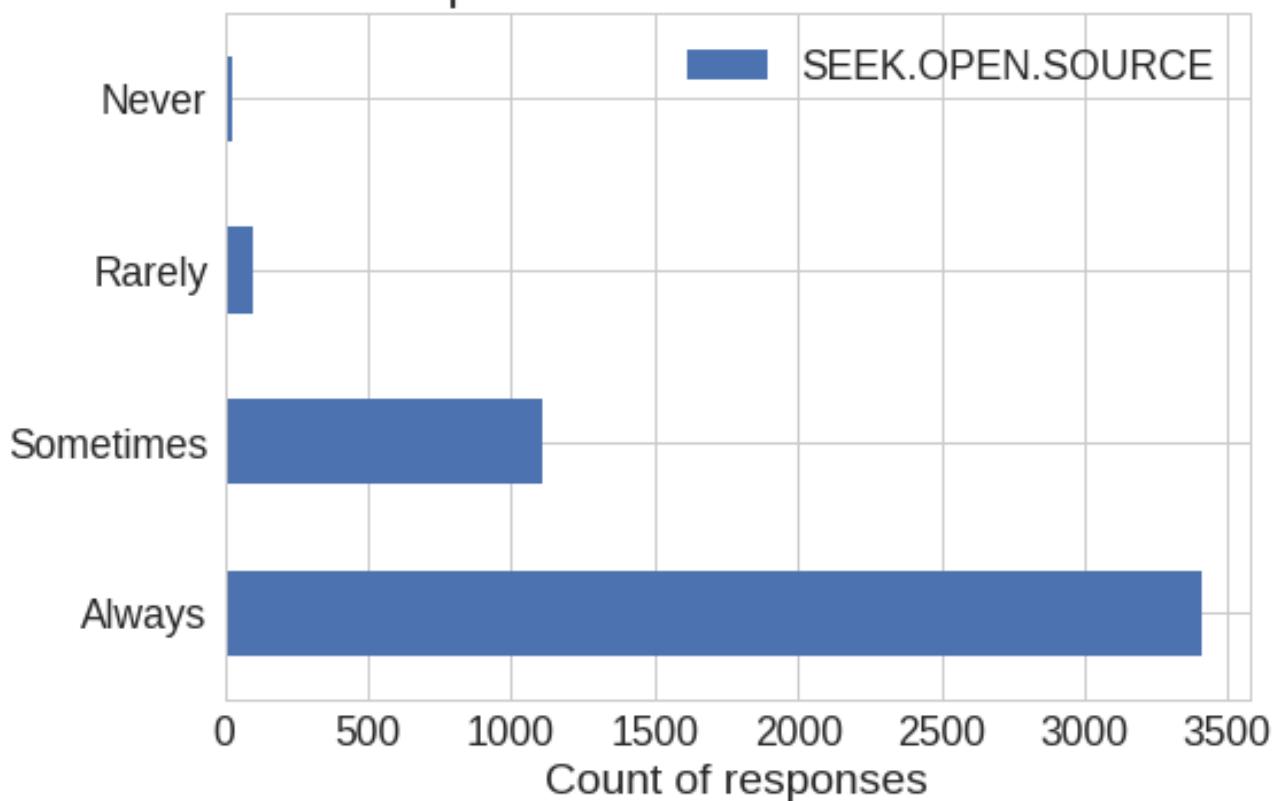
Out [56] :

| | count |
|-----------|-------|
| Always | 3407 |
| Sometimes | 1111 |
| Rarely | 100 |
| Never | 25 |

Out [57] :

| | percent |
|-----------|---------|
| Always | 73.38% |
| Sometimes | 23.93% |
| Rarely | 2.15% |
| Never | 0.54% |

How often do you try to find open source options over other kinds of software?



4.2.4 Open source software usability

OSS.UX: Do you believe that open source software is generally easier to use than closed source (proprietary) software, harder to use, or about the same?

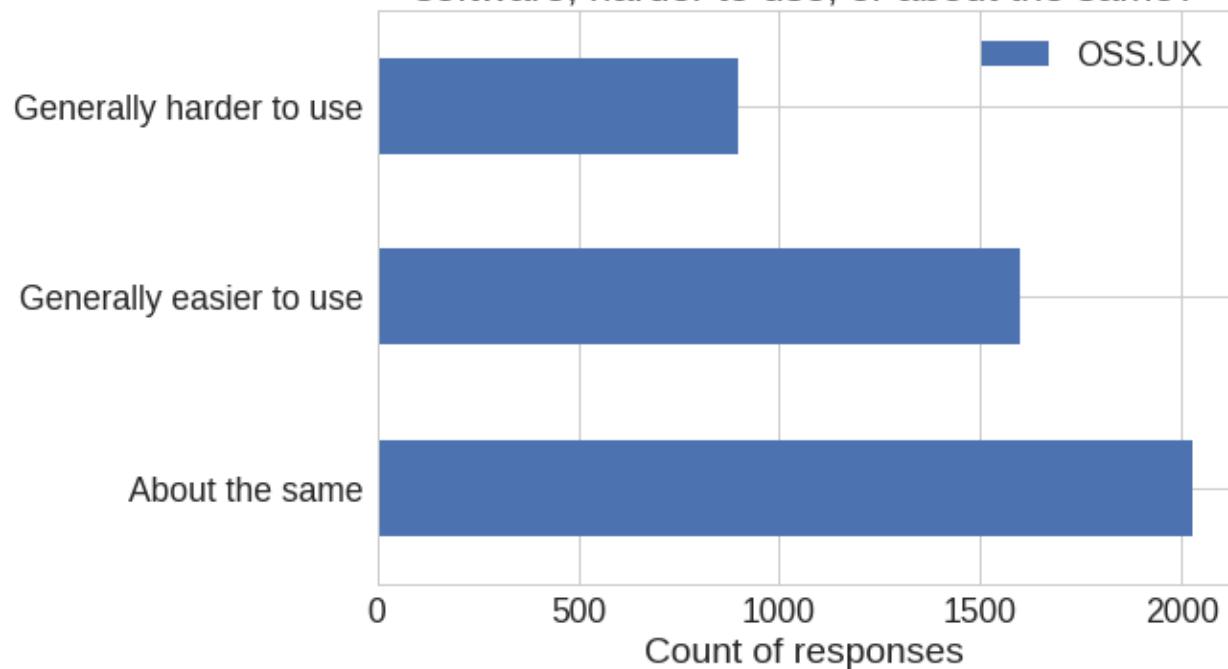
Out [59] :

| | count |
|-------------------------|-------|
| About the same | 2027 |
| Generally easier to use | 1597 |
| Generally harder to use | 897 |

Out [60] :

| | percent |
|-------------------------|---------|
| About the same | 44.84% |
| Generally easier to use | 35.32% |
| Generally harder to use | 19.84% |

Do you believe that open source software is generally easier to use than closed source (proprietary) software, harder to use, or about the same?



4.2.5 Open source software security

OSS.SECURITY: Do you believe that open source software is generally more secure than closed source (proprietary) software, less secure, or about the same?

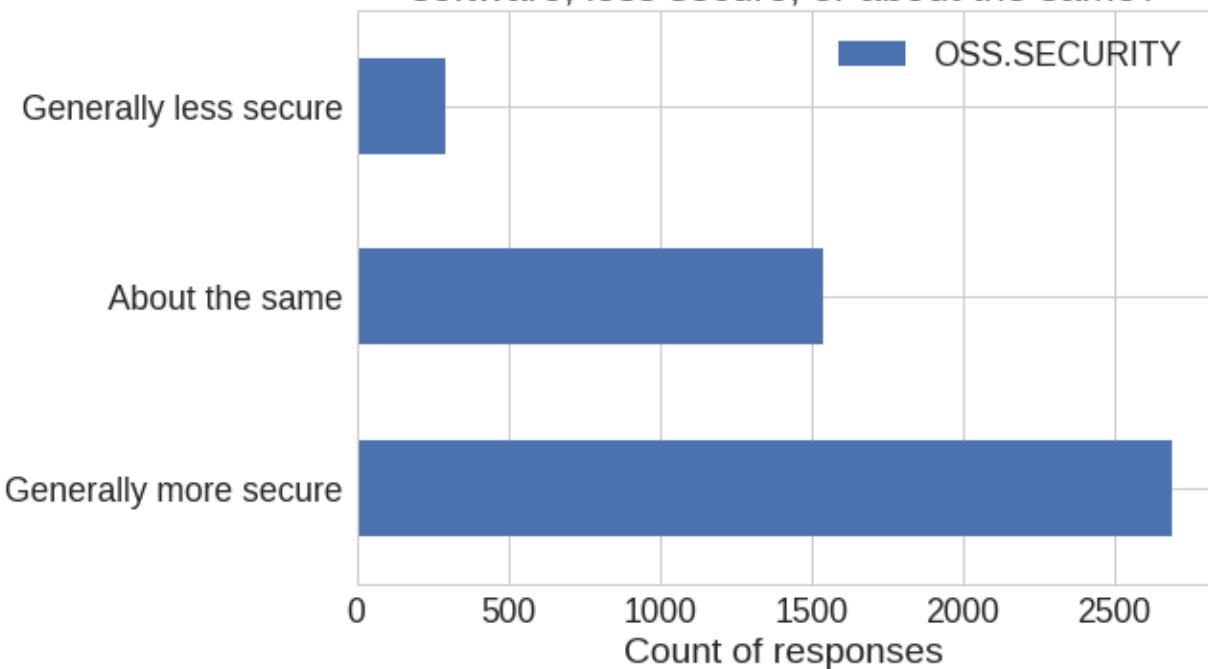
Out [62] :

| | count |
|-----------------------|-------|
| Generally more secure | 2688 |
| About the same | 1537 |
| Generally less secure | 295 |

Out [63] :

| | percent |
|-----------------------|---------|
| Generally more secure | 59.47% |
| About the same | 34.00% |
| Generally less secure | 6.53% |

Do you believe that open source software is generally more secure than closed source (proprietary) software, less secure, or about the same?



4.2.6 Open source software stability

OSS.STABILITY: Do you believe that open source software is generally more stable than closed source (proprietary) software, less stable, or about the same?

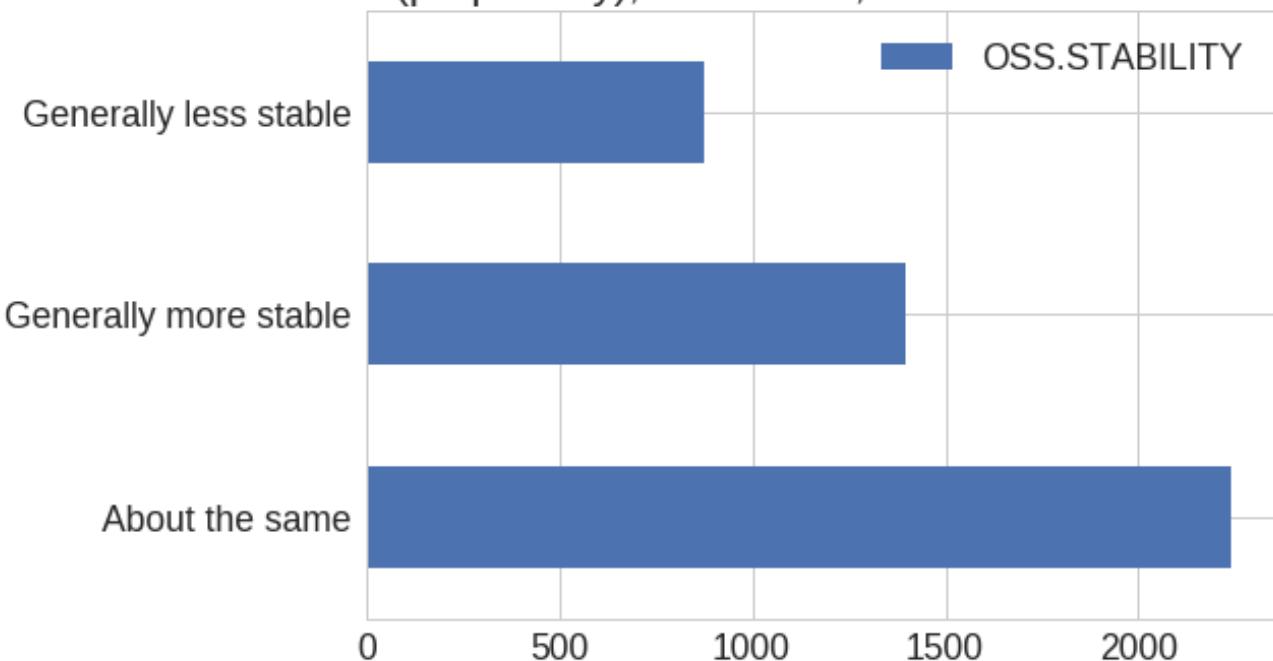
Out [65] :

| | count |
|-----------------------|-------|
| About the same | 2240 |
| Generally more stable | 1399 |
| Generally less stable | 877 |

Out [66] :

| | percent |
|-----------------------|---------|
| About the same | 49.60% |
| Generally more stable | 30.98% |
| Generally less stable | 19.42% |

Do you believe that open source software is generally more stable than closed source (proprietary), less stable, or about the same?



4.2.7 Identification with open source

How much do you agree or disagree with the following statements:

- EXTERNAL.EFFICACY: The open source community values contributions from people like me.
- INTERNAL.EFFICACY: I have the skills and understanding necessary to make meaningful contributions to open source projects.
- OSS.IDENTIFICATION: I consider myself to be a member of the open source (and/or the Free/Libre software) community.

Out [69] :

| | Strongly agree | Somewhat agree | Neither | Somewhat disagree | Strongly disagree |
|--------------------|----------------|----------------|---------|-------------------|-------------------|
| EXTERNAL.EFFICACY | 1518 | 1610 | 1116 | 150 | 58 |
| OSS.IDENTIFICATION | 1579 | 1513 | 863 | 351 | 150 |
| INTERNAL.EFFICACY | 2052 | 1685 | 418 | 240 | 62 |

Out [70] :

| | Strongly agree | Somewhat agree | Neither | Somewhat disagree | Strongly disagree |
|--------------------|----------------|----------------|---------|-------------------|-------------------|
| INTERNAL.EFFICACY | 9.38% | 37.81% | 5.38% | 46.04% | 1.39% |
| EXTERNAL.EFFICACY | 25.07% | 36.16% | 3.37% | 34.10% | 1.30% |
| OSS.IDENTIFICATION | 19.37% | 33.95% | 7.88% | 35.44% | 3.37% |

How much do you agree or disagree with the following statements:

I have the skills and understanding necessary to make meaningful contributions to open source projects.



I consider myself to be a member of the open source (and/or the Free/Libre software) community.



The open source community values contributions from people like me.



0 1000 2000 3000 4000
Number of responses

| | |
|---|---|
| █ Strongly agree █ Somewhat agree █ Neither agree nor disagree | █ Somewhat disagree █ Strongly disagree |
|---|---|

4.3 Transparency vs privacy

4.3.1 Attribution

TRANSPARENCY.PRIVACY.BELIEFS: Which of the following statements is closest to your beliefs about attribution in software development?

- Records of authorship should be required so that end users know who created the source code they are working with.
- People should be able to contribute code without attribution, if they wish to remain anonymous.

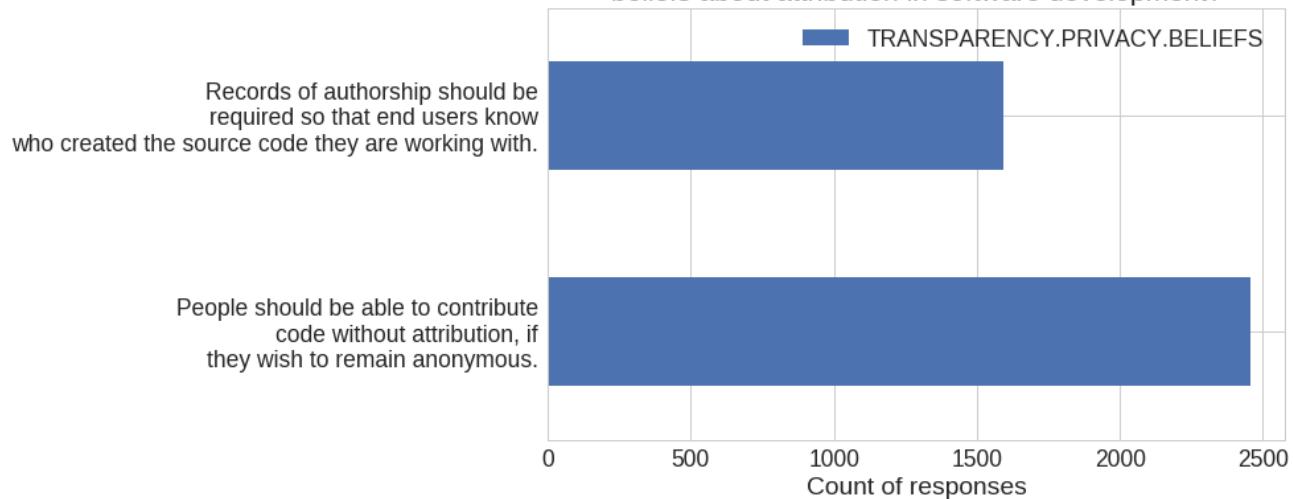
Out [72] :

| | count |
|--|-------|
| People should be able to contribute code without attribution, if they wish to remain anonymous. | 2454 |
| Records of authorship should be required so that end users know who created the source code they are working with. | 1594 |

Out [73] :

| | percent |
|--|---------|
| People should be able to contribute code without attribution, if they wish to remain anonymous. | 60.62% |
| Records of authorship should be required so that end users know who created the source code they are working with. | 39.38% |

Which of the following statements is closest to your beliefs about attribution in software development?



4.3.2 In general, how much information about you is publicly available online?

INFO.AVAILABILITY

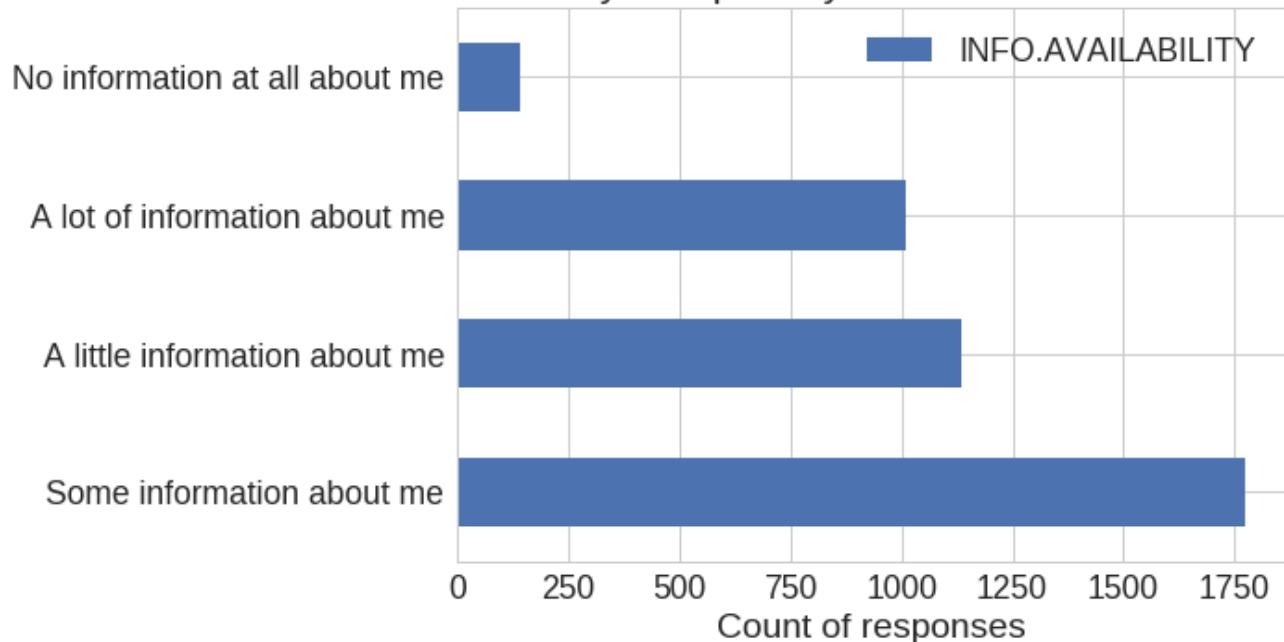
Out [75] :

| | count |
|--------------------------------|-------|
| Some information about me | 1776 |
| A little information about me | 1133 |
| A lot of information about me | 1011 |
| No information at all about me | 140 |

Out [76] :

| | percent |
|--------------------------------|---------|
| Some information about me | 43.74% |
| A little information about me | 27.91% |
| A lot of information about me | 24.90% |
| No information at all about me | 3.45% |

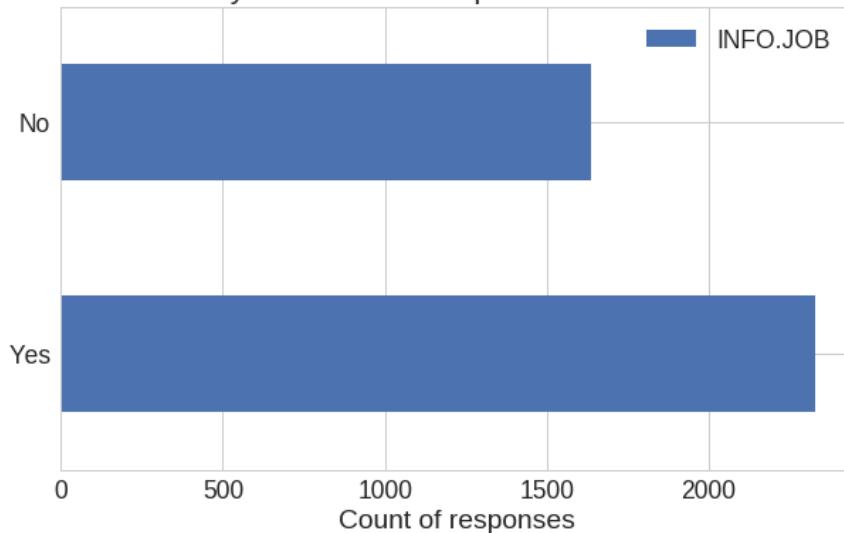
In general, how much information about you is publicly available online?



4.3.3 Do you feel that you need to make information available about yourself online for professional reasons?

| INFO.JOB | |
|-------------------|--------|
| <u>Out [78] :</u> | |
| <u>count</u> | |
| Yes | 2327 |
| No | 1638 |
| <u>Out [79] :</u> | |
| <u>percent</u> | |
| Yes | 58.69% |
| No | 41.31% |

Do you feel that you need to make information available about yourself online for professional reasons?



4.3.4 General privacy practices

TRANSPARENCY.PRIVACY.PRACTICES.GENERAL

"Which of the following best describes your practices around publishing content online, such as posts on social media (e.g. Facebook, Instagram, Twitter, etc.), blogs, and other platforms (not including contributions to open source projects)?" (single choice)

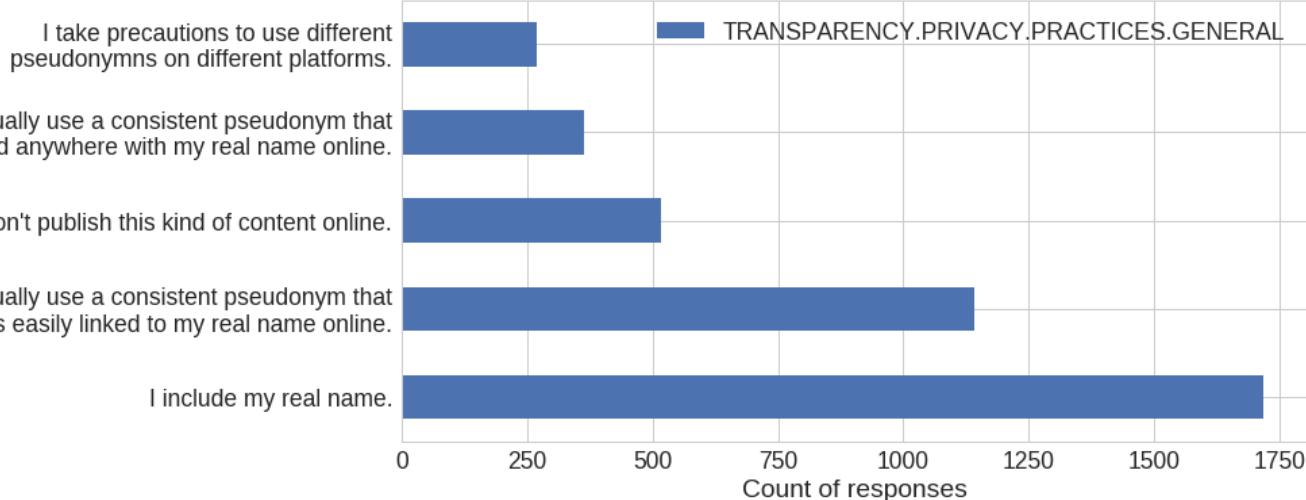
Out [81] :

| | count |
|---|-------|
| I include my real name. | 1718 |
| I usually use a consistent pseudonym that is easily linked to my real name online. | 1141 |
| I don't publish this kind of content online. | 517 |
| I usually use a consistent pseudonym that is not linked anywhere with my real name online | 363 |
| I take precautions to use different pseudonyms on different platforms. | 270 |

Out [82] :

| | percent |
|---|---------|
| I include my real name. | 42.85% |
| I usually use a consistent pseudonym that is easily linked to my real name online. | 28.46% |
| I don't publish this kind of content online. | 12.90% |
| I usually use a consistent pseudonym that is not linked anywhere with my real name online | 9.05% |
| I take precautions to use different pseudonyms on different platforms. | 6.73% |

Which of the following best describes your practices around publishing content online [...] not including contributions to open source projects?



4.3.5 OSS privacy practices

"Which of the following best describes your practices when making open source contributions?"

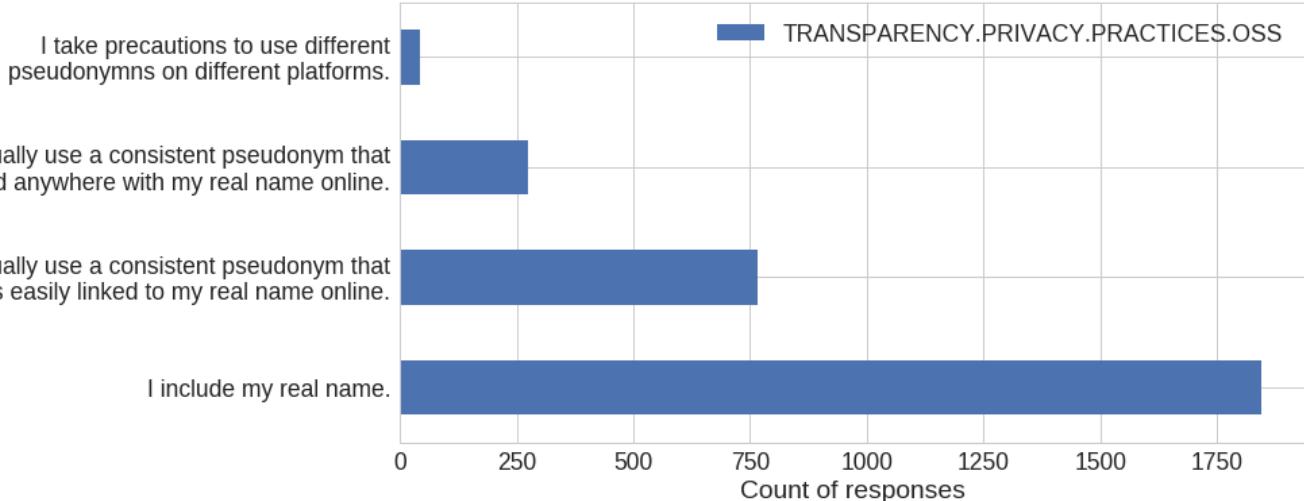
Out [85] :

| | count |
|---|-------|
| I include my real name. | 1845 |
| I usually use a consistent pseudonym that is easily linked to my real name online. | 766 |
| I usually use a consistent pseudonym that is not linked anywhere with my real name online | 273 |
| I take precautions to use different pseudonyms on different platforms. | 42 |

Out [86] :

| | percent |
|---|---------|
| I include my real name. | 63.06% |
| I usually use a consistent pseudonym that is easily linked to my real name online. | 26.18% |
| I usually use a consistent pseudonym that is not linked anywhere with my real name online | 9.33% |
| I take precautions to use different pseudonyms on different platforms. | 1.44% |

Which of the following best describes your practices when making open source contributions?



4.4 Mentorship / Help

4.4.1 Have you ever received any kind of help from other people related to using or contributing to an open source project?

RECEIVED.HELP

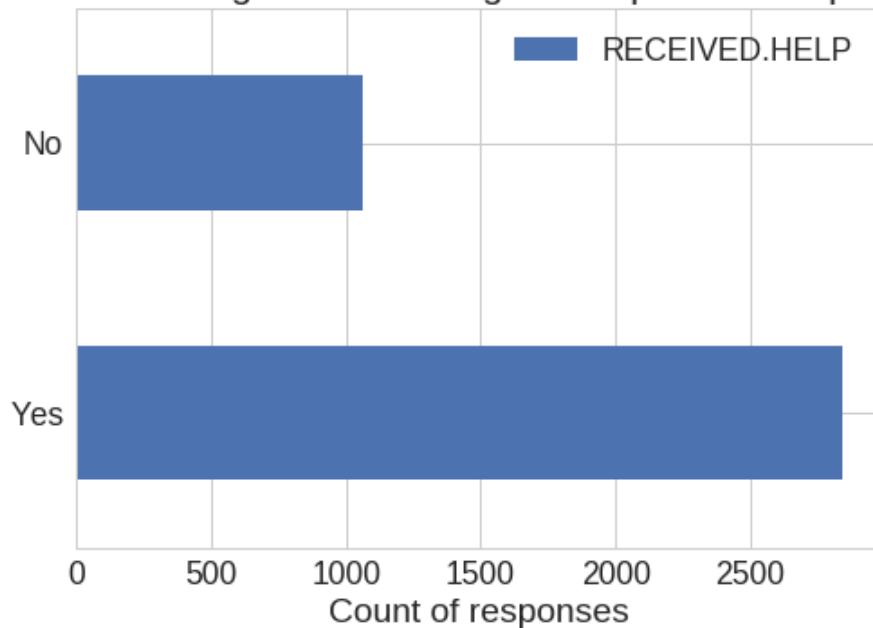
Out [89] :

| | count |
|-----|-------|
| Yes | 2845 |
| No | 1064 |

Out [90] :

| | percent |
|-----|---------|
| Yes | 72.78% |
| No | 27.22% |

Have you ever received any kind of help from other people related to using or contributing to an open source project?



4.4.2 Thinking of the most recent case where someone helped you, how did you find someone to help you?

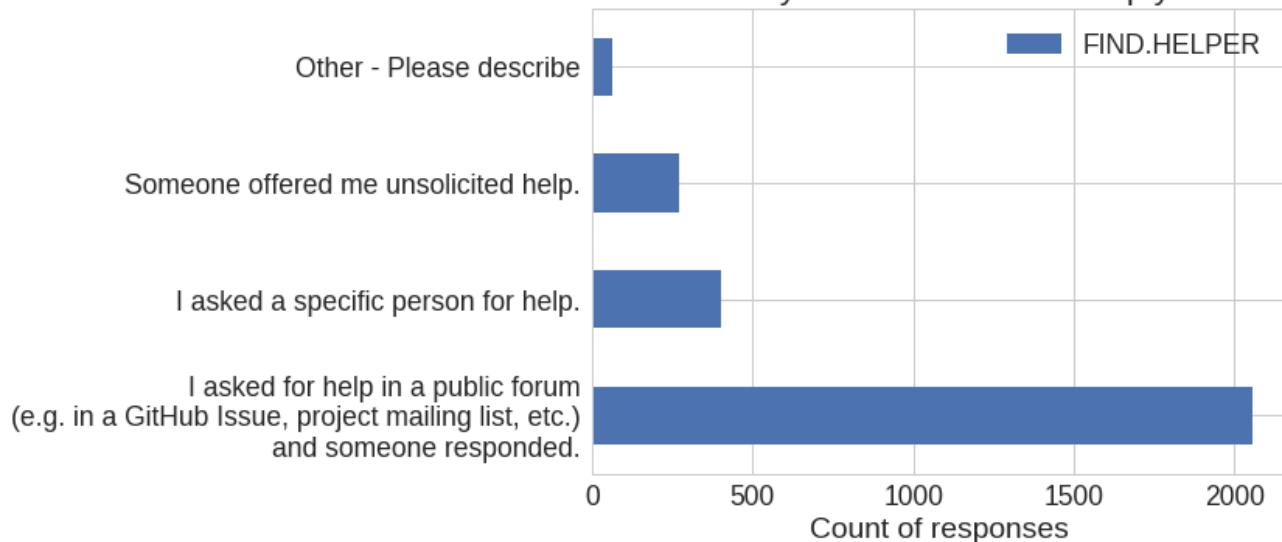
Out [92] :

| | count |
|--------------------------------------|-------|
| I asked for help in a public forum | 2057 |
| I asked a specific person for help. | 403 |
| Someone offered me unsolicited help. | 272 |
| Other - Please describe | 64 |

Out [93] :

| | percent |
|--------------------------------------|---------|
| I asked for help in a public forum | 73.57% |
| I asked a specific person for help. | 14.41% |
| Someone offered me unsolicited help. | 9.73% |
| Other - Please describe | 2.29% |

How did you find someone to help you?



4.4.3 Which best describes your prior relationship with the person who helped you?

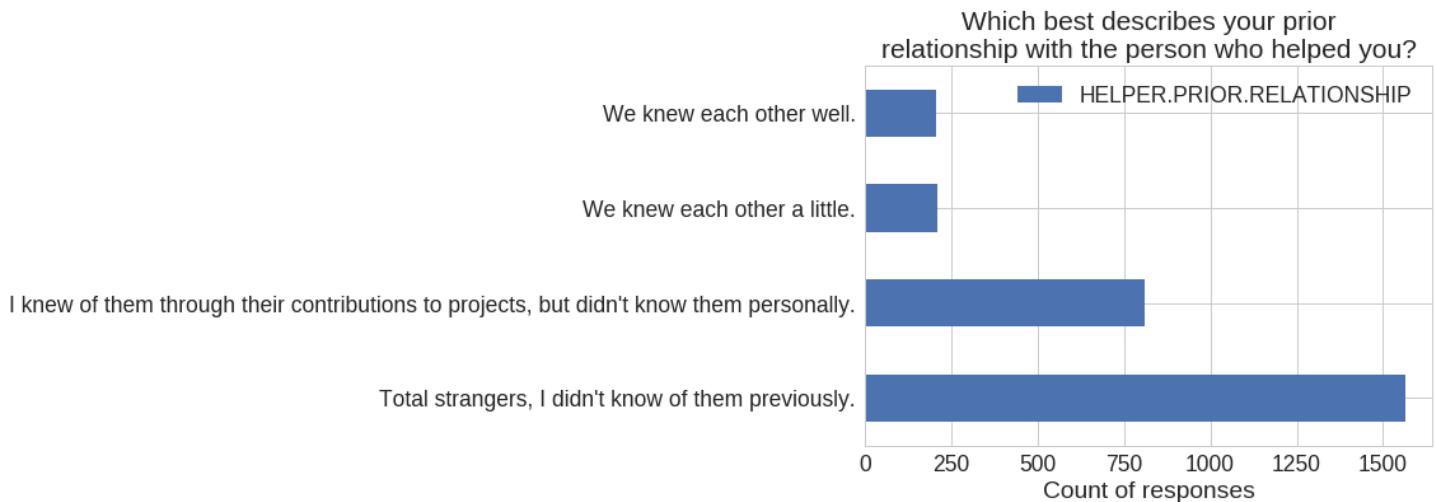
HELPER.PRIOR.RELATIONSHIP

Out [95] :

| | count |
|--|-------|
| Total strangers, I didn't know of them previously. | 1565 |
| I knew of them through their contributions to projects, but didn't know them personally. | 809 |
| We knew each other a little. | 211 |
| We knew each other well. | 208 |

Out [96] :

| | percent |
|--|---------|
| Total strangers, I didn't know of them previously. | 56.03% |
| I knew of them through their contributions to projects, but didn't know them personally. | 28.97% |
| We knew each other a little. | 7.55% |
| We knew each other well. | 7.45% |



4.4.4 What kind of problem did they help you with?

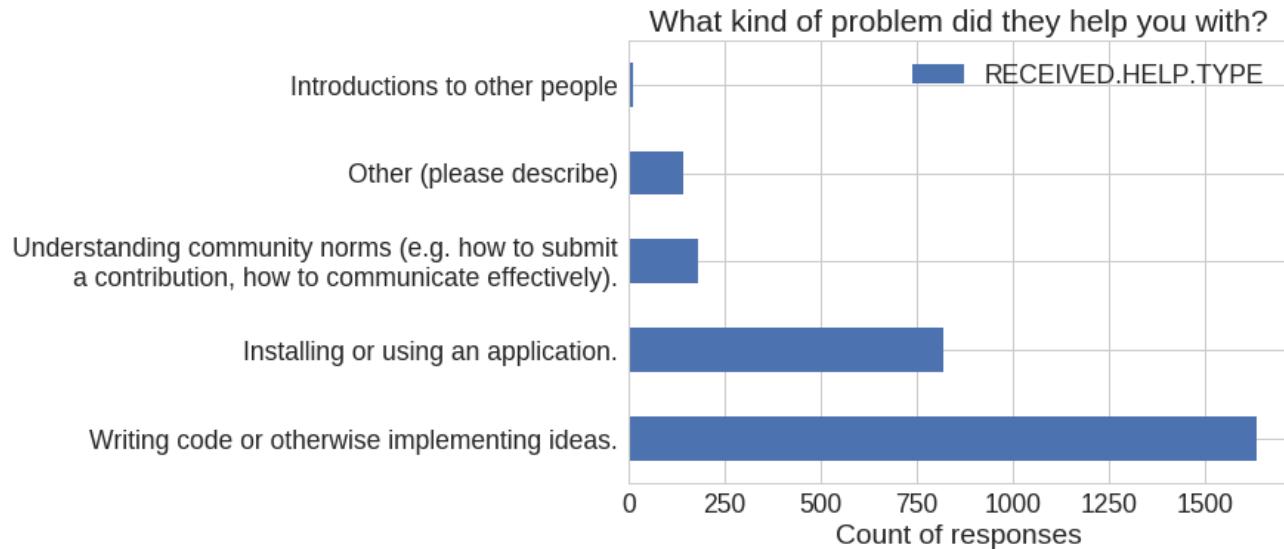
RECEIVEDHELP.TYPE

Out [98] :

| | count |
|---|-------|
| Writing code or otherwise implementing ideas. | 1633 |
| Installing or using an application. | 820 |
| Understanding community norms | 181 |
| Other (please describe) | 142 |
| Introductions to other people | 13 |

Out [99] :

| | percent |
|---|---------|
| Writing code or otherwise implementing ideas. | 58.55% |
| Installing or using an application. | 29.40% |
| Understanding community norms | 6.49% |
| Other (please describe) | 5.09% |
| Introductions to other people | 0.47% |



4.4.5 Have you ever provided help for another person on an open source project?

PROVIDED.HELP

Out[101]:

count

Yes 2891

No 1013

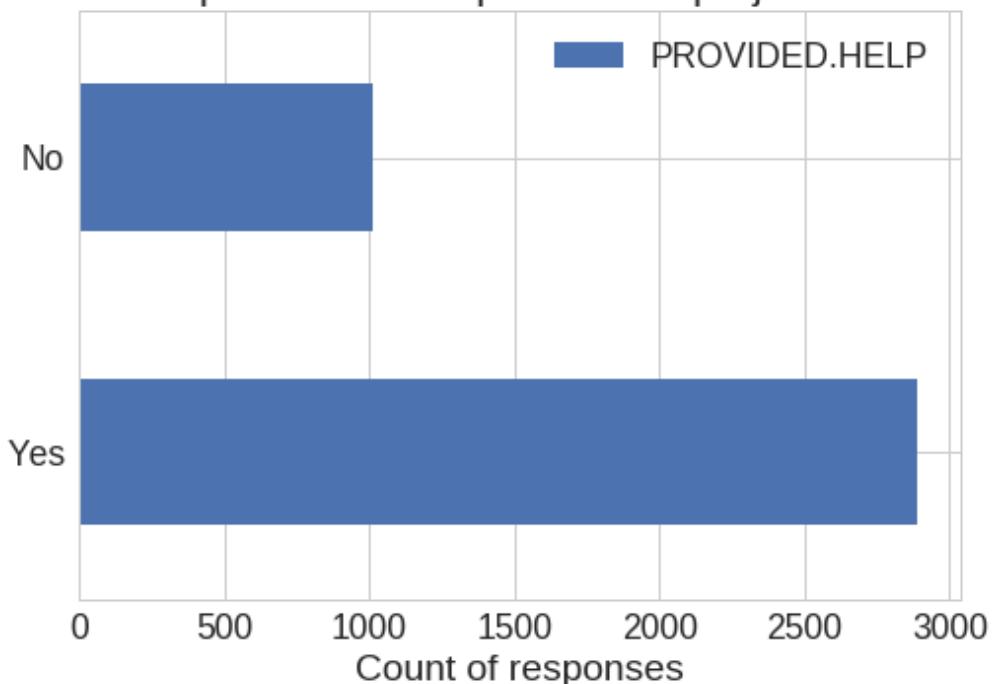
Out[102]:

percent

Yes 74.05%

No 25.95%

Have you ever provided help for another person on an open source project?



4.4.6 Thinking of the most recent case where you helped someone, how did you come to help this person?

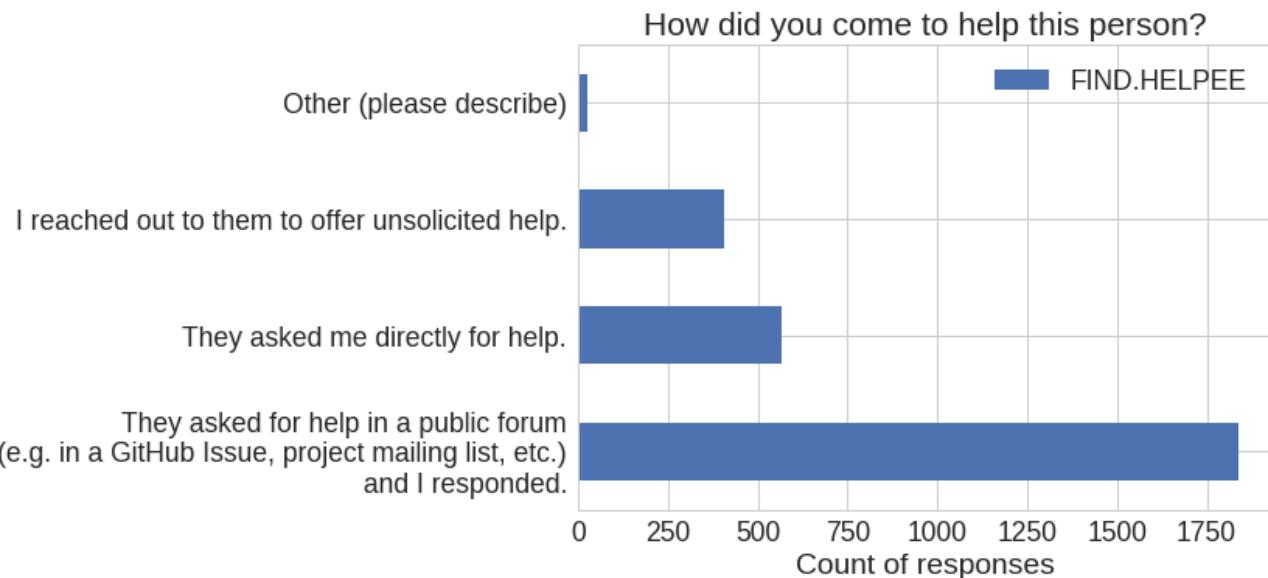
FIND.HELPEE

Out[104] :

| | count |
|--|-------|
| They asked for help in a public forum | 1839 |
| They asked me directly for help. | 566 |
| I reached out to them to offer unsolicited help. | 405 |
| Other (please describe) | 28 |

Out[105] :

| | percent |
|--|---------|
| They asked for help in a public forum | 64.80% |
| They asked me directly for help. | 19.94% |
| I reached out to them to offer unsolicited help. | 14.27% |
| Other (please describe) | 0.99% |



4.4.7 Which best describes your prior relationship with the person you helped?

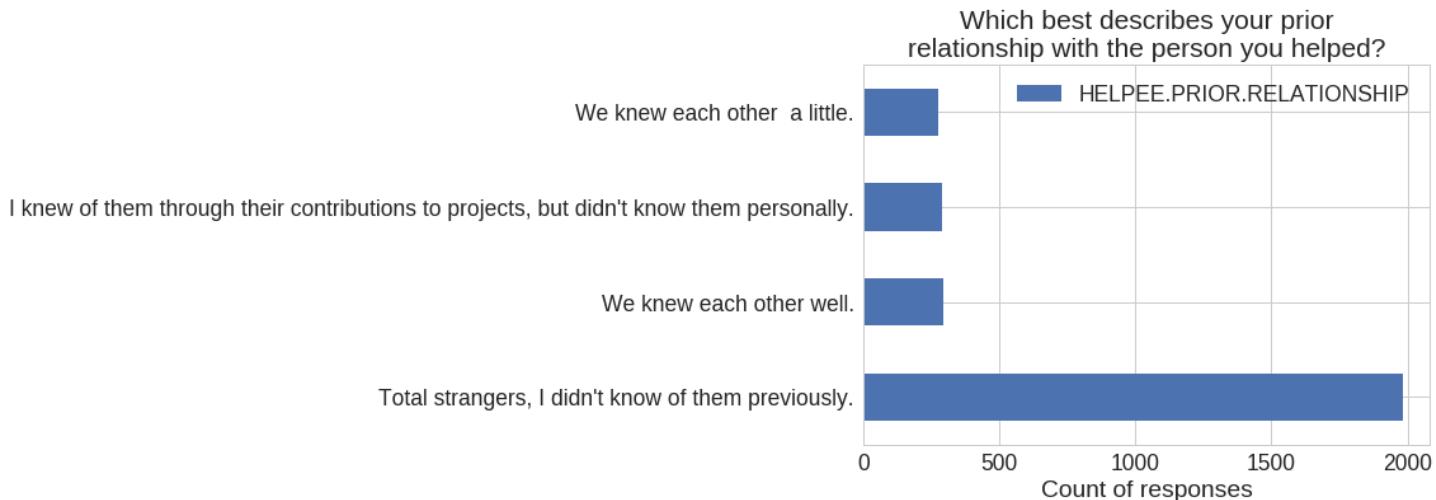
HELPEE.PRIOR.RELATIONSHIP

Out[107] :

| | count |
|--|-------|
| Total strangers, I didn't know of them previously. | 1984 |
| We knew each other well. | 292 |
| I knew of them through their contributions to projects, but didn't know them personally. | 288 |
| We knew each other a little. | 275 |

Out[108] :

| | percent |
|--|---------|
| Total strangers, I didn't know of them previously. | 69.88% |
| We knew each other well. | 10.29% |
| I knew of them through their contributions to projects, but didn't know them personally. | 10.14% |
| We knew each other a little. | 9.69% |



4.4.8 What kind of problem did you help them with?

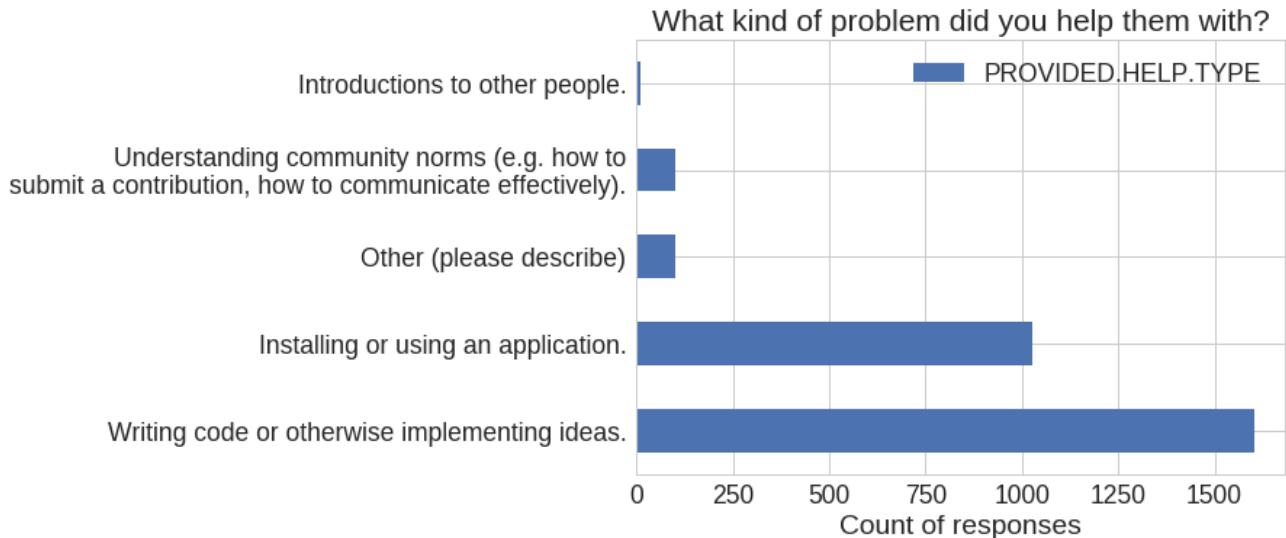
PROVIDEDHELP.TYPE

Out[110] :

| | count |
|---|-------|
| Writing code or otherwise implementing ideas. | 1602 |
| Installing or using an application. | 1028 |
| Other (please describe) | 101 |
| Understanding community norms | 99 |
| Introductions to other people. | 8 |

Out[111] :

| | percent |
|---|---------|
| Writing code or otherwise implementing ideas. | 56.45% |
| Installing or using an application. | 36.22% |
| Other (please describe) | 3.56% |
| Understanding community norms | 3.49% |
| Introductions to other people. | 0.28% |



4.5 Open Source Software in Paid Work

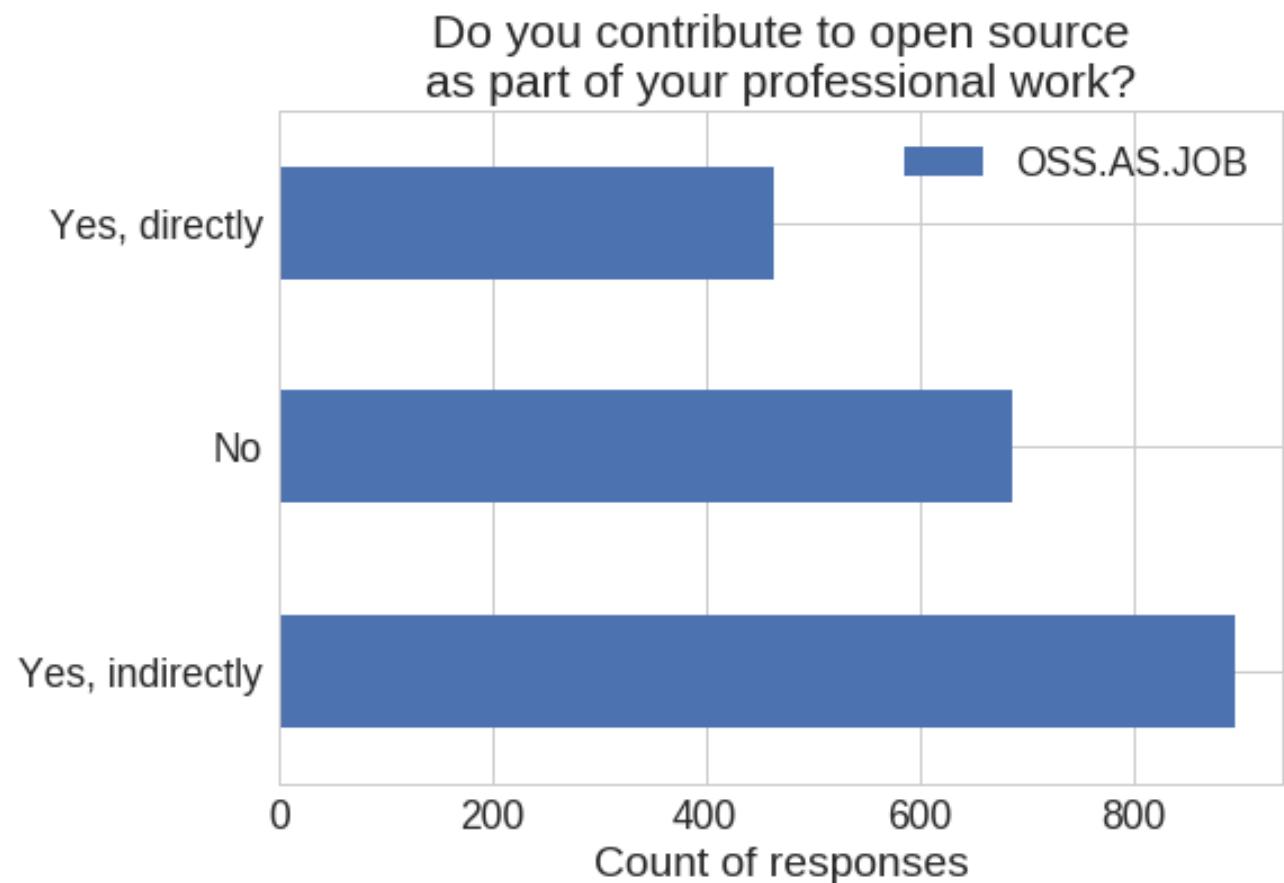
4.5.1 Do you contribute to open source as part of your professional work?

OSS.AS.JOB: Do you contribute to open source as part of your professional work? In other words, are you paid for any of your time spent on open source contributions?

- Yes, indirectly- I contribute to open source in carrying out my work duties, but I am not required or expected to do so.
- No.
- Yes, directly- some or all of my work duties include contributing to open source projects.

| Out [113] : | |
|-----------------|-------|
| | count |
| Yes, indirectly | 896 |
| No. | 687 |
| Yes, directly | 464 |

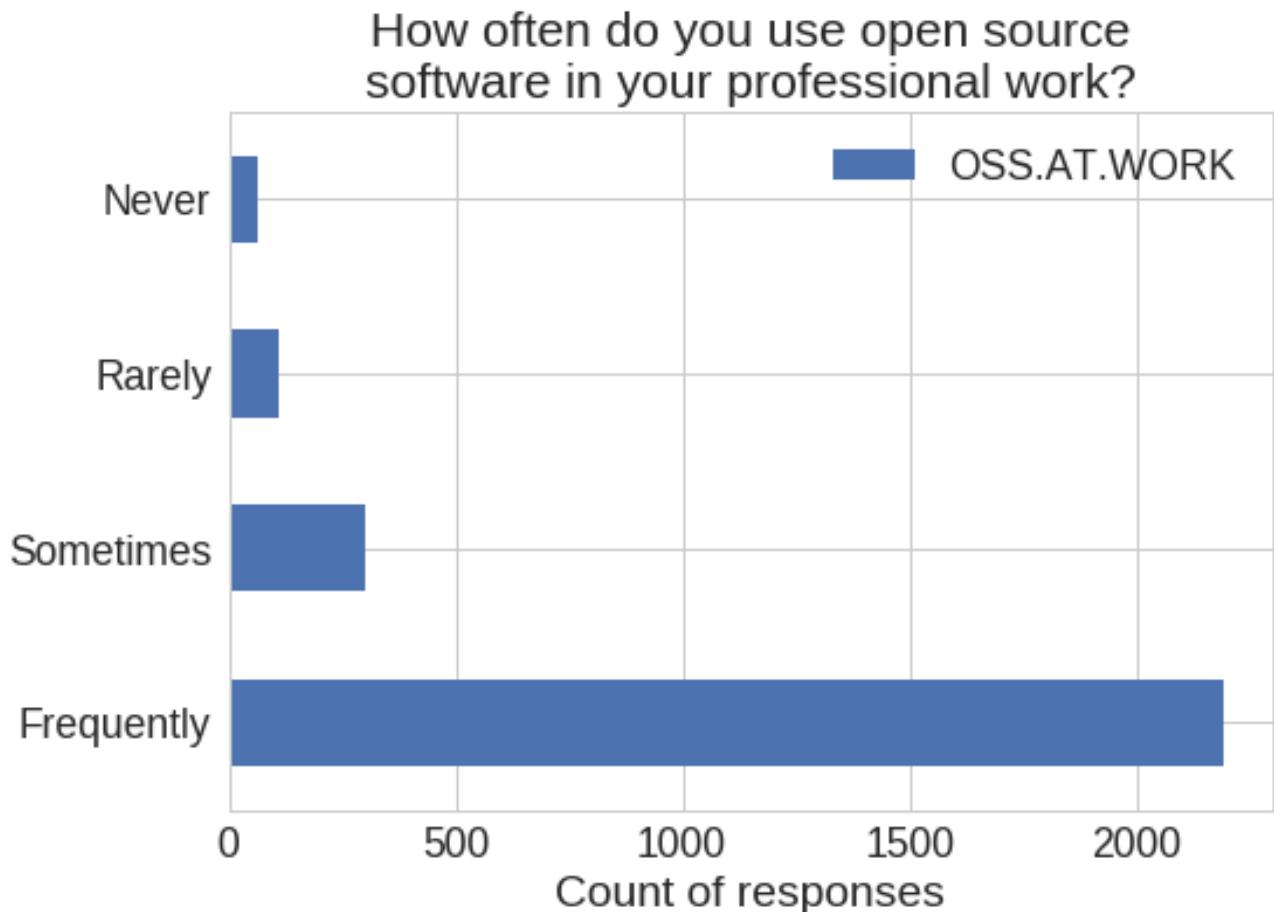
| Out [114] : | |
|-----------------|---------|
| | percent |
| Yes, indirectly | 43.77% |
| No. | 33.56% |
| Yes, directly | 22.67% |



4.5.2 How often do you use open source software in your professional work?

| OSS.AT.WORK | |
|-------------|-------|
| Out[116]: | |
| | count |
| Frequently | 2191 |
| Sometimes | 300 |
| Rarely | 110 |
| Never | 65 |

| Out[117]: | |
|------------|---------|
| | percent |
| Frequently | 82.18% |
| Sometimes | 11.25% |
| Rarely | 4.13% |
| Never | 2.44% |



4.5.3 How does your employer's intellectual property agreement/policy affect your free-time contributions to open source unrelated to your work?

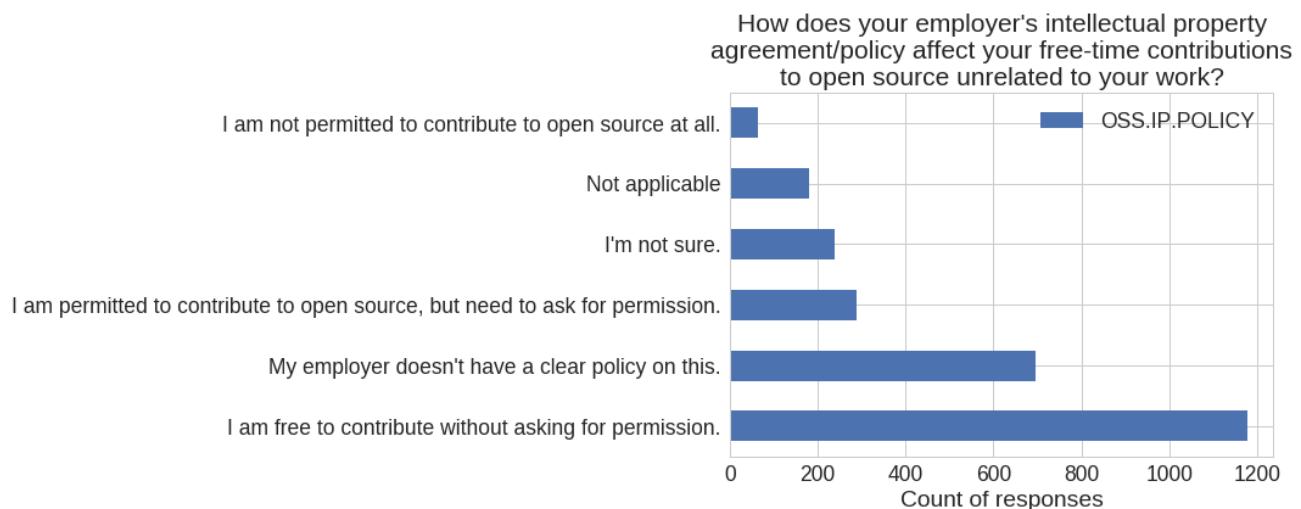
OSS.IP.POLICY

Out [119] :

| | count |
|---|-------|
| I am free to contribute without asking for permission. | 1178 |
| My employer doesn't have a clear policy on this. | 695 |
| I am permitted to contribute to open source, but need to ask for permission | 287 |
| I'm not sure. | 238 |
| Not applicable | 180 |
| I am not permitted to contribute to open source at all. | 63 |

Out [120] :

| | percent |
|---|---------|
| I am free to contribute without asking for permission. | 44.60% |
| My employer doesn't have a clear policy on this. | 26.32% |
| I am permitted to contribute to open source, but need to ask for permission | 10.87% |
| I'm not sure. | 9.01% |
| Not applicable | 6.82% |
| I am not permitted to contribute to open source at all. | 2.39% |



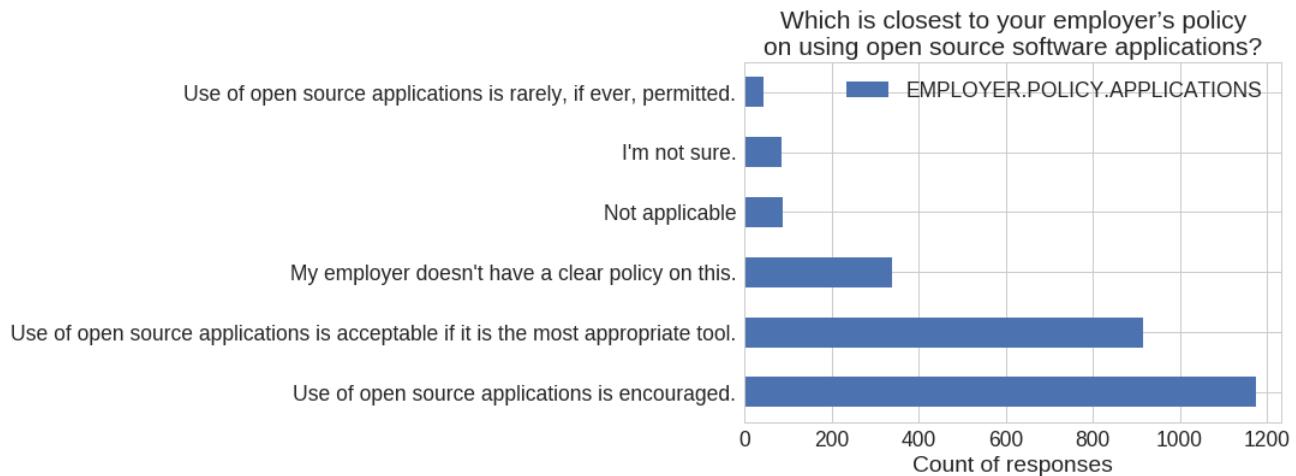
4.5.4 Which is closest to your employer's policy on using open source software applications?

Out [122] :

| | count |
|---|-------|
| Use of open source applications is encouraged. | 1174 |
| Use of open source applications is acceptable if it is the most appropriate tool. | 916 |
| My employer doesn't have a clear policy on this. | 338 |
| Not applicable | 88 |
| I'm not sure. | 83 |
| Use of open source applications is rarely, if ever, permitted. | 42 |

Out [123] :

| | percent |
|---|---------|
| Use of open source applications is encouraged. | 44.45% |
| Use of open source applications is acceptable if it is the most appropriate tool. | 34.68% |
| My employer doesn't have a clear policy on this. | 12.80% |
| Not applicable | 3.33% |
| I'm not sure. | 3.14% |
| Use of open source applications is rarely, if ever, permitted. | 1.59% |



4.5.5 How important do you think your involvement in open source was to getting your current job?

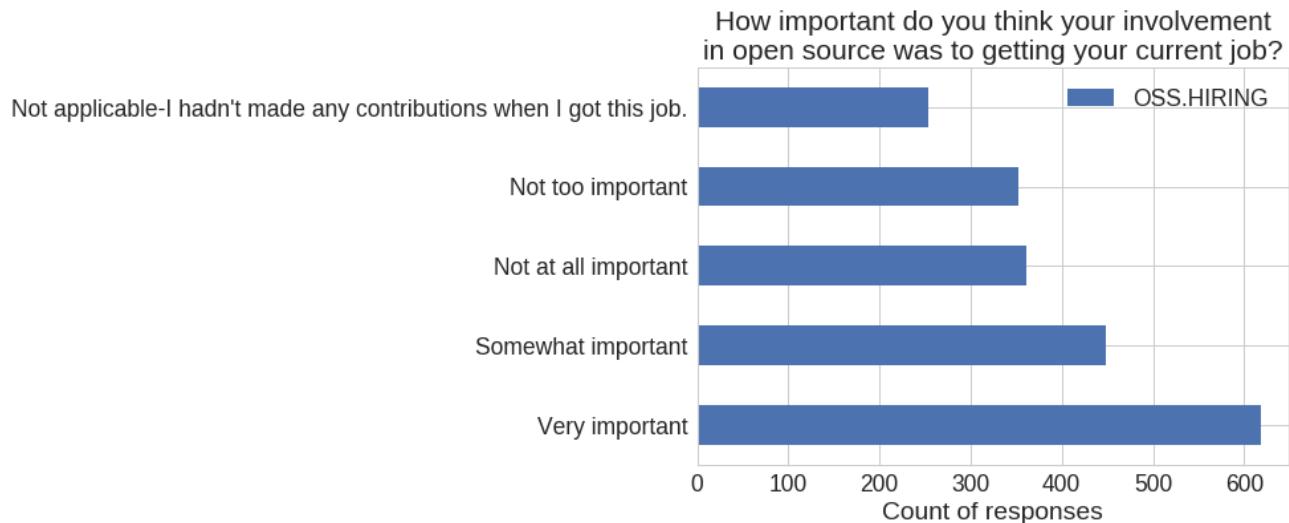
OSS.HIRING

Out [125] :

| | count |
|--|-------|
| Very important | 618 |
| Somewhat important | 448 |
| Not at all important | 361 |
| Not too important | 352 |
| Not applicable-I hadn't made any contributions | 254 |

Out [126] :

| | percent |
|--|---------|
| Very important | 30.40% |
| Somewhat important | 22.04% |
| Not at all important | 17.76% |
| Not too important | 17.31% |
| Not applicable-I hadn't made any contributions | 12.49% |



4.6 Demographics

4.6.1 Do you currently live in a country other than the one in which you were born?

IMMIGRATION

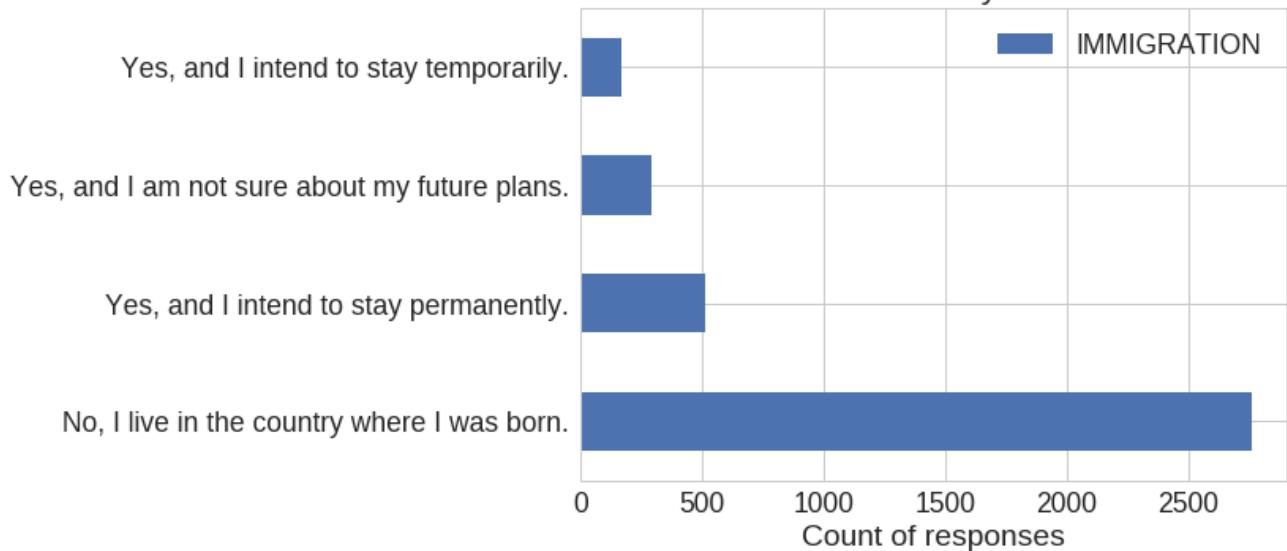
Out[128] :

| | count |
|---|-------|
| No, I live in the country where I was born. | 2764 |
| Yes, and I intend to stay permanently. | 513 |
| Yes, and I am not sure about my future plans. | 292 |
| Yes, and I intend to stay temporarily. | 165 |

Out[129] :

| | percent |
|---|---------|
| No, I live in the country where I was born. | 74.02% |
| Yes, and I intend to stay permanently. | 13.74% |
| Yes, and I am not sure about my future plans. | 7.82% |
| Yes, and I intend to stay temporarily. | 4.42% |

Do you currently live in a country other than the one in which you were born?



4.6.2 Thinking of where you were born, are you a member of an ethnicity or nationality that is a considered a minority in that country?

MINORITY.HOME_COUNTRY

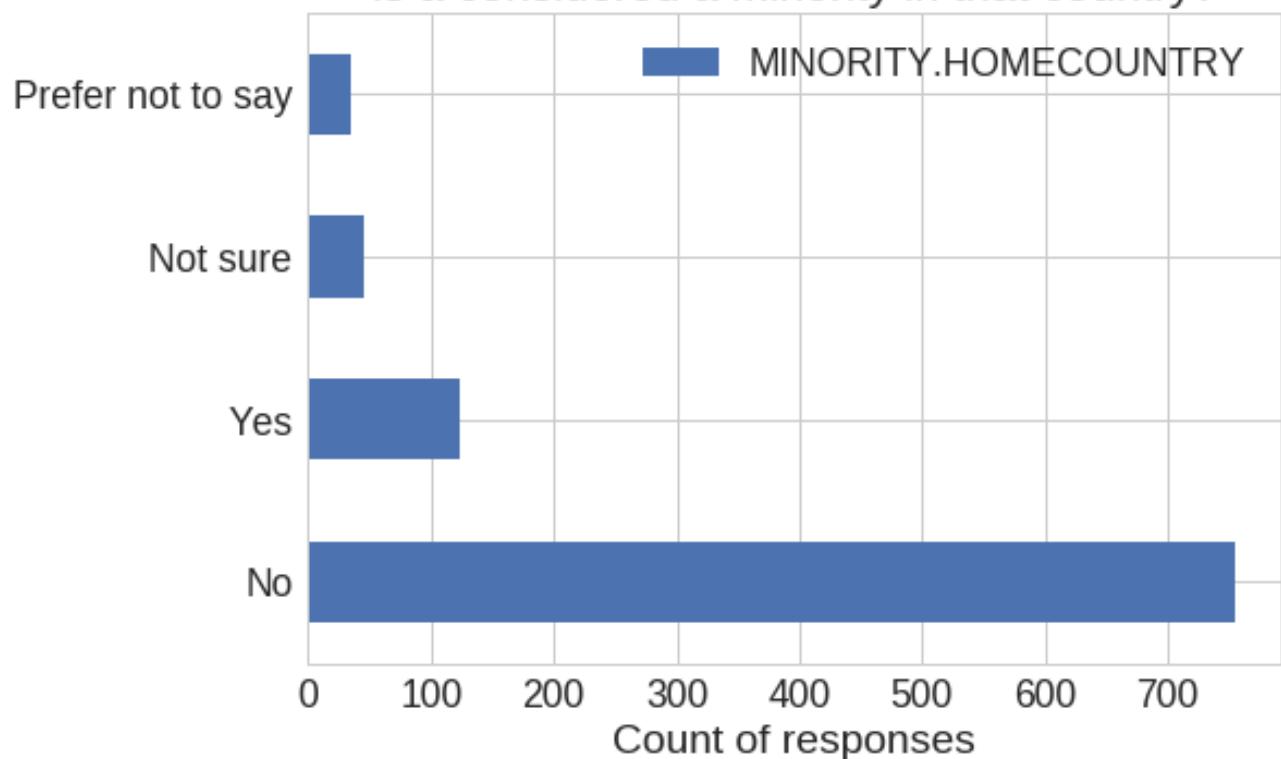
Out [131] :

| | count |
|-------------------|-------|
| No | 754 |
| Yes | 124 |
| Not sure | 45 |
| Prefer not to say | 34 |

Out [132] :

| | percent |
|-------------------|---------|
| No | 78.79% |
| Yes | 12.96% |
| Not sure | 4.70% |
| Prefer not to say | 3.55% |

Thinking of where you were born, are you a member of an ethnicity or nationality that is a considered a minority in that country?



4.6.3 Thinking of where you currently live, are you a member of an ethnicity or nationality that is a considered a minority in that country?

MINORITY.CURRENT.COUNTRY

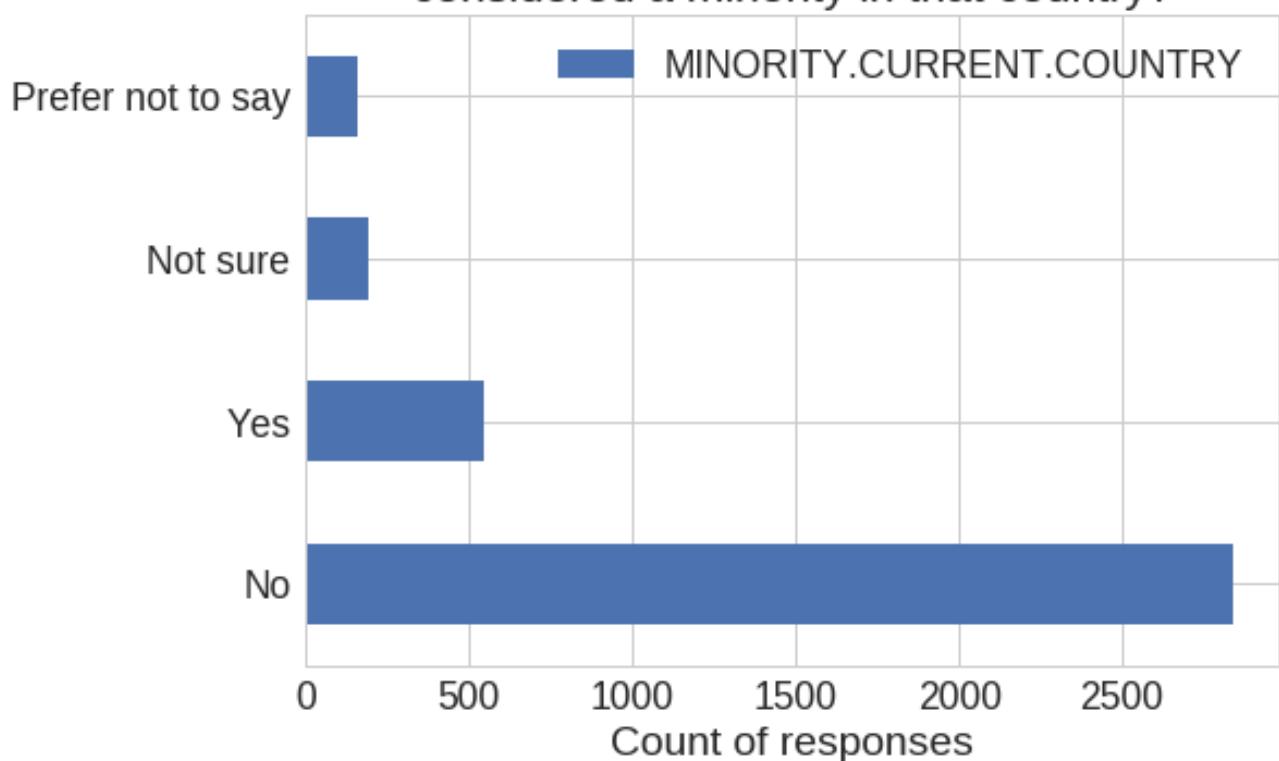
Out [134] :

| | count |
|-------------------|-------|
| No | 2837 |
| Yes | 546 |
| Not sure | 193 |
| Prefer not to say | 156 |

Out [135] :

| | percent |
|-------------------|---------|
| No | 76.02% |
| Yes | 14.63% |
| Not sure | 5.17% |
| Prefer not to say | 4.18% |

Thinking of where you currently live, are you a member of an ethnicity or nationality that is a considered a minority in that country?



4.6.4 What is your gender?

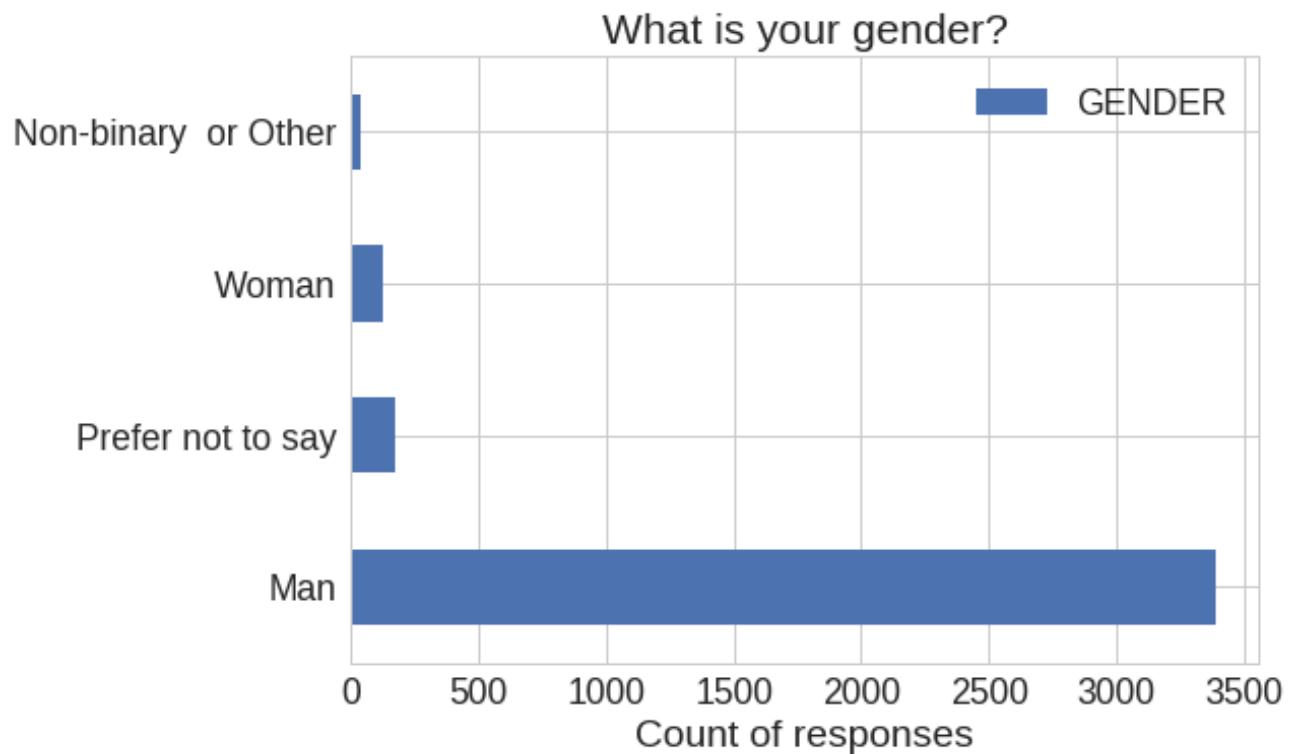
GENDER

Out[137] :

| | count |
|---------------------|-------|
| Man | 3387 |
| Prefer not to say | 173 |
| Woman | 125 |
| Non-binary or Other | 39 |

Out[138] :

| | percent |
|---------------------|---------|
| Man | 90.95% |
| Prefer not to say | 4.65% |
| Woman | 3.36% |
| Non-binary or Other | 1.05% |



4.6.5 Do you identify as transgender?

TRANSGENDER.IDENTITY

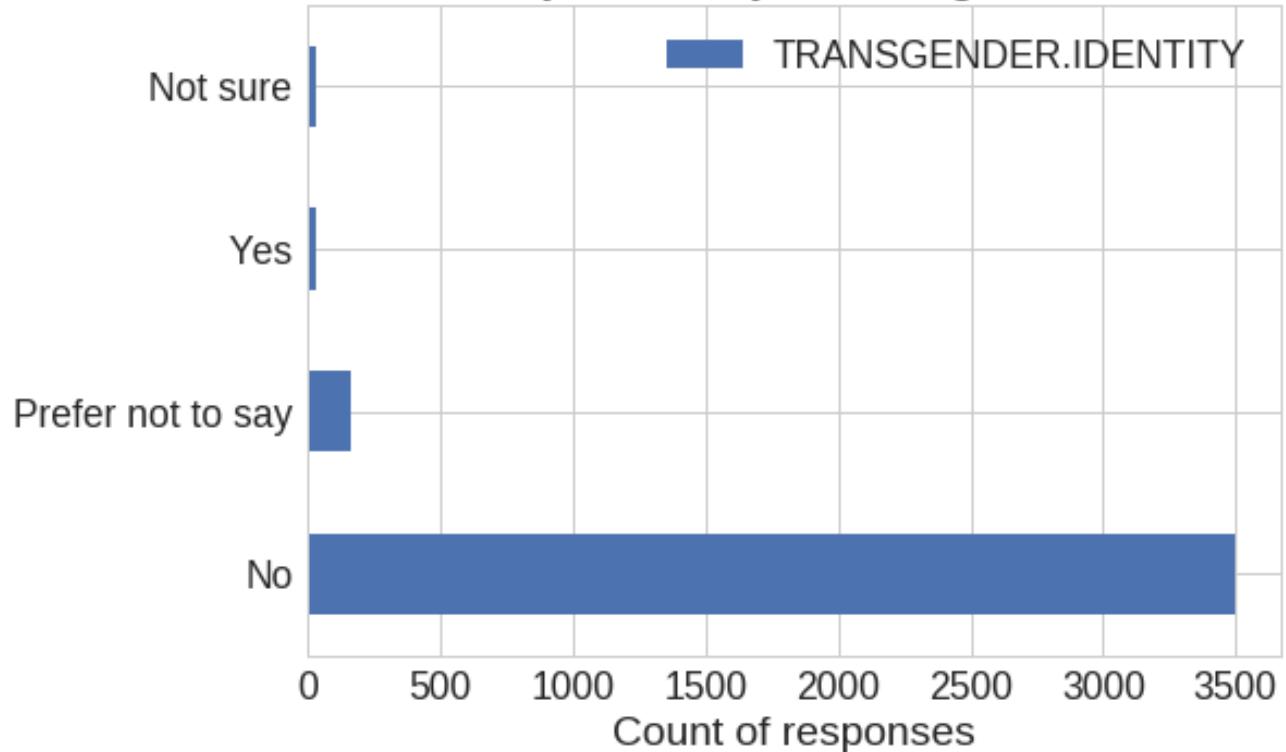
Out[140] :

| | count |
|-------------------|-------|
| No | 3494 |
| Prefer not to say | 158 |
| Yes | 33 |
| Not sure | 30 |

Out[141] :

| | percent |
|-------------------|---------|
| No | 94.05% |
| Prefer not to say | 4.25% |
| Yes | 0.89% |
| Not sure | 0.81% |

Do you identify as transgender?

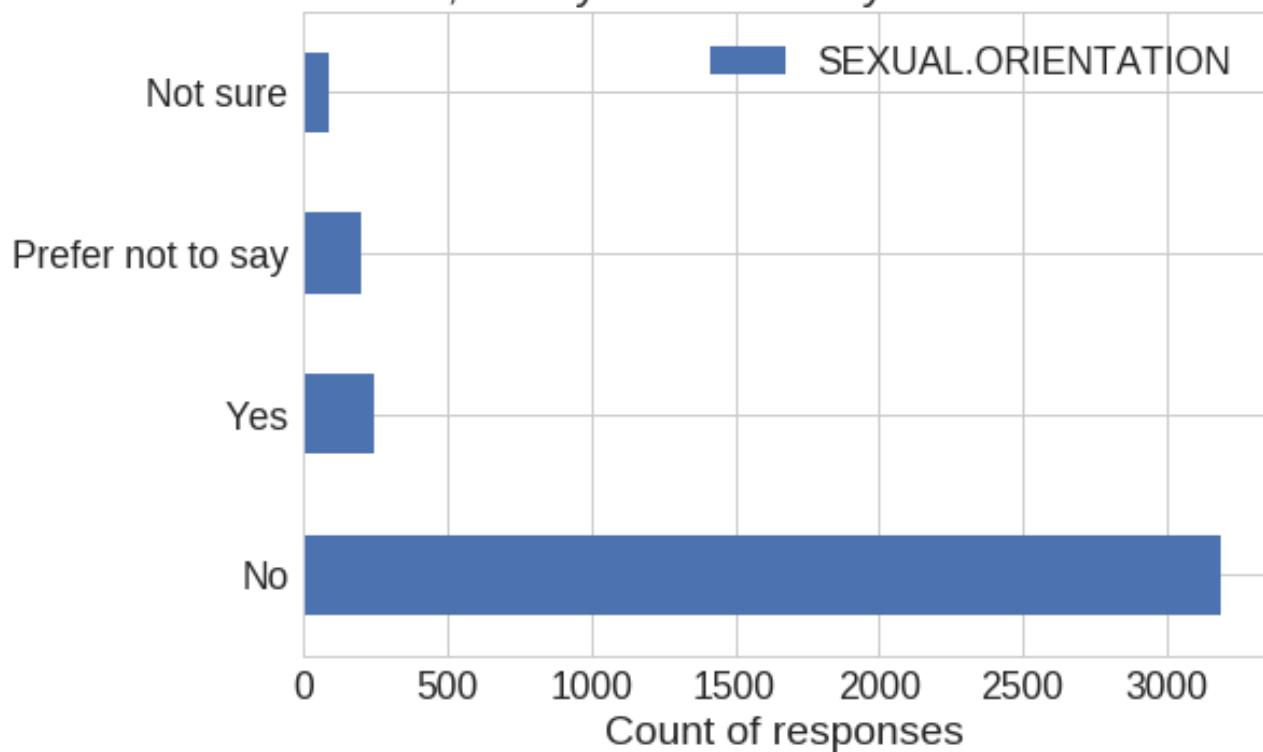


4.6.6 Do you identify as gay, lesbian, or bisexual, asexual, or any other minority sexual orientation?

| SEXUAL.ORIENTATION | |
|--------------------|-------|
| Out[143] : | |
| | count |
| No | 3187 |
| Yes | 246 |
| Prefer not to say | 201 |
| Not sure | 85 |

| Out[144] : | |
|-------------------|---------|
| | percent |
| No | 85.70% |
| Yes | 6.61% |
| Prefer not to say | 5.40% |
| Not sure | 2.29% |

Do you identify as gay, lesbian, or bisexual, asexual, or any other minority sexual orientation?



4.6.7 How well can you read and write in English?

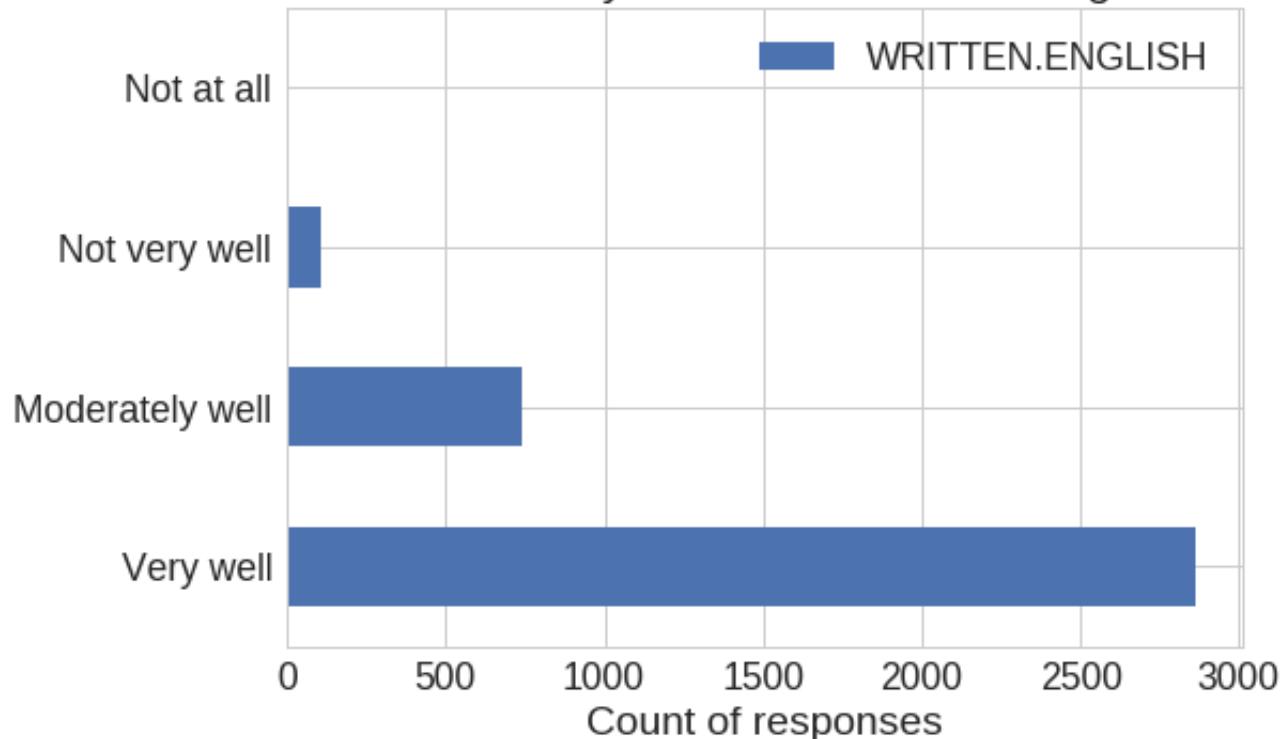
WRITTEN.ENGLISH

Out[146] :

| | count |
|-----------------|-------|
| Very well | 2865 |
| Moderately well | 742 |
| Not very well | 108 |
| Not at all | 6 |

| | percent |
|-----------------|---------|
| Very well | 77.00% |
| Moderately well | 19.94% |
| Not very well | 2.90% |
| Not at all | 0.16% |

How well can you read and write in English?



4.6.8 What is your age?

AGE

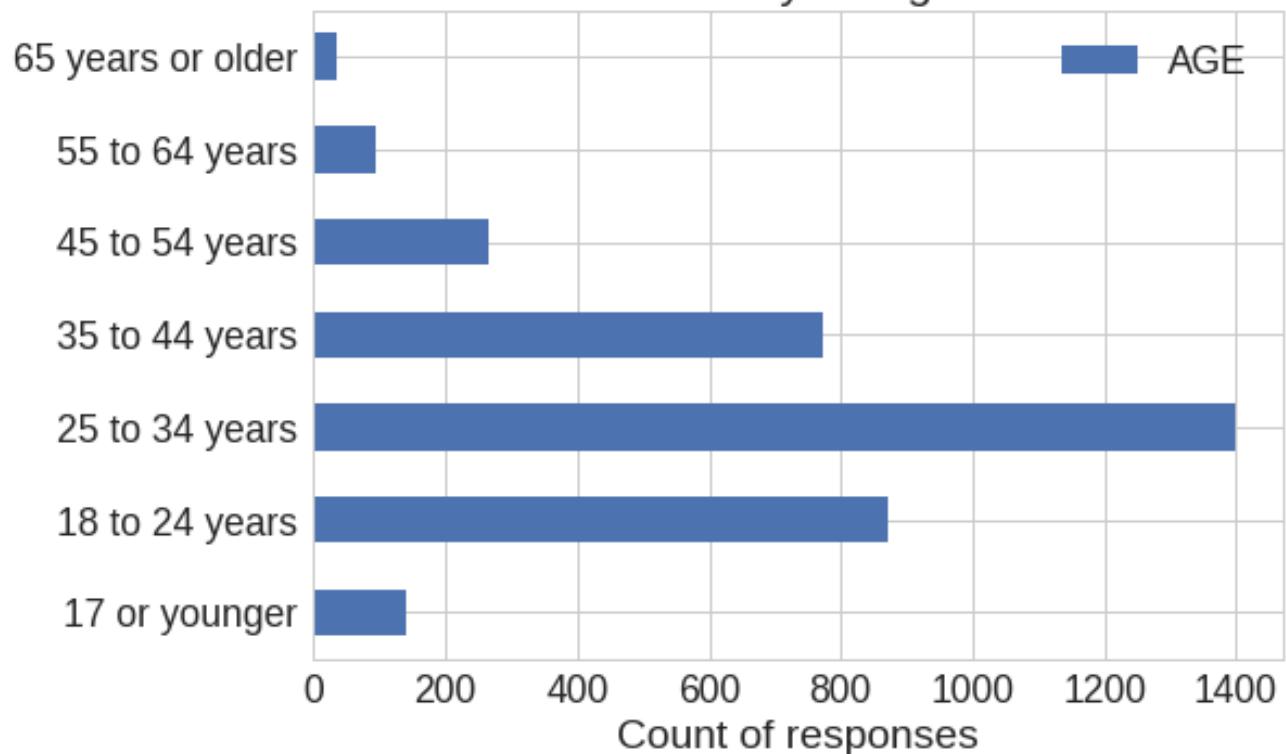
Out[149] :

| | count |
|-------------------|-------|
| 17 or younger | 139 |
| 18 to 24 years | 871 |
| 25 to 34 years | 1400 |
| 35 to 44 years | 772 |
| 45 to 54 years | 267 |
| 55 to 64 years | 93 |
| 65 years or older | 36 |

Out[150] :

| | percent |
|-------------------|---------|
| 17 or younger | 3.88% |
| 18 to 24 years | 24.34% |
| 25 to 34 years | 39.13% |
| 35 to 44 years | 21.58% |
| 45 to 54 years | 7.46% |
| 55 to 64 years | 2.60% |
| 65 years or older | 1.01% |

What is your age?



4.6.9 What is highest level of formal education that you have completed?

FORMAL EDUCATION

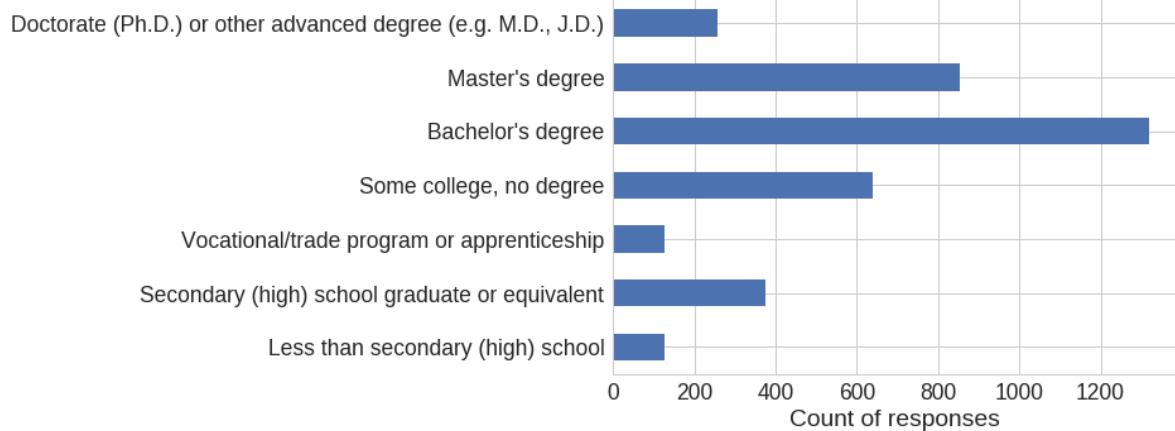
Out[152] :

| | count |
|--|-------|
| Bachelor's degree | 1321 |
| Master's degree | 852 |
| Some college, no degree | 640 |
| Secondary (high) school graduate or equivalent | 375 |
| Doctorate (Ph.D.) or other advanced degree | 256 |
| Vocational/trade program or apprenticeship | 127 |
| Less than secondary (high) school | 126 |

Out[153] :

| | percent |
|--|---------|
| Bachelor's degree | 35.73% |
| Master's degree | 23.05% |
| Some college, no degree | 17.31% |
| Secondary (high) school graduate or equivalent | 10.14% |
| Doctorate (Ph.D.) or other advanced degree | 6.92% |
| Vocational/trade program or apprenticeship | 3.44% |
| Less than secondary (high) school | 3.41% |

What is highest level of formal education that you have completed?



4.6.10 What is the highest level of formal education that either of your parents completed?

PARENTS.FORMAL.EDUCATION

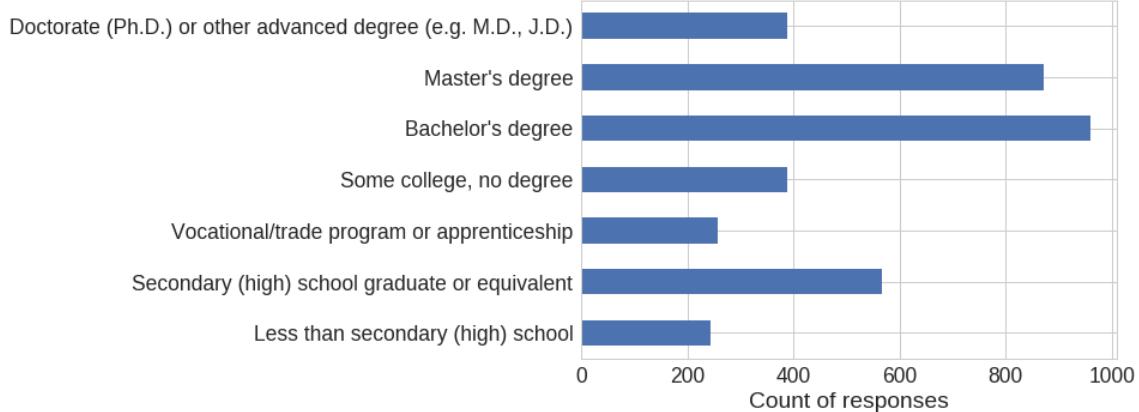
Out [155] :

| | count |
|--|-------|
| Bachelor's degree | 961 |
| Master's degree | 871 |
| Secondary (high) school graduate or equivalent | 566 |
| Some college, no degree | 388 |
| Doctorate (Ph.D.) or other advanced degree | 387 |
| Vocational/trade program or apprenticeship | 257 |
| Less than secondary (high) school | 243 |

Out [156] :

| | percent |
|--|---------|
| Bachelor's degree | 26.16% |
| Master's degree | 23.71% |
| Secondary (high) school graduate or equivalent | 15.41% |
| Some college, no degree | 10.56% |
| Doctorate (Ph.D.) or other advanced degree | 10.54% |
| Vocational/trade program or apprenticeship | 7.00% |
| Less than secondary (high) school | 6.62% |

What is highest level of formal education that either of your parents completed?



4.6.11 How old were you when you first had regular access to a computer with an internet connection?

AGE.AT.FIRST.COMPUTER.INTERNET

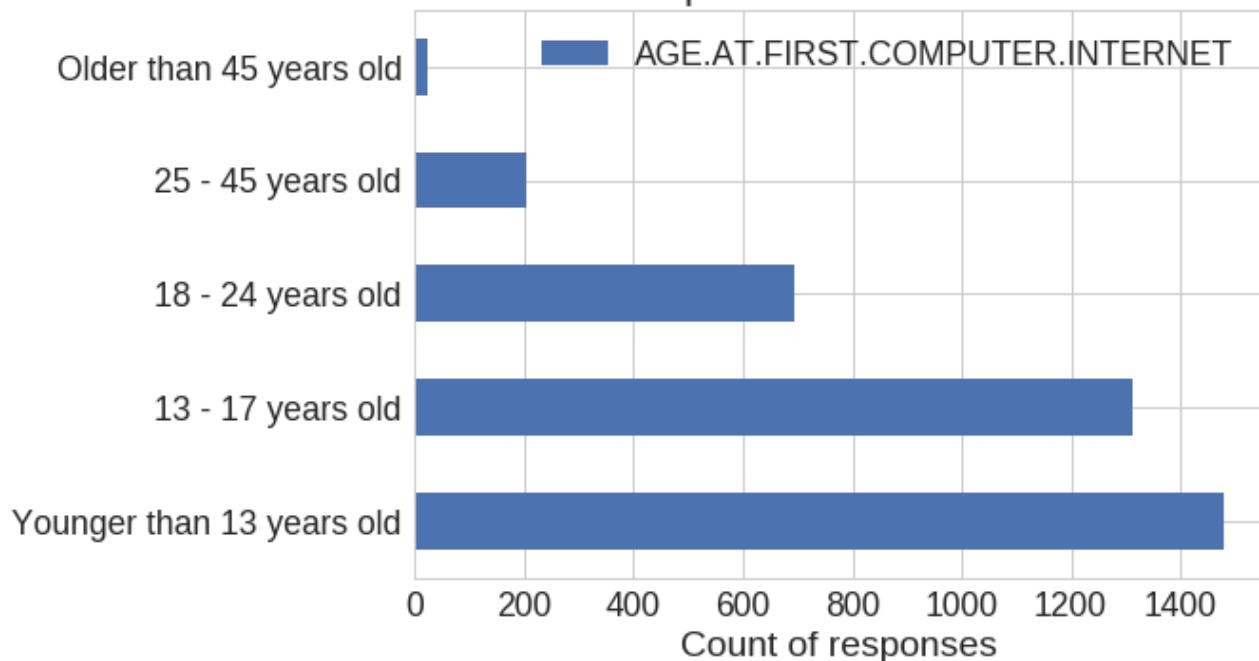
Out [158] :

| | count |
|---------------------------|-------|
| Younger than 13 years old | 1478 |
| 13 - 17 years old | 1313 |
| 18 - 24 years old | 695 |
| 25 - 45 years old | 202 |
| Older than 45 years old | 23 |

Out [159] :

| | percent |
|---------------------------|---------|
| Younger than 13 years old | 39.83% |
| 13 - 17 years old | 35.38% |
| 18 - 24 years old | 18.73% |
| 25 - 45 years old | 5.44% |
| Older than 45 years old | 0.62% |

How old were you when you first had regular access to a computer with an internet connection?



4.6.12 Where did you first have regular access to a computer with internet connection?

LOCATION.OF.FIRST.COMPUTER.INTERNET

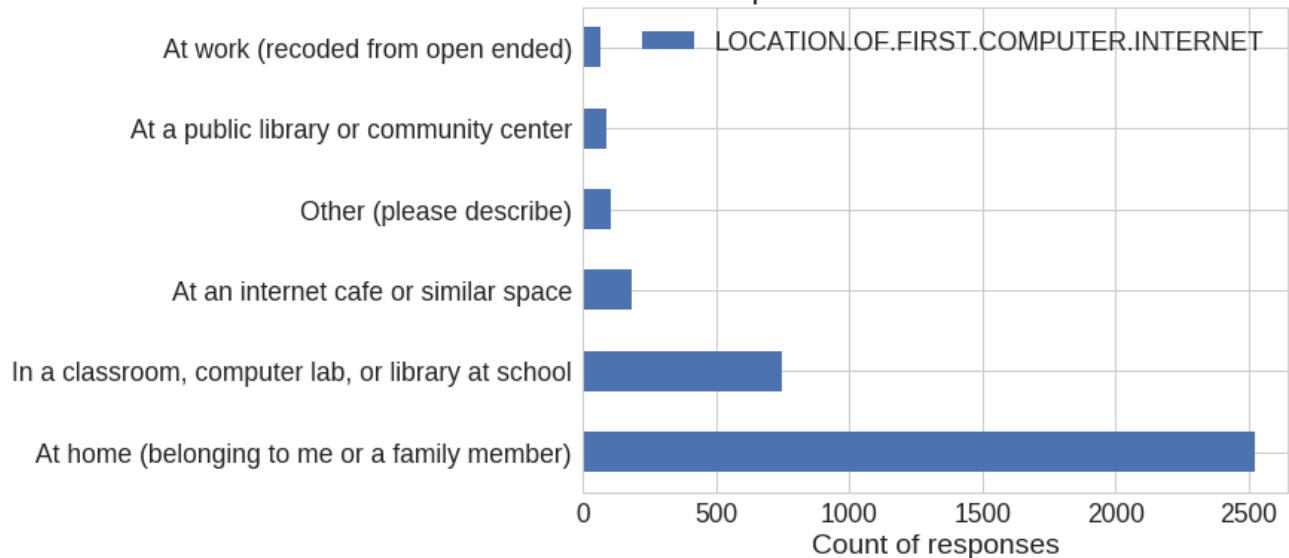
Out[161] :

| | count |
|--|-------|
| At home (belonging to me or a family member) | 2520 |
| In a classroom, computer lab, or library at school | 746 |
| At an internet cafe or similar space | 182 |
| Other (please describe) | 106 |
| At a public library or community center | 87 |
| At work (recoded from open ended) | 70 |

Out[162] :

| | percent |
|--|---------|
| At home (belonging to me or a family member) | 67.91% |
| In a classroom, computer lab, or library at school | 20.10% |
| At an internet cafe or similar space | 4.90% |
| Other (please describe) | 2.86% |
| At a public library or community center | 2.34% |
| At work (recoded from open ended) | 1.89% |

Where did you first have regular access to a computer with internet connection?



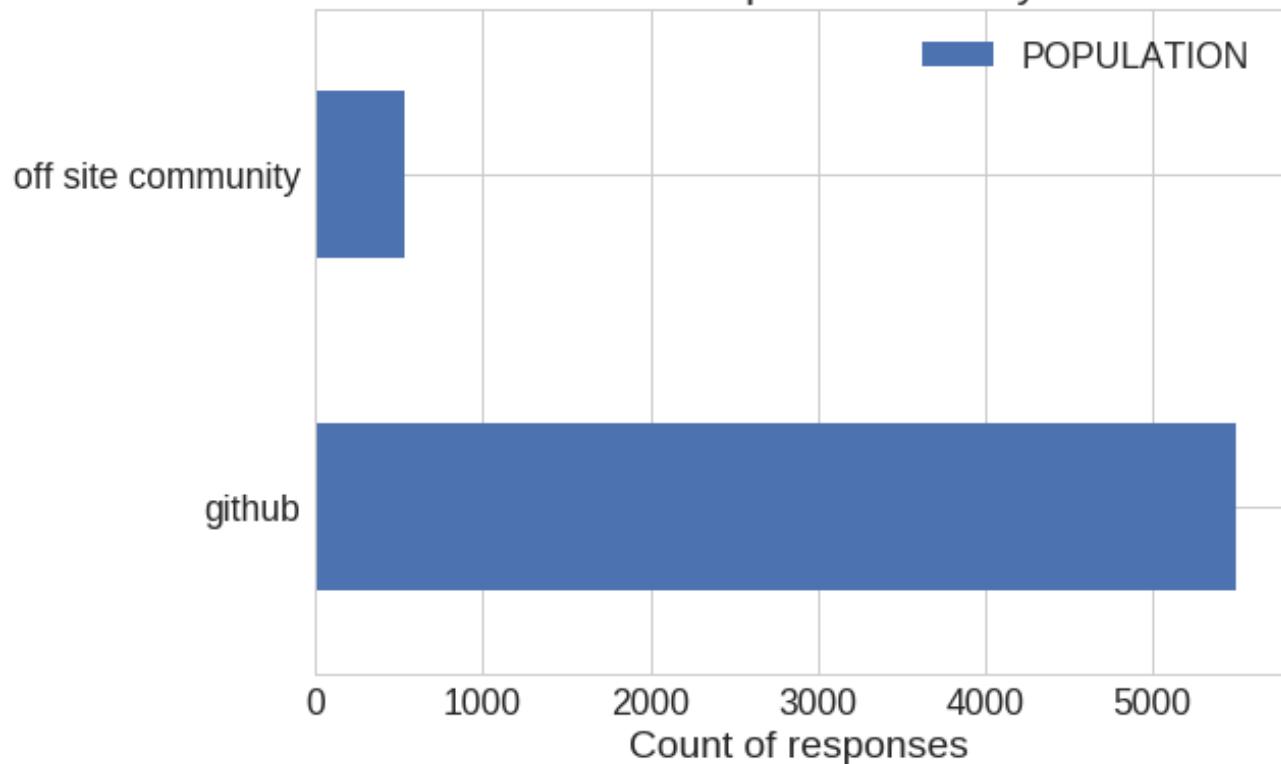
4.6.13 Where was the respondent surveyed from?

POPLATION

Out[164]:

| | count |
|--------------------|---------|
| github | 5495 |
| off site community | 534 |
| Out[165]: | |
| | percent |
| github | 91.14% |
| off site community | 8.86% |

Where was the respondent surveyed from?



4.7 Harassment / Inclusiveness of OSS

4.7.1 Have you ever observed any of the following in the context of an open source project?

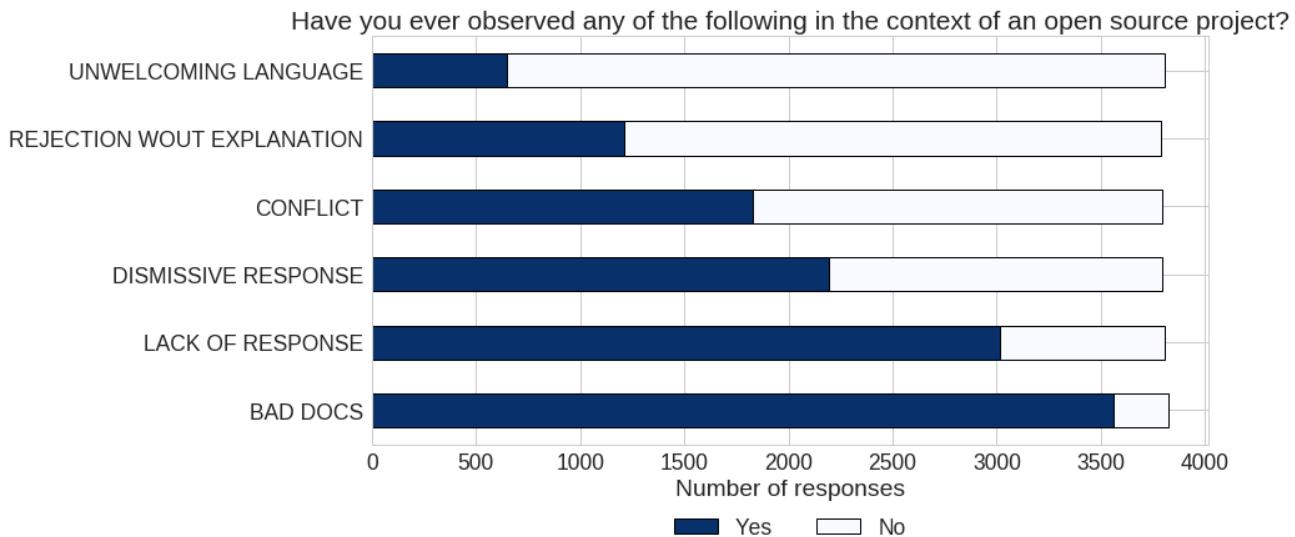
DISCOURAGING.BEHAVIOR.*

Out [167] :

| | Yes | No |
|--|------|------|
| DISCOURAGING.BEHAVIOR.LACK.OF.RESPONSE | 3017 | 792 |
| DISCOURAGING.BEHAVIOR.REJECTION.WOUT.EXPLANATION | 1210 | 2580 |
| DISCOURAGING.BEHAVIOR.DISMISSIVE.RESPONSE | 2195 | 1598 |
| DISCOURAGING.BEHAVIOR.BAD.DOCS | 3559 | 263 |
| DISCOURAGING.BEHAVIOR.CONFLICT | 1830 | 1966 |
| DISCOURAGING.BEHAVIOR.UNWELCOMING.LANGUAGE | 649 | 3158 |

Out [168] :

| | percent_yes |
|--|-------------|
| DISCOURAGING.BEHAVIOR.UNWELCOMING.LANGUAGE | 17.05% |
| DISCOURAGING.BEHAVIOR.REJECTION.WOUT.EXPLANATION | 31.93% |
| DISCOURAGING.BEHAVIOR.CONFLICT | 48.21% |
| DISCOURAGING.BEHAVIOR.DISMISSIVE.RESPONSE | 57.87% |
| DISCOURAGING.BEHAVIOR.LACK.OF.RESPONSE | 79.21% |
| DISCOURAGING.BEHAVIOR.BAD.DOCS | 93.12% |



4.7.2 Have you ever witnessed any of the following behaviors directed at another person in the context of an open source project? (not including something directed at you)

NEGATIVE.WITNESS.*

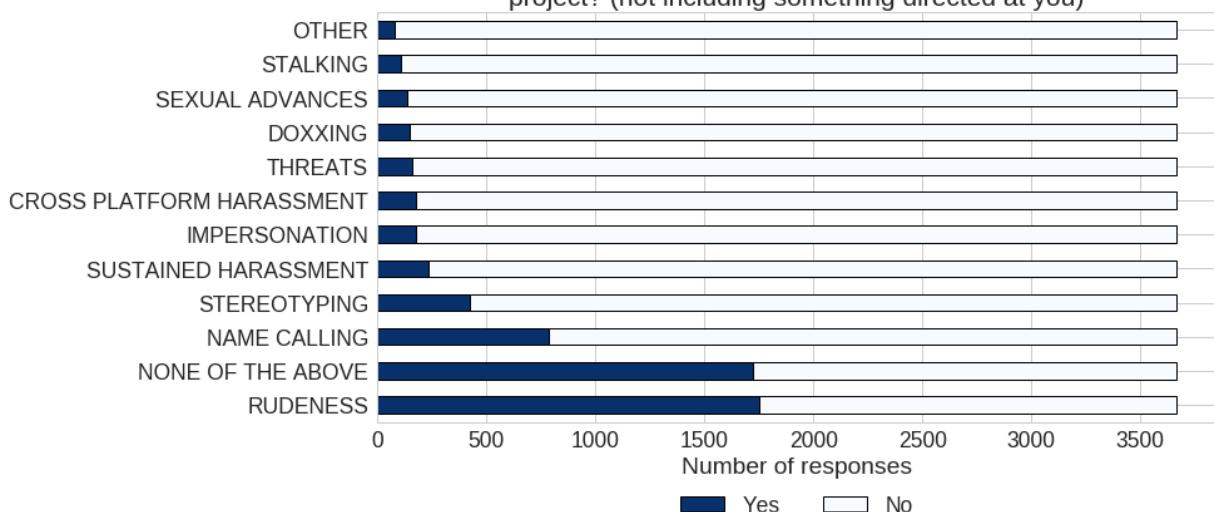
Out [172] :

| | Yes | No |
|--|------|------|
| NEGATIVE.WITNESS.RUDENESS | 1753 | 1911 |
| NEGATIVE.WITNESS.NAME.CALLING | 789 | 2875 |
| NEGATIVE.WITNESS.THREATS | 162 | 3502 |
| NEGATIVE.WITNESS.IMPORSONATION | 177 | 3487 |
| NEGATIVE.WITNESS.SUSTAINED.HARASSMENT | 237 | 3427 |
| NEGATIVE.WITNESS.CROSS.PLATFORM.HARASSMENT | 175 | 3489 |
| NEGATIVE.WITNESS.STALKING | 108 | 3556 |
| NEGATIVE.WITNESS.SEXUAL.ADVANCES | 136 | 3528 |
| NEGATIVE.WITNESS.STEREOTYPING | 423 | 3241 |
| NEGATIVE.WITNESS.DOXING | 151 | 3513 |
| NEGATIVE.WITNESS.OTHER | 78 | 3586 |
| NEGATIVE.WITNESS.NONE.OF.THE.ABOVE | 1721 | 1943 |

Out [173] :

| | percent_yes |
|--|-------------|
| NEGATIVE.WITNESS.OTHER | 2.13% |
| NEGATIVE.WITNESS.STALKING | 2.95% |
| NEGATIVE.WITNESS.SEXUAL.ADVANCES | 3.71% |
| NEGATIVE.WITNESS.DOXING | 4.12% |
| NEGATIVE.WITNESS.THREATS | 4.42% |
| NEGATIVE.WITNESS.CROSS.PLATFORM.HARASSMENT | 4.78% |
| NEGATIVE.WITNESS.IMPORSONATION | 4.83% |
| NEGATIVE.WITNESS.SUSTAINED.HARASSMENT | 6.47% |
| NEGATIVE.WITNESS.STEREOTYPING | 11.54% |
| NEGATIVE.WITNESS.NAME.CALLING | 21.53% |
| NEGATIVE.WITNESS.NONE.OF.THE.ABOVE | 46.97% |
| NEGATIVE.WITNESS.RUDENESS | 47.84% |

Have you ever witnessed any of the following behaviors directed at another person in the context of an open source project? (not including something directed at you)



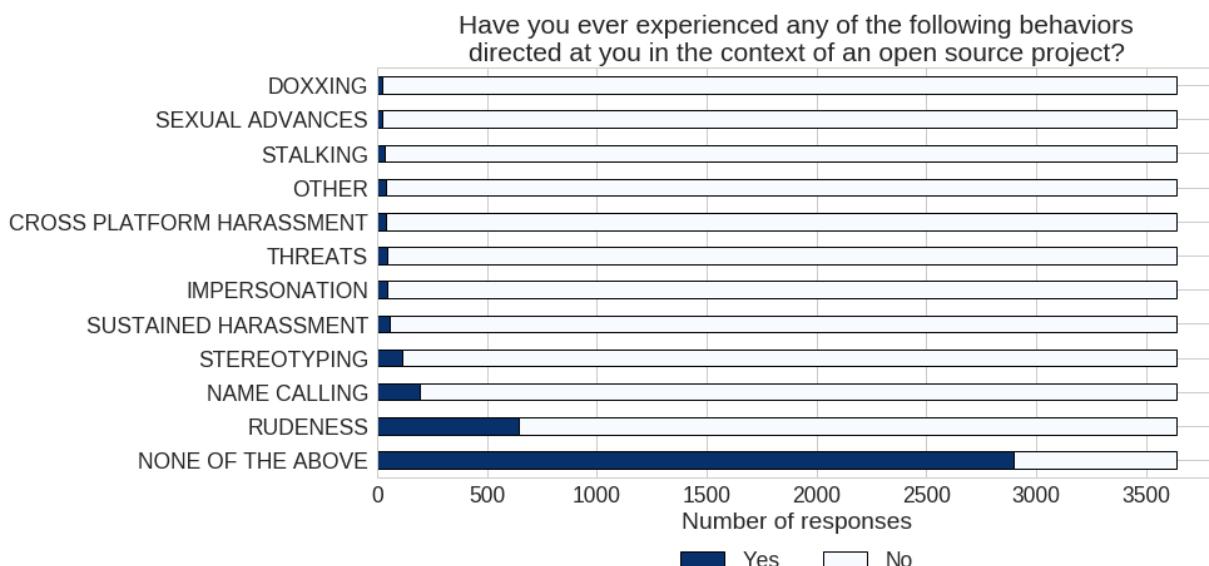
4.7.3 Have you ever experienced any of the following behaviors directed at you in the context of an open source project?

Out [177] :

| | Yes | No |
|---|------|------|
| NEGATIVE.EXPERIENCE.RUDENESS | 646 | 2992 |
| NEGATIVE.EXPERIENCE.NAME.CALLING | 192 | 3446 |
| NEGATIVE.EXPERIENCE.THREATS | 43 | 3595 |
| NEGATIVE.EXPERIENCE.IMPORSONATION | 45 | 3593 |
| NEGATIVE.EXPERIENCE.SUSTAINED.HARASSMENT | 55 | 3583 |
| NEGATIVE.EXPERIENCE.CROSS.PLATFORM.HARASSMENT | 42 | 3596 |
| NEGATIVE.EXPERIENCE.STALKING | 35 | 3603 |
| NEGATIVE.EXPERIENCE.SEXUAL.ADVANCES | 25 | 3613 |
| NEGATIVE.EXPERIENCE.STEREOTYPING | 114 | 3524 |
| NEGATIVE.EXPERIENCE.DOXING | 23 | 3615 |
| NEGATIVE.EXPERIENCE.OTHER | 39 | 3599 |
| NEGATIVE.EXPERIENCE.NONE.OF.THE.ABOVE | 2900 | 738 |

Out [178] :

| | percent_yes |
|---|-------------|
| NEGATIVE.EXPERIENCE.DOXING | 0.63% |
| NEGATIVE.EXPERIENCE.SEXUAL.ADVANCES | 0.69% |
| NEGATIVE.EXPERIENCE.STALKING | 0.96% |
| NEGATIVE.EXPERIENCE.OTHER | 1.07% |
| NEGATIVE.EXPERIENCE.CROSS.PLATFORM.HARASSMENT | 1.15% |
| NEGATIVE.EXPERIENCE.THREATS | 1.18% |
| NEGATIVE.EXPERIENCE.IMPORSONATION | 1.24% |
| NEGATIVE.EXPERIENCE.SUSTAINED.HARASSMENT | 1.51% |
| NEGATIVE.EXPERIENCE.STEREOTYPING | 3.13% |
| NEGATIVE.EXPERIENCE.NAME.CALLING | 5.28% |
| NEGATIVE.EXPERIENCE.RUDENESS | 17.76% |
| NEGATIVE.EXPERIENCE.NONE.OF.THE.ABOVE | 79.71% |



4.7.4 Thinking of the last time you experienced harassment, how did you respond?

NEGATIVE.RESPONSE.*

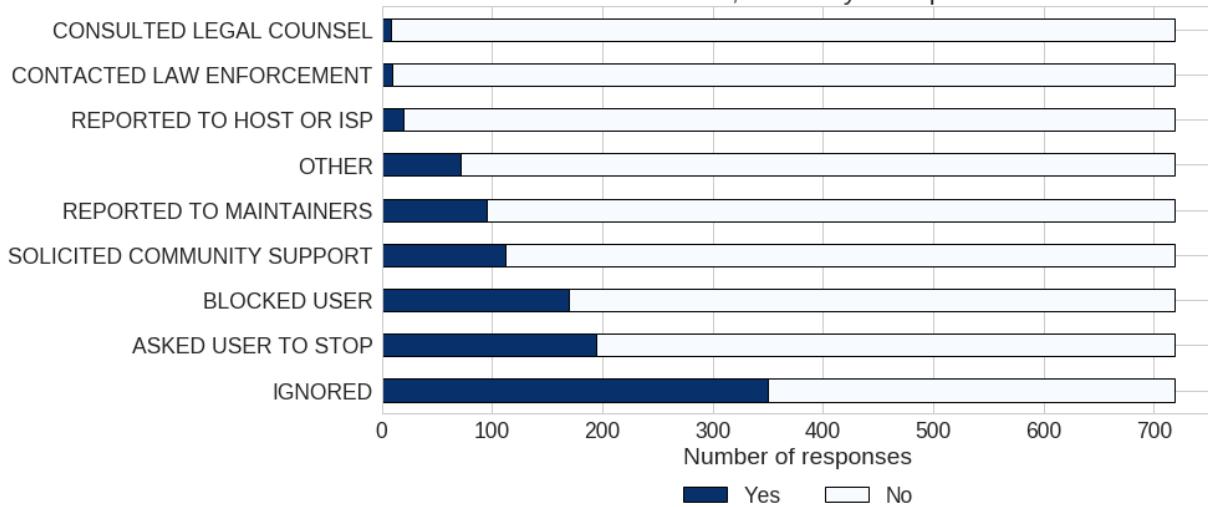
Out [182] :

| | Yes | No |
|---|-----|-----|
| NEGATIVE.RESPONSE.ASKED.USER.TO.STOP | 194 | 525 |
| NEGATIVE.RESPONSE.SOLICITED.COMMUNITY.SUPPORT | 112 | 607 |
| NEGATIVE.RESPONSE.BLOCKED.USER | 170 | 549 |
| NEGATIVE.RESPONSE.REPORTED.TO.MAINTAINERS | 95 | 624 |
| NEGATIVE.RESPONSE.REPORTED.TO.HOST.OR.ISP | 20 | 699 |
| NEGATIVE.RESPONSE.CONSULTED.LEGAL.COUNSEL | 8 | 711 |
| NEGATIVE.RESPONSE.CONTACTED.LAW.ENFORCEMENT | 9 | 710 |
| NEGATIVE.RESPONSE.OTHER | 71 | 648 |
| NEGATIVE.RESPONSE.IGNORED | 350 | 369 |

Out [183] :

| | percent_yes |
|---|-------------|
| NEGATIVE.RESPONSE.CONSULTED.LEGAL.COUNSEL | 1.11% |
| NEGATIVE.RESPONSE.CONTACTED.LAW.ENFORCEMENT | 1.25% |
| NEGATIVE.RESPONSE.REPORTED.TO.HOST.OR.ISP | 2.78% |
| NEGATIVE.RESPONSE.OTHER | 9.87% |
| NEGATIVE.RESPONSE.REPORTED.TO.MAINTAINERS | 13.21% |
| NEGATIVE.RESPONSE.SOLICITED.COMMUNITY.SUPPORT | 15.58% |
| NEGATIVE.RESPONSE.BLOCKED.USER | 23.64% |
| NEGATIVE.RESPONSE.ASKED.USER.TO.STOP | 26.98% |
| NEGATIVE.RESPONSE.IGNORED | 48.68% |

Thinking of the last time you experienced harassment, how did you respond?

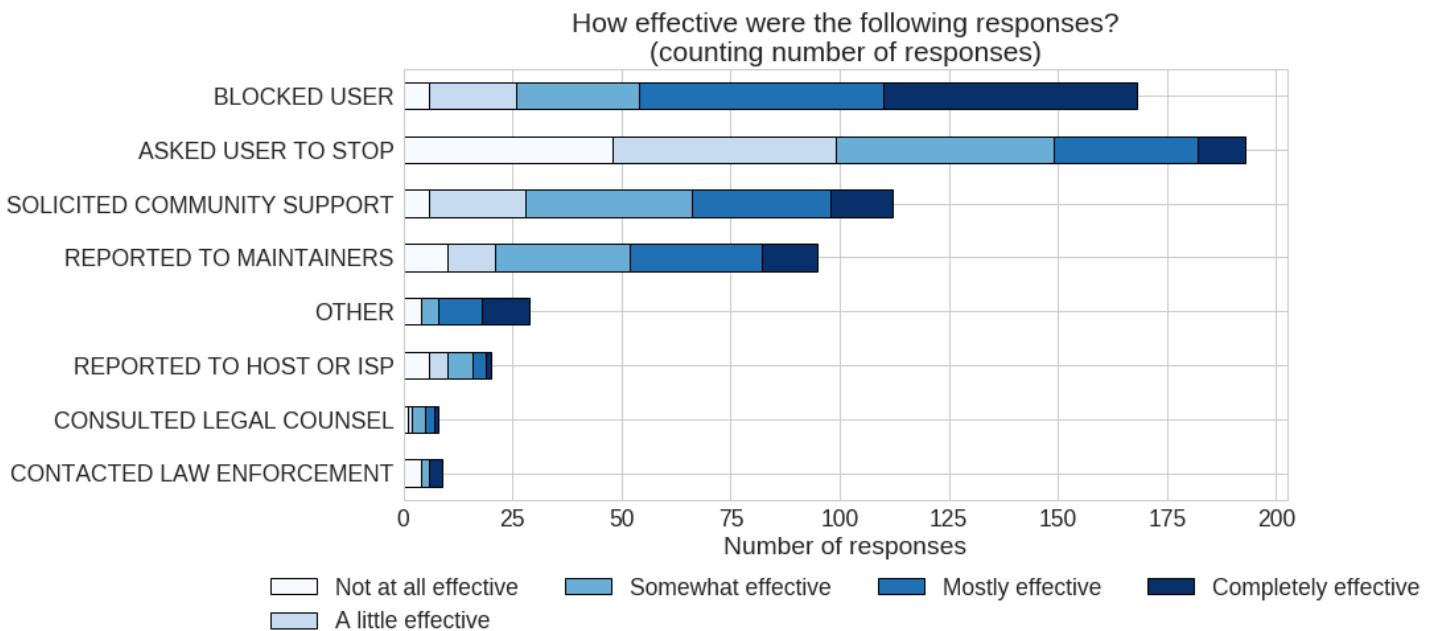


4.7.5 How effective were the following responses? Response counts

RESPONSE.EFFECTIVENESS.*

Out [186] :

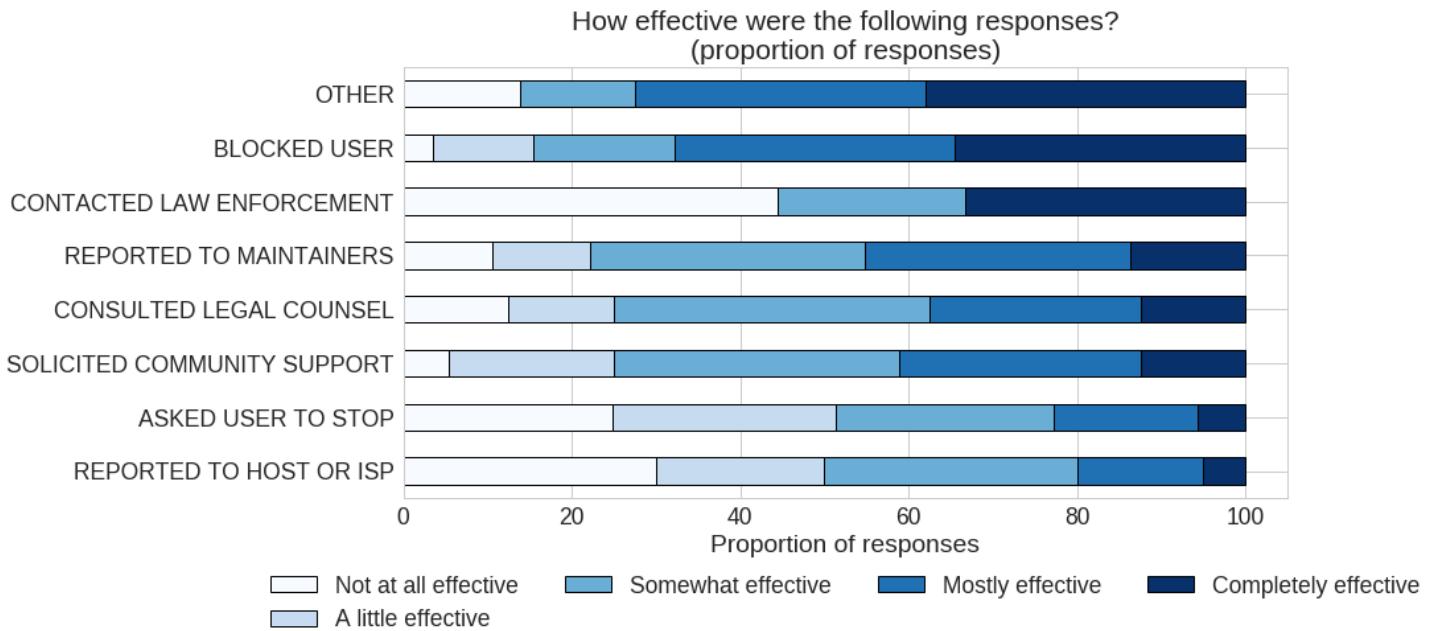
| | Not at all effective | A little effective | Somewhat effective | Mostly effective | Completely effective |
|-----------------------------|----------------------|--------------------|--------------------|------------------|----------------------|
| CONTACTED LAW ENFORCEMENT | 4 | 0 | 2 | 0 | 3 |
| CONSULTED LEGAL COUNSEL | 1 | 1 | 3 | 2 | 1 |
| REPORTED TO HOST OR ISP | 6 | 4 | 6 | 3 | 1 |
| OTHER | 4 | 0 | 4 | 10 | 11 |
| REPORTED TO MAINTAINERS | 10 | 11 | 31 | 30 | 13 |
| SOLICITED COMMUNITY SUPPORT | 6 | 22 | 38 | 32 | 14 |
| ASKED USER TO STOP | 48 | 51 | 50 | 33 | 11 |
| BLOCKED USER | 6 | 20 | 28 | 56 | 58 |



4.7.6 How effective were the following responses? Proportions

Out [189] :

| | Not at all effective | A little effective | Somewhat effective | Mostly effective | Completely effective |
|-----------------------------|----------------------|--------------------|--------------------|------------------|----------------------|
| REPORTED TO HOST OR ISP | 30.00% | 20.00% | 30.00% | 15.00% | 5.00% |
| ASKED USER TO STOP | 24.87% | 26.42% | 25.91% | 17.10% | 5.70% |
| SOLICITED COMMUNITY SUPPORT | 5.36% | 19.64% | 33.93% | 28.57% | 12.50% |
| CONSULTED LEGAL COUNSEL | 12.50% | 12.50% | 37.50% | 25.00% | 12.50% |
| REPORTED TO MAINTAINERS | 10.53% | 11.58% | 32.63% | 31.58% | 13.68% |
| CONTACTED LAW ENFORCEMENT | 44.44% | 0.00% | 22.22% | 0.00% | 33.33% |
| BLOCKED USER | 3.57% | 11.90% | 16.67% | 33.33% | 34.52% |
| OTHER | 13.79% | 0.00% | 13.79% | 34.48% | 37.93% |



4.7.7 As a result of experiencing or witnessing harassment, which, if any, of the following have you done?

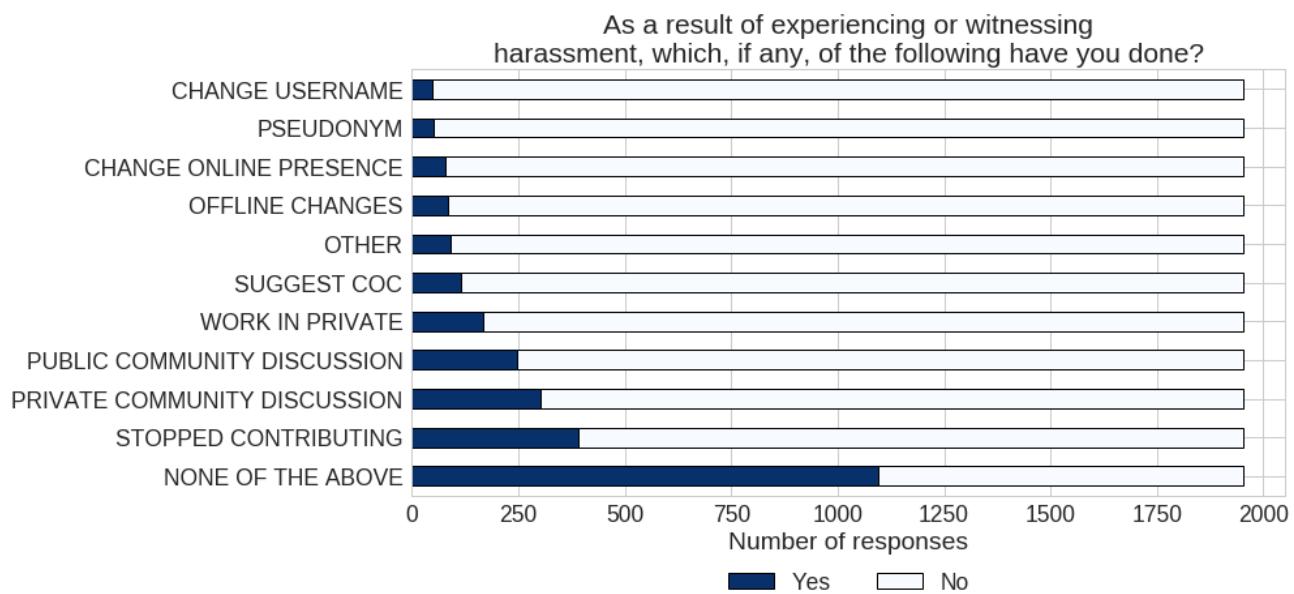
NEGATIVE.CONSEQUENCES.*

Out [193] :

| | Yes | No |
|--|------|------|
| NEGATIVE.CONSEQUENCES.STOPPED.CONTRIBUTING | 390 | 1563 |
| NEGATIVE.CONSEQUENCES.PSEUDONYM | 50 | 1903 |
| NEGATIVE.CONSEQUENCES.WORK.IN.PRIVATE | 166 | 1787 |
| NEGATIVE.CONSEQUENCES.CHANGE.USERNAME | 48 | 1905 |
| NEGATIVE.CONSEQUENCES.CHANGE.ONLINE.PRESENCE | 79 | 1874 |
| NEGATIVE.CONSEQUENCES.SUGGEST.COC | 116 | 1837 |
| NEGATIVE.CONSEQUENCES.PRIVATE.COMMUNITY.DISCUSSION | 301 | 1652 |
| NEGATIVE.CONSEQUENCES.PUBLIC.COMMUNITY.DISCUSSION | 248 | 1705 |
| NEGATIVE.CONSEQUENCES.OFFLINE.CHANGES | 85 | 1868 |
| NEGATIVE.CONSEQUENCES.OTHER | 90 | 1863 |
| NEGATIVE.CONSEQUENCES.NONE.OF.THE.ABOVE | 1094 | 859 |

Out [194] :

| | percent_yes |
|--|-------------|
| NEGATIVE.CONSEQUENCES.CHANGE.USERNAME | 2.46% |
| NEGATIVE.CONSEQUENCES.PSEUDONYM | 2.56% |
| NEGATIVE.CONSEQUENCES.CHANGE.ONLINE.PRESENCE | 4.05% |
| NEGATIVE.CONSEQUENCES.OFFLINE.CHANGES | 4.35% |
| NEGATIVE.CONSEQUENCES.OTHER | 4.61% |
| NEGATIVE.CONSEQUENCES.SUGGEST.COC | 5.94% |
| NEGATIVE.CONSEQUENCES.WORK.IN.PRIVATE | 8.50% |
| NEGATIVE.CONSEQUENCES.PUBLIC.COMMUNITY.DISCUSSION | 12.70% |
| NEGATIVE.CONSEQUENCES.PRIVATE.COMMUNITY.DISCUSSION | 15.41% |
| NEGATIVE.CONSEQUENCES.STOPPED.CONTRIBUTING | 19.97% |
| NEGATIVE.CONSEQUENCES.NONE.OF.THE.ABOVE | 56.02% |
| NEGATIVE.CONSEQUENCES.ANY.RESPONSE | 100.00% |



5 Bibliography

References

- R. Stuart Geiger. Summary analysis of the 2017 github open source survey. *SocArXiv Preprints*, 2017. doi: 10.17605/OSF.IO/ENRQ5. URL <https://osf.io/preprints/socarxiv/qps53>.
- J. D. Hunter. Matplotlib: A 2d graphics environment. *Computing in Science Engineering*, 9(3):90–95, May 2007. ISSN 1521-9615. doi: 10.1109/MCSE.2007.55. URL <http://ieeexplore.ieee.org/document/4160265/>.
- Eric Jones, Travis Oliphant, Pearu Peterson, et al. SciPy: Open source scientific tools for Python, 2001. URL <http://www.scipy.org/>.
- Thomas Kluyver, Benjamin Ragan-Kelley, Fernando Pérez, Brian Granger, Matthias Bussonnier, Jonathan Frederick, Kyle Kelley, Jessica Hamrick, Jason Grout, Sylvain Corlay, Paul Ivanov, Damián Avila, Safia Abdalla, Carol Willing, and Jupyter development team. Jupyter notebooks: a publishing format for reproducible computational workflows, 2016. URL <https://eprints.soton.ac.uk/403913/>.
- Wes McKinney. Data Structures for Statistical Computing in Python. In Stéfan van der Walt and Jarrod Millman, editors, *Proceedings of the 9th Python in Science Conference*, pages 51–56, 2010. URL <http://conference.scipy.org/proceedings/scipy2010/mckinney.html>.
- Fernando Pérez and Brian E. Granger. IPython: a system for interactive scientific computing. *Computing in Science and Engineering*, 9(3):21–29, May 2007. ISSN 1521-9615. doi: 10.1109/MCSE.2007.53. URL <http://ipython.org>.
- S. van der Walt, S. C. Colbert, and G. Varoquaux. The numpy array: A structure for efficient numerical computation. *Computing in Science Engineering*, 13(2):22–30, March 2011. ISSN 1521-9615. doi: 10.1109/MCSE.2011.37. URL <https://arxiv.org/abs/1102.1523>.
- Guido van Rossum. Python library reference, 1995. URL <https://ir.cwi.nl/pub/5009/05009D.pdf>.
- Michael Waskom, Olga Botvinnik, Paul Hobson, John B. Cole, Yaroslav Halchenko, Stephan Hoyer, Alistair Miles, Tom Augspurger, Tal Yarkoni, Tobias Megies, Luis Pedro Coelho, Daniel Wehner, cynddl, Erik Ziegler, diego0020, Yury V. Zaytsev, Travis Hoppe, Skipper Seabold, Phillip Cloud, Miikka Koskinen, Kyle Meyer, Adel Qalieh, and Dan Allan. seaborn: v0.5.0 (november 2014), November 2014. URL <https://doi.org/10.5281/zenodo.12710>.
- Frannie Zlotnick, Arfon Smith, Mike Linksvayer, Anna Filippova, and The Open Source Initiative. The open source survey. *GitHub repository*, 2017a. URL <https://github.com/github/open-source-survey>.
- Frannie Zlotnick, Arfon Smith, Mike Linksvayer, Anna Filippova, and The Open Source Initiative. The open source survey website. *GitHub, Inc.*, 2017b. URL <https://opensourcesurvey.org/2017/>.