core.10
BSDCan Status Update

2019-05-16

Overview

1. `core.10`'s Progression
2. Developer and Community Survey Results
3. Package Download Stats
4. Core Team Charter Update
5. Working Groups

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Forming

"The team meets and learns about the opportunities and challenges, and then agrees on goals and begins to tackle the tasks."
-- Tuckman's stages of group development

core.10 Members

- Allan Jude
- Benedict Reuschling
- Brooks Davis
- Hiroki Sato
- Jeff Roberson
- John Baldwin
- Kris Moore
- Sean Chittenden
- Warner Losh

- Secretary: Joseph Mingrone

core.10: 2018H2 Summary (1/3)

1. Meet and Greet
2. Overwhelmed at number of issues to discuss every meeting
   a. Once per month cadence led to 2+hr meetings
   b. September: moved to once every 2wks
   c. November: moved to once a week
      (still not enough, but we're basically out of free cycles)
   d. Higher number of meetings per month allows us to work on issues
      more often/at a higher frequency than just once a month

Storming

"This is the second stage of team development, where the group starts to sort itself out and gain each other's trust."
-- Tuckman's stages of group development

Survey

- Lots of opinions
- Short on data
- Explicit desire to:
  - not bikeshed in private
  - have a successful core term with concrete results, backed by data
- Straw poll at EuroBSD Dev Summit regarding willingness to participate in a survey.
  - 50 attendees
  - "Who wouldn't participate in a survey?" 2 hands went up
- Early results confirm some of our assumptions
- Learned new things, too early to draw conclusions before full analysis

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In ${FOO} we trust™.

- In developers we trust™.
- In crypto we trust™.
- In automation we trust™.
- In data we trust™.

In chaos we assume.

core.10: 2018H2 Summary (2/3)

3. 12.0-RELEASE delay
   a. OpenSSL's 1.1.0 release didn't line up with `12.0-RELEASE`
   b. Project belief that "all branches are created equal"
   c. Discussion/desire to change `i386` kernel to a Tier 2 platform and announce this before `12.0-RELEASE` cut.
   d. 5 year support term for branches is problematic
   e. Good news: delayed announcement regarding the support model for `12-STABLE` does not appear to have impacted the adoption of 12.0
4. Oversaw the DRM driver transition and stood up the graphics WG
5. Draft replacement CoC candidates (LLVM, Go), progress stalled

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Norming

"The team is aware of competition and they share a common goal. In this stage, all team members take the responsibility and have the ambition to work for the success of the team's goals. They start tolerating the whims and fancies of the other team members. They accept others as they are and make an effort to move on."
-- Tuckman's stages of group development

core.10: 2019Q1 Summary (3/3)

4. Support Cycle announcement for `12.0-RELEASE`
5. YouTube channel for developer summit videos
   a. https://www.youtube.com/channel/UCxLxR_oW-NAmChIcSkAyZGQ
   b. Please subscribe!
6. Release Engineering Discussions
7. Survey
8. Stats

Things Working Well

1. Pretty aggressive about using Google Docs for content review
   a. Nearly every announcement that has been sent out by `core@`, `core-secretary@`, or "on behalf of core" has been drafted in a Google Doc and shared and approved by the Core Team
2. Slack: real-time communication
3. Aligned vision among the Core Team
4. Sequencing of issues. "We're tackling ABC this month (or quarter), then moving to XYZ."
5. Aligning meetings w/ `core-secretary@`

   `jrm@` doesn't get enough credit for his role helping core@! Regular core reports as a result informing the community about what we do.

Survey Results

2016 Survey Results

- FreeBSD Foundation conducted a survey in 2016
- 1614 responses
- 10min avg length
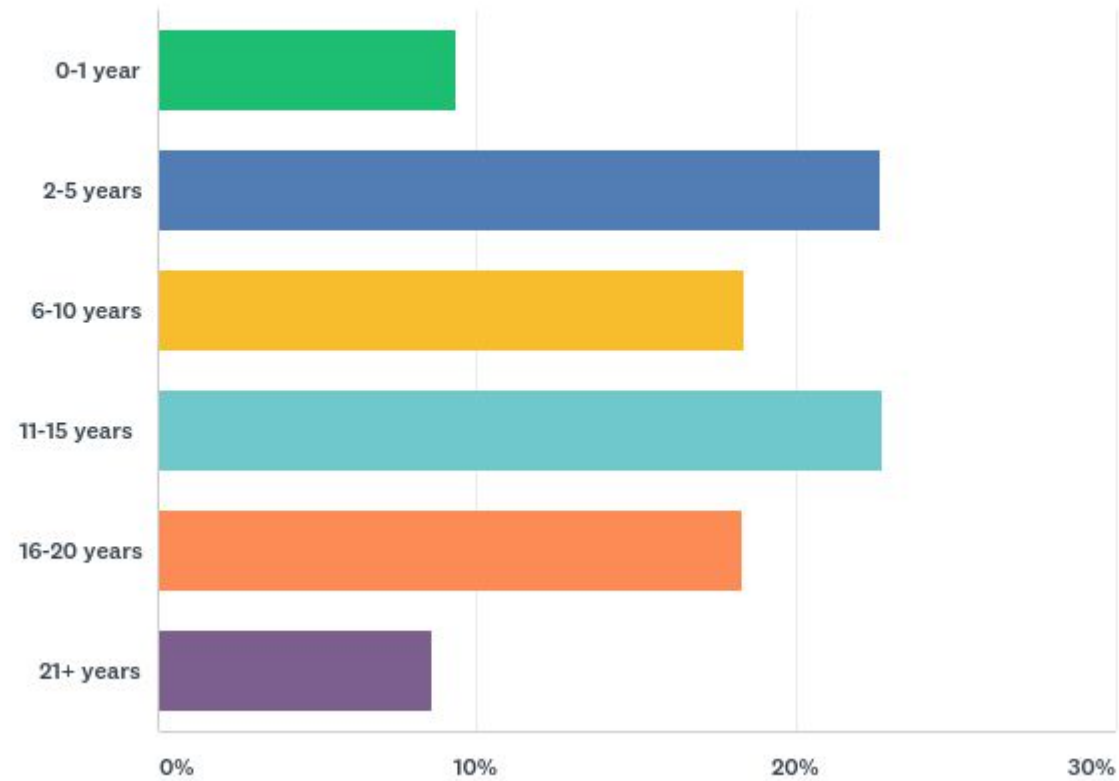
3/20/2016 - 7/31/2016
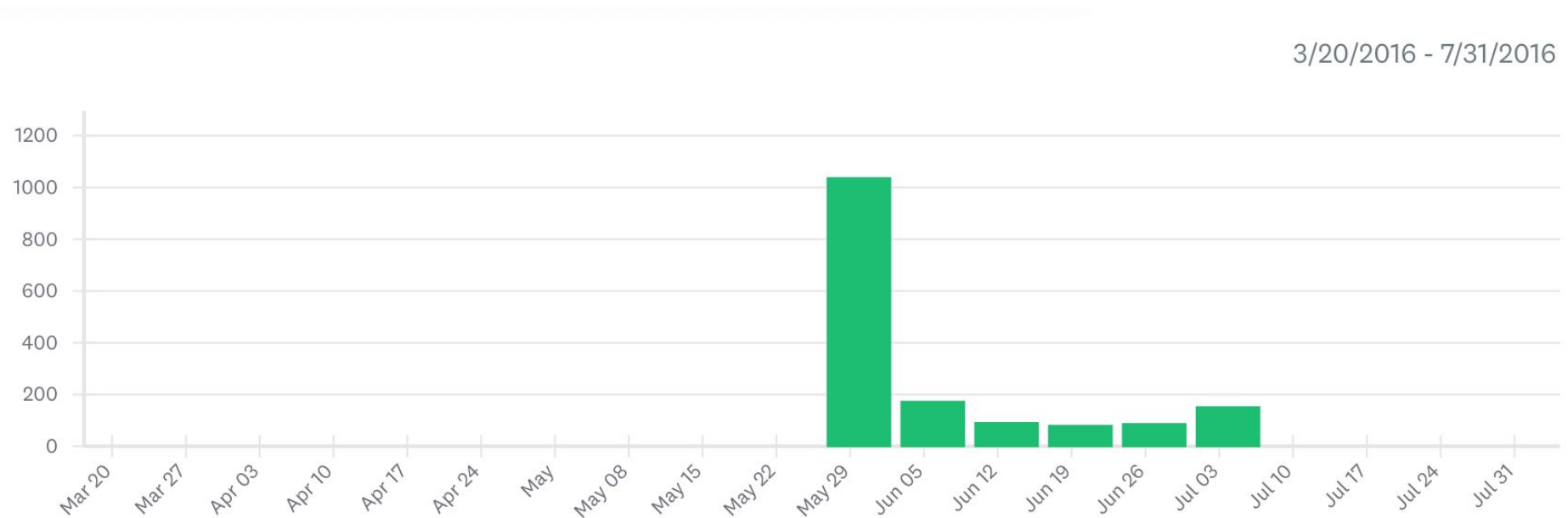
2019 Community Results

4/24/2019 - 5/13/2019
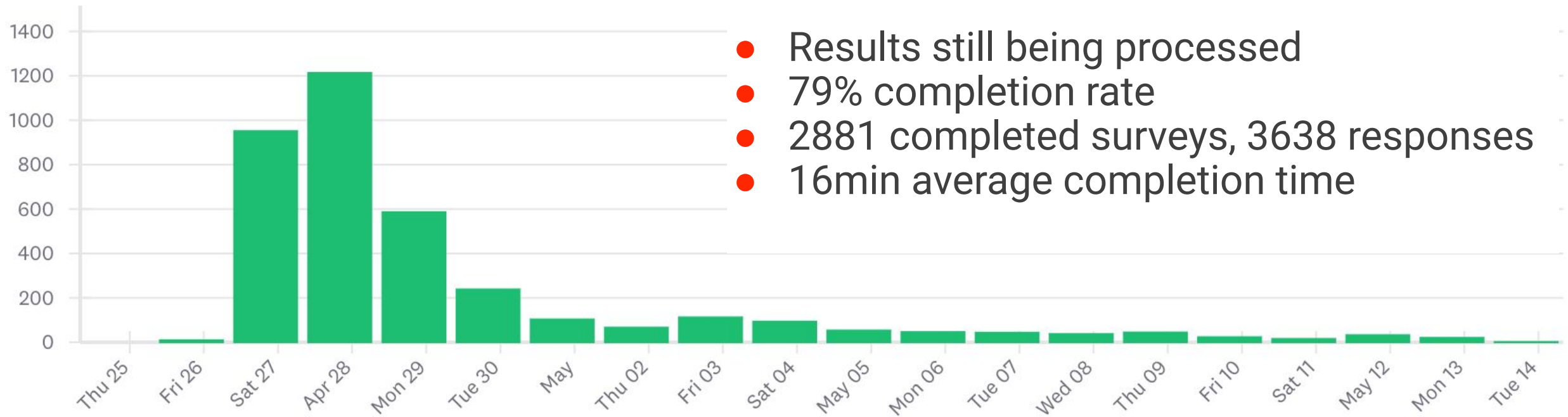
- Results still being processed
- 79% completion rate
- 2881 completed surveys, 3638 responses
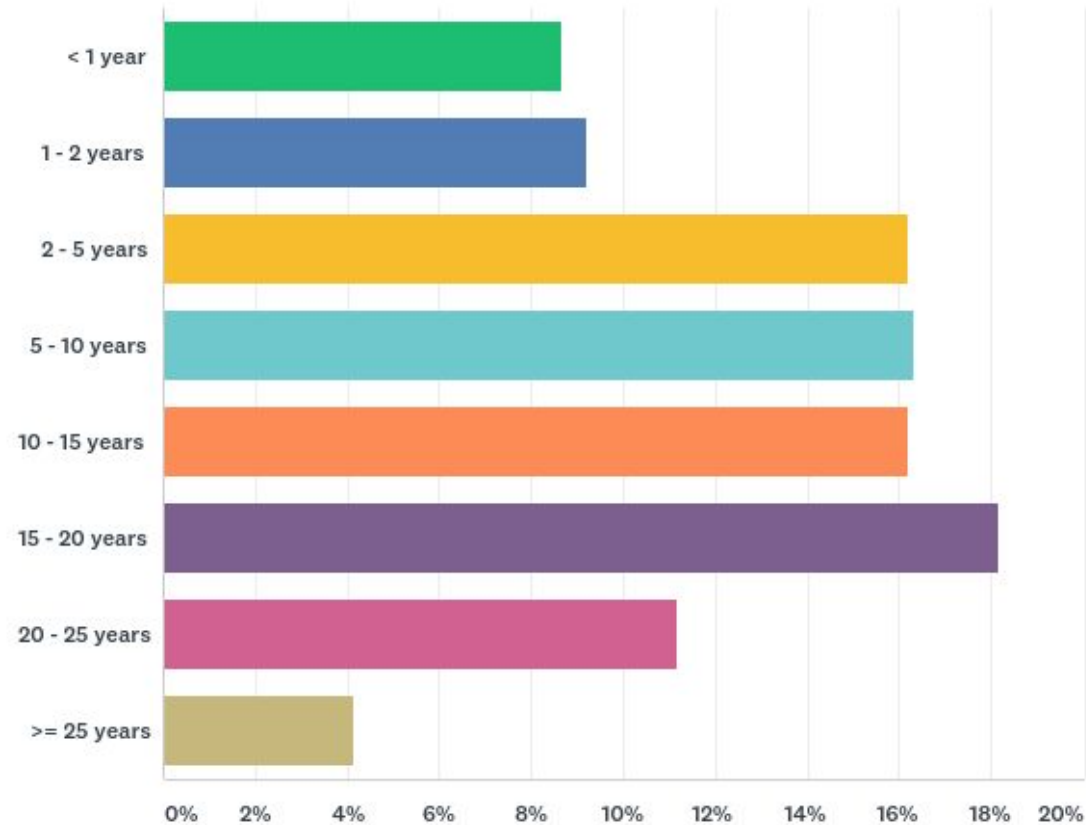- 16min average completion time

2016 FF Survey Results
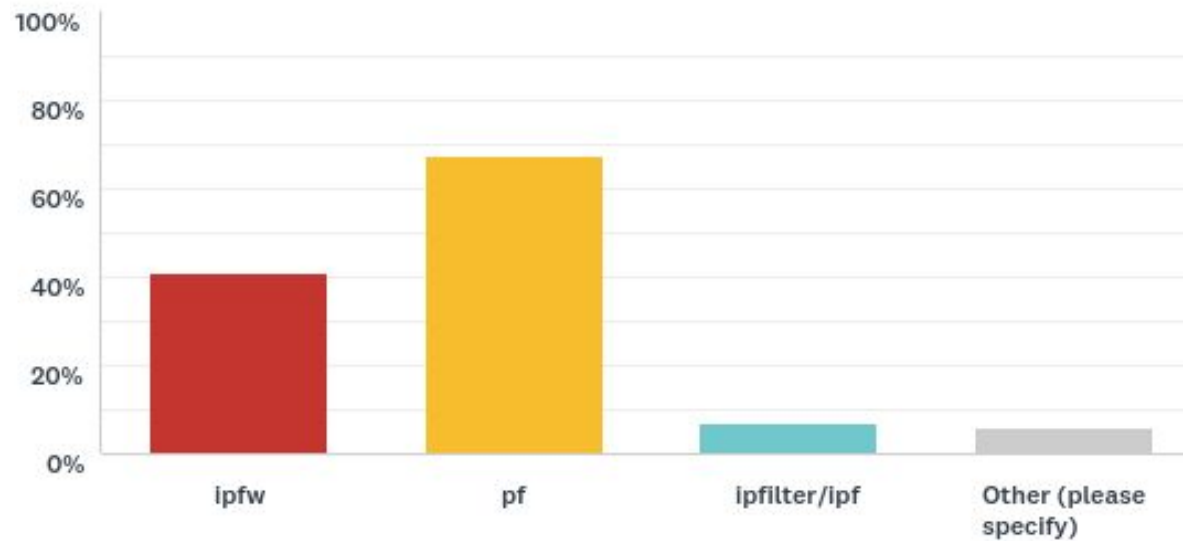

Q3 How long have you been involved with FreeBSD?

2019 Community Results

Q3 I've been using FreeBSD for…

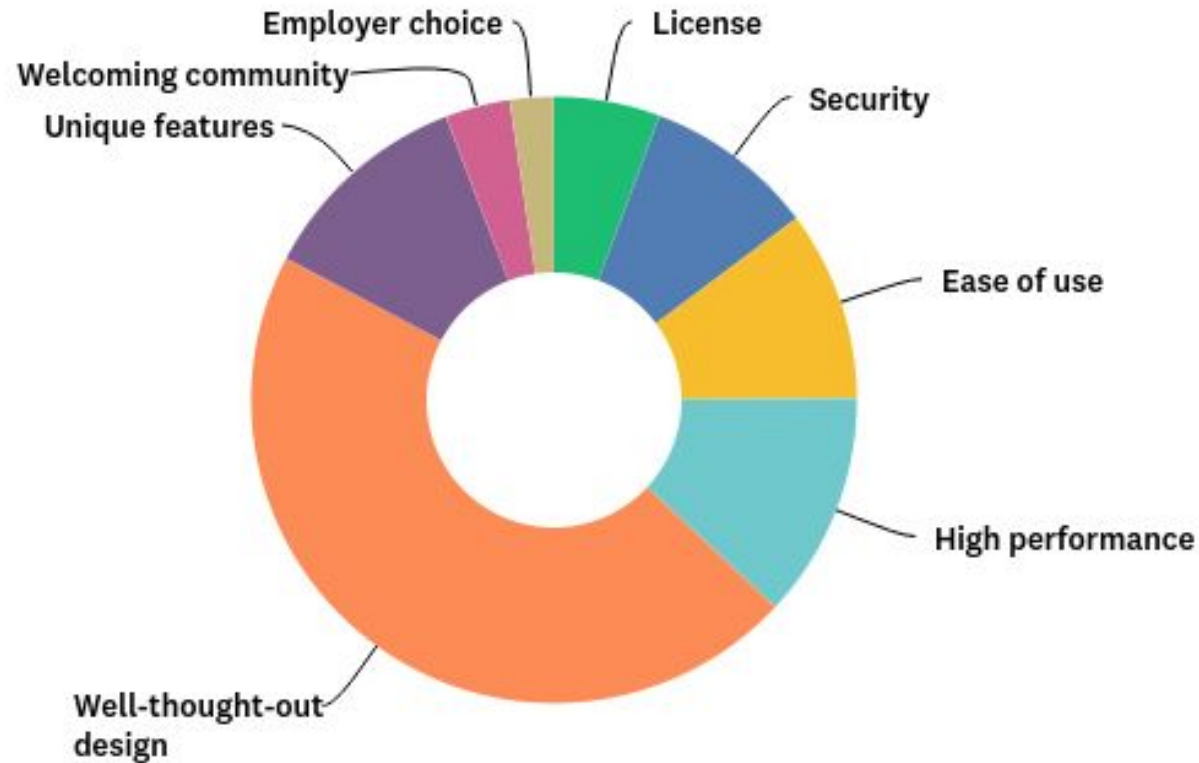# 2019 Community Survey

Q9 I use the following firewalls:

2016 FF Survey Results

Q6 What is the primary reason you chose FreeBSD?

Employer choice · Welcoming community · Unique features · License · Security · Ease of use · High performance · Well-thought-out design
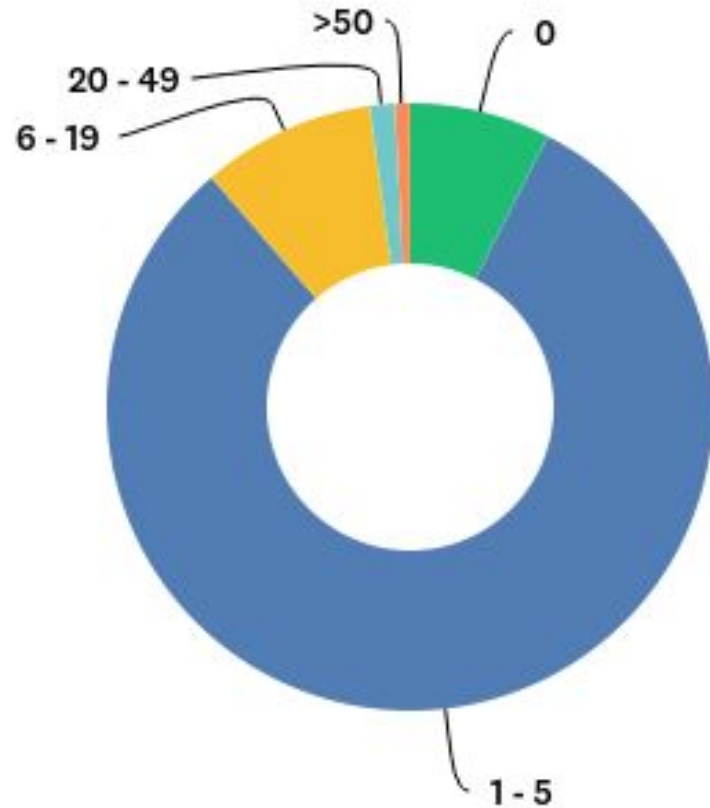
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2016 FF Survey Results

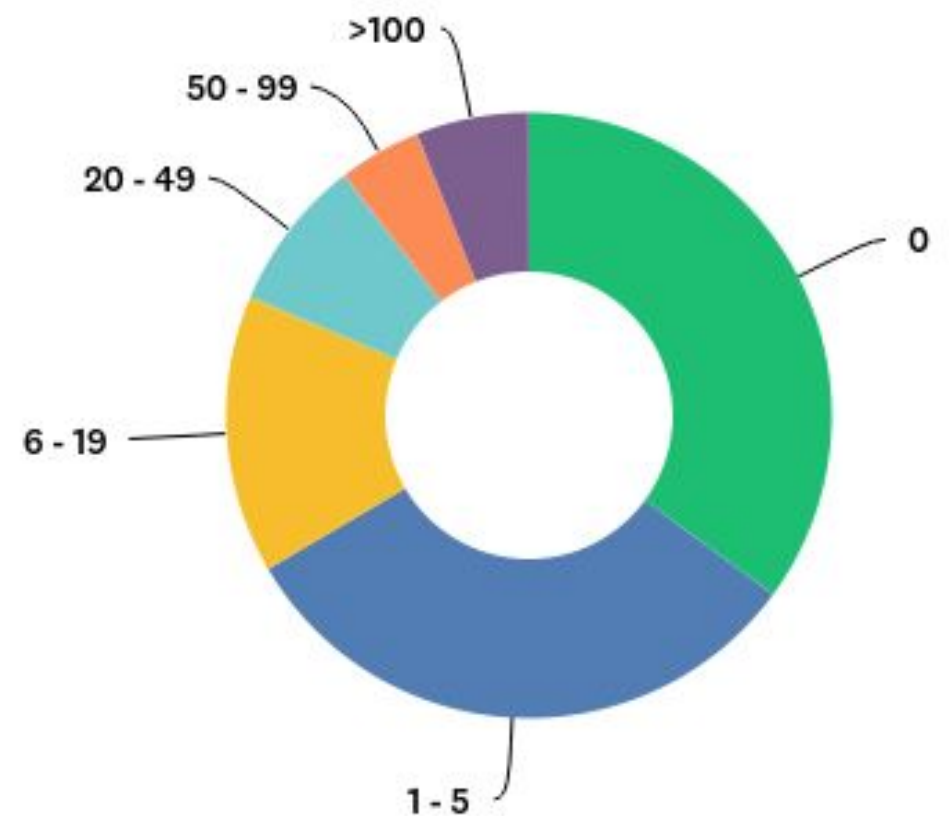Q5 How many devices do you run with FreeBSD?
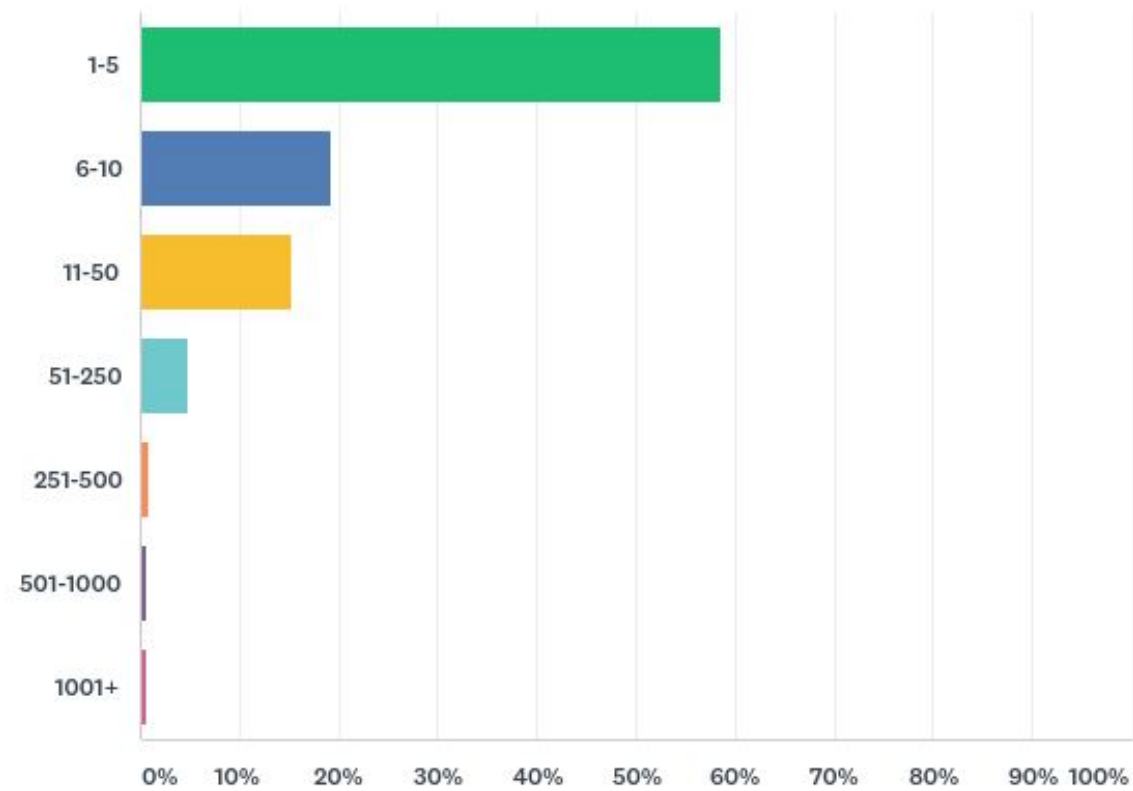
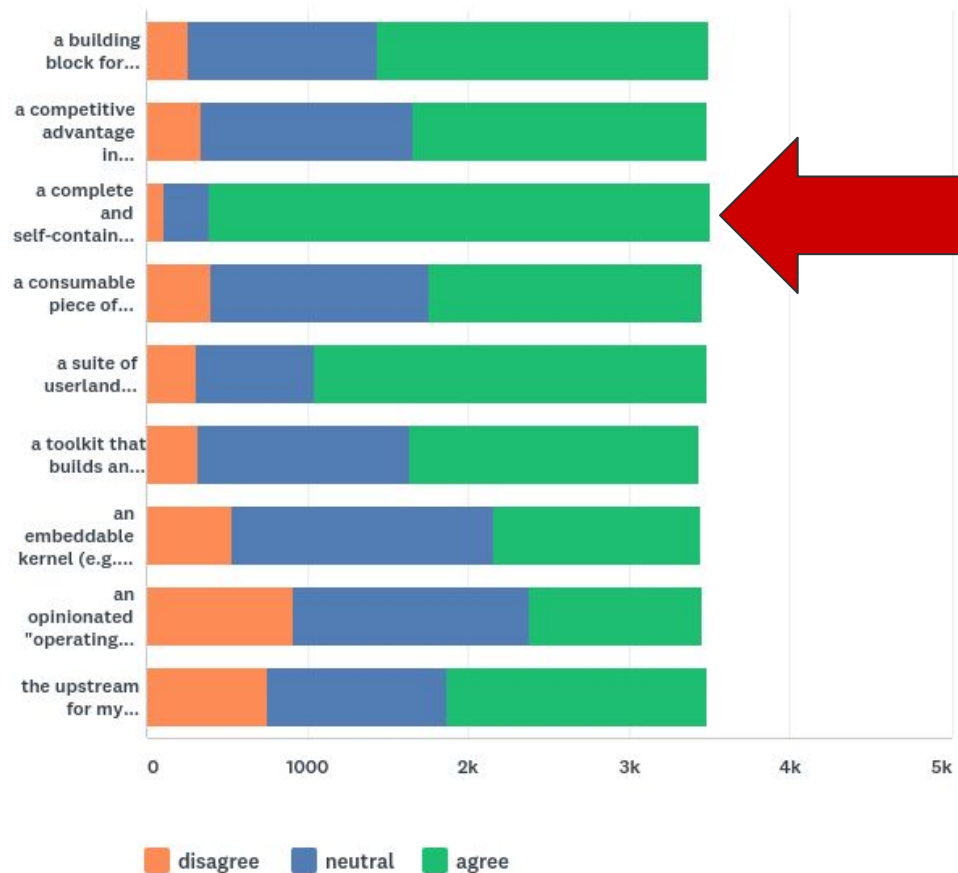# 2019 Survey Results

Installs at home

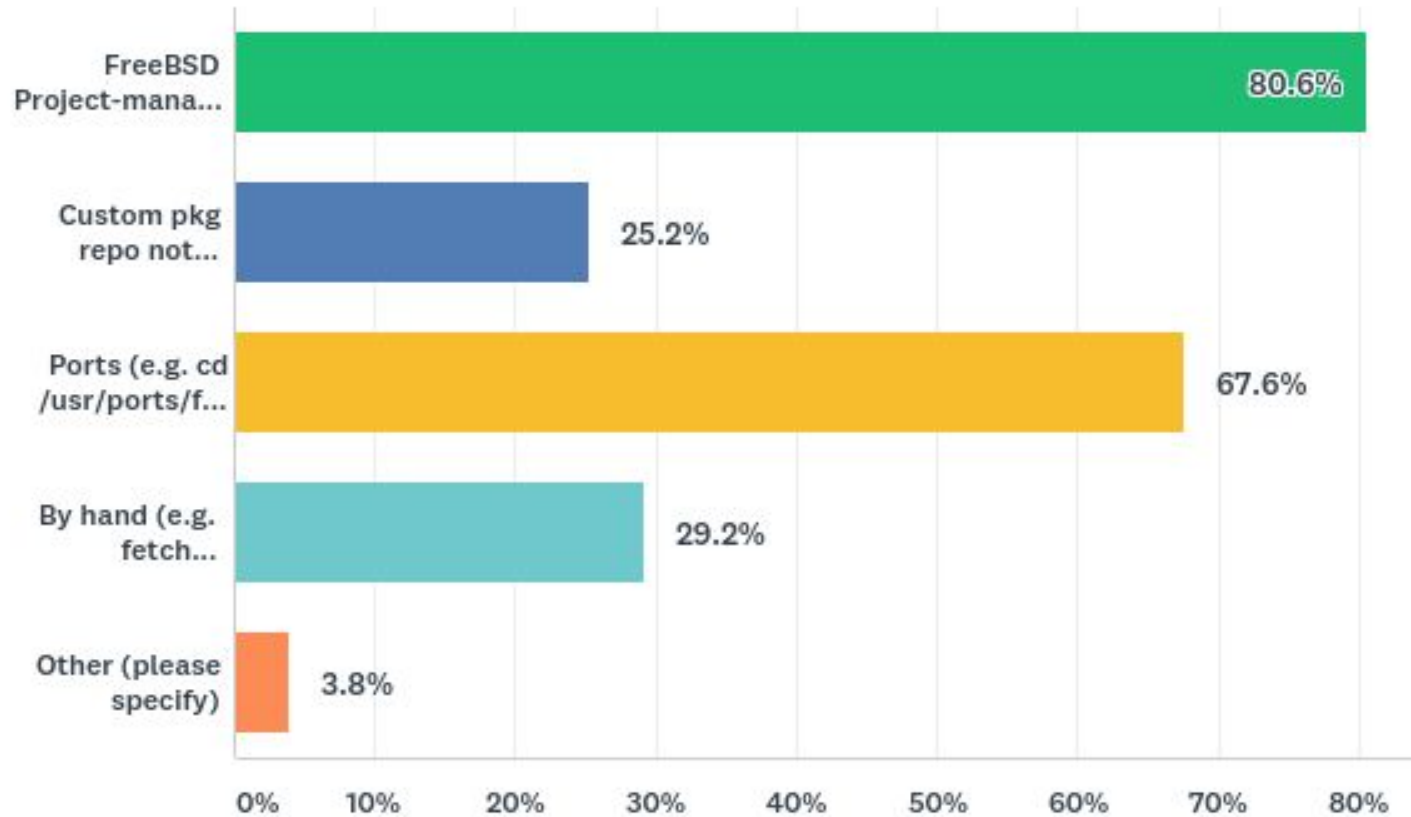## Installs at work/school

2019 Community Survey

Q7 The FreeBSD Project produces software. I view FreeBSD's software as...
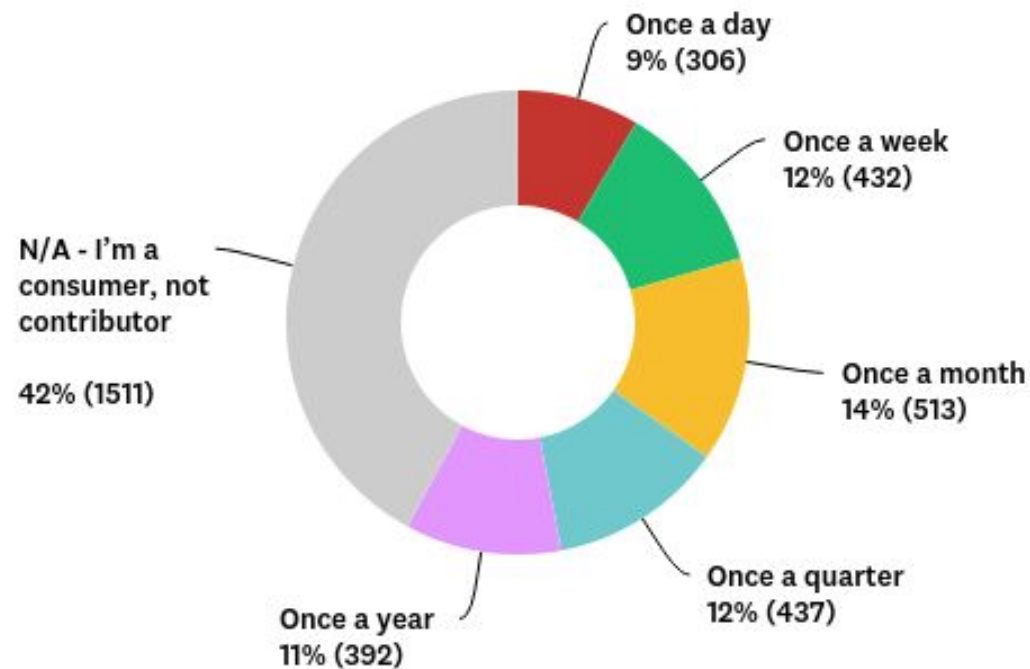

"a complete and self-contained contained operating system"

Q16 How do you install software (excluding configuration management, which may invoke one of the following)?


FreeBSD Project-mana...	80.6%
Custom pkg repo not...	25.2%
Ports (e.g. cd /usr/ports/f...	67.6%
By hand (e.g. fetch...	29.2%
Other (please specify)	3.8%

2019 Community Survey

Q10 On average in the last 6 months, how often do you contribute or work on improving Open Source (if at all):

Once a day
9% (306)

Once a week
12% (432)

Once a month
14% (513)

Once a quarter
12% (437)

Once a year
11% (392)

N/A - I'm a consumer, not contributor
42% (1511)

2019 Community Survey

Q11 On days when you contribute to Open Source Software projects (including FreeBSD), how much time (at work, school, or at home) do you spend contributing?
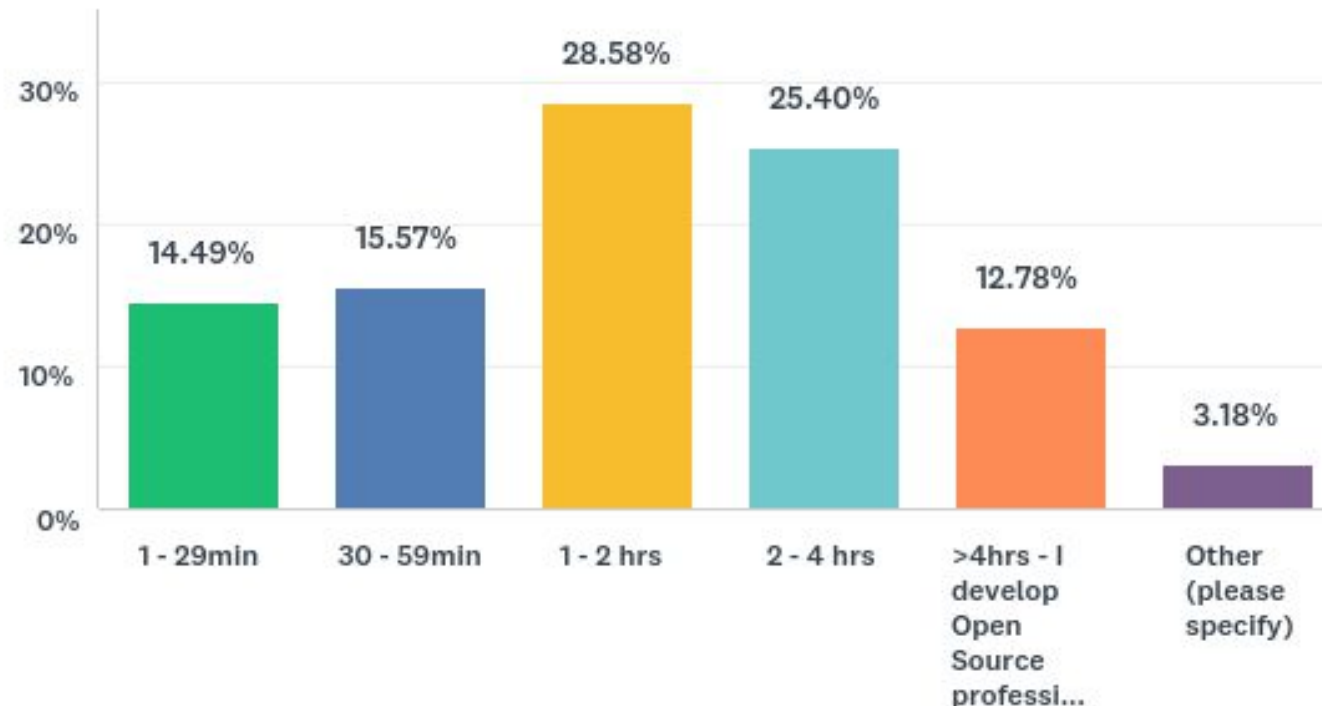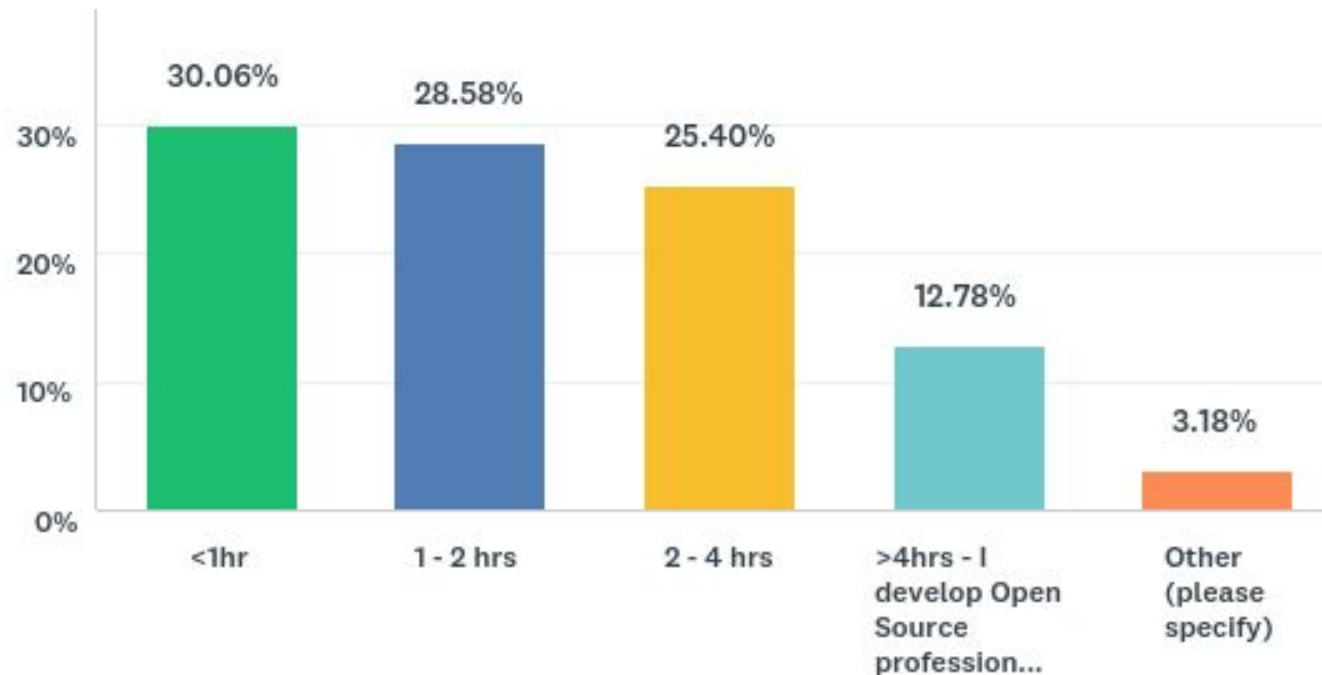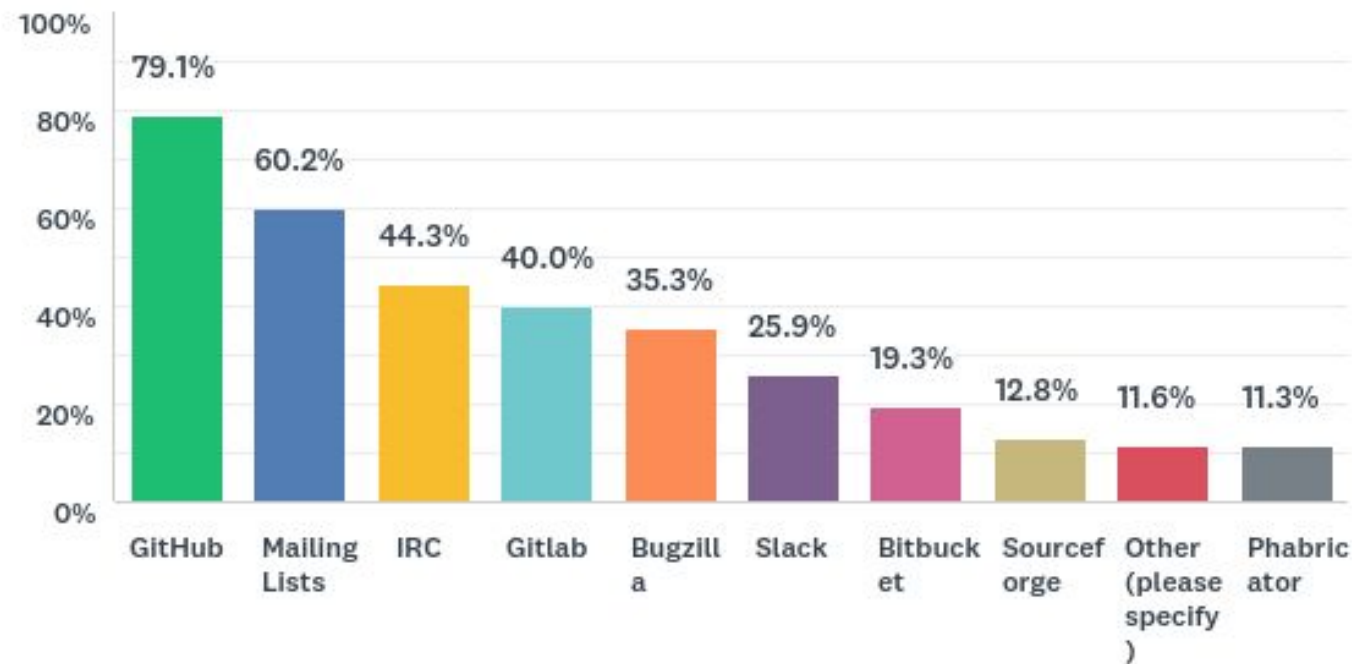
2019 Community Survey

Q11 On days when you contribute to Open Source Software projects (including FreeBSD), how much time (at work, school, or at home) do you spend contributing?
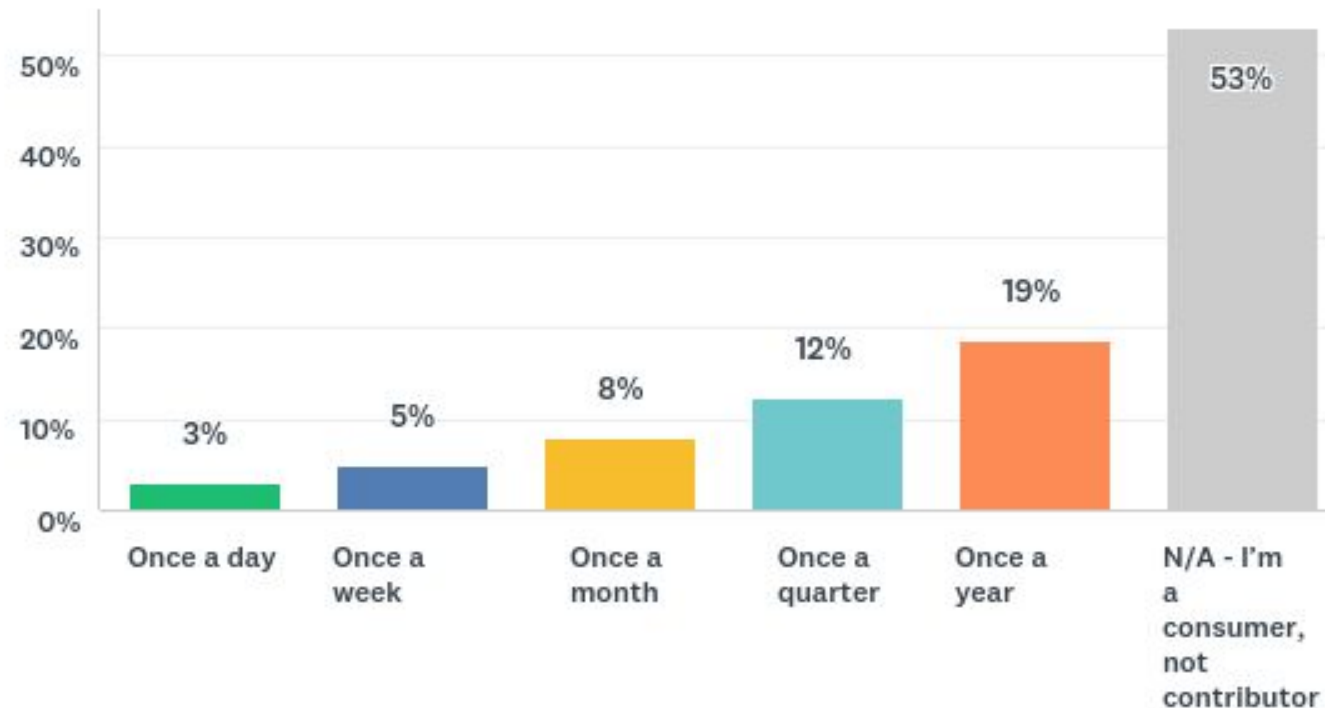
2019 Community Survey

Q15 Across all of my open source activities, I currently use the following communication services…

2019 Community Survey
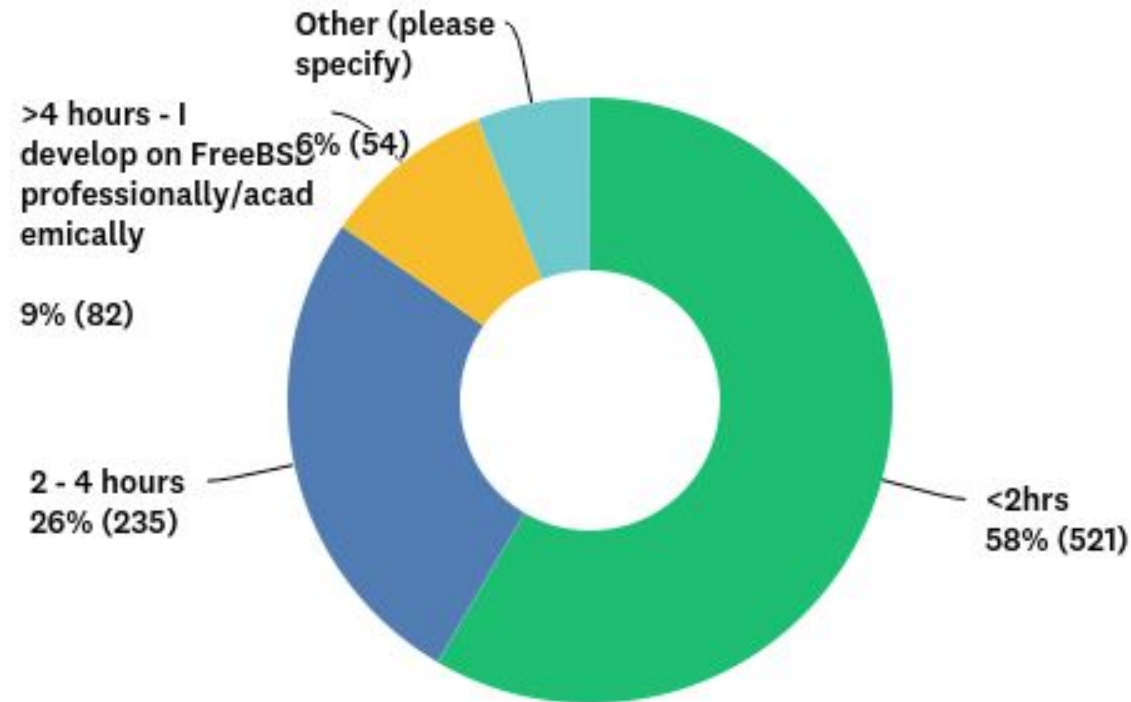
Q12 Do you contribute to improve FreeBSD? During the last 12 months, how often have you made contributions?

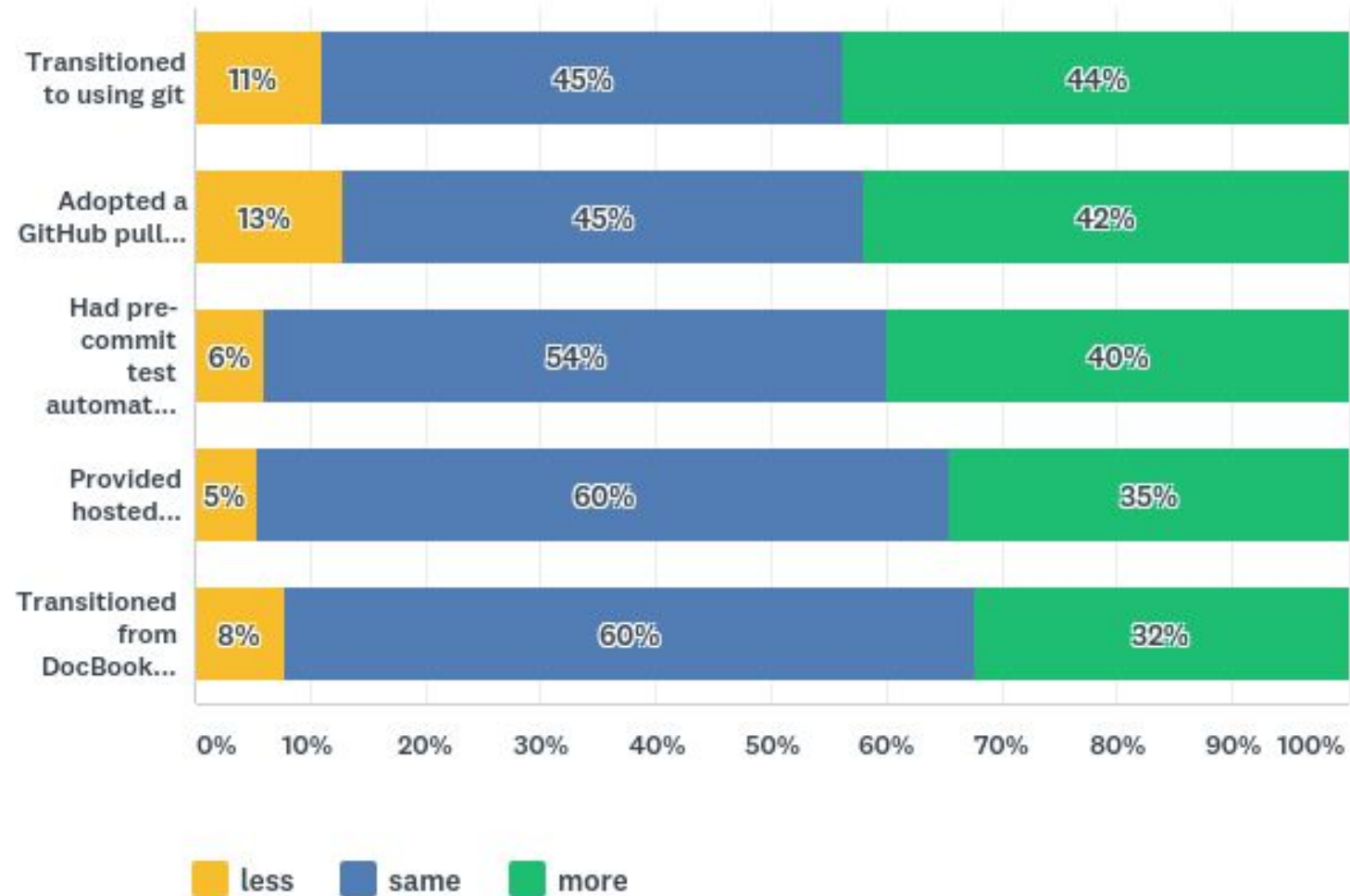# 2019 Community Survey

Q13 On days when you contribute to FreeBSD, how much time (at work, school, or at home) do you spend contributing?

Other (please specify) 6% (54)

>4 hours - I develop on FreeBSD professionally/academically
9% (82)

2 - 4 hours 26% (235)

<2hrs 58% (521)

Q14 I would contribute to FreeBSD more if the FreeBSD Project:

	less	same	more
Transitioned to using git	11%	45%	44%
Adopted a GitHub pull...	13%	45%	42%
Had pre-commit test automat...	6%	54%	40%
Provided hosted...	5%	60%	35%
Transitioned from DocBook...	8%	60%	32%

less   same   more

2016 FF Survey Results

If the Project were to modernize some of its processes, which tools would you like to see adopted?
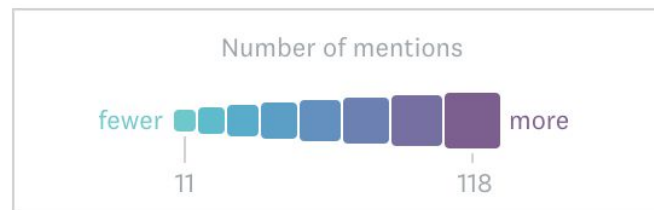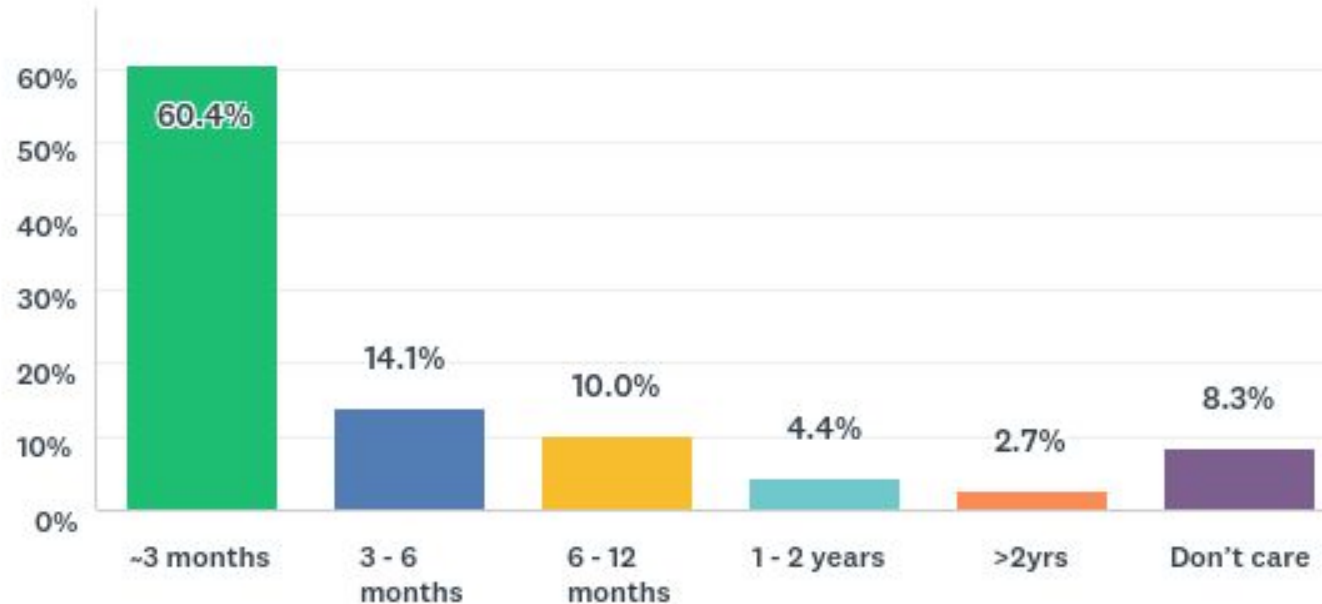
2019 Community Survey

Q19 Ideally FreeBSD major branches (or an LTS branch) will be supported for _____ years (i.e. security fixes, critical bugs, packages).
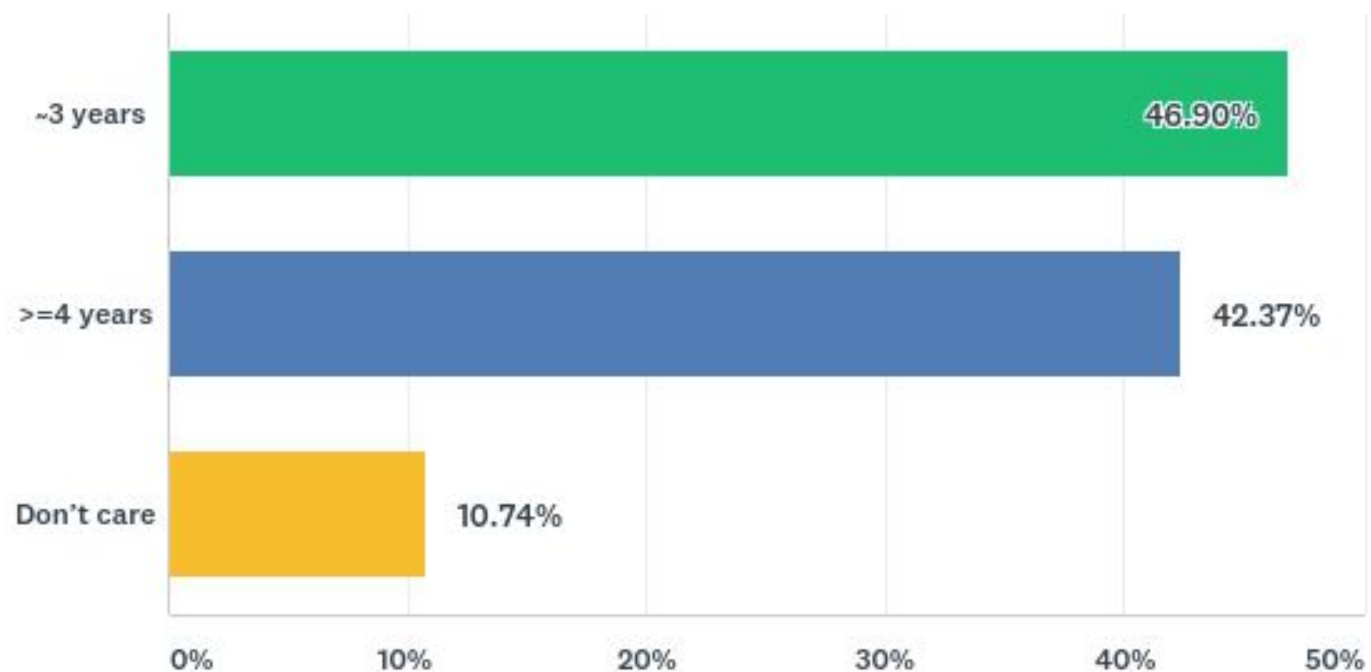
2019 Community Survey

Q21 I prefer to make low-risk (moving data is not required) upgrades on a branch every _____ in order to pick up bug fixes, security fixes, etc. (e.g. 11.1-RELEASE -> 11.1-p1, 11.1 -> 11.2)

2019 Community Survey

Q22 I prefer to make high-risk upgrades across major versions every _____ (e.g. 11.3-RELEASE -> 12.1, 12-STABLE -> 13-CURRENT) in order to pick up new features, API/ABI changes, subsystem improvements, etc. (i.e. backing up data in prep for the upgrade)
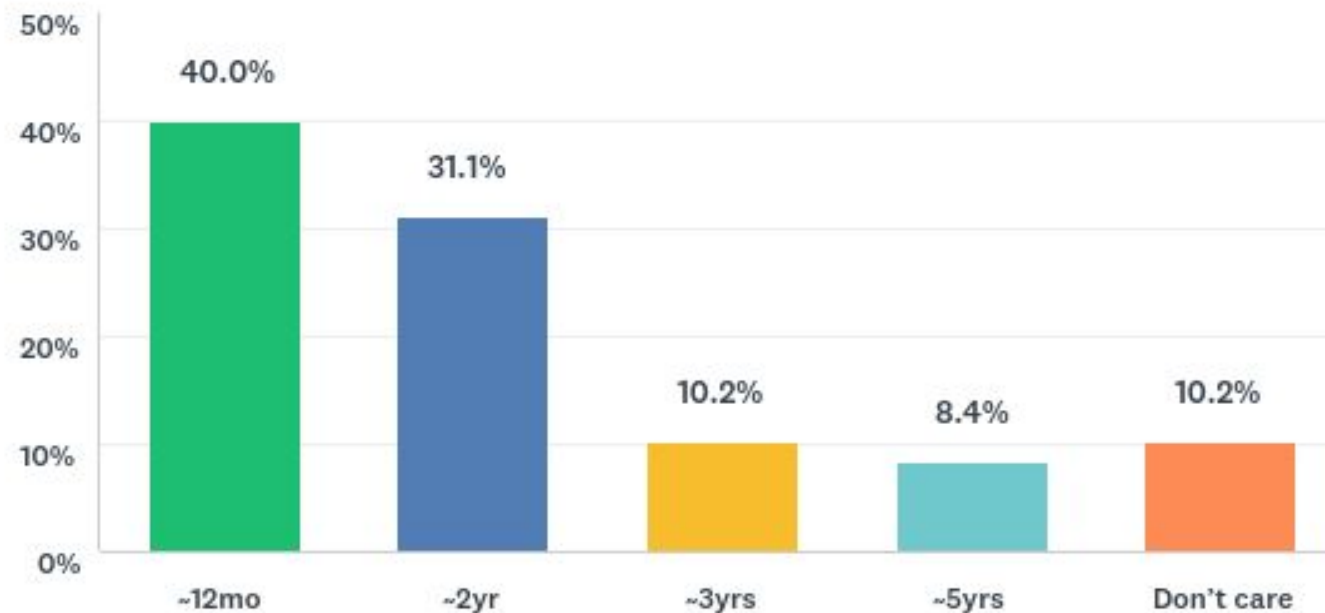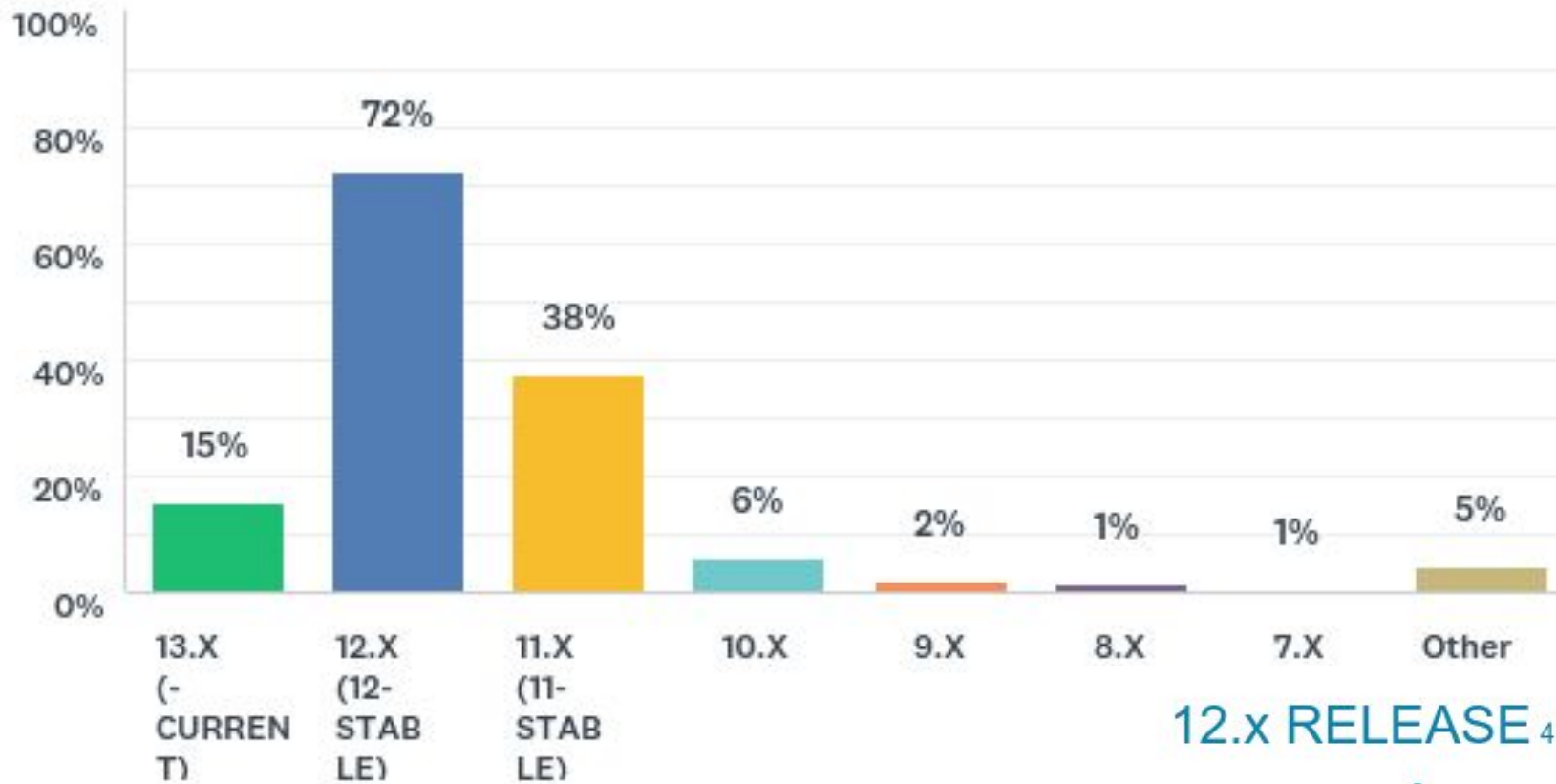
2019 Community Survey

2019 Community Survey

Q25 At work I am currently using FreeBSD:

2019 Community Survey

Q26 I would be willing to participate in an anonymous, aggregated hardware survey to share device information with the project so it could aggregate and submit statistics to device vendors for the following classes of systems:
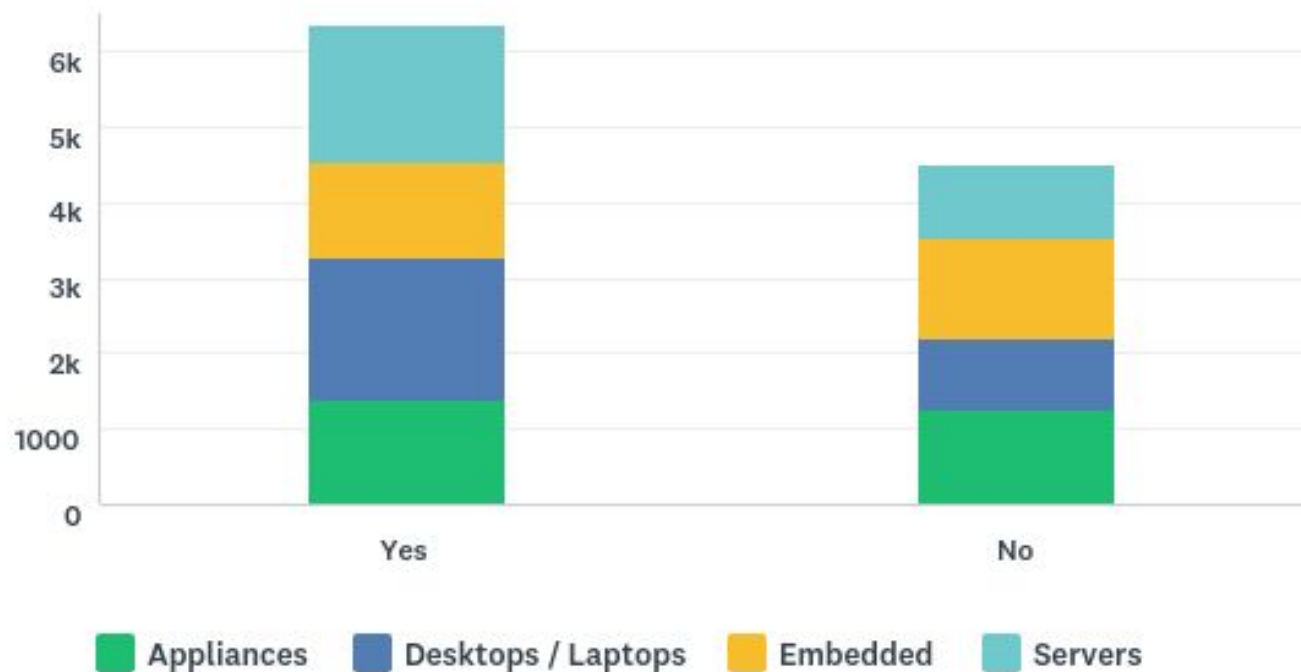
2019 Community Survey

Q28 I read/watch the following to keep current with FreeBSD:

Category	Percentage
Blogs posts	59%
FreeBSD Foundation...	41%
FreeBSD Journal	39%
Twitter	27%
FreeBSD Foundation b...	26%
Other (please specify)	23%
YouTube	21%
Calomel.org	16%
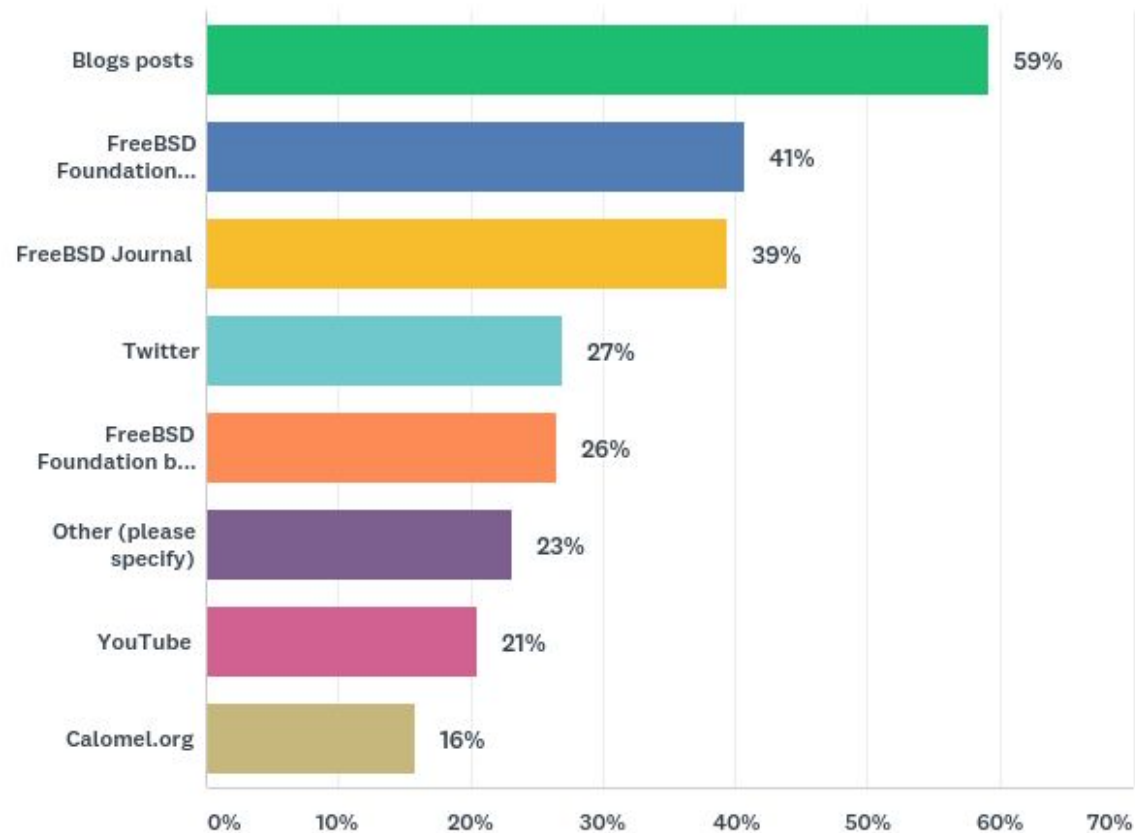
Other:
#1 Mailing Lists
#2 BSD Now Podcast

2019 Community Survey

Q34 The following attributes of FreeBSD in server workloads are important to me:
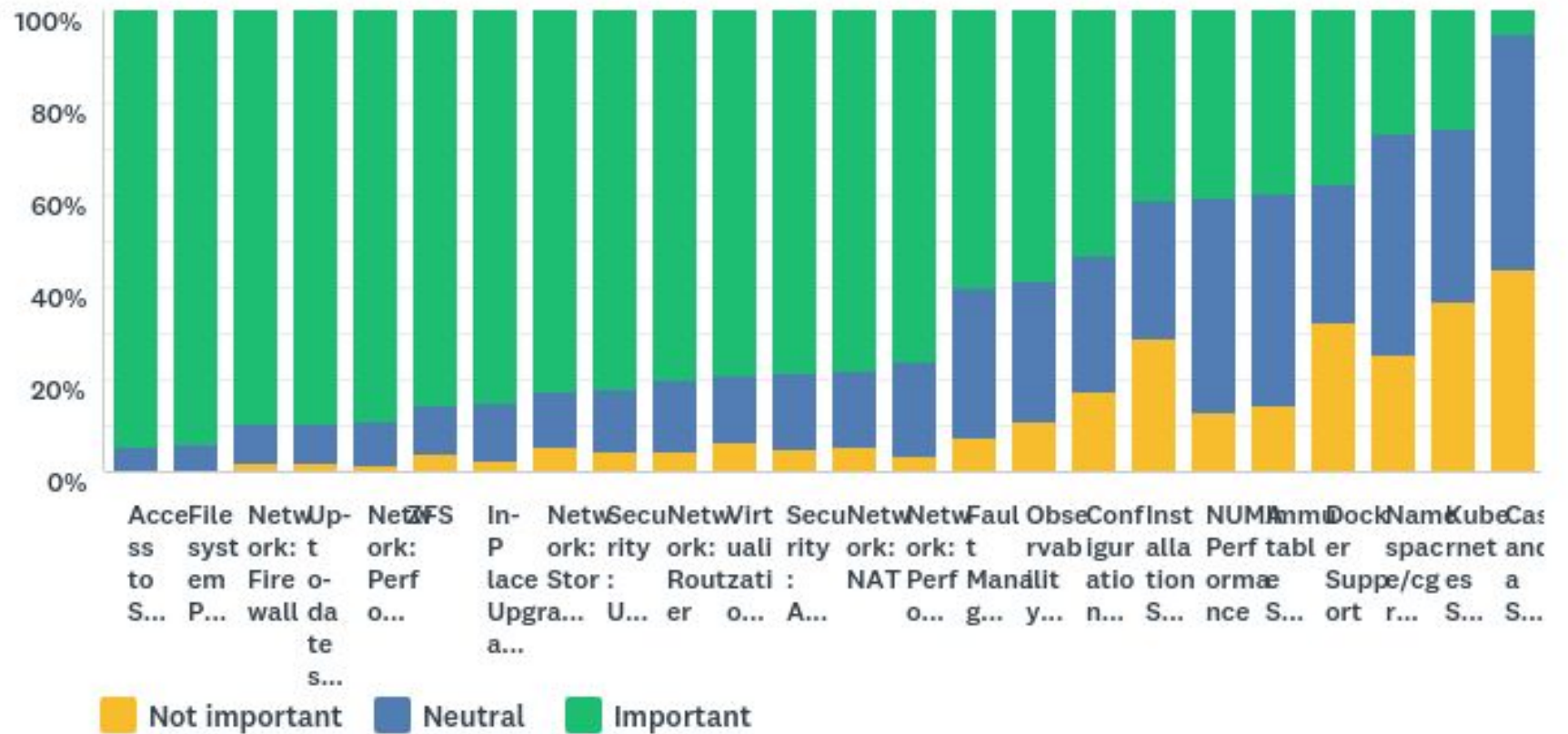
Q35 I use the following cloud providers:

Provider	Percentage
Amazon AWS	44%
Digital Ocean	39%
On-Prem (e.g. OpenStack,...)	34%
Other (please specify)	24%
Vultr	20%
Google Cloud Platform	19%
Hetzner	19%
Microsoft Azure	18%
OVH	12%
Other	11%
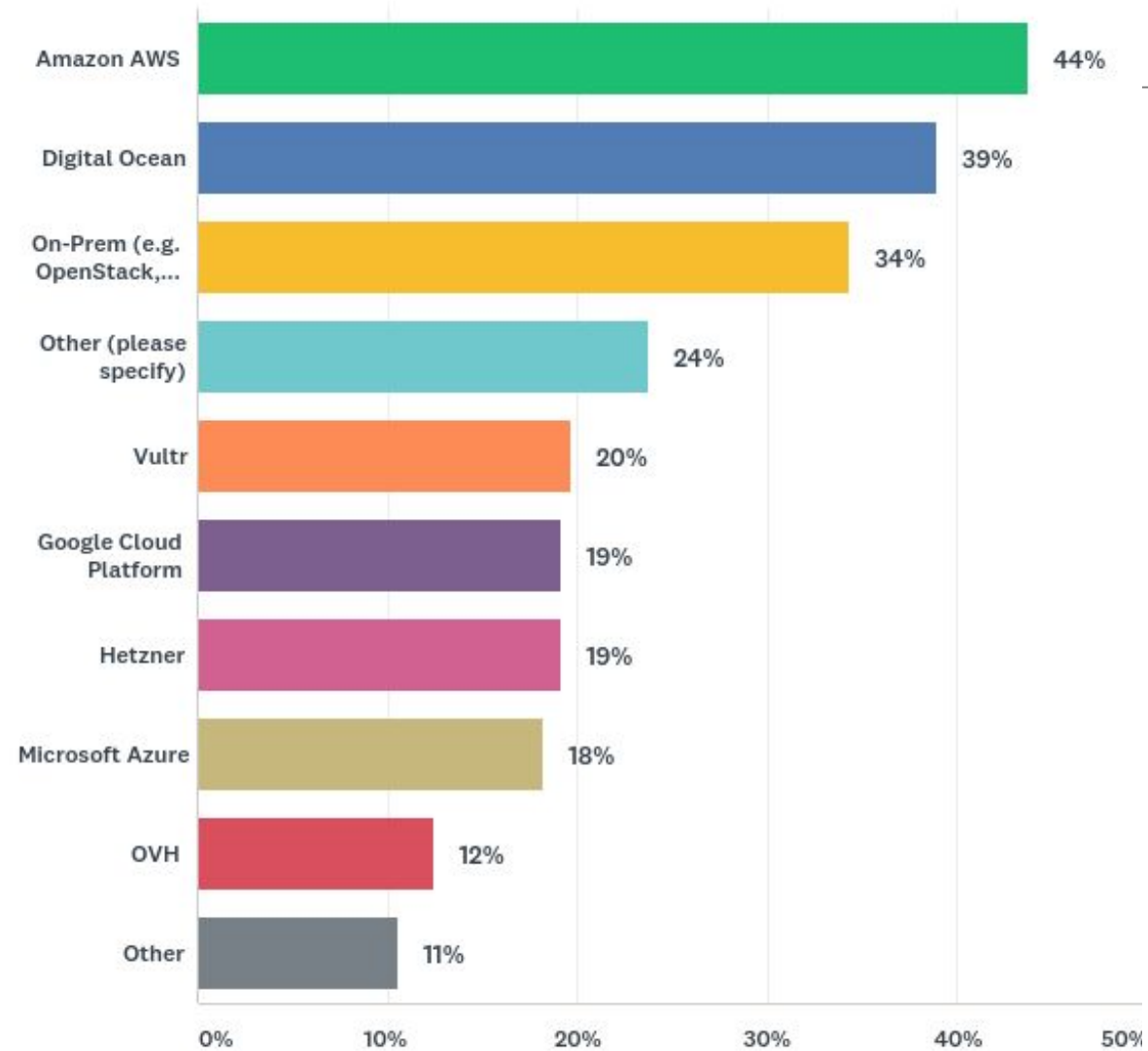
Q40 Please rate the importance of FreeBSD in the following contexts:
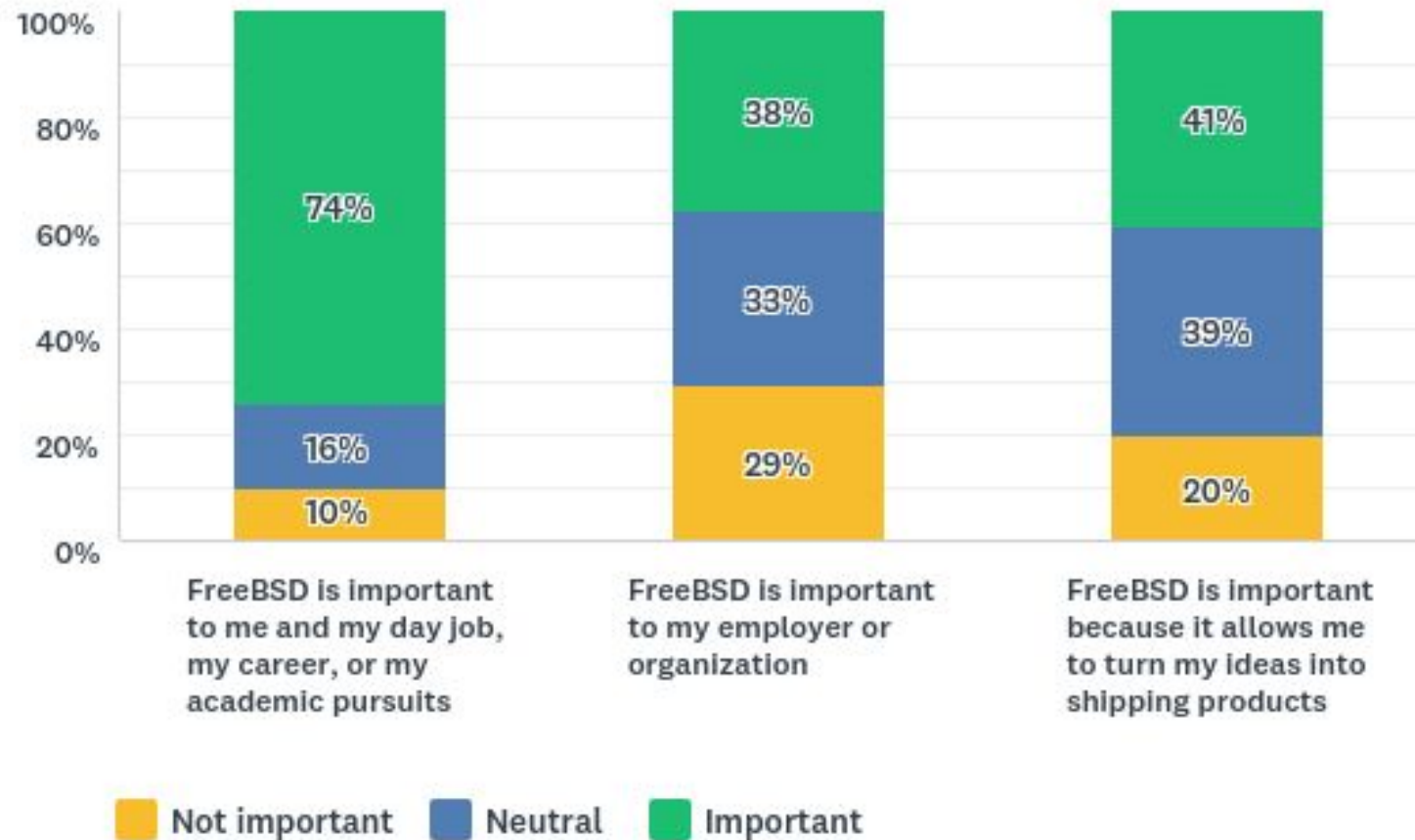
2019 Community Survey

FreeBSD Professional Development and Education: Learning FreeBSD...
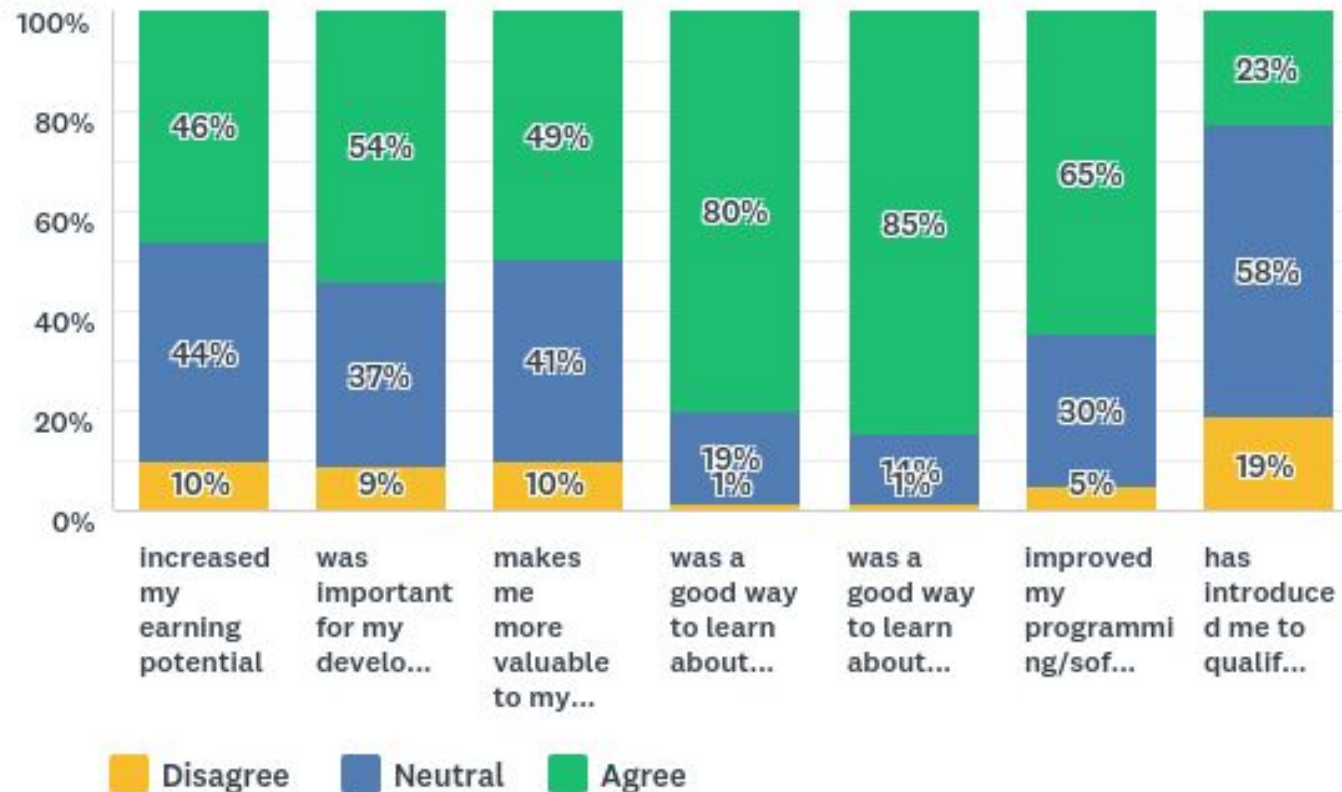
Package Download Stats

In the last ~6mo:

- 3.7M unique downloads
- 250TiB
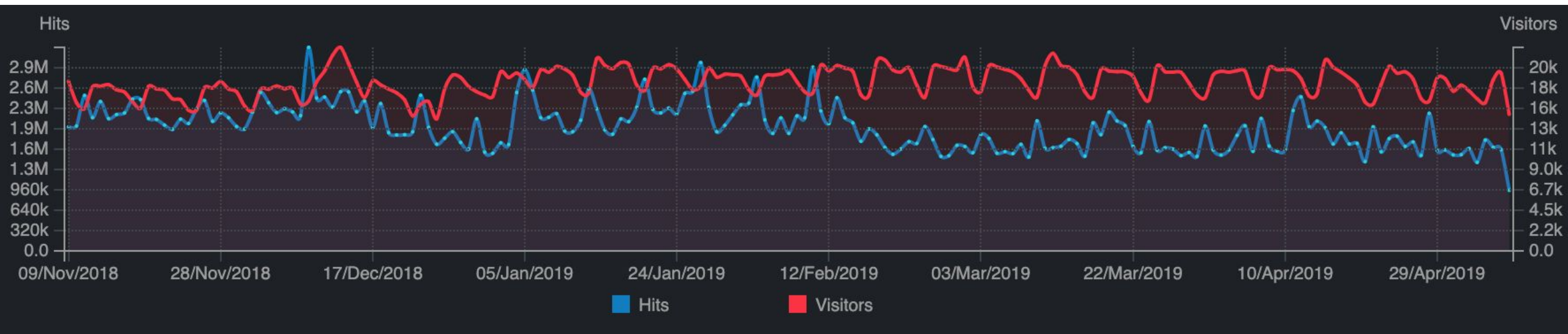
Core Team Charter

- In process
- Charter, like other team charters, provides a framework for this and future Core Teams to:
  - Address issues
  - Establish working groups
  - Team charters
  - Establish feedback loops with teams and working groups

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Working Groups

1. Core is not in the business of being experts
2. Modeled after ICANN, W3, and IETF
3. Organizational tool to deputize a group of people to solve a problem or issue a recommendation
4. Submit WG Charter to Core for discussion/approval

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Rough Process

0. Someone submits a WG proposal to Core

FreeBSD Core Team

1. Create Working Group

2. WG submits draft charter and operating plan

RE Charter Proposal

4. RE Charter Approved by Core Team

RE Charter

RE Operating Plan

3. WG submits operating plan to RE Team Lead

5. RE Team Lead submits Initial Operating Plan to Core Team, per Charter

Release Engineering Charter Modernization Task Force

Release Engineering Team

Release Engineering Re-Charter WG

Working Group Name	Release Engineering Charter Modernization
Start Date	2019-04-18
End Date	2019-05-10
Charter Extension	● 2019-05-24
Approval Date	2019-04-2
Working Group Chair	Sean Chittenden
Working Group Co-Chairs	Allan Jude
Mailing List	N/A
Slack Channel	https://freebsd.slack.com / #wg-re19
IRC Channel	N/A

	Name	**Email**	**Role** (chair, co-chair, member, auditor)
1	Sean Chittenden	seanc@FreeBSD.org	member, chair, Core Team
2	Allan Jude	allanjude@FreeBSD.org	member, co-chair, Core Team
3	Glen Barber	gjb@FreeBSD.org	member, RE Team
4	Konstantin Belousov	kib@FreeBSD.org	member, RE Team
5	Scott Long	scottl@FreeBSD.org	member, community
6	Ed Maste	emaste@FreeBSD.org	member, community
A1	John Baldwin	jhb@FreeBSD.org	Auditor, Core Team
A2	Li-Wen Hsu	lwhsu@FreeBSD.org	Auditor, CI (unconfirmed)
A3	Warner Losh	imp@FreeBSD.org	Auditor, Core Team
A4	Kris Moore	kmoore@FreeBSD.org	Auditor, Core Team
A5	Marius Strobl	marius@FreeBSD.org	Auditor, RE Team

Docs Modernization WG

1. Docs commit rate has stagnated
2. Docbook is keeping many new contributors from making progress
3. Replace Docbook with Asciidoc (markdown + features of docbook)
4. Replace makefiles and XML style sheets with static site generator
5. WG tasked to transform current docs
6. Refashion docs.freebsd.org to house many related projects
   a. Team and Working group charters, status reports, meeting notes
   b. Formal (reference material) and informal (how-to, tutorials) documentation
   c. Papers/slides/videos/trip reports from conferences, hackathons, etc

Git WG

1. Core has unanimously approved the creation of a working group to figure out the details of moving to `git`.
2. Core will begin setup of this WG, pulling members from relevant other groups to help steer the WG direction.

   Assuming the working group does not encounter intractable problems, the working group's recommendations, incorporating feedback from Core, will be approved and implemented.

Migration to Git WG

1. The git WG will work out the implementation details of adding this tool. Details to be discussed include:

   a. GitHub (Core recommends WG start with serious GH consideration)

   b. Mirroring

   c. Committer access

   d. Signing

   e. handling /contrib

   f. vendor branches

   g. Etc, Etc

What? Core is doing something about it?

Q&A