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BSDCan 2019

FreeBSD from a Linux developer's perspective

Introduction

Work at Intel on FreeBSD for the last 1 year.

Open source developer at Intel for the last 8 years.

Software developer on Linux for the past 14 years.

Linux user for the last ~20 years.

Goals

Share about what is good & bad as a new person here.
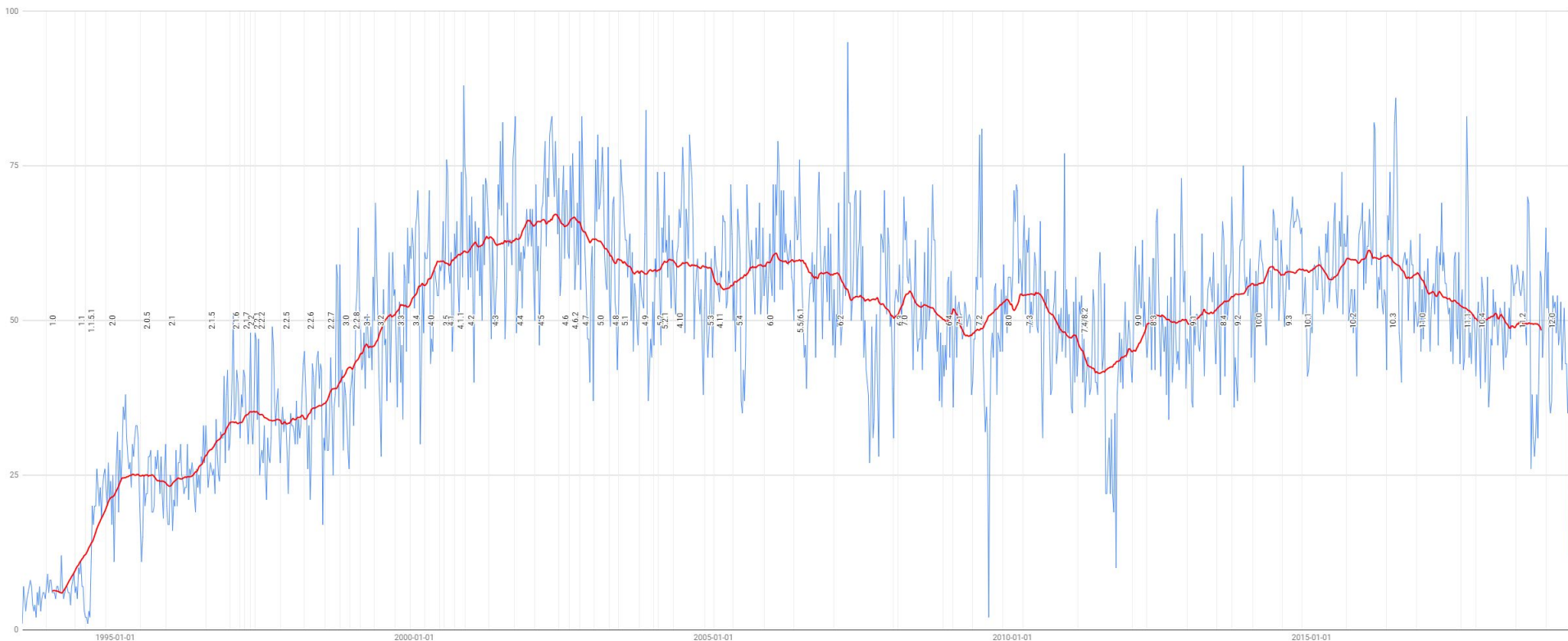
Help the project thrive.

Antigoals

Make FreeBSD be Linux.

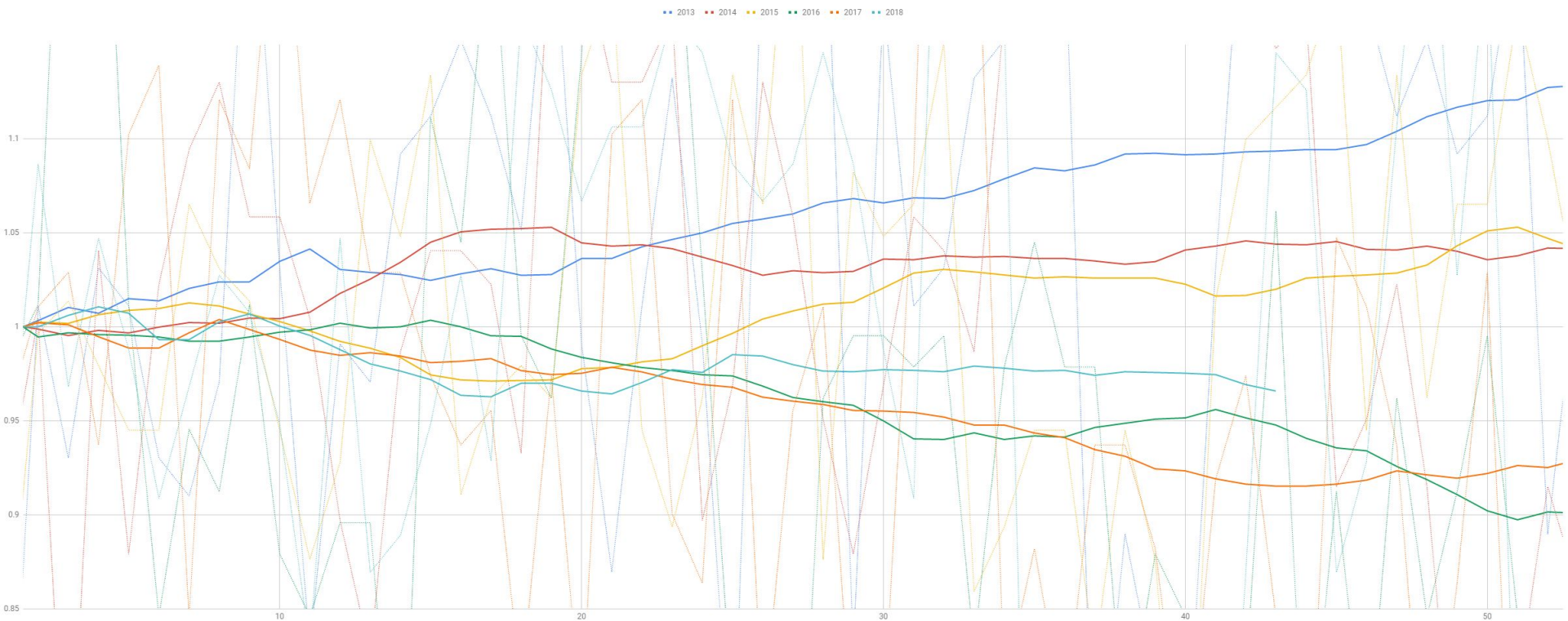Burn bridges, poison wells, &c.

Deceive with statistics.

Aside: growth in the FreeBSD project
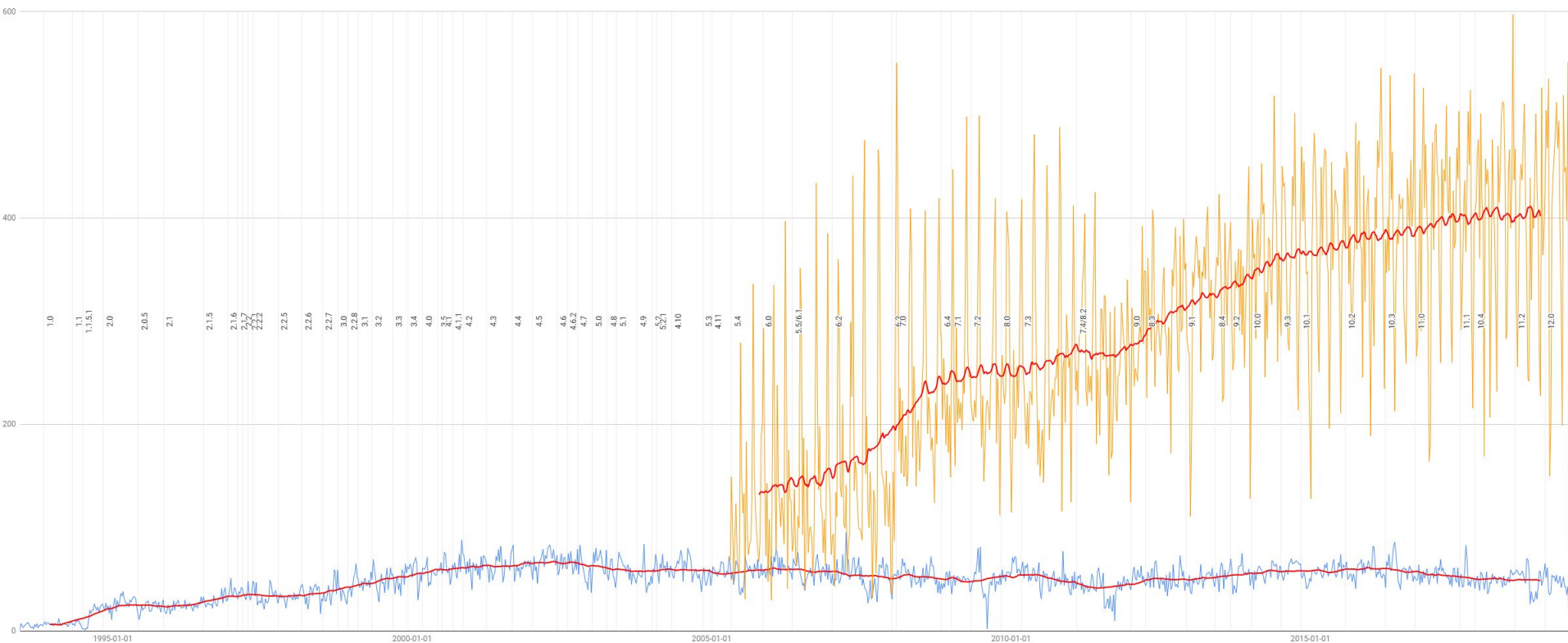
FreeBSD authors per week

Aside: growth in the FreeBSD project

FreeBSD authors per week, 52 week moving average

Aside: growth in the FreeBSD project

FreeBSD & Linux authors per week

laptops that don't work great automatically

Idle power usage is 50% to 100% more than Linux (on a small sample of laptops)

```
sysctl hw.pci.do_power_nodriver=3

devctl detach re0

usbconfig ugen0.3 power_off
```

laptops that don't work great automatically

Wifi works well, but not with a high throughput (on a small sample of wifi chips)

laptops that don't work great automatically

Trackpad doesn't get auto configured with libinput

```
Section "InputDevice"
    Identifier "keyboard"
    Driver "libinput"
    Option "AutoServerLayout" "true"
    Option "Device" "/dev/input/event2"
    Option "XkbOptions" "ctrl:nocaps"
    Option "XkbRules" "evdev"
EndSection

Section "InputDevice"
    Identifier "mouse"
    Driver "libinput"
    Option "AutoServerLayout" "true"
    Option "Device" "/dev/input/event3"
    Option "ClickMethod" "clickfinger"
    Option "NaturalScrolling" "true"
    Option "Tapping" "false"
EndSection
```
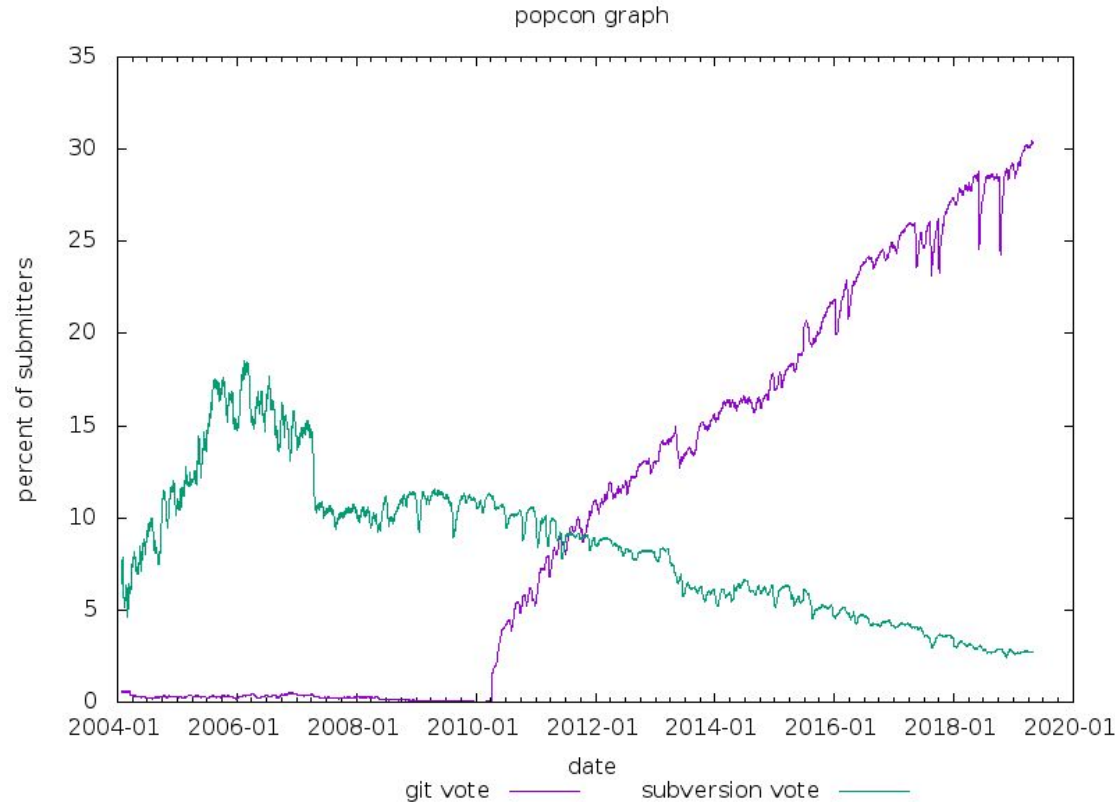
Project documentation

Man pages feel consistent and informative

Handbooks are a great resource

subversion

Aside from technical merits of svn against alternatives, it's not *popular*.
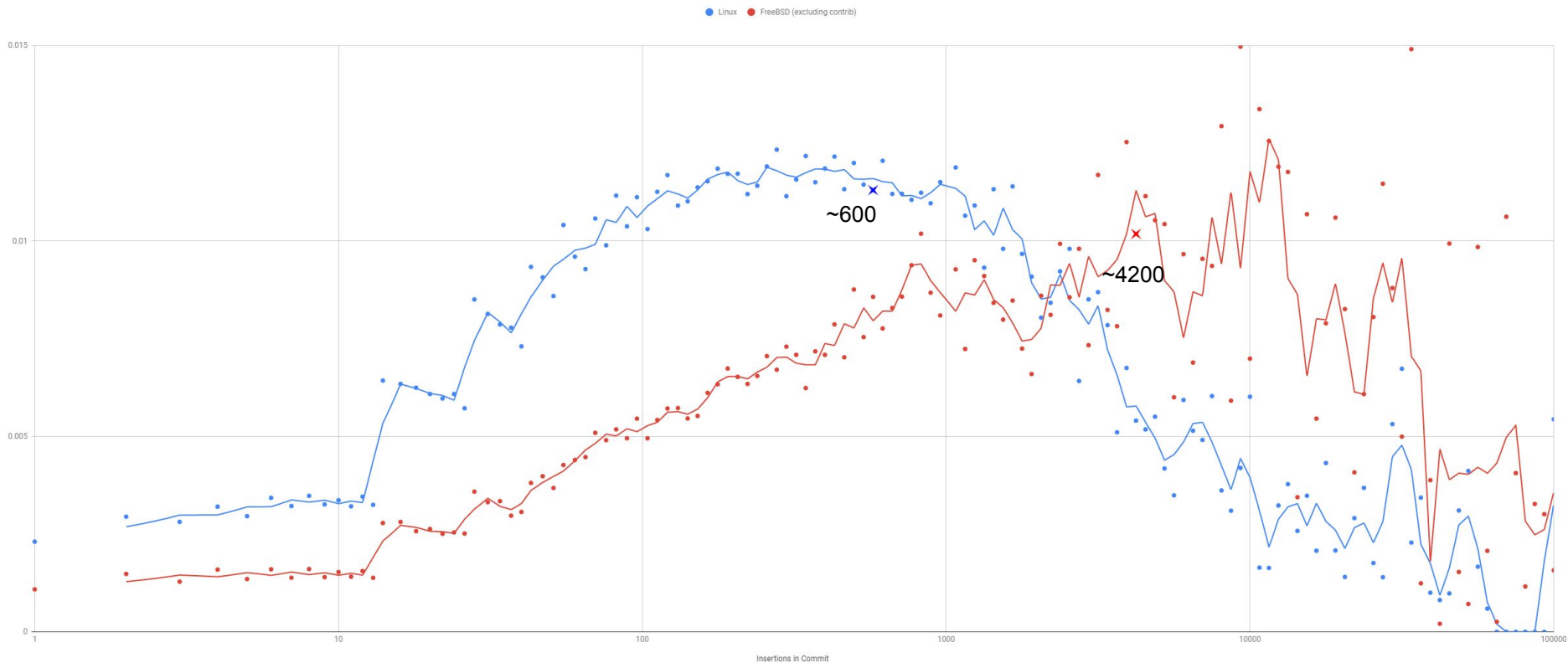

popcon graph

larger changesets

Linux's `Documentation/process/submitting-patches.rst`

Separate each logical change into a separate patch.

The point to remember is that each patch should make an easily understood change that can be verified by reviewers. Each patch should be justifiable on its own merits.
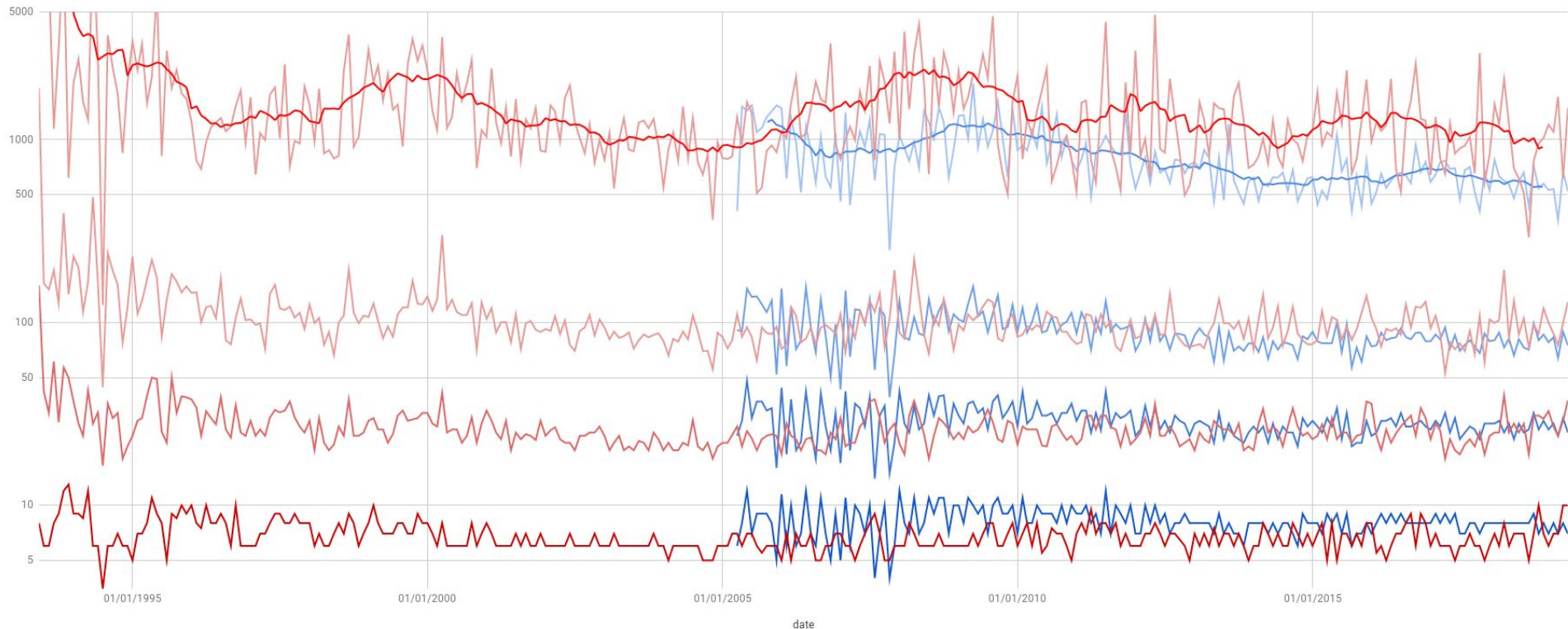
larger changesets

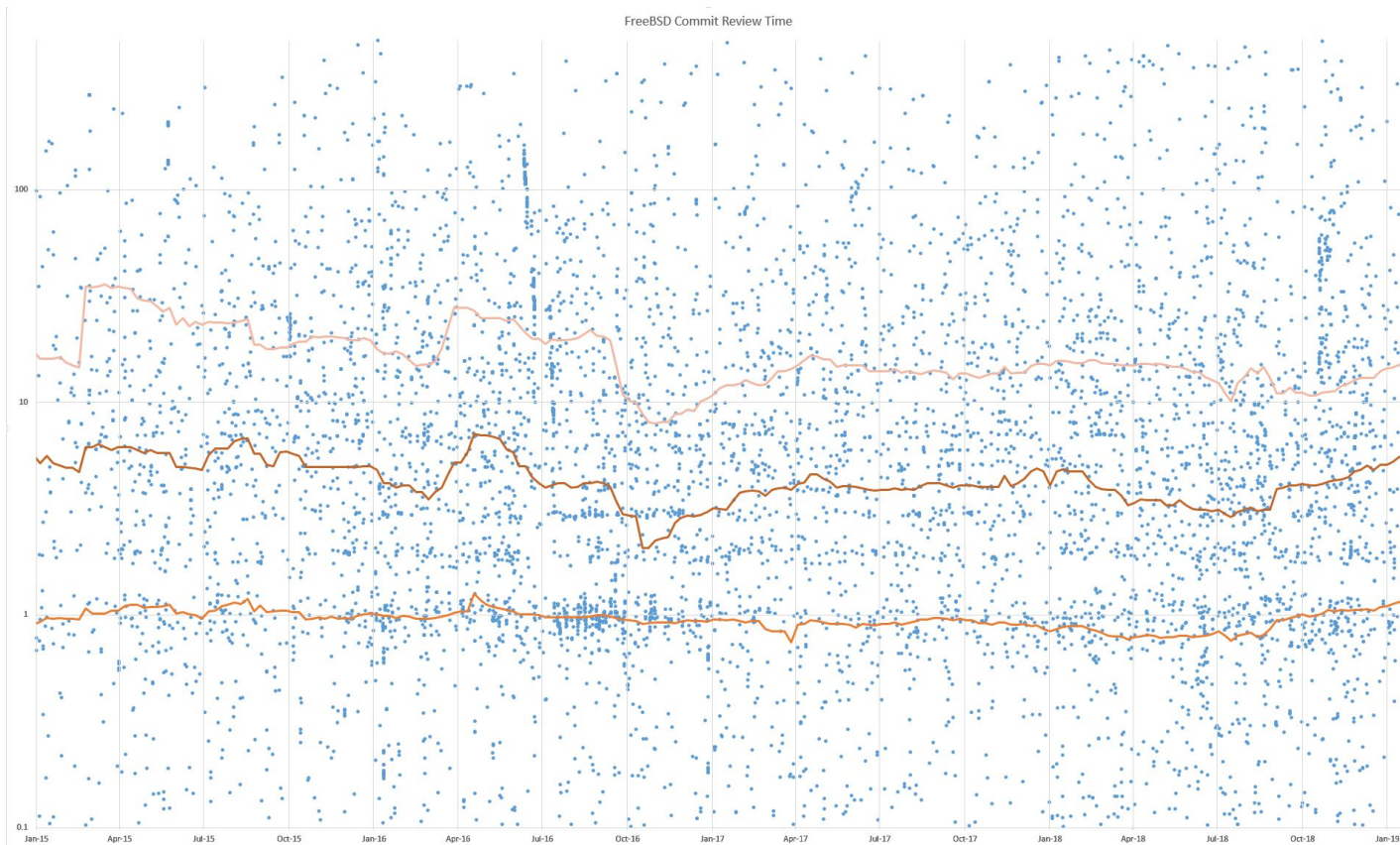Probability that any source line comes from a commit with /n/ insertions

● Linux   ● FreeBSD (excluding contrib)

~600

~4200

Insertions in Commit

large changesets

Monthly Commit Size, 50th, 75th, 90th, 99th percentile

code review

FreeBSD Commit Review Time

Holistic system

Pieces evolve together

Consistent style, familiarity transfers

community

Smaller pool of authors, but same technical scope; closer in the social graph

Having a core team.

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