17.871: Problem Set 2 Feedback

March 18th, 2015

Describing Data

1. Aim: what *substantive conclusions* about politics can be drawn from the summary statistics and histograms?
2. Explain the meaning of the statistics: "the distribution of Democrats' support for Obama was strongly right-skewed. **This means that** most respondents approved of the President, and only a handful disapproved"

Describing Data

1. Aim: what *substantive conclusions* about politics can be drawn from the summary statistics and histograms?
2. Explain the meaning of the statistics: "the distribution of Democrats' support for Obama was strongly right-skewed. **This means that** most respondents approved of the President, and only a handful disapproved"
3. Don't just list the measures: "the mean was x, the standard deviation was y"
4. But don't fail to mention them either: e.g. "On average, Republican support for Obama was very low" is better than "Repubicans generally disapproved of Obama"

Describing Data

Good answer: "...in 1980 the average army was quite small compared to 1945 and 1915 - not much bigger than in 1900 or 2005. This is because there was no major ongoing world war. However, the largest army was much larger than in 1900 or 2005, and the standard deviation was also much greater. This indicates that the distribution features mostly small armies, with a small number of large armies. This was probably due to the cold war being at its height, so that the US and Russia had very large numbers of soldiers, with most other countries falling under their protection."

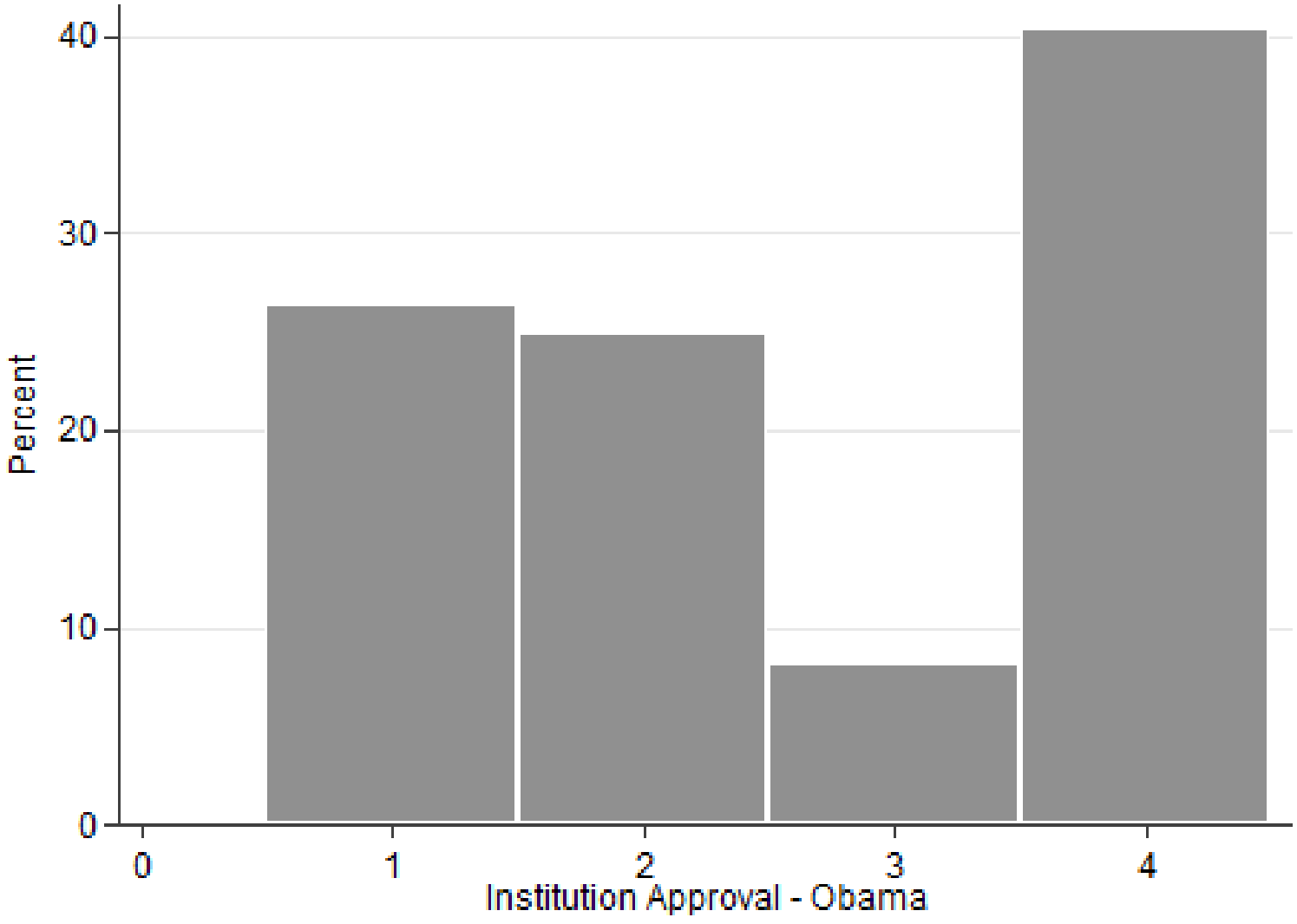
Good Figures: Guidelines

All of the information needed to understand the figure should be conveyed within the plot itself

- Always have a title
- Label axes and scale points on axes
- Don't leave the reader guessing what the scale means
- If you want the reader to compare between charts, plot them on the same scale
- Include a note acknowledging source

A bad figure

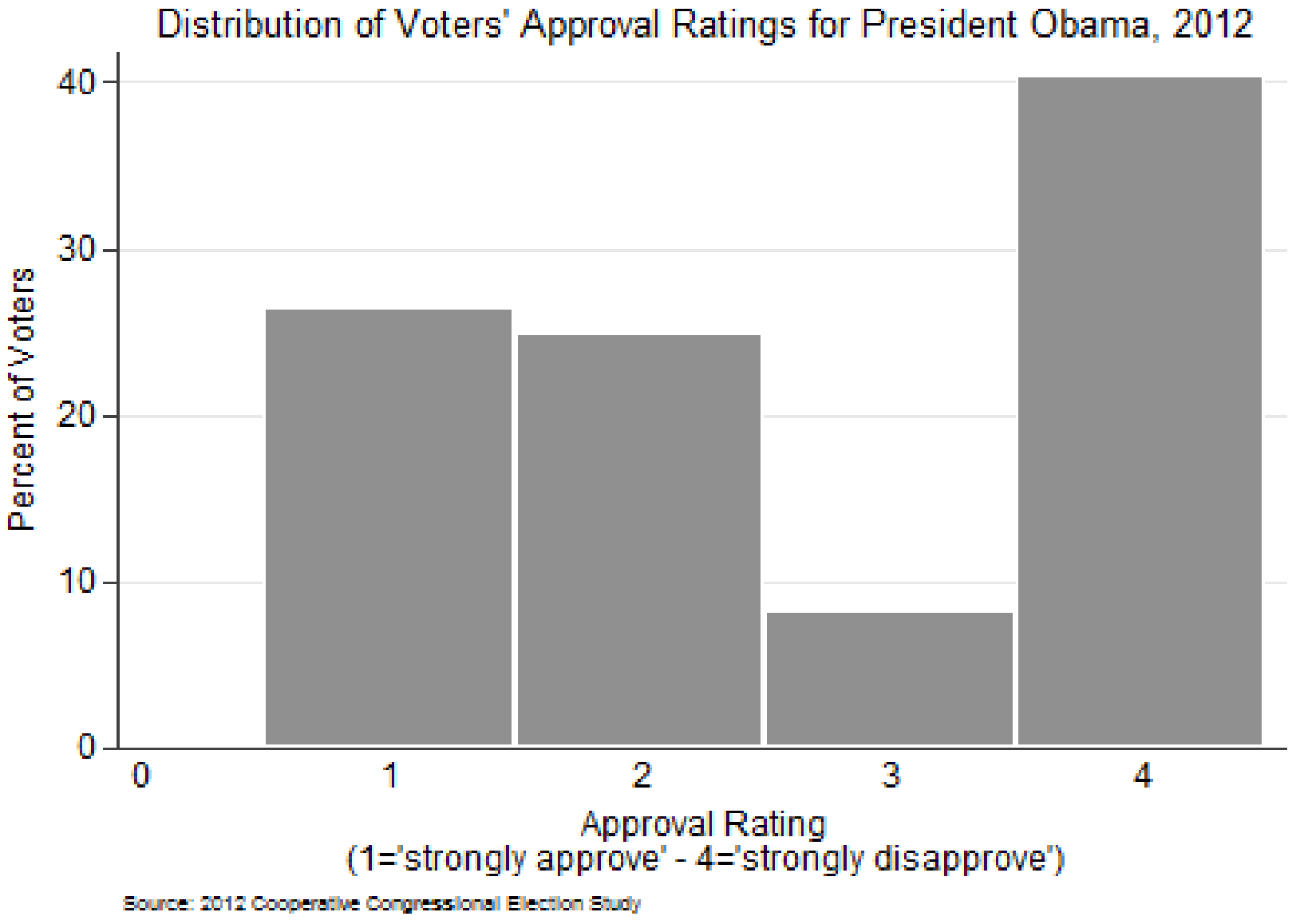
hist CC308a, discrete percent



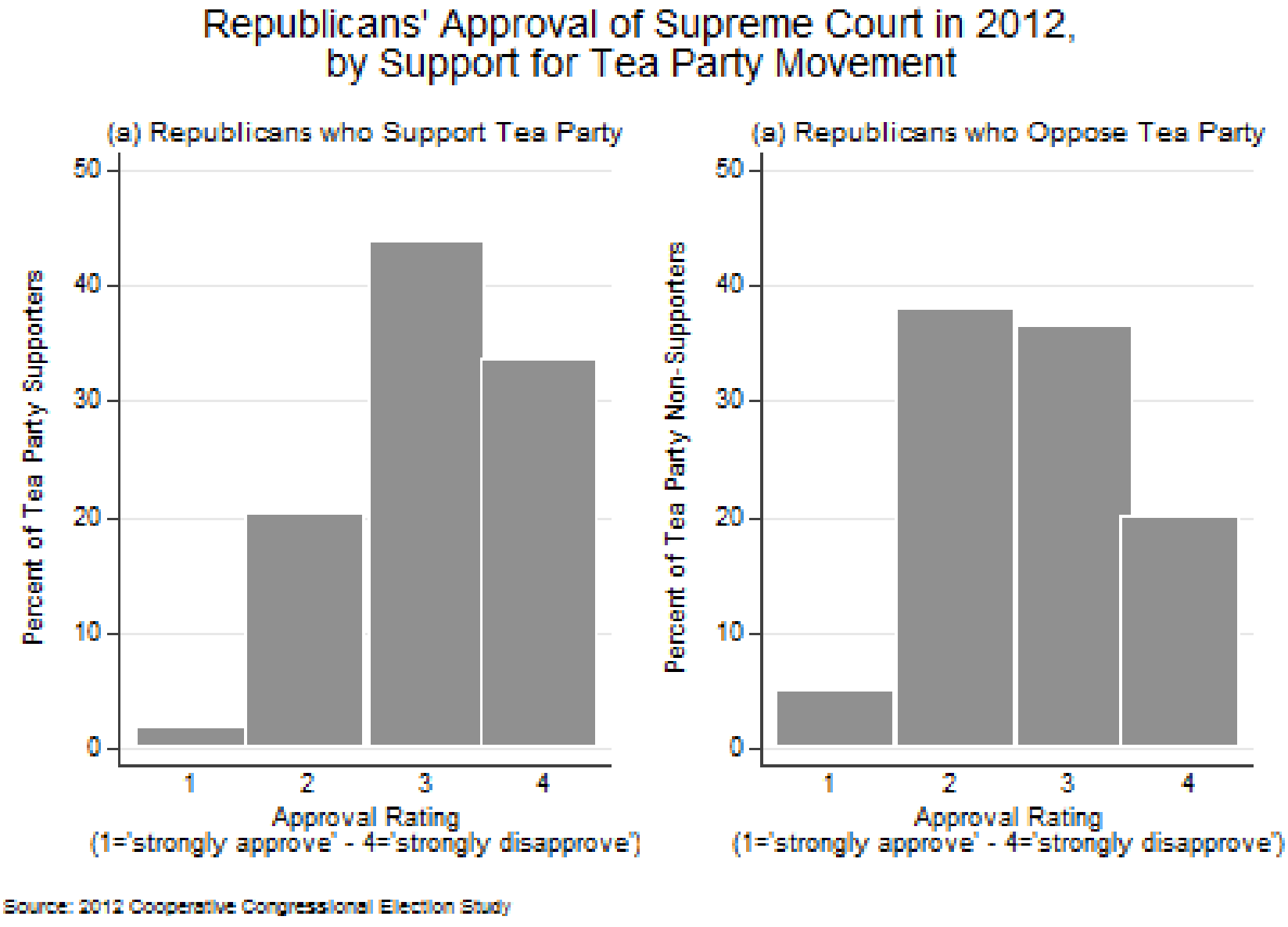
Better figure

```
histogram CC308a, discrete percent ///
ytitle(Percent of Voters) ///
xtitle("Approval Rating" "(1='strongly approve' - 4='strongly
disapprove')", margin(0 0 0 2)) ///
xlabel(, notick) ///
title("Distribution of Voters' Approval Ratings for President
Obama, 2012",size(medium)) ///
note("Source: 2012 Cooperative Congressional Election
Study",size(vsmall))
```

Better figure



Model Answer for Combined Figure



Combined Figures, code

One way is with the **by()** option

- e.g., **hist CC308c, by(pid3)** plots supreme court approval by party supported
- but it's hard to control how each chart looks

Better way is using **graph combine**

- code each chart separately, including the option **saving("filename1")**
- then **graph combine filename1 filename2, rows(1) cols(2)** plus other options (see solutions)