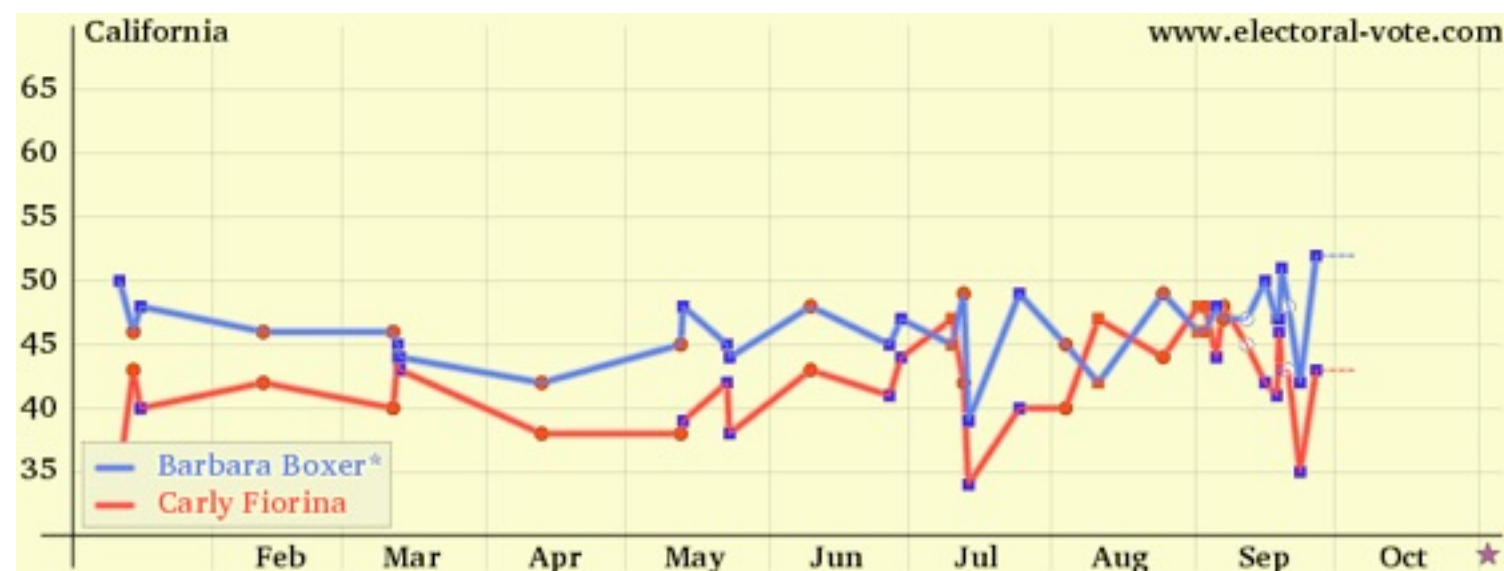


Homework 5

- a. Please download the latest Senate polling data from either http://electoral-vote.com/evp2010/Senate/senate_polls.raw or http://electoral-vote.com/evp2010/Senate/senate_polls.csv, (Whichever format you prefer), and put these data into a sqlite3 table.
- b. Note that the names of the candidates are not listed in the data above, but this is something we'd like to know. Make a second table listing the Democrat, Republican, and Independent (if any) candidates for each state, as well as the incumbent party (see http://astro.berkeley.edu/~amorgan/candidate_names.txt)
- c. Images for each candidate are located at <http://astro.berkeley.edu/~amorgan/candidates/> - create a new table which includes links to the image for each candidate. If you'd prefer to make the links local, you can download all the images from <http://astro.berkeley.edu/~amorgan/candidates.zip>

- d. Using the necessary sqlite3 joins to link the tables together, make a Python function with a simple command-line query engine that allows you to search by state which shows the result in a web browser pop-up (see <http://docs.python.org/library/webbrowser.html>). List the candidates, their photos, their latest polls, and whether current predictions indicate there will be a party switch from last time (i.e. is the person currently in the lead in a different party (republican, democrat, or independent) than the incumbent party?)
- e. Based on the latest polling data, how many total Senate seats are the Democrats poised to lose this election? (If you're really ambitious, you can take some sort of weighted average of the last few polls for each state, weighting more recent polls more heavily - but taking the latest poll for each state will be fine for this exercise.)

- f. Make a function that will plot all the available polling data for a state, using a red line for Republican candidates, a blue line for Democrats, and some other color for an independent, if there is one. Include a legend that has the candidate's name (e.g., something like the below)



- g. Make a function that will allow you to add a new poll to the database and update the database accordingly.