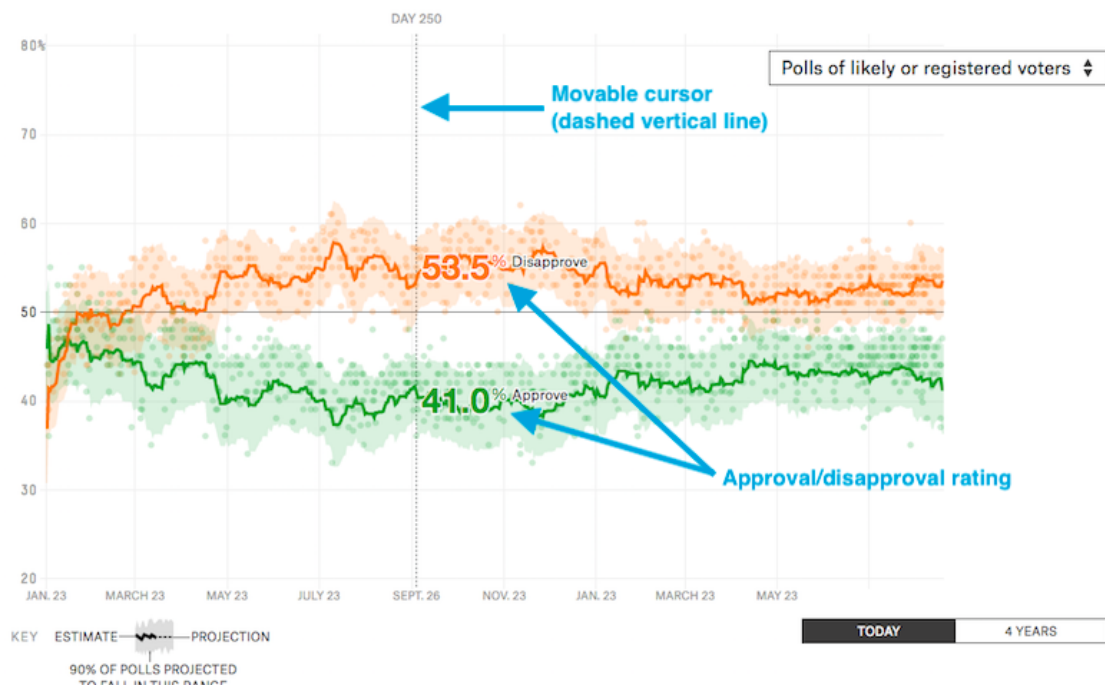


Problem 14: Scraping data from "FiveThirtyEight"

There are a ton of fun interactive visualizations at the website, [FiveThirtyEight](https://fivethirtyeight.com). For example, consider the one that tracks the US President's approval ratings:

<https://projects.fivethirtyeight.com/trump-approval-ratings/>

Here is a screenshot of the interactive graph it contains:



In it, you can select each day ("movable cursor") and get information about the approval ratings for that day.

As it turns out, this visualization is implemented in JavaScript and all of the individual data items are embedded within the web page itself. For example, here is a 132-page PDF file, which is the source code for the web page taken on September 6, 2018: [PDF file](#). The raw data being rendered in the visualization starts on page 50.

Of course, that means you can use your Python-fu to try to extract this data for your own purposes! Indeed, that is your task for this problem.

Although the data in this problem comes from an HTML file with embedded JavaScript, you do **not** need to know anything about HTML or JavaScript to solve this problem. It is purely an exercise of rudimentary Python and computational problem solving.

Reading the raw HTML file

Let's read the raw contents of the FiveThirtyEight approval ratings page (i.e., the same contents as the PDF) into a variable named `raw_html`.

Like the groceries problem in Notebook 2, this cell contains a bunch of code for getting the data file you need, which you can ignore.

```
In [ ]: def download(url, local_file, overwrite=False):
import os, requests
if not os.path.exists(local_file) or overwrite:
    print("Downloading: {} ...".format(url))
    r = requests.get(url)
    with open(local_file, 'wb') as f:
        f.write(r.content)
    return True
return False # File existed already

def get_checksum(local_file):
import io, hashlib
with io.open(local_file, 'rb') as f:
    body = f.read()
    body_checksum = hashlib.md5(body).hexdigest()
    return body_checksum

def download_or_load_locally(file, local_dir="", url_base=None, checksum=None):
if url_base is None: url_base = "https://cse6040.gatech.edu/datasets/"
local_file = "{}{}".format(local_dir, file)
remote_url = "{}{}".format(url_base, file)
download(remote_url, local_file)
if checksum is not None:
    body_checksum = get_checksum(local_file)
    assert body_checksum == checksum, \
        "Downloaded file '{}' has incorrect checksum: '{}' instead of '{}'".format(
            local_file, body_checksum, checksum)

print("'{}' is ready!".format(file))

def on_vocareum():
import os
return os.path.exists('.voc')

if on_vocareum():
    URL_BASE = None
    DATA_PATH = "./resource/asnlib/publicdata/538-djt-pop/"
else:
    URL_BASE = "https://cse6040.gatech.edu/datasets/538-djt-pop/"
    DATA_PATH = ""
datasets = {'2018-09-06.html': '291a7c1cbf15575a48b0be8d77b7a1d6'}

for filename, checksum in datasets.items():
    download_or_load_locally(filename, url_base=URL_BASE, local_dir=DATA_PATH, check
```

```
with open('{}{}'.format(DATA_PATH, '2018-09-06.html')) as fp:
    raw_html = fp.read()
print("\n(All data appears to be ready.)")
```

'2018-09-06.html' is ready!

(All data appears to be ready.)

File snippets. Run the following code cell. It takes the `raw_html` string and prints the substring just around the start of the raw data you'll need, i.e., starting at page 50 of the PDF:

```
In [ ]: sample_offset, sample_len = 69950, 1500
        print(raw_html[sample_offset:sample_offset+sample_len])
```

Page = {};

interactivePage.navSlug = 'approval';

var pathPrefix="/trump-approval-ratings/";

var subgroup="All polls";

var showMoreCutoff=5;

var approval=[{"date":"2017-01-23","future":false,"subgroup":"All polls","approve_estimate":"45.46693","approve_hi":"50.88971","approve_lo":"40.04416","disapprove_estimate":"41.26452","disapprove_hi":"46.68729","disapprove_lo":"35.84175"},{"date":"2017-01-24","future":false,"subgroup":"All polls","approve_estimate":"45.44264","approve_hi":"50.82922","approve_lo":"40.05606","disapprove_estimate":"41.87849","disapprove_hi":"47.26508","disapprove_lo":"36.49191"},{"date":"2017-01-25","future":false,"subgroup":"All polls","approve_estimate":"47.76497","approve_hi":"52.66397","approve_lo":"42.86596","disapprove_estimate":"42.52911","disapprove_hi":"47.42811","disapprove_lo":"37.63011"},{"date":"2017-01-26","future":false,"subgroup":"All polls","approve_estimate":"44.37598","approve_hi":"48.93261","approve_lo":"39.81936","disapprove_estimate":"41.06081","disapprove_hi":"45.61743","disapprove_lo":"36.50418"},{"date":"2017-01-27","future":false,"subgroup":"All polls","approve_estimate":"44.13586","approve_hi":"48.70494","approve_lo":"39.56679","disapprove_estimate":"41.67268","disapprove_hi":"46.24175","disapprove_lo":"37.1036"},{"date":"2017-01-28","future":false,"subgroup":"All polls","approve_estimate":"43.87527","approve_hi":"48.46821","approve_lo":"39.28233","disapprove_estimate":"41.91362","disapprove_hi":"46.50656","disapprove_lo":"37.32067"}]

Run the following code cell to see the end of the raw data region.

```
In [ ]: sample_end = 257500
        print(raw_html[sample_end:sample_end+sample_len])
```

```
s", "approve_estimate": "41.46994", "approve_hi": "53.69857", "approve_lo": "29.24131", "disapprove_estimate": "51.94407", "disapprove_hi": "63.94288", "disapprove_lo": "39.94526"}, {"date": "2019-05-10", "future": true, "subgroup": "All polls", "approve_estimate": "41.47093", "approve_hi": "53.72246", "approve_lo": "29.2194", "disapprove_estimate": "51.94225", "disapprove_hi": "63.96438", "disapprove_lo": "39.92012"}, {"date": "2019-05-11", "future": true, "subgroup": "All polls", "approve_estimate": "41.4719", "approve_hi": "53.74633", "approve_lo": "29.19748", "disapprove_estimate": "51.94044", "disapprove_hi": "63.98589", "disapprove_lo": "39.895"}, {"date": "2019-05-12", "future": true, "subgroup": "All polls", "approve_estimate": "41.47285", "approve_hi": "53.77016", "approve_lo": "29.17555", "disapprove_estimate": "51.93866", "disapprove_hi": "64.0074", "disapprove_lo": "39.86993"}, {"date": "2019-05-13", "future": true, "subgroup": "All polls", "approve_estimate": "41.47378", "approve_hi": "53.79396", "approve_lo": "29.15361", "disapprove_estimate": "51.9369", "disapprove_hi": "64.02892", "disapprove_lo": "39.84487"}, {"date": "2019-05-14", "future": true, "subgroup": "All polls", "approve_estimate": "41.47469", "approve_hi": "53.81773", "approve_lo": "29.13165", "disapprove_estimate": "51.93515", "disapprove_hi": "64.05045", "disapprove_lo": "39.81984"}]};
</script>
<div class="container">
  <div id="footer">
    <div class="notes">
      <p>
        When the dates of tracking polls from the same pollster overlap, only the most recent version is shown.
      </p>
    </div>
  </div>
</div>
```

Please make the following observations about the file snippets shown above:

- The raw data of approval ratings begins with the text, `'var approval=['` and ends with a closing square bracket, `']'`. No other square brackets appear between these two.
- Each "data point" or "data record" is encoded in JavaScript Object Notation (JSON), which is essentially the same as a Python dictionary. That is, it is enclosed in curly brackets, `{...}` and contains a number of key-value pairs. These include the date (`"date": "yyyy-mm-dd"`), approval and disapproval rating estimates (`"approve_estimate": "45.46693"` and `"disapprove_estimate": "41.26452"`), as well as upper and lower error bounds (`"..._hi"` and `"..._lo"`). The estimates correspond to the green (approval) and orange (disapproval) lines, and the error bounds form the shaded regions around those lines.
- Each data record includes a key named `"future"`. That's because FiveThirtyEight has projected the ratings into the future, so some records correspond to observed values (`"future": false`) while others correspond to extrapolated values (`"future": true`).

In addition, for the exercises below, you may assume the data records are encoded in the same way, e.g., the fields appear in the same order and there are no variations in punctuation or whitespace from what you see in the above snippets.

Your task: Extracting the approval ratings

Exercise 0 (1 point). Recall that the data begins with `'var approval=[...'` and ends with a closing square bracket, `']'`. Complete the function, `extract_approval_raw(html)`, below. The input variable, `html`, is a string corresponding to the raw HTML file. Your function should return the substring beginning immediately **after** the opening square bracket and up to, but **excluding**, the last square bracket. It should return exactly that substring from the file, and should not otherwise modify it.

While you don't have to use regular expressions for this problem, if you wish to, observe that the cell below imports the `re` module.

```
In [ ]: import re

def extract_approval_raw(html):
    assert isinstance(html, str), "`html` is not a string."
    pattern = r"var approval=\[(.*?)\]"
    return re.findall(pattern, html)[0]

raw_data = extract_approval_raw(raw_html)
# print("type(raw_data) == {} (should be a string!)\n".format(type(raw_data)))
# print("=== First and Last 300 characters ===\n{}\n    ...    \n{}\n".format(raw_data[
raw_data
```

```

Out[ ]: [{"date": "2017-01-23", "future": false, "subgroup": "All polls", "approve_estimate": "4
5.46693", "approve_hi": "50.88971", "approve_lo": "40.04416", "disapprove_estimate": "4
1.26452", "disapprove_hi": "46.68729", "disapprove_lo": "35.84175"}, {"date": "2017-01-2
4", "future": false, "subgroup": "All polls", "approve_estimate": "45.44264", "approve_h
i": "50.82922", "approve_lo": "40.05606", "disapprove_estimate": "41.87849", "disapprove
_hi": "47.26508", "disapprove_lo": "36.49191"}, {"date": "2017-01-25", "future": false, "s
ubgroup": "All polls", "approve_estimate": "47.76497", "approve_hi": "52.66397", "approv
e_lo": "42.86596", "disapprove_estimate": "42.52911", "disapprove_hi": "47.42811", "disa
pprove_lo": "37.63011"}, {"date": "2017-01-26", "future": false, "subgroup": "All poll
s", "approve_estimate": "44.37598", "approve_hi": "48.93261", "approve_lo": "39.8193
6", "disapprove_estimate": "41.06081", "disapprove_hi": "45.61743", "disapprove_lo": "3
6.50418"}, {"date": "2017-01-27", "future": false, "subgroup": "All polls", "approve_esti
mate": "44.13586", "approve_hi": "48.70494", "approve_lo": "39.56679", "disapprove_estim
ate": "41.67268", "disapprove_hi": "46.24175", "disapprove_lo": "37.1036"}, {"date": "201
7-01-28", "future": false, "subgroup": "All polls", "approve_estimate": "43.87527", "appr
ove_hi": "48.46821", "approve_lo": "39.28233", "disapprove_estimate": "41.91362", "disap
prove_hi": "46.50656", "disapprove_lo": "37.32067"}, {"date": "2017-01-29", "future": fal
se, "subgroup": "All polls", "approve_estimate": "44.14589", "approve_hi": "48.72661", "a
pprove_lo": "39.56517", "disapprove_estimate": "42.2247", "disapprove_hi": "46.8054
2", "disapprove_lo": "37.64399"}, {"date": "2017-01-30", "future": false, "subgroup": "All
polls", "approve_estimate": "44.09903", "approve_hi": "48.69541", "approve_lo": "39.5026
6", "disapprove_estimate": "42.45613", "disapprove_hi": "47.05251", "disapprove_lo": "3
7.85976"}, {"date": "2017-01-31", "future": false, "subgroup": "All polls", "approve_esti
mate": "44.34048", "approve_hi": "48.89616", "approve_lo": "39.78481", "disapprove_estim
ate": "43.45351", "disapprove_hi": "48.00919", "disapprove_lo": "38.89784"}, {"date": "20
17-02-01", "future": false, "subgroup": "All polls", "approve_estimate": "44.79341", "app
rove_hi": "49.32774", "approve_lo": "40.25908", "disapprove_estimate": "44.69287", "disa
pprove_hi": "49.2272", "disapprove_lo": "40.15854"}, {"date": "2017-02-02", "future": fal
se, "subgroup": "All polls", "approve_estimate": "44.81124", "approve_hi": "49.33113", "a
pprove_lo": "40.29136", "disapprove_estimate": "44.79839", "disapprove_hi": "49.3182
7", "disapprove_lo": "40.27851"}, {"date": "2017-02-03", "future": false, "subgroup": "All
polls", "approve_estimate": "44.21341", "approve_hi": "48.61607", "approve_lo": "39.8107
4", "disapprove_estimate": "47.06427", "disapprove_hi": "51.46694", "disapprove_lo": "4
2.66161"}, {"date": "2017-02-04", "future": false, "subgroup": "All polls", "approve_esti
mate": "44.23746", "approve_hi": "48.63475", "approve_lo": "39.84016", "disapprove_estim
ate": "47.03533", "disapprove_hi": "51.43262", "disapprove_lo": "42.63803"}, {"date": "20
17-02-05", "future": false, "subgroup": "All polls", "approve_estimate": "44.43742", "app
rove_hi": "48.81641", "approve_lo": "40.05843", "disapprove_estimate": "47.4848", "disap
prove_hi": "51.86378", "disapprove_lo": "43.10581"}, {"date": "2017-02-06", "future": fal
se, "subgroup": "All polls", "approve_estimate": "44.42256", "approve_hi": "48.81194", "a
pprove_lo": "40.03319", "disapprove_estimate": "48.03367", "disapprove_hi": "52.4230
5", "disapprove_lo": "43.6443"}, {"date": "2017-02-07", "future": false, "subgroup": "All
polls", "approve_estimate": "44.65995", "approve_hi": "49.03472", "approve_lo": "40.2851
8", "disapprove_estimate": "48.71205", "disapprove_hi": "53.08682", "disapprove_lo": "4
4.33728"}, {"date": "2017-02-08", "future": false, "subgroup": "All polls", "approve_esti
mate": "44.50491", "approve_hi": "48.843", "approve_lo": "40.16682", "disapprove_estimat
e": "48.8634", "disapprove_hi": "53.20149", "disapprove_lo": "44.52531"}, {"date": "2017-
02-09", "future": false, "subgroup": "All polls", "approve_estimate": "44.34582", "approv
e_hi": "48.72214", "approve_lo": "39.96951", "disapprove_estimate": "49.3256", "disappro
ve_hi": "53.70191", "disapprove_lo": "44.94928"}, {"date": "2017-02-10", "future": fals
e, "subgroup": "All polls", "approve_estimate": "44.28156", "approve_hi": "48.64907", "ap
prove_lo": "39.91405", "disapprove_estimate": "49.35836", "disapprove_hi": "53.7258
7", "disapprove_lo": "44.99086"}, {"date": "2017-02-11", "future": false, "subgroup": "All
polls", "approve_estimate": "44.42348", "approve_hi": "48.84508", "approve_lo": "40.0018
9", "disapprove_estimate": "49.29364", "disapprove_hi": "53.71523", "disapprove_lo": "4
4.87204"}, {"date": "2017-02-12", "future": false, "subgroup": "All polls", "approve_esti

```

```

mate": "44.30565", "approve_hi": "48.72142", "approve_lo": "39.88988", "disapprove_estim
ate": "49.4447", "disapprove_hi": "53.86047", "disapprove_lo": "45.02893"}, {"date": "201
7-02-13", "future": false, "subgroup": "All polls", "approve_estimate": "43.46242", "appr
ove_hi": "47.85374", "approve_lo": "39.07109", "disapprove_estimate": "50.64742", "disap
prove_hi": "55.09876", "disapprove_lo": "46.19608"}, {"date": "2017-02-14", "future": fal
se, "subgroup": "All polls", "approve_estimate": "44.47177", "approve_hi": "49.01568", "a
pprove_lo": "39.92786", "disapprove_estimate": "50.36843", "disapprove_hi": "55.041
8", "disapprove_lo": "45.69505"}, {"date": "2017-02-15", "future": false, "subgroup": "All
polls", "approve_estimate": "44.49281", "approve_hi": "49.07682", "approve_lo": "39.9088
1", "disapprove_estimate": "50.23329", "disapprove_hi": "54.94403", "disapprove_lo": "4
5.52256"}, {"date": "2017-02-16", "future": false, "subgroup": "All polls", "approve_esti
mate": "44.57693", "approve_hi": "49.23923", "approve_lo": "39.91463", "disapprove_estim
ate": "50.21927", "disapprove_hi": "54.96953", "disapprove_lo": "45.46901"}, {"date": "20
17-02-17", "future": false, "subgroup": "All polls", "approve_estimate": "44.46416", "app
rove_hi": "49.21023", "approve_lo": "39.7181", "disapprove_estimate": "50.34889", "disap
prove_hi": "55.15873", "disapprove_lo": "45.53905"}, {"date": "2017-02-18", "future": fal
se, "subgroup": "All polls", "approve_estimate": "44.31153", "approve_hi": "49.03962", "a
pprove_lo": "39.58345", "disapprove_estimate": "50.62162", "disapprove_hi": "55.4916
1", "disapprove_lo": "45.75164"}, {"date": "2017-02-19", "future": false, "subgroup": "All
polls", "approve_estimate": "44.10547", "approve_hi": "48.89841", "approve_lo": "39.3125
3", "disapprove_estimate": "50.62915", "disapprove_hi": "55.54121", "disapprove_lo": "4
5.7171"}, {"date": "2017-02-20", "future": false, "subgroup": "All polls", "approve_estim
ate": "43.83627", "approve_hi": "48.59529", "approve_lo": "39.07725", "disapprove_estima
te": "50.03596", "disapprove_hi": "54.89173", "disapprove_lo": "45.18018"}, {"date": "201
7-02-21", "future": false, "subgroup": "All polls", "approve_estimate": "43.66503", "appr
ove_hi": "48.39862", "approve_lo": "38.93143", "disapprove_estimate": "50.16118", "disap
prove_hi": "54.99011", "disapprove_lo": "45.33226"}, {"date": "2017-02-22", "future": fal
se, "subgroup": "All polls", "approve_estimate": "42.54541", "approve_hi": "47.43392", "a
pprove_lo": "37.6569", "disapprove_estimate": "50.79599", "disapprove_hi": "55.6375
6", "disapprove_lo": "45.95441"}, {"date": "2017-02-23", "future": false, "subgroup": "All
polls", "approve_estimate": "43.00062", "approve_hi": "47.7711", "approve_lo": "38.2301
3", "disapprove_estimate": "49.79304", "disapprove_hi": "54.51702", "disapprove_lo": "4
5.06906"}, {"date": "2017-02-24", "future": false, "subgroup": "All polls", "approve_esti
mate": "43.10133", "approve_hi": "47.88879", "approve_lo": "38.31387", "disapprove_estim
ate": "49.82072", "disapprove_hi": "54.53353", "disapprove_lo": "45.10792"}, {"date": "20
17-02-25", "future": false, "subgroup": "All polls", "approve_estimate": "42.99247", "app
rove_hi": "47.80976", "approve_lo": "38.17517", "disapprove_estimate": "49.87163", "disa
pprove_hi": "54.60665", "disapprove_lo": "45.1366"}, {"date": "2017-02-26", "future": fal
se, "subgroup": "All polls", "approve_estimate": "42.94234", "approve_hi": "47.78183", "a
pprove_lo": "38.10285", "disapprove_estimate": "49.97172", "disapprove_hi": "54.7350
1", "disapprove_lo": "45.20843"}, {"date": "2017-02-27", "future": false, "subgroup": "All
polls", "approve_estimate": "42.97042", "approve_hi": "47.81451", "approve_lo": "38.1263
3", "disapprove_estimate": "50.10254", "disapprove_hi": "54.87105", "disapprove_lo": "4
5.33402"}, {"date": "2017-02-28", "future": false, "subgroup": "All polls", "approve_esti
mate": "42.93886", "approve_hi": "47.79404", "approve_lo": "38.08368", "disapprove_estim
ate": "50.21992", "disapprove_hi": "55.00761", "disapprove_lo": "45.43224"}, {"date": "20
17-03-01", "future": false, "subgroup": "All polls", "approve_estimate": "43.75505", "app
rove_hi": "48.47799", "approve_lo": "39.03212", "disapprove_estimate": "49.75748", "disa
pprove_hi": "54.34694", "disapprove_lo": "45.16802"}, {"date": "2017-03-02", "future": fa
lse, "subgroup": "All polls", "approve_estimate": "43.71027", "approve_hi": "48.4927
8", "approve_lo": "38.92776", "disapprove_estimate": "49.87239", "disapprove_hi": "54.40
887", "disapprove_lo": "45.33591"}, {"date": "2017-03-03", "future": false, "subgroup": "A
ll polls", "approve_estimate": "43.90226", "approve_hi": "48.6751", "approve_lo": "39.12
943", "disapprove_estimate": "49.85654", "disapprove_hi": "54.37281", "disapprove_lo":
"45.34027"}, {"date": "2017-03-04", "future": false, "subgroup": "All polls", "approve
_estimate": "43.90226", "approve_hi": "48.6751", "approve_lo": "39.12943", "disapprove_e

```

```
stimate": "49.85654", "disapprove_hi": "54.37281", "disapprove_lo": "45.34027"}, {"date": "2017-03-05", "future": false, "subgroup": "All polls", "approve_estimate": "43.93693", "approve_hi": "48.76372", "approve_lo": "39.11013", "disapprove_estimate": "49.72623", "disapprove_hi": "54.27249", "disapprove_lo": "45.17998"}, {"date": "2017-03-06", "future": false, "subgroup": "All polls", "approve_estimate": "44.08371", "approve_hi": "48.69637", "approve_lo": "39.47105", "disapprove_estimate": "49.29635", "disapprove_hi": "53.78793", "disapprove_lo": "44.80477"}, {"date": "2017-03-07", "future": false, "subgroup": "All polls", "approve_estimate": "44.3455", "approve_hi": "48.87922", "approve_lo": "39.81178", "disapprove_estimate": "48.89124", "disapprove_hi": "53.46196", "disapprove_lo": "44.32052"}, {"date": "2017-03-08", "future": false, "subgroup": "All polls", "approve_estimate": "44.33974", "approve_hi": "48.90763", "approve_lo": "39.77184", "disapprove_estimate": "49.15517", "disapprove_hi": "53.72889", "disapprove_lo": "44.58145"}, {"date": "2017-03-09", "future": false, "subgroup": "All polls", "approve_estimate": "44.25294", "approve_hi": "48.83014", "approve_lo": "39.67575", "disapprove_estimate": "49.22272", "disapprove_hi": "53.79013", "disapprove_lo": "44.65532"}, {"date": "2017-03-10", "future": false, "subgroup": "All polls", "approve_estimate": "44.51029", "approve_hi": "49.12762", "approve_lo": "39.89296", "disapprove_estimate": "49.00035", "disapprove_hi": "53.60986", "disapprove_lo": "44.39085"}, {"date": "2017-03-11", "future": false, "subgroup": "All polls", "approve_estimate": "44.6835", "approve_hi": "49.29448", "approve_lo": "40.07253", "disapprove_estimate": "48.83847", "disapprove_hi": "53.42355", "disapprove_lo": "44.2534"}, {"date": "2017-03-12", "future": false, "subgroup": "All polls", "approve_estimate": "44.76669", "approve_hi": "49.39057", "approve_lo": "40.14281", "disapprove_estimate": "48.7696", "disapprove_hi": "53.37308", "disapprove_lo": "44.16611"}, {"date": "2017-03-13", "future": false, "subgroup": "All polls", "approve_estimate": "44.53927", "approve_hi": "49.17732", "approve_lo": "39.90122", "disapprove_estimate": "48.95186", "disapprove_hi": "53.59417", "disapprove_lo": "44.30956"}, {"date": "2017-03-14", "future": false, "subgroup": "All polls", "approve_estimate": "44.29615", "approve_hi": "48.92532", "approve_lo": "39.66698", "disapprove_estimate": "49.32653", "disapprove_hi": "53.95638", "disapprove_lo": "44.69668"}, {"date": "2017-03-15", "future": false, "subgroup": "All polls", "approve_estimate": "43.732", "approve_hi": "48.34158", "approve_lo": "39.12242", "disapprove_estimate": "49.82358", "disapprove_hi": "54.37471", "disapprove_lo": "45.27245"}, {"date": "2017-03-16", "future": false, "subgroup": "All polls", "approve_estimate": "43.59192", "approve_hi": "48.14231", "approve_lo": "39.04153", "disapprove_estimate": "50.67634", "disapprove_hi": "55.53901", "disapprove_lo": "45.81367"}, {"date": "2017-03-17", "future": false, "subgroup": "All polls", "approve_estimate": "43.36182", "approve_hi": "47.80959", "approve_lo": "38.91404", "disapprove_estimate": "50.8023", "disapprove_hi": "55.57342", "disapprove_lo": "46.03117"}, {"date": "2017-03-18", "future": false, "subgroup": "All polls", "approve_estimate": "42.70947", "approve_hi": "47.44154", "approve_lo": "37.97739", "disapprove_estimate": "51.48524", "disapprove_hi": "56.47866", "disapprove_lo": "46.49182"}, {"date": "2017-03-19", "future": false, "subgroup": "All polls", "approve_estimate": "42.48279", "approve_hi": "47.31588", "approve_lo": "37.6497", "disapprove_estimate": "51.70201", "disapprove_hi": "56.81096", "disapprove_lo": "46.59307"}, {"date": "2017-03-20", "future": false, "subgroup": "All polls", "approve_estimate": "42.56183", "approve_hi": "47.41304", "approve_lo": "37.71062", "disapprove_estimate": "51.57077", "disapprove_hi": "56.63733", "disapprove_lo": "46.5042"}, {"date": "2017-03-21", "future": false, "subgroup": "All polls", "approve_estimate": "42.41769", "approve_hi": "47.27553", "approve_lo": "37.55984", "disapprove_estimate": "51.82015", "disapprove_hi": "56.87549", "disapprove_lo": "46.7648"}, {"date": "2017-03-22", "future": false, "subgroup": "All polls", "approve_estimate": "42.34076", "approve_hi": "47.29531", "approve_lo": "37.38622", "disapprove_estimate": "51.67672", "disapprove_hi": "56.76546", "disapprove_lo": "46.58797"}, {"date": "2017-03-23", "future": false, "subgroup": "All polls", "approve_estimate": "42.28773", "approve_hi": "47.29216", "approve_lo": "37.28331", "disapprove_estimate": "51.76073", "disapprove_hi": "56.88629", "disapprove_lo": "46.63516"}, {"date": "2017-03-24", "future": false, "subgroup": "All polls", "approve_estimate": "42.15625", "approve_hi": "47.20598", "approve_lo": "37.10653", "disapprove_estimate": "52.08948", "disapprove_hi": "57.51303", "disapprove_lo": "4
```



```
6.66592"}, {"date": "2017-03-25", "future": false, "subgroup": "All polls", "approve_estimate": "42.14841", "approve_hi": "47.22449", "approve_lo": "37.07233", "disapprove_estimate": "52.09206", "disapprove_hi": "57.54439", "disapprove_lo": "46.63973"}, {"date": "2017-03-26", "future": false, "subgroup": "All polls", "approve_estimate": "42.08798", "approve_hi": "47.20525", "approve_lo": "36.97071", "disapprove_estimate": "52.08815", "disapprove_hi": "57.57109", "disapprove_lo": "46.60522"}, {"date": "2017-03-27", "future": false, "subgroup": "All polls", "approve_estimate": "41.81089", "approve_hi": "47.05198", "approve_lo": "36.56979", "disapprove_estimate": "52.25573", "disapprove_hi": "57.78765", "disapprove_lo": "46.7238"}, {"date": "2017-03-28", "future": false, "subgroup": "All polls", "approve_estimate": "41.55795", "approve_hi": "46.62505", "approve_lo": "36.49085", "disapprove_estimate": "52.38742", "disapprove_hi": "57.79079", "disapprove_lo": "46.98404"}, {"date": "2017-03-29", "future": false, "subgroup": "All polls", "approve_estimate": "41.20364", "approve_hi": "46.0816", "approve_lo": "36.32568", "disapprove_estimate": "52.53189", "disapprove_hi": "57.80197", "disapprove_lo": "47.26182"}, {"date": "2017-03-30", "future": false, "subgroup": "All polls", "approve_estimate": "40.63618", "approve_hi": "45.51982", "approve_lo": "35.75254", "disapprove_estimate": "53.55639", "disapprove_hi": "59.13385", "disapprove_lo": "47.97892"}, {"date": "2017-03-31", "future": false, "subgroup": "All polls", "approve_estimate": "40.48179", "approve_hi": "45.32975", "approve_lo": "35.63383", "disapprove_estimate": "53.06938", "disapprove_hi": "58.63694", "disapprove_lo": "47.50181"}, {"date": "2017-04-01", "future": false, "subgroup": "All polls", "approve_estimate": "40.54905", "approve_hi": "45.38779", "approve_lo": "35.7103", "disapprove_estimate": "53.0927", "disapprove_hi": "58.68511", "disapprove_lo": "47.50028"}, {"date": "2017-04-02", "future": false, "subgroup": "All polls", "approve_estimate": "40.44848", "approve_hi": "45.32938", "approve_lo": "35.56758", "disapprove_estimate": "53.17198", "disapprove_hi": "58.80313", "disapprove_lo": "47.54082"}, {"date": "2017-04-03", "future": false, "subgroup": "All polls", "approve_estimate": "39.84783", "approve_hi": "44.92455", "approve_lo": "34.77111", "disapprove_estimate": "53.59146", "disapprove_hi": "59.18995", "disapprove_lo": "47.99298"}, {"date": "2017-04-04", "future": false, "subgroup": "All polls", "approve_estimate": "40.01525", "approve_hi": "45.26242", "approve_lo": "34.76808", "disapprove_estimate": "53.67127", "disapprove_hi": "59.05883", "disapprove_lo": "48.2837"}, {"date": "2017-04-05", "future": false, "subgroup": "All polls", "approve_estimate": "40.66016", "approve_hi": "45.7916", "approve_lo": "35.52871", "disapprove_estimate": "53.16607", "disapprove_hi": "58.42831", "disapprove_lo": "47.90383"}, {"date": "2017-04-06", "future": false, "subgroup": "All polls", "approve_estimate": "40.41075", "approve_hi": "45.60198", "approve_lo": "35.21951", "disapprove_estimate": "53.69882", "disapprove_hi": "59.2783", "disapprove_lo": "48.11934"}, {"date": "2017-04-07", "future": false, "subgroup": "All polls", "approve_estimate": "40.38835", "approve_hi": "45.4526", "approve_lo": "35.32409", "disapprove_estimate": "53.89001", "disapprove_hi": "59.34081", "disapprove_lo": "48.43921"}, {"date": "2017-04-08", "future": false, "subgroup": "All polls", "approve_estimate": "40.40128", "approve_hi": "45.47359", "approve_lo": "35.32896", "disapprove_estimate": "53.86125", "disapprove_hi": "59.32256", "disapprove_lo": "48.39995"}, {"date": "2017-04-09", "future": false, "subgroup": "All polls", "approve_estimate": "40.41701", "approve_hi": "45.49614", "approve_lo": "35.33789", "disapprove_estimate": "53.82942", "disapprove_hi": "59.29893", "disapprove_lo": "48.35992"}, {"date": "2017-04-10", "future": false, "subgroup": "All polls", "approve_estimate": "40.87731", "approve_hi": "45.83553", "approve_lo": "35.91909", "disapprove_estimate": "53.21894", "disapprove_hi": "58.66856", "disapprove_lo": "47.76932"}, {"date": "2017-04-11", "future": false, "subgroup": "All polls", "approve_estimate": "41.51326", "approve_hi": "46.72686", "approve_lo": "36.29965", "disapprove_estimate": "52.52065", "disapprove_hi": "58.12492", "disapprove_lo": "46.91638"}, {"date": "2017-04-12", "future": false, "subgroup": "All polls", "approve_estimate": "41.64417", "approve_hi": "46.87432", "approve_lo": "36.41402", "disapprove_estimate": "52.36113", "disapprove_hi": "57.88984", "disapprove_lo": "46.83242"}, {"date": "2017-04-13", "future": false, "subgroup": "All polls", "approve_estimate": "41.44421", "approve_hi": "46.76628", "approve_lo": "36.12213", "disapprove_estimate": "52.70598", "disapprove_hi": "58.45796", "disapprove_lo": "46.95399"}, {"date": "2017-04-14", "future": false, "subgroup": "A
```

```

11 polls", "approve_estimate": "41.27088", "approve_hi": "46.42637", "approve_lo": "36.1
1538", "disapprove_estimate": "51.87616", "disapprove_hi": "57.45", "disapprove_lo": "4
6.30231"}, {"date": "2017-04-15", "future": false, "subgroup": "All polls", "approve_esti
mate": "41.23275", "approve_hi": "46.41501", "approve_lo": "36.0505", "disapprove_estima
te": "51.88008", "disapprove_hi": "57.46936", "disapprove_lo": "46.2908"}, {"date": "2017
-04-16", "future": false, "subgroup": "All polls", "approve_estimate": "41.34031", "appro
ve_hi": "46.52293", "approve_lo": "36.1577", "disapprove_estimate": "51.77214", "disappr
ove_hi": "57.3511", "disapprove_lo": "46.19318"}, {"date": "2017-04-17", "future": fals
e, "subgroup": "All polls", "approve_estimate": "41.62966", "approve_hi": "46.85859", "ap
prove_lo": "36.40073", "disapprove_estimate": "51.48813", "disapprove_hi": "56.8920
3", "disapprove_lo": "46.08422"}, {"date": "2017-04-18", "future": false, "subgroup": "All
polls", "approve_estimate": "41.70159", "approve_hi": "46.99654", "approve_lo": "36.4066
4", "disapprove_estimate": "51.38246", "disapprove_hi": "56.7924", "disapprove_lo": "45.
97252"}, {"date": "2017-04-19", "future": false, "subgroup": "All polls", "approve_estima
te": "41.92009", "approve_hi": "47.03592", "approve_lo": "36.80427", "disapprove_estimat
e": "51.80953", "disapprove_hi": "56.86413", "disapprove_lo": "46.75493"}, {"date": "2017
-04-20", "future": false, "subgroup": "All polls", "approve_estimate": "42.02447", "appro
ve_hi": "47.19346", "approve_lo": "36.85548", "disapprove_estimate": "52.04146", "disapp
rove_hi": "57.51389", "disapprove_lo": "46.56903"}, {"date": "2017-04-21", "future": fals
e, "subgroup": "All polls", "approve_estimate": "41.89439", "approve_hi": "47.02298", "ap
prove_lo": "36.7658", "disapprove_estimate": "52.33761", "disapprove_hi": "57.71827", "d
isapprove_lo": "46.95695"}, {"date": "2017-04-22", "future": false, "subgroup": "All poll
s", "approve_estimate": "41.88213", "approve_hi": "47.01614", "approve_lo": "36.7481
2", "disapprove_estimate": "52.33886", "disapprove_hi": "57.71994", "disapprove_lo": "4
6.95778"}, {"date": "2017-04-23", "future": false, "subgroup": "All polls", "approve_esti
mate": "41.63386", "approve_hi": "46.54868", "approve_lo": "36.71904", "disapprove_estim
ate": "52.87494", "disapprove_hi": "57.99485", "disapprove_lo": "47.75502"}, {"date": "20
17-04-24", "future": false, "subgroup": "All polls", "approve_estimate": "41.76186", "app
rove_hi": "46.79366", "approve_lo": "36.73006", "disapprove_estimate": "52.74255", "disa
pprove_hi": "57.86912", "disapprove_lo": "47.61599"}, {"date": "2017-04-25", "future": fa
lse, "subgroup": "All polls", "approve_estimate": "41.42433", "approve_hi": "46.1931
3", "approve_lo": "36.65553", "disapprove_estimate": "52.85545", "disapprove_hi": "57.87
822", "disapprove_lo": "47.83269"}, {"date": "2017-04-26", "future": false, "subgroup": "A
ll polls", "approve_estimate": "41.98724", "approve_hi": "46.71743", "approve_lo": "37.2
5704", "disapprove_estimate": "52.19347", "disapprove_hi": "57.10226", "disapprove_l
o": "47.28468"}, {"date": "2017-04-27", "future": false, "subgroup": "All polls", "approve
_estimate": "42.1408", "approve_hi": "46.77888", "approve_lo": "37.50272", "disapprove_e
stimate": "52.32465", "disapprove_hi": "57.1571", "disapprove_lo": "47.4922"}, {"dat
e": "2017-04-28", "future": false, "subgroup": "All polls", "approve_estimate": "41.954
8", "approve_hi": "46.88246", "approve_lo": "37.02715", "disapprove_estimate": "52.6769
3", "disapprove_hi": "58.03936", "disapprove_lo": "47.31449"}, {"date": "2017-04-29", "fu
ture": false, "subgroup": "All polls", "approve_estimate": "41.99678", "approve_hi": "46.
93359", "approve_lo": "37.05997", "disapprove_estimate": "52.56797", "disapprove_hi": "5
7.95444", "disapprove_lo": "47.1815"}, {"date": "2017-04-30", "future": false, "subgrou
p": "All polls", "approve_estimate": "41.98776", "approve_hi": "46.93704", "approve_l
o": "37.03849", "disapprove_estimate": "52.59581", "disapprove_hi": "57.99697", "disappr
ove_lo": "47.19464"}, {"date": "2017-05-01", "future": false, "subgroup": "All polls", "ap
prove_estimate": "41.87309", "approve_hi": "46.76357", "approve_lo": "36.98261", "disapp
rove_estimate": "52.76786", "disapprove_hi": "58.10855", "disapprove_lo": "47.42718"},
{"date": "2017-05-02", "future": false, "subgroup": "All polls", "approve_estimate": "41.
99481", "approve_hi": "46.92556", "approve_lo": "37.06407", "disapprove_estimate": "52.6
5896", "disapprove_hi": "58.00486", "disapprove_lo": "47.31306"}, {"date": "2017-05-0
3", "future": false, "subgroup": "All polls", "approve_estimate": "42.38294", "approve_h
i": "47.22184", "approve_lo": "37.54404", "disapprove_estimate": "51.87002", "disapprove
_hi": "57.22107", "disapprove_lo": "46.51897"}, {"date": "2017-05-04", "future": false, "s
ubgroup": "All polls", "approve_estimate": "42.42966", "approve_hi": "47.21623", "approv

```

```

e_lo": "37.64309", "disapprove_estimate": "51.85018", "disapprove_hi": "57.14867", "disa
pprove_lo": "46.55169"}, {"date": "2017-05-05", "future": false, "subgroup": "All poll
s", "approve_estimate": "42.33636", "approve_hi": "47.07829", "approve_lo": "37.5944
2", "disapprove_estimate": "51.93982", "disapprove_hi": "57.23312", "disapprove_lo": "4
6.64652"}, {"date": "2017-05-06", "future": false, "subgroup": "All polls", "approve_esti
mate": "42.17928", "approve_hi": "46.86745", "approve_lo": "37.49111", "disapprove_estim
ate": "52.08133", "disapprove_hi": "57.26179", "disapprove_lo": "46.90088"}, {"date": "20
17-05-07", "future": false, "subgroup": "All polls", "approve_estimate": "42.13611", "app
rove_hi": "46.83911", "approve_lo": "37.43311", "disapprove_estimate": "52.09691", "disa
pprove_hi": "57.26974", "disapprove_lo": "46.92409"}, {"date": "2017-05-08", "future": fa
lse, "subgroup": "All polls", "approve_estimate": "42.16862", "approve_hi": "46.8099
9", "approve_lo": "37.52726", "disapprove_estimate": "52.08101", "disapprove_hi": "57.21
143", "disapprove_lo": "46.95058"}, {"date": "2017-05-09", "future": false, "subgroup": "A
ll polls", "approve_estimate": "41.93328", "approve_hi": "46.63458", "approve_lo": "37.2
3199", "disapprove_estimate": "52.1669", "disapprove_hi": "57.1736", "disapprove_lo": "4
7.1602"}, {"date": "2017-05-10", "future": false, "subgroup": "All polls", "approve_estim
ate": "41.21492", "approve_hi": "46.01898", "approve_lo": "36.41087", "disapprove_estima
te": "52.84939", "disapprove_hi": "57.7994", "disapprove_lo": "47.89938"}, {"date": "2017
-05-11", "future": false, "subgroup": "All polls", "approve_estimate": "41.15792", "appro
ve_hi": "46.07581", "approve_lo": "36.24004", "disapprove_estimate": "52.87853", "disapp
rove_hi": "57.84761", "disapprove_lo": "47.90946"}, {"date": "2017-05-12", "future": fals
e, "subgroup": "All polls", "approve_estimate": "41.12946", "approve_hi": "45.89158", "ap
prove_lo": "36.36733", "disapprove_estimate": "52.89473", "disapprove_hi": "57.9061
5", "disapprove_lo": "47.88332"}, {"date": "2017-05-13", "future": false, "subgroup": "All
polls", "approve_estimate": "41.08303", "approve_hi": "45.8761", "approve_lo": "36.2899
7", "disapprove_estimate": "52.949", "disapprove_hi": "57.99341", "disapprove_lo": "47.9
0459"}, {"date": "2017-05-14", "future": false, "subgroup": "All polls", "approve_estimat
e": "40.63778", "approve_hi": "45.32814", "approve_lo": "35.94741", "disapprove_estimat
e": "53.41823", "disapprove_hi": "58.27899", "disapprove_lo": "48.55746"}, {"date": "2017
-05-15", "future": false, "subgroup": "All polls", "approve_estimate": "40.50564", "appro
ve_hi": "45.21157", "approve_lo": "35.79972", "disapprove_estimate": "53.57767", "disapp
rove_hi": "58.48868", "disapprove_lo": "48.66667"}, {"date": "2017-05-16", "future": fals
e, "subgroup": "All polls", "approve_estimate": "39.90671", "approve_hi": "44.44628", "ap
prove_lo": "35.36713", "disapprove_estimate": "54.10234", "disapprove_hi": "58.8557
2", "disapprove_lo": "49.34895"}, {"date": "2017-05-17", "future": false, "subgroup": "All
polls", "approve_estimate": "39.6813", "approve_hi": "44.13726", "approve_lo": "35.2253
3", "disapprove_estimate": "54.27899", "disapprove_hi": "58.89919", "disapprove_lo": "4
9.65879"}, {"date": "2017-05-18", "future": false, "subgroup": "All polls", "approve_esti
mate": "39.45036", "approve_hi": "43.80222", "approve_lo": "35.09851", "disapprove_estim
ate": "54.28648", "disapprove_hi": "58.69677", "disapprove_lo": "49.87619"}, {"date": "20
17-05-19", "future": false, "subgroup": "All polls", "approve_estimate": "38.86071", "app
rove_hi": "43.13092", "approve_lo": "34.5905", "disapprove_estimate": "54.87609", "disap
prove_hi": "59.29292", "disapprove_lo": "50.45927"}, {"date": "2017-05-20", "future": fal
se, "subgroup": "All polls", "approve_estimate": "38.80148", "approve_hi": "43.10471", "a
pprove_lo": "34.49825", "disapprove_estimate": "54.87124", "disapprove_hi": "59.2908
7", "disapprove_lo": "50.45161"}, {"date": "2017-05-21", "future": false, "subgroup": "All
polls", "approve_estimate": "38.83015", "approve_hi": "43.12059", "approve_lo": "34.539
7", "disapprove_estimate": "54.86396", "disapprove_hi": "59.28749", "disapprove_lo": "5
0.44043"}, {"date": "2017-05-22", "future": false, "subgroup": "All polls", "approve_esti
mate": "38.78198", "approve_hi": "43.04203", "approve_lo": "34.52193", "disapprove_estim
ate": "54.95404", "disapprove_hi": "59.31543", "disapprove_lo": "50.59264"}, {"date": "20
17-05-23", "future": false, "subgroup": "All polls", "approve_estimate": "39.14797", "app
rove_hi": "43.61942", "approve_lo": "34.67653", "disapprove_estimate": "54.91948", "disa
pprove_hi": "59.17537", "disapprove_lo": "50.66359"}, {"date": "2017-05-24", "future": fa
lse, "subgroup": "All polls", "approve_estimate": "38.99393", "approve_hi": "43.5433
5", "approve_lo": "34.44452", "disapprove_estimate": "54.72712", "disapprove_hi": "58.86

```

```

196", "disapprove_lo": "50.59229"}, {"date": "2017-05-25", "future": false, "subgroup": "All polls", "approve_estimate": "39.05955", "approve_hi": "43.67546", "approve_lo": "34.44365", "disapprove_estimate": "54.67347", "disapprove_hi": "58.80458", "disapprove_lo": "50.54237"}, {"date": "2017-05-26", "future": false, "subgroup": "All polls", "approve_estimate": "39.28042", "approve_hi": "43.92625", "approve_lo": "34.63459", "disapprove_estimate": "54.5595", "disapprove_hi": "58.65606", "disapprove_lo": "50.46295"}, {"date": "2017-05-27", "future": false, "subgroup": "All polls", "approve_estimate": "39.27729", "approve_hi": "43.88622", "approve_lo": "34.66835", "disapprove_estimate": "54.57211", "disapprove_hi": "58.6447", "disapprove_lo": "50.49953"}, {"date": "2017-05-28", "future": false, "subgroup": "All polls", "approve_estimate": "39.3673", "approve_hi": "44.00107", "approve_lo": "34.73354", "disapprove_estimate": "54.49165", "disapprove_hi": "58.56404", "disapprove_lo": "50.41927"}, {"date": "2017-05-29", "future": false, "subgroup": "All polls", "approve_estimate": "39.3634", "approve_hi": "43.96389", "approve_lo": "34.76291", "disapprove_estimate": "54.5243", "disapprove_hi": "58.57644", "disapprove_lo": "50.47216"}, {"date": "2017-05-30", "future": false, "subgroup": "All polls", "approve_estimate": "39.21078", "approve_hi": "43.55368", "approve_lo": "34.86788", "disapprove_estimate": "54.80099", "disapprove_hi": "58.70224", "disapprove_lo": "50.89975"}, {"date": "2017-05-31", "future": false, "subgroup": "All polls", "approve_estimate": "39.14719", "approve_hi": "43.51952", "approve_lo": "34.77485", "disapprove_estimate": "54.78027", "disapprove_hi": "58.85775", "disapprove_lo": "50.70278"}, {"date": "2017-06-01", "future": false, "subgroup": "All polls", "approve_estimate": "39.11364", "approve_hi": "43.47738", "approve_lo": "34.74991", "disapprove_estimate": "54.811", "disapprove_hi": "58.89351", "disapprove_lo": "50.7285"}, {"date": "2017-06-02", "future": false, "subgroup": "All polls", "approve_estimate": "39.10624", "approve_hi": "43.46215", "approve_lo": "34.75033", "disapprove_estimate": "54.85807", "disapprove_hi": "58.9391", "disapprove_lo": "50.77704"}, {"date": "2017-06-03", "future": false, "subgroup": "All polls", "approve_estimate": "38.9981", "approve_hi": "43.42838", "approve_lo": "34.56783", "disapprove_estimate": "54.95428", "disapprove_hi": "59.09671", "disapprove_lo": "50.81186"}, {"date": "2017-06-04", "future": false, "subgroup": "All polls", "approve_estimate": "38.89021", "approve_hi": "43.33281", "approve_lo": "34.44762", "disapprove_estimate": "55.1037", "disapprove_hi": "59.26466", "disapprove_lo": "50.94274"}, {"date": "2017-06-05", "future": false, "subgroup": "All polls", "approve_estimate": "38.99826", "approve_hi": "43.55975", "approve_lo": "34.43677", "disapprove_estimate": "55.00614", "disapprove_hi": "59.14022", "disapprove_lo": "50.87205"}, {"date": "2017-06-06", "future": false, "subgroup": "All polls", "approve_estimate": "38.60328", "approve_hi": "43.15037", "approve_lo": "34.05618", "disapprove_estimate": "55.67593", "disapprove_hi": "59.98829", "disapprove_lo": "51.36356"}, {"date": "2017-06-07", "future": false, "subgroup": "All polls", "approve_estimate": "38.28024", "approve_hi": "43.07074", "approve_lo": "33.48973", "disapprove_estimate": "55.87093", "disapprove_hi": "59.99118", "disapprove_lo": "51.75068"}, {"date": "2017-06-08", "future": false, "subgroup": "All polls", "approve_estimate": "38.24259", "approve_hi": "43.04533", "approve_lo": "33.43984", "disapprove_estimate": "55.77963", "disapprove_hi": "59.84056", "disapprove_lo": "51.7187"}, {"date": "2017-06-09", "future": false, "subgroup": "All polls", "approve_estimate": "38.04195", "approve_hi": "42.81776", "approve_lo": "33.26614", "disapprove_estimate": "55.96476", "disapprove_hi": "59.97122", "disapprove_lo": "51.9583"}, {"date": "2017-06-10", "future": false, "subgroup": "All polls", "approve_estimate": "38.12778", "approve_hi": "42.90308", "approve_lo": "33.35248", "disapprove_estimate": "55.87754", "disapprove_hi": "59.85918", "disapprove_lo": "51.89591"}, {"date": "2017-06-11", "future": false, "subgroup": "All polls", "approve_estimate": "38.09373", "approve_hi": "42.89088", "approve_lo": "33.29659", "disapprove_estimate": "55.9653", "disapprove_hi": "59.99905", "disapprove_lo": "51.93155"}, {"date": "2017-06-12", "future": false, "subgroup": "All polls", "approve_estimate": "38.29467", "approve_hi": "43.10337", "approve_lo": "33.48596", "disapprove_estimate": "55.58596", "disapprove_hi": "59.77042", "disapprove_lo": "51.4015"}, {"date": "2017-06-13", "future": false, "subgroup": "All polls", "approve_estimate": "38.25534", "approve_hi": "42.89152", "approve_lo": "33.61917", "disapprove_estimate": "55.78836", "disapprove_hi": "59.96687", "disapprove_lo": "51.60986"}, {"date": "2017-06-14", "future": false, "subgroup": "All polls", "approve_estimate": "38.25534", "approve_hi": "42.89152", "approve_lo": "33.61917", "disapprove_estimate": "55.78836", "disapprove_hi": "59.96687", "disapprove_lo": "51.60986"}

```

```

e,"subgroup":"All polls","approve_estimate":"38.3791","approve_hi":"43.01754","approve_lo":"33.74066","disapprove_estimate":"55.65119","disapprove_hi":"59.86611","disapprove_lo":"51.43627"},{"date":"2017-06-15","future":false,"subgroup":"All polls","approve_estimate":"38.38903","approve_hi":"43.29962","approve_lo":"33.47845","disapprove_estimate":"55.9732","disapprove_hi":"60.9323","disapprove_lo":"51.0141"},{"date":"2017-06-16","future":false,"subgroup":"All polls","approve_estimate":"38.66948","approve_hi":"43.59479","approve_lo":"33.74418","disapprove_estimate":"55.51431","disapprove_hi":"60.41283","disapprove_lo":"50.61578"},{"date":"2017-06-17","future":false,"subgroup":"All polls","approve_estimate":"38.7223","approve_hi":"43.65948","approve_lo":"33.78512","disapprove_estimate":"55.40695","disapprove_hi":"60.3134","disapprove_lo":"50.50051"},{"date":"2017-06-18","future":false,"subgroup":"All polls","approve_estimate":"38.73221","approve_hi":"43.68423","approve_lo":"33.78019","disapprove_estimate":"55.37252","disapprove_hi":"60.29601","disapprove_lo":"50.44904"},{"date":"2017-06-19","future":false,"subgroup":"All polls","approve_estimate":"38.71433","approve_hi":"43.69634","approve_lo":"33.73232","disapprove_estimate":"55.33969","disapprove_hi":"60.26365","disapprove_lo":"50.41574"},{"date":"2017-06-20","future":false,"subgroup":"All polls","approve_estimate":"38.62213","approve_hi":"43.38256","approve_lo":"33.8617","disapprove_estimate":"55.34938","disapprove_hi":"59.91515","disapprove_lo":"50.78362"},{"date":"2017-06-21","future":false,"subgroup":"All polls","approve_estimate":"38.40358","approve_hi":"43.05761","approve_lo":"33.74956","disapprove_estimate":"55.77647","disapprove_hi":"60.63239","disapprove_lo":"50.92056"},{"date":"2017-06-22","future":false,"subgroup":"All polls","approve_estimate":"38.74978","approve_hi":"43.3579","approve_lo":"34.14165","disapprove_estimate":"55.69723","disapprove_hi":"60.42154","disapprove_lo":"50.97293"},{"date":"2017-06-23","future":false,"subgroup":"All polls","approve_estimate":"39.77451","approve_hi":"44.676","approve_lo":"34.87303","disapprove_estimate":"55.08252","disapprove_hi":"59.65898","disapprove_lo":"50.50606"},{"date":"2017-06-24","future":false,"subgroup":"All polls","approve_estimate":"39.66325","approve_hi":"44.57659","approve_lo":"34.7499","disapprove_estimate":"55.09979","disapprove_hi":"59.691","disapprove_lo":"50.50858"},{"date":"2017-06-25","future":false,"subgroup":"All polls","approve_estimate":"39.58413","approve_hi":"44.52223","approve_lo":"34.64603","disapprove_estimate":"55.20745","disapprove_hi":"59.83112","disapprove_lo":"50.58379"},{"date":"2017-06-26","future":false,"subgroup":"All polls","approve_estimate":"39.46778","approve_hi":"44.43855","approve_lo":"34.497","disapprove_estimate":"55.20918","disapprove_hi":"59.75242","disapprove_lo":"50.66594"},{"date":"2017-06-27","future":false,"subgroup":"All polls","approve_estimate":"38.71787","approve_hi":"43.81157","approve_lo":"33.62417","disapprove_estimate":"55.64397","disapprove_hi":"60.16024","disapprove_lo":"51.1277"},{"date":"2017-06-28","future":false,"subgroup":"All polls","approve_estimate":"39.3798","approve_hi":"44.38748","approve_lo":"34.37212","disapprove_estimate":"54.28488","disapprove_hi":"58.96166","disapprove_lo":"49.6081"},{"date":"2017-06-29","future":false,"subgroup":"All polls","approve_estimate":"39.93516","approve_hi":"44.7401","approve_lo":"35.13022","disapprove_estimate":"54.1336","disapprove_hi":"58.62613","disapprove_lo":"49.64108"},{"date":"2017-06-30","future":false,"subgroup":"All polls","approve_estimate":"39.60293","approve_hi":"44.34719","approve_lo":"34.85867","disapprove_estimate":"54.33164","disapprove_hi":"58.76026","disapprove_lo":"49.90302"},{"date":"2017-07-01","future":false,"subgroup":"All polls","approve_estimate":"39.58723","approve_hi":"44.34394","approve_lo":"34.83052","disapprove_estimate":"54.34242","disapprove_hi":"58.78121","disapprove_lo":"49.90363"},{"date":"2017-07-02","future":false,"subgroup":"All polls","approve_estimate":"39.51341","approve_hi":"44.30066","approve_lo":"34.72616","disapprove_estimate":"54.3523","disapprove_hi":"58.80197","disapprove_lo":"49.90263"},{"date":"2017-07-03","future":false,"subgroup":"All polls","approve_estimate":"39.52999","approve_hi":"44.26207","approve_lo":"34.79792","disapprove_estimate":"54.39137","disapprove_hi":"58.82858","disapprove_lo":"49.95415"},{"date":"2017-07-04","future":false,"subgroup":"All polls","approve_estimate":"39.41248","approve_hi":"44.19063","a

```

```

pprove_lo":"34.63433","disapprove_estimate":"54.46843","disapprove_hi":"58.9366
3","disapprove_lo":"50.00022"},{"date":"2017-07-05","future":false,"subgroup":"All
polls","approve_estimate":"39.03904","approve_hi":"43.63164","approve_lo":"34.4464
4","disapprove_estimate":"54.90335","disapprove_hi":"59.316","disapprove_lo":"50.4
9069"},{"date":"2017-07-06","future":false,"subgroup":"All polls","approve_estimat
e":"39.00697","approve_hi":"43.60416","approve_lo":"34.40978","disapprove_estimat
e":"54.95916","disapprove_hi":"59.34011","disapprove_lo":"50.57821"},{"date":"2017
-07-07","future":false,"subgroup":"All polls","approve_estimate":"39.01347","appro
ve_hi":"43.63103","approve_lo":"34.39591","disapprove_estimate":"55.12906","disapp
rove_hi":"59.4956","disapprove_lo":"50.76252"},{"date":"2017-07-08","future":fals
e,"subgroup":"All polls","approve_estimate":"39.03389","approve_hi":"43.65359","ap
prove_lo":"34.41419","disapprove_estimate":"55.08215","disapprove_hi":"59.4430
3","disapprove_lo":"50.72127"},{"date":"2017-07-09","future":false,"subgroup":"All
polls","approve_estimate":"39.08517","approve_hi":"43.70378","approve_lo":"34.4665
6","disapprove_estimate":"55.06653","disapprove_hi":"59.43101","disapprove_lo":"5
0.70205"},{"date":"2017-07-10","future":false,"subgroup":"All polls","approve_esti
mate":"39.12117","approve_hi":"43.77384","approve_lo":"34.46849","disapprove_estim
ate":"55.04463","disapprove_hi":"59.39623","disapprove_lo":"50.69302"},{"date":"20
17-07-11","future":false,"subgroup":"All polls","approve_estimate":"39.24297","app
rove_hi":"43.7589","approve_lo":"34.72705","disapprove_estimate":"55.10878","disap
prove_hi":"59.33429","disapprove_lo":"50.88327"},{"date":"2017-07-12","future":fal
se,"subgroup":"All polls","approve_estimate":"39.29457","approve_hi":"44.04103","a
pprove_lo":"34.54811","disapprove_estimate":"54.95346","disapprove_hi":"59.2711
7","disapprove_lo":"50.63574"},{"date":"2017-07-13","future":false,"subgroup":"All
polls","approve_estimate":"39.25278","approve_hi":"43.9978","approve_lo":"34.5077
7","disapprove_estimate":"55.00865","disapprove_hi":"59.34611","disapprove_lo":"5
0.67118"},{"date":"2017-07-14","future":false,"subgroup":"All polls","approve_esti
mate":"39.14643","approve_hi":"43.65331","approve_lo":"34.63956","disapprove_estim
ate":"55.23926","disapprove_hi":"59.42607","disapprove_lo":"51.05245"},{"date":"20
17-07-15","future":false,"subgroup":"All polls","approve_estimate":"39.09839","app
rove_hi":"43.63673","approve_lo":"34.56005","disapprove_estimate":"55.3304","disap
prove_hi":"59.56072","disapprove_lo":"51.10008"},{"date":"2017-07-16","future":fal
se,"subgroup":"All polls","approve_estimate":"38.60715","approve_hi":"43.2235","ap
prove_lo":"33.9908","disapprove_estimate":"55.70111","disapprove_hi":"59.92703","d
isapprove_lo":"51.47519"},{"date":"2017-07-17","future":false,"subgroup":"All poll
s","approve_estimate":"38.81894","approve_hi":"43.13393","approve_lo":"34.5039
4","disapprove_estimate":"55.38853","disapprove_hi":"59.534","disapprove_lo":"51.2
4305"},{"date":"2017-07-18","future":false,"subgroup":"All polls","approve_estimat
e":"38.72128","approve_hi":"42.93108","approve_lo":"34.51148","disapprove_estimat
e":"55.6564","disapprove_hi":"59.73441","disapprove_lo":"51.5784"},{"date":"2017-0
7-19","future":false,"subgroup":"All polls","approve_estimate":"38.71251","approve
_hi":"42.81013","approve_lo":"34.61489","disapprove_estimate":"55.67002","disappro
ve_hi":"59.71012","disapprove_lo":"51.62992"},{"date":"2017-07-20","future":fals
e,"subgroup":"All polls","approve_estimate":"38.6458","approve_hi":"42.80268","app
rove_lo":"34.48891","disapprove_estimate":"55.76773","disapprove_hi":"59.86781","d
isapprove_lo":"51.66766"},{"date":"2017-07-21","future":false,"subgroup":"All poll
s","approve_estimate":"38.3734","approve_hi":"42.56104","approve_lo":"34.18576","d
isapprove_estimate":"55.72233","disapprove_hi":"59.64466","disapprove_lo":"51.8"},
{"date":"2017-07-22","future":false,"subgroup":"All polls","approve_estimate":"38.
41841","approve_hi":"42.60358","approve_lo":"34.23324","disapprove_estimate":"55.6
8146","disapprove_hi":"59.60043","disapprove_lo":"51.7625"},{"date":"2017-07-2
3","future":false,"subgroup":"All polls","approve_estimate":"38.4932","approve_h
i":"42.67521","approve_lo":"34.3112","disapprove_estimate":"55.55575","disapprove_
hi":"59.46841","disapprove_lo":"51.64308"},{"date":"2017-07-24","future":false,"su
bgroup":"All polls","approve_estimate":"39.05289","approve_hi":"43.44463","approve
_lo":"34.66116","disapprove_estimate":"55.13695","disapprove_hi":"59.24187","disap

```

```

prove_lo": "51.03202"}, {"date": "2017-07-25", "future": false, "subgroup": "All polls", "approve_estimate": "38.38955", "approve_hi": "42.97971", "approve_lo": "33.79939", "disapprove_estimate": "55.60064", "disapprove_hi": "59.89718", "disapprove_lo": "51.3041"}, {"date": "2017-07-26", "future": false, "subgroup": "All polls", "approve_estimate": "38.54961", "approve_hi": "43.06865", "approve_lo": "34.03057", "disapprove_estimate": "55.35145", "disapprove_hi": "59.71321", "disapprove_lo": "50.98969"}, {"date": "2017-07-27", "future": false, "subgroup": "All polls", "approve_estimate": "38.54928", "approve_hi": "43.03683", "approve_lo": "34.06173", "disapprove_estimate": "55.34732", "disapprove_hi": "59.72181", "disapprove_lo": "50.97283"}, {"date": "2017-07-28", "future": false, "subgroup": "All polls", "approve_estimate": "38.35725", "approve_hi": "42.68003", "approve_lo": "34.03447", "disapprove_estimate": "55.68452", "disapprove_hi": "60.10131", "disapprove_lo": "51.26774"}, {"date": "2017-07-29", "future": false, "subgroup": "All polls", "approve_estimate": "38.38412", "approve_hi": "42.71571", "approve_lo": "34.05252", "disapprove_estimate": "55.72515", "disapprove_hi": "60.15879", "disapprove_lo": "51.2915"}, {"date": "2017-07-30", "future": false, "subgroup": "All polls", "approve_estimate": "38.35231", "approve_hi": "42.70267", "approve_lo": "34.00195", "disapprove_estimate": "55.75294", "disapprove_hi": "60.21958", "disapprove_lo": "51.28629"}, {"date": "2017-07-31", "future": false, "subgroup": "All polls", "approve_estimate": "38.20862", "approve_hi": "42.6102", "approve_lo": "33.80704", "disapprove_estimate": "56.1893", "disapprove_hi": "60.72137", "disapprove_lo": "51.65723"}, {"date": "2017-08-01", "future": false, "subgroup": "All polls", "approve_estimate": "37.76429", "approve_hi": "42.14993", "approve_lo": "33.37865", "disapprove_estimate": "56.74495", "disapprove_hi": "61.29782", "disapprove_lo": "52.19208"}, {"date": "2017-08-02", "future": false, "subgroup": "All polls", "approve_estimate": "37.04735", "approve_hi": "41.72179", "approve_lo": "32.37292", "disapprove_estimate": "57.46737", "disapprove_hi": "62.21899", "disapprove_lo": "52.71576"}, {"date": "2017-08-03", "future": false, "subgroup": "All polls", "approve_estimate": "37.01992", "approve_hi": "41.67223", "approve_lo": "32.3676", "disapprove_estimate": "57.37531", "disapprove_hi": "62.04323", "disapprove_lo": "52.70739"}, {"date": "2017-08-04", "future": false, "subgroup": "All polls", "approve_estimate": "36.91279", "approve_hi": "41.50656", "approve_lo": "32.31903", "disapprove_estimate": "57.43717", "disapprove_hi": "62.06231", "disapprove_lo": "52.81203"}, {"date": "2017-08-05", "future": false, "subgroup": "All polls", "approve_estimate": "36.95828", "approve_hi": "41.55743", "approve_lo": "32.35914", "disapprove_estimate": "57.26429", "disapprove_hi": "61.90297", "disapprove_lo": "52.6256"}, {"date": "2017-08-06", "future": false, "subgroup": "All polls", "approve_estimate": "36.98021", "approve_hi": "41.55582", "approve_lo": "32.40461", "disapprove_estimate": "57.27692", "disapprove_hi": "61.87062", "disapprove_lo": "52.68322"}, {"date": "2017-08-07", "future": false, "subgroup": "All polls", "approve_estimate": "36.60229", "approve_hi": "41.33248", "approve_lo": "31.87211", "disapprove_estimate": "57.36718", "disapprove_hi": "61.76018", "disapprove_lo": "52.97419"}, {"date": "2017-08-08", "future": false, "subgroup": "All polls", "approve_estimate": "36.90808", "approve_hi": "41.69695", "approve_lo": "32.11922", "disapprove_estimate": "57.43502", "disapprove_hi": "61.98555", "disapprove_lo": "52.88449"}, {"date": "2017-08-09", "future": false, "subgroup": "All polls", "approve_estimate": "36.86343", "approve_hi": "41.55867", "approve_lo": "32.16819", "disapprove_estimate": "57.23425", "disapprove_hi": "61.74557", "disapprove_lo": "52.72292"}, {"date": "2017-08-10", "future": false, "subgroup": "All polls", "approve_estimate": "36.93701", "approve_hi": "41.71968", "approve_lo": "32.15434", "disapprove_estimate": "57.06971", "disapprove_hi": "61.59443", "disapprove_lo": "52.54499"}, {"date": "2017-08-11", "future": false, "subgroup": "All polls", "approve_estimate": "37.56736", "approve_hi": "42.19353", "approve_lo": "32.94119", "disapprove_estimate": "56.34317", "disapprove_hi": "60.85007", "disapprove_lo": "51.83627"}, {"date": "2017-08-12", "future": false, "subgroup": "All polls", "approve_estimate": "37.62228", "approve_hi": "42.29346", "approve_lo": "32.9511", "disapprove_estimate": "56.35921", "disapprove_hi": "60.83619", "disapprove_lo": "51.88224"}, {"date": "2017-08-13", "future": false, "subgroup": "All polls", "approve_estimate": "37.57039", "approve_hi": "42.26449", "approve_lo": "32.87629", "disapprove_estimate": "56.46309", "disapprove_hi": "60.98093", "disapprove_lo": "51.94524"}, {"date": "2017-08-14", "future": false, "subgroup": "All polls", "approve_estimate": "37.57039", "approve_hi": "42.26449", "approve_lo": "32.87629", "disapprove_estimate": "56.46309", "disapprove_hi": "60.98093", "disapprove_lo": "51.94524"}

```

p": "All polls", "approve_estimate": "37.39813", "approve_hi": "42.12861", "approve_lo": "32.66765", "disapprove_estimate": "56.64359", "disapprove_hi": "61.21503", "disapprove_lo": "52.07214"}, {"date": "2017-08-15", "future": false, "subgroup": "All polls", "approve_estimate": "37.63694", "approve_hi": "42.20628", "approve_lo": "33.0676", "disapprove_estimate": "55.55735", "disapprove_hi": "60.32541", "disapprove_lo": "50.78928"}, {"date": "2017-08-16", "future": false, "subgroup": "All polls", "approve_estimate": "37.33916", "approve_hi": "41.82668", "approve_lo": "32.85165", "disapprove_estimate": "55.03362", "disapprove_hi": "59.93123", "disapprove_lo": "50.136"}, {"date": "2017-08-17", "future": false, "subgroup": "All polls", "approve_estimate": "37.85554", "approve_hi": "42.33533", "approve_lo": "33.37575", "disapprove_estimate": "54.9286", "disapprove_hi": "59.70444", "disapprove_lo": "50.15276"}, {"date": "2017-08-18", "future": false, "subgroup": "All polls", "approve_estimate": "37.79533", "approve_hi": "42.40402", "approve_lo": "33.18665", "disapprove_estimate": "55.39618", "disapprove_hi": "60.15129", "disapprove_lo": "50.64106"}, {"date": "2017-08-19", "future": false, "subgroup": "All polls", "approve_estimate": "37.79533", "approve_hi": "42.40402", "approve_lo": "33.18665", "disapprove_estimate": "55.39618", "disapprove_hi": "60.15129", "disapprove_lo": "50.64106"}, {"date": "2017-08-20", "future": false, "subgroup": "All polls", "approve_estimate": "37.72692", "approve_hi": "42.34237", "approve_lo": "33.11146", "disapprove_estimate": "55.43607", "disapprove_hi": "60.20604", "disapprove_lo": "50.66609"}, {"date": "2017-08-21", "future": false, "subgroup": "All polls", "approve_estimate": "37.05765", "approve_hi": "41.65087", "approve_lo": "32.46442", "disapprove_estimate": "56.54782", "disapprove_hi": "61.33219", "disapprove_lo": "51.76345"}, {"date": "2017-08-22", "future": false, "subgroup": "All polls", "approve_estimate": "36.81282", "approve_hi": "41.33916", "approve_lo": "32.28648", "disapprove_estimate": "57.00314", "disapprove_hi": "61.75926", "disapprove_lo": "52.24702"}, {"date": "2017-08-23", "future": false, "subgroup": "All polls", "approve_estimate": "36.92514", "approve_hi": "41.28721", "approve_lo": "32.56307", "disapprove_estimate": "56.83273", "disapprove_hi": "61.54496", "disapprove_lo": "52.1205"}, {"date": "2017-08-24", "future": false, "subgroup": "All polls", "approve_estimate": "37.01527", "approve_hi": "41.47535", "approve_lo": "32.5552", "disapprove_estimate": "56.76907", "disapprove_hi": "61.49586", "disapprove_lo": "52.04228"}, {"date": "2017-08-25", "future": false, "subgroup": "All polls", "approve_estimate": "36.91675", "approve_hi": "41.45602", "approve_lo": "32.37748", "disapprove_estimate": "57.15396", "disapprove_hi": "61.81174", "disapprove_lo": "52.49618"}, {"date": "2017-08-26", "future": false, "subgroup": "All polls", "approve_estimate": "36.93331", "approve_hi": "41.47746", "approve_lo": "32.38916", "disapprove_estimate": "57.17996", "disapprove_hi": "61.86016", "disapprove_lo": "52.49976"}, {"date": "2017-08-27", "future": false, "subgroup": "All polls", "approve_estimate": "36.92144", "approve_hi": "41.48524", "approve_lo": "32.35764", "disapprove_estimate": "57.19756", "disapprove_hi": "61.90208", "disapprove_lo": "52.49304"}, {"date": "2017-08-28", "future": false, "subgroup": "All polls", "approve_estimate": "36.92813", "approve_hi": "41.51923", "approve_lo": "32.33704", "disapprove_estimate": "57.2124", "disapprove_hi": "61.92688", "disapprove_lo": "52.49792"}, {"date": "2017-08-29", "future": false, "subgroup": "All polls", "approve_estimate": "36.82207", "approve_hi": "41.25789", "approve_lo": "32.38624", "disapprove_estimate": "57.44258", "disapprove_hi": "62.25244", "disapprove_lo": "52.63271"}, {"date": "2017-08-30", "future": false, "subgroup": "All polls", "approve_estimate": "37.31853", "approve_hi": "41.68003", "approve_lo": "32.95704", "disapprove_estimate": "57.14878", "disapprove_hi": "61.81176", "disapprove_lo": "52.48579"}, {"date": "2017-08-31", "future": false, "subgroup": "All polls", "approve_estimate": "37.22177", "approve_hi": "41.5991", "approve_lo": "32.84444", "disapprove_estimate": "57.22581", "disapprove_hi": "61.89116", "disapprove_lo": "52.56047"}, {"date": "2017-09-01", "future": false, "subgroup": "All polls", "approve_estimate": "37.3336", "approve_hi": "41.67601", "approve_lo": "32.99118", "disapprove_estimate": "57.26038", "disapprove_hi": "61.87663", "disapprove_lo": "52.64413"}, {"date": "2017-09-02", "future": false, "subgroup": "All polls", "approve_estimate": "37.28516", "approve_hi": "41.66122", "approve_lo": "32.90909", "disapprove_estimate": "57.30523", "disapprove_hi": "61.94461", "disapprove_lo": "52.66586"}, {"date": "2017-09-03", "future": false, "subgroup": "All polls", "approve_estimate": "37.35038", "approve_hi": "41.70014", "a


```

pprove_lo": "33.00063", "disapprove_estimate": "57.18285", "disapprove_hi": "61.7684
4", "disapprove_lo": "52.59725"}, {"date": "2017-09-04", "future": false, "subgroup": "All
polls", "approve_estimate": "37.50347", "approve_hi": "41.89262", "approve_lo": "33.1143
2", "disapprove_estimate": "56.98285", "disapprove_hi": "61.5484", "disapprove_lo": "52.
41729"}, {"date": "2017-09-05", "future": false, "subgroup": "All polls", "approve_estima
te": "37.76652", "approve_hi": "42.23053", "approve_lo": "33.30251", "disapprove_estimat
e": "56.80103", "disapprove_hi": "61.37112", "disapprove_lo": "52.23093"}, {"date": "2017
-09-06", "future": false, "subgroup": "All polls", "approve_estimate": "38.21691", "appro
ve_hi": "42.74511", "approve_lo": "33.68871", "disapprove_estimate": "56.44203", "disapp
rove_hi": "61.08582", "disapprove_lo": "51.79824"}, {"date": "2017-09-07", "future": fals
e, "subgroup": "All polls", "approve_estimate": "38.37829", "approve_hi": "42.91252", "ap
prove_lo": "33.84407", "disapprove_estimate": "56.37593", "disapprove_hi": "60.9139
7", "disapprove_lo": "51.83789"}, {"date": "2017-09-08", "future": false, "subgroup": "All
polls", "approve_estimate": "38.68817", "approve_hi": "43.26941", "approve_lo": "34.1069
3", "disapprove_estimate": "55.95134", "disapprove_hi": "60.39766", "disapprove_lo": "5
1.50502"}, {"date": "2017-09-09", "future": false, "subgroup": "All polls", "approve_esti
mate": "38.76101", "approve_hi": "43.32641", "approve_lo": "34.19561", "disapprove_estim
ate": "55.89272", "disapprove_hi": "60.3409", "disapprove_lo": "51.44453"}, {"date": "201
7-09-10", "future": false, "subgroup": "All polls", "approve_estimate": "38.75933", "appr
ove_hi": "43.3353", "approve_lo": "34.18337", "disapprove_estimate": "55.87571", "disapp
rove_hi": "60.32141", "disapprove_lo": "51.43"}, {"date": "2017-09-11", "future": fals
e, "subgroup": "All polls", "approve_estimate": "38.71809", "approve_hi": "43.24094", "ap
prove_lo": "34.19524", "disapprove_estimate": "55.95098", "disapprove_hi": "60.3407
9", "disapprove_lo": "51.56116"}, {"date": "2017-09-12", "future": false, "subgroup": "All
polls", "approve_estimate": "38.1081", "approve_hi": "42.74432", "approve_lo": "33.4718
8", "disapprove_estimate": "56.23722", "disapprove_hi": "60.56918", "disapprove_lo": "5
1.90527"}, {"date": "2017-09-13", "future": false, "subgroup": "All polls", "approve_esti
mate": "38.20712", "approve_hi": "42.65783", "approve_lo": "33.7564", "disapprove_estima
te": "55.90915", "disapprove_hi": "60.37368", "disapprove_lo": "51.44463"}, {"date": "201
7-09-14", "future": false, "subgroup": "All polls", "approve_estimate": "38.48572", "appr
ove_hi": "43.06287", "approve_lo": "33.90856", "disapprove_estimate": "55.55937", "disap
prove_hi": "60.04461", "disapprove_lo": "51.07413"}, {"date": "2017-09-15", "future": fal
se, "subgroup": "All polls", "approve_estimate": "38.85391", "approve_hi": "43.17216", "a
pprove_lo": "34.53566", "disapprove_estimate": "54.70395", "disapprove_hi": "59.3540
4", "disapprove_lo": "50.05386"}, {"date": "2017-09-16", "future": false, "subgroup": "All
polls", "approve_estimate": "38.79293", "approve_hi": "43.15847", "approve_lo": "34.4273
8", "disapprove_estimate": "54.80883", "disapprove_hi": "59.53611", "disapprove_lo": "5
0.08154"}, {"date": "2017-09-17", "future": false, "subgroup": "All polls", "approve_esti
mate": "38.79023", "approve_hi": "43.07557", "approve_lo": "34.50489", "disapprove_estim
ate": "54.70402", "disapprove_hi": "59.38459", "disapprove_lo": "50.02346"}, {"date": "20
17-09-18", "future": false, "subgroup": "All polls", "approve_estimate": "38.90175", "app
rove_hi": "43.20633", "approve_lo": "34.59717", "disapprove_estimate": "54.57581", "disa
pprove_hi": "59.23567", "disapprove_lo": "49.91596"}, {"date": "2017-09-19", "future": fa
lse, "subgroup": "All polls", "approve_estimate": "38.85189", "approve_hi": "43.0079", "a
pprove_lo": "34.69588", "disapprove_estimate": "54.49646", "disapprove_hi": "58.9973
7", "disapprove_lo": "49.99556"}, {"date": "2017-09-20", "future": false, "subgroup": "All
polls", "approve_estimate": "39.06307", "approve_hi": "42.97974", "approve_lo": "35.146
4", "disapprove_estimate": "53.5909", "disapprove_hi": "58.35732", "disapprove_lo": "48.
82448"}, {"date": "2017-09-21", "future": false, "subgroup": "All polls", "approve_estima
te": "39.45935", "approve_hi": "43.41961", "approve_lo": "35.49909", "disapprove_estimat
e": "53.5658", "disapprove_hi": "58.1391", "disapprove_lo": "48.99249"}, {"date": "2017-0
9-22", "future": false, "subgroup": "All polls", "approve_estimate": "39.49464", "approve
_hi": "43.62273", "approve_lo": "35.36654", "disapprove_estimate": "54.0083", "disapprov
e_hi": "58.5935", "disapprove_lo": "49.4231"}, {"date": "2017-09-23", "future": false, "su
bgroup": "All polls", "approve_estimate": "39.44529", "approve_hi": "43.59065", "approve
_lo": "35.29993", "disapprove_estimate": "54.00235", "disapprove_hi": "58.5786", "disapp

```

```

rove_lo": "49.42611"}, {"date": "2017-09-24", "future": false, "subgroup": "All polls", "a
pprove_estimate": "39.59408", "approve_hi": "43.60965", "approve_lo": "35.57851", "disap
prove_estimate": "54.24086", "disapprove_hi": "58.78962", "disapprove_lo": "49.6921"},
{"date": "2017-09-25", "future": false, "subgroup": "All polls", "approve_estimate": "39.
6704", "approve_hi": "43.84024", "approve_lo": "35.50056", "disapprove_estimate": "54.32
408", "disapprove_hi": "58.76521", "disapprove_lo": "49.88295"}, {"date": "2017-09-2
6", "future": false, "subgroup": "All polls", "approve_estimate": "38.92197", "approve_h
i": "43.18951", "approve_lo": "34.65443", "disapprove_estimate": "54.60735", "disapprove
_hi": "58.86979", "disapprove_lo": "50.34491"}, {"date": "2017-09-27", "future": false, "s
ubgroup": "All polls", "approve_estimate": "38.79216", "approve_hi": "43.08302", "approv
e_lo": "34.5013", "disapprove_estimate": "54.94124", "disapprove_hi": "59.06998", "disap
prove_lo": "50.8125"}, {"date": "2017-09-28", "future": false, "subgroup": "All polls", "a
pprove_estimate": "38.82832", "approve_hi": "43.16374", "approve_lo": "34.49291", "disap
prove_estimate": "55.08244", "disapprove_hi": "59.19535", "disapprove_lo": "50.96952"},
{"date": "2017-09-29", "future": false, "subgroup": "All polls", "approve_estimate": "38.
62467", "approve_hi": "42.90867", "approve_lo": "34.34067", "disapprove_estimate": "55.4
1434", "disapprove_hi": "59.5141", "disapprove_lo": "51.31458"}, {"date": "2017-09-3
0", "future": false, "subgroup": "All polls", "approve_estimate": "38.61241", "approve_h
i": "42.91461", "approve_lo": "34.31021", "disapprove_estimate": "55.40293", "disapprove
_hi": "59.49294", "disapprove_lo": "51.31292"}, {"date": "2017-10-01", "future": false, "s
ubgroup": "All polls", "approve_estimate": "38.66099", "approve_hi": "42.96257", "approv
e_lo": "34.35941", "disapprove_estimate": "55.35896", "disapprove_hi": "59.44509", "disa
pprove_lo": "51.27284"}, {"date": "2017-10-02", "future": false, "subgroup": "All poll
s", "approve_estimate": "38.52001", "approve_hi": "42.78959", "approve_lo": "34.2504
3", "disapprove_estimate": "55.43917", "disapprove_hi": "59.5448", "disapprove_lo": "51.
33354"}, {"date": "2017-10-03", "future": false, "subgroup": "All polls", "approve_estima
te": "38.61701", "approve_hi": "42.82699", "approve_lo": "34.40703", "disapprove_estimat
e": "55.51572", "disapprove_hi": "59.61335", "disapprove_lo": "51.41809"}, {"date": "2017
-10-04", "future": false, "subgroup": "All polls", "approve_estimate": "38.92259", "approv
e_hi": "43.20797", "approve_lo": "34.6372", "disapprove_estimate": "55.54972", "disappr
ove_hi": "59.51195", "disapprove_lo": "51.58749"}, {"date": "2017-10-05", "future": fals
e, "subgroup": "All polls", "approve_estimate": "38.81237", "approve_hi": "43.07641", "ap
prove_lo": "34.54833", "disapprove_estimate": "55.61481", "disapprove_hi": "59.4744
1", "disapprove_lo": "51.75522"}, {"date": "2017-10-06", "future": false, "subgroup": "All
polls", "approve_estimate": "38.1001", "approve_hi": "42.76361", "approve_lo": "33.436
6", "disapprove_estimate": "56.47272", "disapprove_hi": "61.2938", "disapprove_lo": "51.
65165"}, {"date": "2017-10-07", "future": false, "subgroup": "All polls", "approve_estima
te": "38.13292", "approve_hi": "42.81899", "approve_lo": "33.44685", "disapprove_estimat
e": "56.40413", "disapprove_hi": "61.24431", "disapprove_lo": "51.56394"}, {"date": "2017
-10-08", "future": false, "subgroup": "All polls", "approve_estimate": "38.10051", "approv
e_hi": "42.81056", "approve_lo": "33.39046", "disapprove_estimate": "56.43702", "disapp
rove_hi": "61.29832", "disapprove_lo": "51.57572"}, {"date": "2017-10-09", "future": fals
e, "subgroup": "All polls", "approve_estimate": "38.02188", "approve_hi": "42.73129", "ap
prove_lo": "33.31248", "disapprove_estimate": "56.38805", "disapprove_hi": "61.2211
4", "disapprove_lo": "51.55496"}, {"date": "2017-10-10", "future": false, "subgroup": "All
polls", "approve_estimate": "37.45793", "approve_hi": "42.27483", "approve_lo": "32.6410
3", "disapprove_estimate": "56.69799", "disapprove_hi": "61.66857", "disapprove_lo": "5
1.72741"}, {"date": "2017-10-11", "future": false, "subgroup": "All polls", "approve_esti
mate": "37.7519", "approve_hi": "42.36158", "approve_lo": "33.14222", "disapprove_estima
te": "56.08387", "disapprove_hi": "60.84902", "disapprove_lo": "51.31871"}, {"date": "201
7-10-12", "future": false, "subgroup": "All polls", "approve_estimate": "37.85408", "appr
ove_hi": "42.50036", "approve_lo": "33.20779", "disapprove_estimate": "56.02977", "disap
prove_hi": "60.74846", "disapprove_lo": "51.31108"}, {"date": "2017-10-13", "future": fal
se, "subgroup": "All polls", "approve_estimate": "37.6958", "approve_hi": "42.24862", "ap
prove_lo": "33.14298", "disapprove_estimate": "56.14555", "disapprove_hi": "60.8366
4", "disapprove_lo": "51.45445"}, {"date": "2017-10-14", "future": false, "subgroup": "All

```

```
polls", "approve_estimate": "37.62886", "approve_hi": "42.14088", "approve_lo": "33.11685", "disapprove_estimate": "55.9846", "disapprove_hi": "60.64174", "disapprove_lo": "51.32746"}, {"date": "2017-10-15", "future": false, "subgroup": "All polls", "approve_estimate": "37.66046", "approve_hi": "42.1819", "approve_lo": "33.13901", "disapprove_estimate": "55.95942", "disapprove_hi": "60.62894", "disapprove_lo": "51.28989"}, {"date": "2017-10-16", "future": false, "subgroup": "All polls", "approve_estimate": "38.14785", "approve_hi": "42.92557", "approve_lo": "33.37013", "disapprove_estimate": "55.5671", "disapprove_hi": "60.46063", "disapprove_lo": "50.67356"}, {"date": "2017-10-17", "future": false, "subgroup": "All polls", "approve_estimate": "37.98654", "approve_hi": "42.53926", "approve_lo": "33.43382", "disapprove_estimate": "55.80103", "disapprove_hi": "60.53177", "disapprove_lo": "51.07029"}, {"date": "2017-10-18", "future": false, "subgroup": "All polls", "approve_estimate": "38.07331", "approve_hi": "42.73254", "approve_lo": "33.41408", "disapprove_estimate": "55.5466", "disapprove_hi": "60.36487", "disapprove_lo": "50.72834"}, {"date": "2017-10-19", "future": false, "subgroup": "All polls", "approve_estimate": "37.96664", "approve_hi": "42.42966", "approve_lo": "33.50361", "disapprove_estimate": "55.79045", "disapprove_hi": "60.46689", "disapprove_lo": "51.11402"}, {"date": "2017-10-20", "future": false, "subgroup": "All polls", "approve_estimate": "37.84346", "approve_hi": "42.34471", "approve_lo": "33.3422", "disapprove_estimate": "56.00579", "disapprove_hi": "60.71263", "disapprove_lo": "51.29896"}, {"date": "2017-10-21", "future": false, "subgroup": "All polls", "approve_estimate": "37.86096", "approve_hi": "42.36507", "approve_lo": "33.35685", "disapprove_estimate": "55.98836", "disapprove_hi": "60.69853", "disapprove_lo": "51.27818"}, {"date": "2017-10-22", "future": false, "subgroup": "All polls", "approve_estimate": "37.85255", "approve_hi": "42.3642", "approve_lo": "33.34089", "disapprove_estimate": "55.94585", "disapprove_hi": "60.64472", "disapprove_lo": "51.24699"}, {"date": "2017-10-23", "future": false, "subgroup": "All polls", "approve_estimate": "37.48936", "approve_hi": "42.06797", "approve_lo": "32.91075", "disapprove_estimate": "56.38719", "disapprove_hi": "61.0635", "disapprove_lo": "51.71088"}, {"date": "2017-10-24", "future": false, "subgroup": "All polls", "approve_estimate": "37.1561", "approve_hi": "41.78599", "approve_lo": "32.52621", "disapprove_estimate": "56.73306", "disapprove_hi": "61.40689", "disapprove_lo": "52.05923"}, {"date": "2017-10-25", "future": false, "subgroup": "All polls", "approve_estimate": "37.07568", "approve_hi": "41.50466", "approve_lo": "32.6467", "disapprove_estimate": "56.91793", "disapprove_hi": "61.44345", "disapprove_lo": "52.39241"}, {"date": "2017-10-26", "future": false, "subgroup": "All polls", "approve_estimate": "37.46911", "approve_hi": "42.05527", "approve_lo": "32.88294", "disapprove_estimate": "56.71981", "disapprove_hi": "61.22549", "disapprove_lo": "52.21413"}, {"date": "2017-10-27", "future": false, "subgroup": "All polls", "approve_estimate": "37.30399", "approve_hi": "41.85652", "approve_lo": "32.75145", "disapprove_estimate": "56.69308", "disapprove_hi": "61.30756", "disapprove_lo": "52.07861"}, {"date": "2017-10-28", "future": false, "subgroup": "All polls", "approve_estimate": "37.29323", "approve_hi": "41.86818", "approve_lo": "32.71828", "disapprove_estimate": "56.74607", "disapprove_hi": "61.39561", "disapprove_lo": "52.09653"}, {"date": "2017-10-29", "future": false, "subgroup": "All polls", "approve_estimate": "37.26856", "approve_hi": "41.76267", "approve_lo": "32.77445", "disapprove_estimate": "57.08418", "disapprove_hi": "61.68118", "disapprove_lo": "52.48719"}, {"date": "2017-10-30", "future": false, "subgroup": "All polls", "approve_estimate": "37.26442", "approve_hi": "42.03175", "approve_lo": "32.49708", "disapprove_estimate": "57.09366", "disapprove_hi": "61.82941", "disapprove_lo": "52.35792"}, {"date": "2017-10-31", "future": false, "subgroup": "All polls", "approve_estimate": "37.24255", "approve_hi": "41.83614", "approve_lo": "32.64895", "disapprove_estimate": "57.15416", "disapprove_hi": "61.77101", "disapprove_lo": "52.5373"}, {"date": "2017-11-01", "future": false, "subgroup": "All polls", "approve_estimate": "37.75723", "approve_hi": "42.39159", "approve_lo": "33.12287", "disapprove_estimate": "56.76285", "disapprove_hi": "61.45495", "disapprove_lo": "52.07076"}, {"date": "2017-11-02", "future": false, "subgroup": "All polls", "approve_estimate": "37.97559", "approve_hi": "42.52827", "approve_lo": "33.4229", "disapprove_estimate": "56.40167", "disapprove_hi": "60.83871", "disapprove_lo": "51.96463"}, {"date": "2017-11-03", "future": false, "subgroup": "All polls", "approve_estimate": "37.8332", "approve_hi": "42.36376", "approve_lo": "33.11685", "disapprove_estimate": "55.9846", "disapprove_hi": "60.64174", "disapprove_lo": "51.32746"}]
```

```

o":"33.30264","disapprove_estimate":"56.58921","disapprove_hi":"61.17087","disapprove_lo":"52.00755"},{"date":"2017-11-04","future":false,"subgroup":"All polls","approve_estimate":"37.88012","approve_hi":"42.41156","approve_lo":"33.34868","disapprove_estimate":"56.50428","disapprove_hi":"61.09159","disapprove_lo":"51.91697"},{"date":"2017-11-05","future":false,"subgroup":"All polls","approve_estimate":"37.78851","approve_hi":"42.21611","approve_lo":"33.3609","disapprove_estimate":"56.69604","disapprove_hi":"61.22639","disapprove_lo":"52.16568"},{"date":"2017-11-06","future":false,"subgroup":"All polls","approve_estimate":"37.69767","approve_hi":"42.14056","approve_lo":"33.25479","disapprove_estimate":"56.73272","disapprove_hi":"61.18445","disapprove_lo":"52.28099"},{"date":"2017-11-07","future":false,"subgroup":"All polls","approve_estimate":"37.55069","approve_hi":"41.86052","approve_lo":"33.24086","disapprove_estimate":"56.80687","disapprove_hi":"61.07893","disapprove_lo":"52.53482"},{"date":"2017-11-08","future":false,"subgroup":"All polls","approve_estimate":"37.58189","approve_hi":"41.81385","approve_lo":"33.34994","disapprove_estimate":"56.68189","disapprove_hi":"60.93145","disapprove_lo":"52.43234"},{"date":"2017-11-09","future":false,"subgroup":"All polls","approve_estimate":"37.65916","approve_hi":"42.07094","approve_lo":"33.24738","disapprove_estimate":"56.5921","disapprove_hi":"60.90161","disapprove_lo":"52.28259"},{"date":"2017-11-10","future":false,"subgroup":"All polls","approve_estimate":"37.85893","approve_hi":"42.279","approve_lo":"33.43886","disapprove_estimate":"56.11641","disapprove_hi":"60.87601","disapprove_lo":"51.3568"},{"date":"2017-11-11","future":false,"subgroup":"All polls","approve_estimate":"37.91284","approve_hi":"42.33805","approve_lo":"33.48764","disapprove_estimate":"56.08043","disapprove_hi":"60.84921","disapprove_lo":"51.31165"},{"date":"2017-11-12","future":false,"subgroup":"All polls","approve_estimate":"37.98497","approve_hi":"42.4199","approve_lo":"33.55003","disapprove_estimate":"55.9723","disapprove_hi":"60.75954","disapprove_lo":"51.18506"},{"date":"2017-11-13","future":false,"subgroup":"All polls","approve_estimate":"38.07273","approve_hi":"42.68018","approve_lo":"33.46527","disapprove_estimate":"55.89657","disapprove_hi":"60.70871","disapprove_lo":"51.08443"},{"date":"2017-11-14","future":false,"subgroup":"All polls","approve_estimate":"38.05358","approve_hi":"42.36156","approve_lo":"33.7456","disapprove_estimate":"55.78141","disapprove_hi":"60.36355","disapprove_lo":"51.19926"},{"date":"2017-11-15","future":false,"subgroup":"All polls","approve_estimate":"38.08255","approve_hi":"42.49938","approve_lo":"33.66573","disapprove_estimate":"55.61642","disapprove_hi":"60.02238","disapprove_lo":"51.21045"},{"date":"2017-11-16","future":false,"subgroup":"All polls","approve_estimate":"38.12582","approve_hi":"42.58415","approve_lo":"33.66749","disapprove_estimate":"55.66437","disapprove_hi":"60.01311","disapprove_lo":"51.31562"},{"date":"2017-11-17","future":false,"subgroup":"All polls","approve_estimate":"38.07958","approve_hi":"42.49039","approve_lo":"33.66876","disapprove_estimate":"55.4835","disapprove_hi":"59.79652","disapprove_lo":"51.17048"},{"date":"2017-11-18","future":false,"subgroup":"All polls","approve_estimate":"38.19148","approve_hi":"42.61405","approve_lo":"33.76891","disapprove_estimate":"55.45759","disapprove_hi":"59.77378","disapprove_lo":"51.1414"},{"date":"2017-11-19","future":false,"subgroup":"All polls","approve_estimate":"38.1493","approve_hi":"42.56184","approve_lo":"33.73676","disapprove_estimate":"55.70245","disapprove_hi":"60.02735","disapprove_lo":"51.37754"},{"date":"2017-11-20","future":false,"subgroup":"All polls","approve_estimate":"38.11539","approve_hi":"42.51321","approve_lo":"33.71758","disapprove_estimate":"55.75067","disapprove_hi":"60.06194","disapprove_lo":"51.43939"},{"date":"2017-11-21","future":false,"subgroup":"All polls","approve_estimate":"38.16841","approve_hi":"42.40234","approve_lo":"33.93447","disapprove_estimate":"56.02618","disapprove_hi":"60.28223","disapprove_lo":"51.77013"},{"date":"2017-11-22","future":false,"subgroup":"All polls","approve_estimate":"38.41062","approve_hi":"42.75452","approve_lo":"34.06672","disapprove_estimate":"55.54749","disapprove_hi":"60.09285","disapprove_lo":"51.00213"},{"date":"2017-11-23","future":false,"subgroup":"All polls","approve_estimate":"38.42519","approve_hi":"42.75566","approve_lo":"34.09473","disapprove_estimate":"55.50383","disapprove_hi":"60.03

```

542", "disapprove_lo": "50.97224"}, {"date": "2017-11-24", "future": false, "subgroup": "All polls", "approve_estimate": "38.42519", "approve_hi": "42.75566", "approve_lo": "34.09473", "disapprove_estimate": "55.50383", "disapprove_hi": "60.03542", "disapprove_lo": "50.97224"}, {"date": "2017-11-25", "future": false, "subgroup": "All polls", "approve_estimate": "38.44119", "approve_hi": "42.79749", "approve_lo": "34.08489", "disapprove_estimate": "55.45301", "disapprove_hi": "60.03166", "disapprove_lo": "50.87435"}, {"date": "2017-11-26", "future": false, "subgroup": "All polls", "approve_estimate": "38.39222", "approve_hi": "42.77029", "approve_lo": "34.01414", "disapprove_estimate": "55.54683", "disapprove_hi": "60.15193", "disapprove_lo": "50.94173"}, {"date": "2017-11-27", "future": false, "subgroup": "All polls", "approve_estimate": "38.3837", "approve_hi": "42.81887", "approve_lo": "33.94852", "disapprove_estimate": "55.51948", "disapprove_hi": "60.09151", "disapprove_lo": "50.94745"}, {"date": "2017-11-28", "future": false, "subgroup": "All polls", "approve_estimate": "38.24538", "approve_hi": "42.61953", "approve_lo": "33.87123", "disapprove_estimate": "55.60558", "disapprove_hi": "60.14755", "disapprove_lo": "51.0636"}, {"date": "2017-11-29", "future": false, "subgroup": "All polls", "approve_estimate": "38.42575", "approve_hi": "42.58271", "approve_lo": "34.2688", "disapprove_estimate": "55.55772", "disapprove_hi": "59.93708", "disapprove_lo": "51.17836"}, {"date": "2017-11-30", "future": false, "subgroup": "All polls", "approve_estimate": "38.16322", "approve_hi": "42.35735", "approve_lo": "33.96909", "disapprove_estimate": "55.75873", "disapprove_hi": "60.2225", "disapprove_lo": "51.29496"}, {"date": "2017-12-01", "future": false, "subgroup": "All polls", "approve_estimate": "38.00967", "approve_hi": "42.33422", "approve_lo": "33.68511", "disapprove_estimate": "55.9007", "disapprove_hi": "60.35528", "disapprove_lo": "51.44611"}, {"date": "2017-12-02", "future": false, "subgroup": "All polls", "approve_estimate": "37.90633", "approve_hi": "42.34116", "approve_lo": "33.47151", "disapprove_estimate": "56.05219", "disapprove_hi": "60.66449", "disapprove_lo": "51.43988"}, {"date": "2017-12-03", "future": false, "subgroup": "All polls", "approve_estimate": "37.89624", "approve_hi": "42.34225", "approve_lo": "33.45023", "disapprove_estimate": "56.08004", "disapprove_hi": "60.71577", "disapprove_lo": "51.44431"}, {"date": "2017-12-04", "future": false, "subgroup": "All polls", "approve_estimate": "37.86093", "approve_hi": "42.2491", "approve_lo": "33.47276", "disapprove_estimate": "56.09463", "disapprove_hi": "60.70168", "disapprove_lo": "51.48758"}, {"date": "2017-12-05", "future": false, "subgroup": "All polls", "approve_estimate": "37.90712", "approve_hi": "42.27509", "approve_lo": "33.53914", "disapprove_estimate": "56.05267", "disapprove_hi": "60.41055", "disapprove_lo": "51.69479"}, {"date": "2017-12-06", "future": false, "subgroup": "All polls", "approve_estimate": "37.84785", "approve_hi": "42.35403", "approve_lo": "33.34167", "disapprove_estimate": "55.80183", "disapprove_hi": "60.53749", "disapprove_lo": "51.06617"}, {"date": "2017-12-07", "future": false, "subgroup": "All polls", "approve_estimate": "37.27071", "approve_hi": "41.92155", "approve_lo": "32.61987", "disapprove_estimate": "56.42054", "disapprove_hi": "61.28671", "disapprove_lo": "51.55438"}, {"date": "2017-12-08", "future": false, "subgroup": "All polls", "approve_estimate": "37.28476", "approve_hi": "41.90453", "approve_lo": "32.66499", "disapprove_estimate": "56.4149", "disapprove_hi": "61.26764", "disapprove_lo": "51.56216"}, {"date": "2017-12-09", "future": false, "subgroup": "All polls", "approve_estimate": "37.26849", "approve_hi": "41.89824", "approve_lo": "32.63873", "disapprove_estimate": "56.41706", "disapprove_hi": "61.28215", "disapprove_lo": "51.55198"}, {"date": "2017-12-10", "future": false, "subgroup": "All polls", "approve_estimate": "37.12042", "approve_hi": "41.69753", "approve_lo": "32.54332", "disapprove_estimate": "56.69955", "disapprove_hi": "61.57387", "disapprove_lo": "51.82524"}, {"date": "2017-12-11", "future": false, "subgroup": "All polls", "approve_estimate": "37.07095", "approve_hi": "41.68771", "approve_lo": "32.4542", "disapprove_estimate": "56.75324", "disapprove_hi": "61.64172", "disapprove_lo": "51.86476"}, {"date": "2017-12-12", "future": false, "subgroup": "All polls", "approve_estimate": "37.17878", "approve_hi": "41.6306", "approve_lo": "32.72696", "disapprove_estimate": "57.00034", "disapprove_hi": "61.66032", "disapprove_lo": "52.34037"}, {"date": "2017-12-13", "future": false, "subgroup": "All polls", "approve_estimate": "36.66145", "approve_hi": "41.23801", "approve_lo": "32.08489", "disapprove_estimate": "56.84941", "disapprove_hi": "61.49991", "disapprove_lo": "52.19891"}, {"date": "2017-12-14", "future": false, "subgroup": "All polls", "approve_estimate": "36.66145", "approve_hi": "41.23801", "approve_lo": "32.08489", "disapprove_estimate": "56.84941", "disapprove_hi": "61.49991", "disapprove_lo": "52.19891"}]

```

se,"subgroup":"All polls","approve_estimate":"37.07505","approve_hi":"41.67421","a
pprove_lo":"32.47588","disapprove_estimate":"56.79411","disapprove_hi":"61.3200
2","disapprove_lo":"52.2682"},{"date":"2017-12-15","future":false,"subgroup":"All
polls","approve_estimate":"36.45856","approve_hi":"41.09477","approve_lo":"31.8223
6","disapprove_estimate":"57.43106","disapprove_hi":"62.48951","disapprove_lo":"5
2.37261"},{"date":"2017-12-16","future":false,"subgroup":"All polls","approve_esti
mate":"36.40314","approve_hi":"41.07541","approve_lo":"31.73088","disapprove_estim
ate":"57.50006","disapprove_hi":"62.59423","disapprove_lo":"52.40588"},{"date":"20
17-12-17","future":false,"subgroup":"All polls","approve_estimate":"37.00387","app
rove_hi":"41.72515","approve_lo":"32.28259","disapprove_estimate":"57.35746","disa
pprove_hi":"62.34027","disapprove_lo":"52.37466"},{"date":"2017-12-18","future":fa
lse,"subgroup":"All polls","approve_estimate":"37.21277","approve_hi":"42.0601
8","approve_lo":"32.36535","disapprove_estimate":"56.7984","disapprove_hi":"62.050
48","disapprove_lo":"51.54631"},{"date":"2017-12-19","future":false,"subgroup":"Al
l polls","approve_estimate":"37.10143","approve_hi":"41.74622","approve_lo":"32.45
663","disapprove_estimate":"57.38179","disapprove_hi":"62.37889","disapprove_lo
":"52.38468"},{"date":"2017-12-20","future":false,"subgroup":"All polls","approve
_estimate":"37.20605","approve_hi":"42.15113","approve_lo":"32.26097","disapprove_
estimate":"56.98474","disapprove_hi":"61.99156","disapprove_lo":"51.97792"},{"dat
e":"2017-12-21","future":false,"subgroup":"All polls","approve_estimate":"37.045
3","approve_hi":"41.94979","approve_lo":"32.1408","disapprove_estimate":"57.2392
6","disapprove_hi":"62.26624","disapprove_lo":"52.21227"},{"date":"2017-12-22","fu
ture":false,"subgroup":"All polls","approve_estimate":"37.14611","approve_hi":"42.
04803","approve_lo":"32.24418","disapprove_estimate":"57.08867","disapprove_hi":"6
2.06757","disapprove_lo":"52.10978"},{"date":"2017-12-23","future":false,"subgrou
p":"All polls","approve_estimate":"37.25974","approve_hi":"42.16922","approve_lo
":"32.35025","disapprove_estimate":"57.0198","disapprove_hi":"62.00357","disappro
ve_lo":"52.03604"},{"date":"2017-12-24","future":false,"subgroup":"All polls","app
rove_estimate":"37.3656","approve_hi":"42.29593","approve_lo":"32.43528","disappro
ve_estimate":"56.87848","disapprove_hi":"61.88215","disapprove_lo":"51.8748"},{"da
te":"2017-12-25","future":false,"subgroup":"All polls","approve_estimate":"37.365
6","approve_hi":"42.29593","approve_lo":"32.43528","disapprove_estimate":"56.8784
8","disapprove_hi":"61.88215","disapprove_lo":"51.8748"},{"date":"2017-12-26","fut
ure":false,"subgroup":"All polls","approve_estimate":"37.38361","approve_hi":"42.1
9453","approve_lo":"32.57268","disapprove_estimate":"56.89546","disapprove_hi":"6
1.75955","disapprove_lo":"52.03138"},{"date":"2017-12-27","future":false,"subgrou
p":"All polls","approve_estimate":"37.53883","approve_hi":"42.5399","approve_lo
":"32.53776","disapprove_estimate":"56.67389","disapprove_hi":"61.58022","disappr
ove_lo":"51.76756"},{"date":"2017-12-28","future":false,"subgroup":"All polls","ap
prove_estimate":"37.73159","approve_hi":"42.75414","approve_lo":"32.70905","disapp
rove_estimate":"56.41101","disapprove_hi":"61.38774","disapprove_lo":"51.43429"},
{"date":"2017-12-29","future":false,"subgroup":"All polls","approve_estimate":"37.
71204","approve_hi":"42.62421","approve_lo":"32.79987","disapprove_estimate":"56.3
1897","disapprove_hi":"61.18826","disapprove_lo":"51.44968"},{"date":"2017-12-3
0","future":false,"subgroup":"All polls","approve_estimate":"37.73003","approve_h
i":"42.64738","approve_lo":"32.81269","disapprove_estimate":"56.24842","disapprove
_hi":"61.10892","disapprove_lo":"51.38792"},{"date":"2017-12-31","future":false,"s
ubgroup":"All polls","approve_estimate":"37.8654","approve_hi":"42.80467","approve
_lo":"32.92613","disapprove_estimate":"56.16106","disapprove_hi":"61.01686","disap
prove_lo":"51.30525"},{"date":"2018-01-01","future":false,"subgroup":"All poll
s","approve_estimate":"37.8654","approve_hi":"42.80467","approve_lo":"32.92613","d
isapprove_estimate":"56.16106","disapprove_hi":"61.01686","disapprove_lo":"51.3052
5"},{"date":"2018-01-02","future":false,"subgroup":"All polls","approve_estimat
e":"38.12047","approve_hi":"42.98391","approve_lo":"33.25703","disapprove_estimat
e":"55.82487","disapprove_hi":"60.59271","disapprove_lo":"51.05703"},{"date":"2018
-01-03","future":false,"subgroup":"All polls","approve_estimate":"38.16097","appro

```

ve_hi": "43.0086", "approve_lo": "33.31334", "disapprove_estimate": "55.69035", "disapprove_hi": "60.4595", "disapprove_lo": "50.9212"}, {"date": "2018-01-04", "future": false, "subgroup": "All polls", "approve_estimate": "38.47328", "approve_hi": "43.46577", "approve_lo": "33.48078", "disapprove_estimate": "55.33284", "disapprove_hi": "60.01302", "disapprove_lo": "50.65265"}, {"date": "2018-01-05", "future": false, "subgroup": "All polls", "approve_estimate": "38.82547", "approve_hi": "43.64261", "approve_lo": "34.00834", "disapprove_estimate": "54.96257", "disapprove_hi": "59.63041", "disapprove_lo": "50.29473"}, {"date": "2018-01-06", "future": false, "subgroup": "All polls", "approve_estimate": "38.82547", "approve_hi": "43.64261", "approve_lo": "34.00834", "disapprove_estimate": "54.96257", "disapprove_hi": "59.63041", "disapprove_lo": "50.29473"}, {"date": "2018-01-07", "future": false, "subgroup": "All polls", "approve_estimate": "38.82547", "approve_hi": "43.64261", "approve_lo": "34.00834", "disapprove_estimate": "54.96257", "disapprove_hi": "59.63041", "disapprove_lo": "50.29473"}, {"date": "2018-01-08", "future": false, "subgroup": "All polls", "approve_estimate": "38.69312", "approve_hi": "43.41864", "approve_lo": "33.9676", "disapprove_estimate": "55.00991", "disapprove_hi": "59.66267", "disapprove_lo": "50.35715"}, {"date": "2018-01-09", "future": false, "subgroup": "All polls", "approve_estimate": "38.73449", "approve_hi": "43.51689", "approve_lo": "33.95209", "disapprove_estimate": "55.00918", "disapprove_hi": "59.65797", "disapprove_lo": "50.36039"}, {"date": "2018-01-10", "future": false, "subgroup": "All polls", "approve_estimate": "39.22063", "approve_hi": "43.93981", "approve_lo": "34.50145", "disapprove_estimate": "54.60398", "disapprove_hi": "59.30174", "disapprove_lo": "49.90623"}, {"date": "2018-01-11", "future": false, "subgroup": "All polls", "approve_estimate": "39.10347", "approve_hi": "43.96349", "approve_lo": "34.24345", "disapprove_estimate": "54.63946", "disapprove_hi": "59.31625", "disapprove_lo": "49.96267"}, {"date": "2018-01-12", "future": false, "subgroup": "All polls", "approve_estimate": "39.10097", "approve_hi": "43.75997", "approve_lo": "34.44197", "disapprove_estimate": "54.52315", "disapprove_hi": "59.12815", "disapprove_lo": "49.91814"}, {"date": "2018-01-13", "future": false, "subgroup": "All polls", "approve_estimate": "39.10097", "approve_hi": "43.75997", "approve_lo": "34.44197", "disapprove_estimate": "54.52315", "disapprove_hi": "59.12815", "disapprove_lo": "49.91814"}, {"date": "2018-01-14", "future": false, "subgroup": "All polls", "approve_estimate": "39.10097", "approve_hi": "43.75997", "approve_lo": "34.44197", "disapprove_estimate": "54.52315", "disapprove_hi": "59.12815", "disapprove_lo": "49.91814"}, {"date": "2018-01-15", "future": false, "subgroup": "All polls", "approve_estimate": "39.29245", "approve_hi": "44.17373", "approve_lo": "34.41116", "disapprove_estimate": "54.54089", "disapprove_hi": "59.09888", "disapprove_lo": "49.98289"}, {"date": "2018-01-16", "future": false, "subgroup": "All polls", "approve_estimate": "39.78146", "approve_hi": "44.62993", "approve_lo": "34.93299", "disapprove_estimate": "54.27212", "disapprove_hi": "58.6432", "disapprove_lo": "49.90105"}, {"date": "2018-01-17", "future": false, "subgroup": "All polls", "approve_estimate": "40.20608", "approve_hi": "44.95008", "approve_lo": "35.46208", "disapprove_estimate": "54.29126", "disapprove_hi": "58.65538", "disapprove_lo": "49.92715"}, {"date": "2018-01-18", "future": false, "subgroup": "All polls", "approve_estimate": "39.75453", "approve_hi": "44.34867", "approve_lo": "35.16039", "disapprove_estimate": "54.85685", "disapprove_hi": "59.08979", "disapprove_lo": "50.6239"}, {"date": "2018-01-19", "future": false, "subgroup": "All polls", "approve_estimate": "39.47084", "approve_hi": "44.00764", "approve_lo": "34.93405", "disapprove_estimate": "55.4662", "disapprove_hi": "59.68051", "disapprove_lo": "51.2519"}, {"date": "2018-01-20", "future": false, "subgroup": "All polls", "approve_estimate": "39.47084", "approve_hi": "44.00764", "approve_lo": "34.93405", "disapprove_estimate": "55.4662", "disapprove_hi": "59.68051", "disapprove_lo": "51.2519"}, {"date": "2018-01-21", "future": false, "subgroup": "All polls", "approve_estimate": "39.11164", "approve_hi": "43.69135", "approve_lo": "34.53194", "disapprove_estimate": "55.66471", "disapprove_hi": "59.86307", "disapprove_lo": "51.46636"}, {"date": "2018-01-22", "future": false, "subgroup": "All polls", "approve_estimate": "38.66162", "approve_hi": "43.15218", "approve_lo": "34.17107", "disapprove_estimate": "56.06828", "disapprove_hi": "60.28794", "disapprove_lo": "51.84861"}, {"date": "2018-01-23", "future": false, "subgroup": "All polls", "approve_estimate": "38.35379", "approve_hi": "42.80848", "approve_lo": "33.89911", "disapprove_estimate": "56.06828", "disapprove_hi": "60.28794", "disapprove_lo": "51.84861"}]

```

ate": "56.41224", "disapprove_hi": "60.62152", "disapprove_lo": "52.20297"}, {"date": "2018-01-24", "future": false, "subgroup": "All polls", "approve_estimate": "39.18694", "approve_hi": "43.80286", "approve_lo": "34.57102", "disapprove_estimate": "55.91165", "disapprove_hi": "60.15128", "disapprove_lo": "51.67202"}, {"date": "2018-01-25", "future": false, "subgroup": "All polls", "approve_estimate": "39.04172", "approve_hi": "43.68406", "approve_lo": "34.39938", "disapprove_estimate": "55.95849", "disapprove_hi": "60.18705", "disapprove_lo": "51.72993"}, {"date": "2018-01-26", "future": false, "subgroup": "All polls", "approve_estimate": "38.82256", "approve_hi": "43.36605", "approve_lo": "34.27906", "disapprove_estimate": "56.24937", "disapprove_hi": "60.46866", "disapprove_lo": "52.03009"}, {"date": "2018-01-27", "future": false, "subgroup": "All polls", "approve_estimate": "38.82256", "approve_hi": "43.36605", "approve_lo": "34.27906", "disapprove_estimate": "56.24937", "disapprove_hi": "60.46866", "disapprove_lo": "52.03009"}, {"date": "2018-01-28", "future": false, "subgroup": "All polls", "approve_estimate": "38.82256", "approve_hi": "43.36605", "approve_lo": "34.27906", "disapprove_estimate": "56.24937", "disapprove_hi": "60.46866", "disapprove_lo": "52.03009"}, {"date": "2018-01-29", "future": false, "subgroup": "All polls", "approve_estimate": "38.78343", "approve_hi": "43.30004", "approve_lo": "34.26682", "disapprove_estimate": "56.26638", "disapprove_hi": "60.47754", "disapprove_lo": "52.05522"}, {"date": "2018-01-30", "future": false, "subgroup": "All polls", "approve_estimate": "38.99561", "approve_hi": "43.45333", "approve_lo": "34.53789", "disapprove_estimate": "55.81257", "disapprove_hi": "59.94471", "disapprove_lo": "51.68044"}, {"date": "2018-01-31", "future": false, "subgroup": "All polls", "approve_estimate": "39.52642", "approve_hi": "43.91461", "approve_lo": "35.13823", "disapprove_estimate": "54.93532", "disapprove_hi": "59.4603", "disapprove_lo": "50.41035"}, {"date": "2018-02-01", "future": false, "subgroup": "All polls", "approve_estimate": "39.77913", "approve_hi": "44.31235", "approve_lo": "35.24591", "disapprove_estimate": "54.9682", "disapprove_hi": "59.23775", "disapprove_lo": "50.15588"}, {"date": "2018-02-02", "future": false, "subgroup": "All polls", "approve_estimate": "40.19921", "approve_hi": "44.90403", "approve_lo": "35.4944", "disapprove_estimate": "54.20677", "disapprove_hi": "58.8217", "disapprove_lo": "49.59185"}, {"date": "2018-02-03", "future": false, "subgroup": "All polls", "approve_estimate": "40.20801", "approve_hi": "44.97096", "approve_lo": "35.44506", "disapprove_estimate": "54.20181", "disapprove_hi": "58.87855", "disapprove_lo": "49.52507"}, {"date": "2018-02-04", "future": false, "subgroup": "All polls", "approve_estimate": "40.20801", "approve_hi": "44.97096", "approve_lo": "35.44506", "disapprove_estimate": "54.20181", "disapprove_hi": "58.87855", "disapprove_lo": "49.52507"}, {"date": "2018-02-05", "future": false, "subgroup": "All polls", "approve_estimate": "40.37448", "approve_hi": "45.14725", "approve_lo": "35.60171", "disapprove_estimate": "54.16125", "disapprove_hi": "58.82504", "disapprove_lo": "49.49746"}, {"date": "2018-02-06", "future": false, "subgroup": "All polls", "approve_estimate": "40.13234", "approve_hi": "44.93316", "approve_lo": "35.33151", "disapprove_estimate": "54.1513", "disapprove_hi": "58.63926", "disapprove_lo": "49.66335"}, {"date": "2018-02-07", "future": false, "subgroup": "All polls", "approve_estimate": "40.71095", "approve_hi": "45.47941", "approve_lo": "35.94249", "disapprove_estimate": "53.78003", "disapprove_hi": "58.14731", "disapprove_lo": "49.41275"}, {"date": "2018-02-08", "future": false, "subgroup": "All polls", "approve_estimate": "40.81161", "approve_hi": "45.63501", "approve_lo": "35.9882", "disapprove_estimate": "53.61358", "disapprove_hi": "57.99963", "disapprove_lo": "49.22753"}, {"date": "2018-02-09", "future": false, "subgroup": "All polls", "approve_estimate": "40.83043", "approve_hi": "45.61123", "approve_lo": "36.04963", "disapprove_estimate": "53.56587", "disapprove_hi": "57.76377", "disapprove_lo": "49.36797"}, {"date": "2018-02-10", "future": false, "subgroup": "All polls", "approve_estimate": "40.83043", "approve_hi": "45.61123", "approve_lo": "36.04963", "disapprove_estimate": "53.56587", "disapprove_hi": "57.76377", "disapprove_lo": "49.36797"}, {"date": "2018-02-11", "future": false, "subgroup": "All polls", "approve_estimate": "40.83043", "approve_hi": "45.61123", "approve_lo": "36.04963", "disapprove_estimate": "53.56587", "disapprove_hi": "57.76377", "disapprove_lo": "49.36797"}, {"date": "2018-02-12", "future": false, "subgroup": "All polls", "approve_estimate": "40.91967", "approve_hi": "45.69281", "approve_lo": "36.14652", "disapprove_estimate": "53.57592", "disapprove_hi": "57.81052", "disapprove_lo": "4

```


9.34132"}, {"date": "2018-02-13", "future": false, "subgroup": "All polls", "approve_estimate": "40.98163", "approve_hi": "45.74114", "approve_lo": "36.22212", "disapprove_estimate": "53.64082", "disapprove_hi": "57.80031", "disapprove_lo": "49.48132"}, {"date": "2018-02-14", "future": false, "subgroup": "All polls", "approve_estimate": "41.42786", "approve_hi": "46.25141", "approve_lo": "36.60431", "disapprove_estimate": "53.14172", "disapprove_hi": "57.58243", "disapprove_lo": "48.70101"}, {"date": "2018-02-15", "future": false, "subgroup": "All polls", "approve_estimate": "41.45908", "approve_hi": "46.14534", "approve_lo": "36.77282", "disapprove_estimate": "53.24955", "disapprove_hi": "57.55662", "disapprove_lo": "48.94247"}, {"date": "2018-02-16", "future": false, "subgroup": "All polls", "approve_estimate": "41.3879", "approve_hi": "46.04681", "approve_lo": "36.72899", "disapprove_estimate": "53.14198", "disapprove_hi": "57.36118", "disapprove_lo": "48.92278"}, {"date": "2018-02-17", "future": false, "subgroup": "All polls", "approve_estimate": "41.3879", "approve_hi": "46.04681", "approve_lo": "36.72899", "disapprove_estimate": "53.14198", "disapprove_hi": "57.36118", "disapprove_lo": "48.92278"}, {"date": "2018-02-18", "future": false, "subgroup": "All polls", "approve_estimate": "41.3879", "approve_hi": "46.04681", "approve_lo": "36.72899", "disapprove_estimate": "53.14198", "disapprove_hi": "57.36118", "disapprove_lo": "48.92278"}, {"date": "2018-02-19", "future": false, "subgroup": "All polls", "approve_estimate": "41.14141", "approve_hi": "45.96506", "approve_lo": "36.31777", "disapprove_estimate": "53.41457", "disapprove_hi": "57.88396", "disapprove_lo": "48.94518"}, {"date": "2018-02-20", "future": false, "subgroup": "All polls", "approve_estimate": "40.9889", "approve_hi": "45.7826", "approve_lo": "36.19521", "disapprove_estimate": "53.43631", "disapprove_hi": "57.85064", "disapprove_lo": "49.02197"}, {"date": "2018-02-21", "future": false, "subgroup": "All polls", "approve_estimate": "40.54642", "approve_hi": "45.6544", "approve_lo": "35.43844", "disapprove_estimate": "54.18967", "disapprove_hi": "58.86581", "disapprove_lo": "49.51352"}, {"date": "2018-02-22", "future": false, "subgroup": "All polls", "approve_estimate": "40.57474", "approve_hi": "45.58183", "approve_lo": "35.56766", "disapprove_estimate": "53.90281", "disapprove_hi": "58.78596", "disapprove_lo": "49.01966"}, {"date": "2018-02-23", "future": false, "subgroup": "All polls", "approve_estimate": "40.01941", "approve_hi": "45.13074", "approve_lo": "34.90808", "disapprove_estimate": "54.44614", "disapprove_hi": "59.68207", "disapprove_lo": "49.21021"}, {"date": "2018-02-24", "future": false, "subgroup": "All polls", "approve_estimate": "40.01941", "approve_hi": "45.13074", "approve_lo": "34.90808", "disapprove_estimate": "54.44614", "disapprove_hi": "59.68207", "disapprove_lo": "49.21021"}, {"date": "2018-02-25", "future": false, "subgroup": "All polls", "approve_estimate": "39.07833", "approve_hi": "44.21738", "approve_lo": "33.93928", "disapprove_estimate": "55.58106", "disapprove_hi": "60.83849", "disapprove_lo": "50.32363"}, {"date": "2018-02-26", "future": false, "subgroup": "All polls", "approve_estimate": "39.37048", "approve_hi": "44.4523", "approve_lo": "34.28865", "disapprove_estimate": "55.20858", "disapprove_hi": "60.39171", "disapprove_lo": "50.02546"}, {"date": "2018-02-27", "future": false, "subgroup": "All polls", "approve_estimate": "39.63747", "approve_hi": "44.71782", "approve_lo": "34.55713", "disapprove_estimate": "54.95428", "disapprove_hi": "60.0928", "disapprove_lo": "49.81575"}, {"date": "2018-02-28", "future": false, "subgroup": "All polls", "approve_estimate": "40.03228", "approve_hi": "45.1869", "approve_lo": "34.87766", "disapprove_estimate": "54.5688", "disapprove_hi": "59.74226", "disapprove_lo": "49.39535"}, {"date": "2018-03-01", "future": false, "subgroup": "All polls", "approve_estimate": "40.59626", "approve_hi": "45.90219", "approve_lo": "35.29032", "disapprove_estimate": "54.11998", "disapprove_hi": "59.25413", "disapprove_lo": "48.98583"}, {"date": "2018-03-02", "future": false, "subgroup": "All polls", "approve_estimate": "40.41828", "approve_hi": "45.74401", "approve_lo": "35.09255", "disapprove_estimate": "54.26653", "disapprove_hi": "59.38912", "disapprove_lo": "49.14394"}, {"date": "2018-03-03", "future": false, "subgroup": "All polls", "approve_estimate": "40.41828", "approve_hi": "45.74401", "approve_lo": "35.09255", "disapprove_estimate": "54.26653", "disapprove_hi": "59.38912", "disapprove_lo": "49.14394"}, {"date": "2018-03-04", "future": false, "subgroup": "All polls", "approve_estimate": "40.41828", "approve_hi": "45.74401", "approve_lo": "35.09255", "disapprove_estimate": "54.26653", "disapprove_hi": "59.38912", "disapprove_lo": "49.14394"}, {"date": "2018-03-05", "future": false, "subgroup": "All poll

s", "approve_estimate": "40.38741", "approve_hi": "45.67976", "approve_lo": "35.09505", "disapprove_estimate": "54.30457", "disapprove_hi": "59.28853", "disapprove_lo": "49.32061"}, {"date": "2018-03-06", "future": false, "subgroup": "All polls", "approve_estimate": "40.47234", "approve_hi": "45.65884", "approve_lo": "35.28583", "disapprove_estimate": "53.97641", "disapprove_hi": "58.84018", "disapprove_lo": "49.11264"}, {"date": "2018-03-07", "future": false, "subgroup": "All polls", "approve_estimate": "40.2174", "approve_hi": "45.06957", "approve_lo": "35.36523", "disapprove_estimate": "54.10192", "disapprove_hi": "58.72217", "disapprove_lo": "49.48167"}, {"date": "2018-03-08", "future": false, "subgroup": "All polls", "approve_estimate": "40.62883", "approve_hi": "45.3099", "approve_lo": "35.94776", "disapprove_estimate": "53.62344", "disapprove_hi": "58.28907", "disapprove_lo": "48.9578"}, {"date": "2018-03-09", "future": false, "subgroup": "All polls", "approve_estimate": "40.67968", "approve_hi": "45.20671", "approve_lo": "36.15265", "disapprove_estimate": "53.42613", "disapprove_hi": "57.97424", "disapprove_lo": "48.87802"}, {"date": "2018-03-10", "future": false, "subgroup": "All polls", "approve_estimate": "40.67968", "approve_hi": "45.20671", "approve_lo": "36.15265", "disapprove_estimate": "53.42613", "disapprove_hi": "57.97424", "disapprove_lo": "48.87802"}, {"date": "2018-03-11", "future": false, "subgroup": "All polls", "approve_estimate": "40.67968", "approve_hi": "45.20671", "approve_lo": "36.15265", "disapprove_estimate": "53.42613", "disapprove_hi": "57.97424", "disapprove_lo": "48.87802"}, {"date": "2018-03-12", "future": false, "subgroup": "All polls", "approve_estimate": "40.65869", "approve_hi": "45.17205", "approve_lo": "36.14533", "disapprove_estimate": "53.42641", "disapprove_hi": "57.93153", "disapprove_lo": "48.92129"}, {"date": "2018-03-13", "future": false, "subgroup": "All polls", "approve_estimate": "40.52831", "approve_hi": "45.02388", "approve_lo": "36.03274", "disapprove_estimate": "53.88568", "disapprove_hi": "58.26931", "disapprove_lo": "49.50204"}, {"date": "2018-03-14", "future": false, "subgroup": "All polls", "approve_estimate": "40.42437", "approve_hi": "44.93805", "approve_lo": "35.91068", "disapprove_estimate": "53.99303", "disapprove_hi": "58.3152", "disapprove_lo": "49.67086"}, {"date": "2018-03-15", "future": false, "subgroup": "All polls", "approve_estimate": "40.46296", "approve_hi": "44.89322", "approve_lo": "36.03271", "disapprove_estimate": "53.65602", "disapprove_hi": "57.8201", "disapprove_lo": "49.49195"}, {"date": "2018-03-16", "future": false, "subgroup": "All polls", "approve_estimate": "40.24184", "approve_hi": "44.76358", "approve_lo": "35.7201", "disapprove_estimate": "53.87739", "disapprove_hi": "58.09512", "disapprove_lo": "49.65967"}, {"date": "2018-03-17", "future": false, "subgroup": "All polls", "approve_estimate": "40.24184", "approve_hi": "44.76358", "approve_lo": "35.7201", "disapprove_estimate": "53.87739", "disapprove_hi": "58.09512", "disapprove_lo": "49.65967"}, {"date": "2018-03-18", "future": false, "subgroup": "All polls", "approve_estimate": "40.5158", "approve_hi": "44.98062", "approve_lo": "36.05098", "disapprove_estimate": "53.84089", "disapprove_hi": "57.9697", "disapprove_lo": "49.71209"}, {"date": "2018-03-19", "future": false, "subgroup": "All polls", "approve_estimate": "40.73995", "approve_hi": "45.40366", "approve_lo": "36.07623", "disapprove_estimate": "53.55711", "disapprove_hi": "57.79469", "disapprove_lo": "49.31954"}, {"date": "2018-03-20", "future": false, "subgroup": "All polls", "approve_estimate": "40.73125", "approve_hi": "45.33642", "approve_lo": "36.12609", "disapprove_estimate": "53.52146", "disapprove_hi": "57.67319", "disapprove_lo": "49.36973"}, {"date": "2018-03-21", "future": false, "subgroup": "All polls", "approve_estimate": "40.58772", "approve_hi": "45.12106", "approve_lo": "36.05438", "disapprove_estimate": "53.42529", "disapprove_hi": "57.36262", "disapprove_lo": "49.48797"}, {"date": "2018-03-22", "future": false, "subgroup": "All polls", "approve_estimate": "40.63551", "approve_hi": "45.22917", "approve_lo": "36.04184", "disapprove_estimate": "53.40972", "disapprove_hi": "57.33537", "disapprove_lo": "49.48407"}, {"date": "2018-03-23", "future": false, "subgroup": "All polls", "approve_estimate": "40.67521", "approve_hi": "45.03477", "approve_lo": "36.31564", "disapprove_estimate": "53.18119", "disapprove_hi": "57.07043", "disapprove_lo": "49.29195"}, {"date": "2018-03-24", "future": false, "subgroup": "All polls", "approve_estimate": "40.41634", "approve_hi": "44.74879", "approve_lo": "36.0839", "disapprove_estimate": "53.52802", "disapprove_hi": "57.52327", "disapprove_lo": "49.53277"}, {"date": "2018-03-25", "future": false, "subgroup": "All polls", "approve_estimate": "40.74137", "approve_hi": "45.14291", "approve_lo": "36.05438", "disapprove_estimate": "53.42529", "disapprove_hi": "57.36262", "disapprove_lo": "49.48797"}]

_lo": "36.33984", "disapprove_estimate": "53.48326", "disapprove_hi": "57.42796", "disapprove_lo": "49.53856"}, {"date": "2018-03-26", "future": false, "subgroup": "All polls", "approve_estimate": "41.09504", "approve_hi": "45.39022", "approve_lo": "36.79985", "disapprove_estimate": "53.39474", "disapprove_hi": "57.34246", "disapprove_lo": "49.44703"}, {"date": "2018-03-27", "future": false, "subgroup": "All polls", "approve_estimate": "40.46638", "approve_hi": "44.68826", "approve_lo": "36.2445", "disapprove_estimate": "53.6646", "disapprove_hi": "57.67343", "disapprove_lo": "49.65577"}, {"date": "2018-03-28", "future": false, "subgroup": "All polls", "approve_estimate": "40.19111", "approve_hi": "44.36089", "approve_lo": "36.02133", "disapprove_estimate": "53.63828", "disapprove_hi": "57.76783", "disapprove_lo": "49.50874"}, {"date": "2018-03-29", "future": false, "subgroup": "All polls", "approve_estimate": "40.21669", "approve_hi": "44.3978", "approve_lo": "36.03558", "disapprove_estimate": "53.6349", "disapprove_hi": "57.7447", "disapprove_lo": "49.5251"}, {"date": "2018-03-30", "future": false, "subgroup": "All polls", "approve_estimate": "40.54322", "approve_hi": "44.73767", "approve_lo": "36.34878", "disapprove_estimate": "53.42228", "disapprove_hi": "57.44325", "disapprove_lo": "49.4013"}, {"date": "2018-03-31", "future": false, "subgroup": "All polls", "approve_estimate": "40.54322", "approve_hi": "44.73767", "approve_lo": "36.34878", "disapprove_estimate": "53.42228", "disapprove_hi": "57.44325", "disapprove_lo": "49.4013"}, {"date": "2018-04-01", "future": false, "subgroup": "All polls", "approve_estimate": "40.54322", "approve_hi": "44.73767", "approve_lo": "36.34878", "disapprove_estimate": "53.42228", "disapprove_hi": "57.44325", "disapprove_lo": "49.4013"}, {"date": "2018-04-02", "future": false, "subgroup": "All polls", "approve_estimate": "40.62948", "approve_hi": "45.06592", "approve_lo": "36.19304", "disapprove_estimate": "53.48064", "disapprove_hi": "57.56409", "disapprove_lo": "49.39719"}, {"date": "2018-04-03", "future": false, "subgroup": "All polls", "approve_estimate": "40.39435", "approve_hi": "44.82014", "approve_lo": "35.96857", "disapprove_estimate": "53.6718", "disapprove_hi": "57.73872", "disapprove_lo": "49.60488"}, {"date": "2018-04-04", "future": false, "subgroup": "All polls", "approve_estimate": "40.30183", "approve_hi": "45.00934", "approve_lo": "35.59433", "disapprove_estimate": "53.75499", "disapprove_hi": "57.90125", "disapprove_lo": "49.60874"}, {"date": "2018-04-05", "future": false, "subgroup": "All polls", "approve_estimate": "40.22276", "approve_hi": "44.79292", "approve_lo": "35.6526", "disapprove_estimate": "53.80377", "disapprove_hi": "57.85802", "disapprove_lo": "49.74953"}, {"date": "2018-04-06", "future": false, "subgroup": "All polls", "approve_estimate": "39.96867", "approve_hi": "44.67983", "approve_lo": "35.2575", "disapprove_estimate": "53.99965", "disapprove_hi": "58.11328", "disapprove_lo": "49.88602"}, {"date": "2018-04-07", "future": false, "subgroup": "All polls", "approve_estimate": "39.96867", "approve_hi": "44.67983", "approve_lo": "35.2575", "disapprove_estimate": "53.99965", "disapprove_hi": "58.11328", "disapprove_lo": "49.88602"}, {"date": "2018-04-08", "future": false, "subgroup": "All polls", "approve_estimate": "39.96867", "approve_hi": "44.67983", "approve_lo": "35.2575", "disapprove_estimate": "53.99965", "disapprove_hi": "58.11328", "disapprove_lo": "49.88602"}, {"date": "2018-04-09", "future": false, "subgroup": "All polls", "approve_estimate": "40.23806", "approve_hi": "45.03144", "approve_lo": "35.44468", "disapprove_estimate": "53.8853", "disapprove_hi": "58.19486", "disapprove_lo": "49.57573"}, {"date": "2018-04-10", "future": false, "subgroup": "All polls", "approve_estimate": "40.60616", "approve_hi": "45.30262", "approve_lo": "35.90969", "disapprove_estimate": "53.35361", "disapprove_hi": "57.63873", "disapprove_lo": "49.06849"}, {"date": "2018-04-11", "future": false, "subgroup": "All polls", "approve_estimate": "40.6097", "approve_hi": "45.32001", "approve_lo": "35.89938", "disapprove_estimate": "53.29696", "disapprove_hi": "57.78765", "disapprove_lo": "48.80626"}, {"date": "2018-04-12", "future": false, "subgroup": "All polls", "approve_estimate": "40.63083", "approve_hi": "45.3984", "approve_lo": "35.86325", "disapprove_estimate": "53.26645", "disapprove_hi": "57.69145", "disapprove_lo": "48.84146"}, {"date": "2018-04-13", "future": false, "subgroup": "All polls", "approve_estimate": "40.77415", "approve_hi": "45.50312", "approve_lo": "36.04517", "disapprove_estimate": "53.20907", "disapprove_hi": "57.57654", "disapprove_lo": "48.84159"}, {"date": "2018-04-14", "future": false, "subgroup": "All polls", "approve_estimate": "40.77415", "approve_hi": "45.50312", "approve_lo": "36.04517", "disapprove_estimate": "53.20907", "disapprove_hi": "57.5765"}]

```

4", "disapprove_lo": "48.84159"}, {"date": "2018-04-15", "future": false, "subgroup": "All
polls", "approve_estimate": "40.59587", "approve_hi": "45.09284", "approve_lo": "36.0989
1", "disapprove_estimate": "53.78901", "disapprove_hi": "58.11352", "disapprove_lo": "4
9.4645"}, {"date": "2018-04-16", "future": false, "subgroup": "All polls", "approve_estim
ate": "40.70876", "approve_hi": "45.41038", "approve_lo": "36.00714", "disapprove_estima
te": "53.57156", "disapprove_hi": "57.97384", "disapprove_lo": "49.16928"}, {"date": "201
8-04-17", "future": false, "subgroup": "All polls", "approve_estimate": "40.59293", "appr
ove_hi": "45.18649", "approve_lo": "35.99938", "disapprove_estimate": "53.83203", "disap
prove_hi": "58.21732", "disapprove_lo": "49.44674"}, {"date": "2018-04-18", "future": fal
se, "subgroup": "All polls", "approve_estimate": "40.16125", "approve_hi": "44.84117", "a
pprove_lo": "35.48133", "disapprove_estimate": "54.26796", "disapprove_hi": "58.4568
4", "disapprove_lo": "50.07909"}, {"date": "2018-04-19", "future": false, "subgroup": "All
polls", "approve_estimate": "40.21317", "approve_hi": "44.87442", "approve_lo": "35.5519
2", "disapprove_estimate": "54.22119", "disapprove_hi": "58.32585", "disapprove_lo": "5
0.11653"}, {"date": "2018-04-20", "future": false, "subgroup": "All polls", "approve_esti
mate": "40.28197", "approve_hi": "44.93927", "approve_lo": "35.62468", "disapprove_estim
ate": "54.28614", "disapprove_hi": "58.5733", "disapprove_lo": "49.99897"}, {"date": "201
8-04-21", "future": false, "subgroup": "All polls", "approve_estimate": "40.28197", "appr
ove_hi": "44.93927", "approve_lo": "35.62468", "disapprove_estimate": "54.28614", "disap
prove_hi": "58.5733", "disapprove_lo": "49.99897"}, {"date": "2018-04-22", "future": fals
e, "subgroup": "All polls", "approve_estimate": "40.28197", "approve_hi": "44.93927", "ap
prove_lo": "35.62468", "disapprove_estimate": "54.28614", "disapprove_hi": "58.5733", "d
isapprove_lo": "49.99897"}, {"date": "2018-04-23", "future": false, "subgroup": "All poll
s", "approve_estimate": "40.16019", "approve_hi": "44.8392", "approve_lo": "35.48119", "d
isapprove_estimate": "54.26084", "disapprove_hi": "58.52941", "disapprove_lo": "49.9922
7"}, {"date": "2018-04-24", "future": false, "subgroup": "All polls", "approve_estimat
e": "40.34375", "approve_hi": "44.89376", "approve_lo": "35.79375", "disapprove_estimat
e": "53.9503", "disapprove_hi": "58.07297", "disapprove_lo": "49.82763"}, {"date": "2018-
04-25", "future": false, "subgroup": "All polls", "approve_estimate": "40.51619", "approv
e_hi": "45.10563", "approve_lo": "35.92674", "disapprove_estimate": "53.66458", "disappr
ove_hi": "57.81526", "disapprove_lo": "49.5139"}, {"date": "2018-04-26", "future": fals
e, "subgroup": "All polls", "approve_estimate": "40.59169", "approve_hi": "45.18468", "ap
prove_lo": "35.99869", "disapprove_estimate": "53.74832", "disapprove_hi": "57.8217
4", "disapprove_lo": "49.6749"}, {"date": "2018-04-27", "future": false, "subgroup": "All
polls", "approve_estimate": "40.59867", "approve_hi": "45.23362", "approve_lo": "35.9637
3", "disapprove_estimate": "53.73807", "disapprove_hi": "57.81954", "disapprove_lo": "4
9.6566"}, {"date": "2018-04-28", "future": false, "subgroup": "All polls", "approve_estim
ate": "40.37253", "approve_hi": "44.99648", "approve_lo": "35.74857", "disapprove_estima
te": "53.95501", "disapprove_hi": "58.05793", "disapprove_lo": "49.85208"}, {"date": "201
8-04-29", "future": false, "subgroup": "All polls", "approve_estimate": "40.37253", "appr
ove_hi": "44.99648", "approve_lo": "35.74857", "disapprove_estimate": "53.95501", "disap
prove_hi": "58.05793", "disapprove_lo": "49.85208"}, {"date": "2018-04-30", "future": fal
se, "subgroup": "All polls", "approve_estimate": "40.64146", "approve_hi": "45.26828", "a
pprove_lo": "36.01463", "disapprove_estimate": "53.66854", "disapprove_hi": "57.7533
8", "disapprove_lo": "49.58371"}, {"date": "2018-05-01", "future": false, "subgroup": "All
polls", "approve_estimate": "41.21312", "approve_hi": "45.61552", "approve_lo": "36.8107
3", "disapprove_estimate": "52.94305", "disapprove_hi": "57.03444", "disapprove_lo": "4
8.85167"}, {"date": "2018-05-02", "future": false, "subgroup": "All polls", "approve_esti
mate": "41.15172", "approve_hi": "45.58456", "approve_lo": "36.71887", "disapprove_estim
ate": "52.91795", "disapprove_hi": "57.06516", "disapprove_lo": "48.77075"}, {"date": "20
18-05-03", "future": false, "subgroup": "All polls", "approve_estimate": "41.31839", "app
rove_hi": "45.84707", "approve_lo": "36.7897", "disapprove_estimate": "52.53112", "disap
prove_hi": "56.56741", "disapprove_lo": "48.49483"}, {"date": "2018-05-04", "future": fal
se, "subgroup": "All polls", "approve_estimate": "41.41713", "approve_hi": "46.11049", "a
pprove_lo": "36.72378", "disapprove_estimate": "52.48483", "disapprove_hi": "56.5578
5", "disapprove_lo": "48.41181"}, {"date": "2018-05-05", "future": false, "subgroup": "All

```

```
polls", "approve_estimate": "42.0897", "approve_hi": "47.08581", "approve_lo": "37.09359", "disapprove_estimate": "52.03342", "disapprove_hi": "56.22984", "disapprove_lo": "47.83699"}, {"date": "2018-05-06", "future": false, "subgroup": "All polls", "approve_estimate": "42.0897", "approve_hi": "47.08581", "approve_lo": "37.09359", "disapprove_estimate": "52.03342", "disapprove_hi": "56.22984", "disapprove_lo": "47.83699"}, {"date": "2018-05-07", "future": false, "subgroup": "All polls", "approve_estimate": "42.01726", "approve_hi": "46.85077", "approve_lo": "37.18374", "disapprove_estimate": "51.94051", "disapprove_hi": "56.04368", "disapprove_lo": "47.83735"}, {"date": "2018-05-08", "future": false, "subgroup": "All polls", "approve_estimate": "41.90759", "approve_hi": "46.5938", "approve_lo": "37.22139", "disapprove_estimate": "52.25288", "disapprove_hi": "56.27576", "disapprove_lo": "48.23"}, {"date": "2018-05-09", "future": false, "subgroup": "All polls", "approve_estimate": "41.8737", "approve_hi": "46.47055", "approve_lo": "37.27686", "disapprove_estimate": "51.90628", "disapprove_hi": "56.46203", "disapprove_lo": "47.35053"}, {"date": "2018-05-10", "future": false, "subgroup": "All polls", "approve_estimate": "41.96571", "approve_hi": "46.42638", "approve_lo": "37.50503", "disapprove_estimate": "52.03023", "disapprove_hi": "56.47843", "disapprove_lo": "47.58202"}, {"date": "2018-05-11", "future": false, "subgroup": "All polls", "approve_estimate": "42.02566", "approve_hi": "46.59457", "approve_lo": "37.45675", "disapprove_estimate": "51.97548", "disapprove_hi": "56.48686", "disapprove_lo": "47.4641"}, {"date": "2018-05-12", "future": false, "subgroup": "All polls", "approve_estimate": "42.12308", "approve_hi": "46.61304", "approve_lo": "37.63313", "disapprove_estimate": "52.04174", "disapprove_hi": "56.49206", "disapprove_lo": "47.59143"}, {"date": "2018-05-13", "future": false, "subgroup": "All polls", "approve_estimate": "42.12308", "approve_hi": "46.61304", "approve_lo": "37.63313", "disapprove_estimate": "52.04174", "disapprove_hi": "56.49206", "disapprove_lo": "47.59143"}, {"date": "2018-05-14", "future": false, "subgroup": "All polls", "approve_estimate": "42.09991", "approve_hi": "46.59303", "approve_lo": "37.60678", "disapprove_estimate": "52.39321", "disapprove_hi": "56.30078", "disapprove_lo": "48.48564"}, {"date": "2018-05-15", "future": false, "subgroup": "All polls", "approve_estimate": "42.32984", "approve_hi": "46.77917", "approve_lo": "37.88051", "disapprove_estimate": "52.35731", "disapprove_hi": "56.17436", "disapprove_lo": "48.54026"}, {"date": "2018-05-16", "future": false, "subgroup": "All polls", "approve_estimate": "42.14801", "approve_hi": "46.6746", "approve_lo": "37.62143", "disapprove_estimate": "52.41426", "disapprove_hi": "56.22262", "disapprove_lo": "48.6059"}, {"date": "2018-05-17", "future": false, "subgroup": "All polls", "approve_estimate": "42.26259", "approve_hi": "46.84184", "approve_lo": "37.68333", "disapprove_estimate": "52.27131", "disapprove_hi": "56.0258", "disapprove_lo": "48.51682"}, {"date": "2018-05-18", "future": false, "subgroup": "All polls", "approve_estimate": "42.38191", "approve_hi": "47.02366", "approve_lo": "37.74016", "disapprove_estimate": "52.34803", "disapprove_hi": "56.14386", "disapprove_lo": "48.55221"}, {"date": "2018-05-19", "future": false, "subgroup": "All polls", "approve_estimate": "42.38191", "approve_hi": "47.02366", "approve_lo": "37.74016", "disapprove_estimate": "52.34803", "disapprove_hi": "56.14386", "disapprove_lo": "48.55221"}, {"date": "2018-05-20", "future": false, "subgroup": "All polls", "approve_estimate": "42.38191", "approve_hi": "47.02366", "approve_lo": "37.74016", "disapprove_estimate": "52.34803", "disapprove_hi": "56.14386", "disapprove_lo": "48.55221"}, {"date": "2018-05-21", "future": false, "subgroup": "All polls", "approve_estimate": "42.01738", "approve_hi": "46.76234", "approve_lo": "37.27242", "disapprove_estimate": "52.68593", "disapprove_hi": "56.84747", "disapprove_lo": "48.52439"}, {"date": "2018-05-22", "future": false, "subgroup": "All polls", "approve_estimate": "42.2518", "approve_hi": "47.08882", "approve_lo": "37.41478", "disapprove_estimate": "52.59256", "disapprove_hi": "56.75544", "disapprove_lo": "48.42968"}, {"date": "2018-05-23", "future": false, "subgroup": "All polls", "approve_estimate": "42.15873", "approve_hi": "47.17198", "approve_lo": "37.14547", "disapprove_estimate": "52.63732", "disapprove_hi": "56.82398", "disapprove_lo": "48.45066"}, {"date": "2018-05-24", "future": false, "subgroup": "All polls", "approve_estimate": "42.22643", "approve_hi": "47.19799", "approve_lo": "37.25487", "disapprove_estimate": "52.69279", "disapprove_hi": "56.86397", "disapprove_lo": "48.52161"}, {"date": "2018-05-25", "future": false, "subgroup": "All polls", "approve_estimate": "42.25806", "approve_hi": "47.25497", "approve_lo": "37.2611
```

5","disapprove_estimate":"52.62941","disapprove_hi":"56.86843","disapprove_lo":"48.3904"},{"date":"2018-05-26","future":false,"subgroup":"All polls","approve_estimate":"42.70038","approve_hi":"47.60936","approve_lo":"37.7914","disapprove_estimate":"52.33014","disapprove_hi":"56.44835","disapprove_lo":"48.21194"},{"date":"2018-05-27","future":false,"subgroup":"All polls","approve_estimate":"42.70038","approve_hi":"47.60936","approve_lo":"37.7914","disapprove_estimate":"52.33014","disapprove_hi":"56.44835","disapprove_lo":"48.21194"},{"date":"2018-05-28","future":false,"subgroup":"All polls","approve_estimate":"42.58736","approve_hi":"47.59115","approve_lo":"37.58356","disapprove_estimate":"52.37592","disapprove_hi":"56.55123","disapprove_lo":"48.2006"},{"date":"2018-05-29","future":false,"subgroup":"All polls","approve_estimate":"42.40171","approve_hi":"47.43848","approve_lo":"37.36494","disapprove_estimate":"52.54118","disapprove_hi":"56.67525","disapprove_lo":"48.4071"},{"date":"2018-05-30","future":false,"subgroup":"All polls","approve_estimate":"42.29955","approve_hi":"47.36211","approve_lo":"37.23699","disapprove_estimate":"52.50706","disapprove_hi":"56.68705","disapprove_lo":"48.32707"},{"date":"2018-05-31","future":false,"subgroup":"All polls","approve_estimate":"41.64616","approve_hi":"46.65631","approve_lo":"36.63602","disapprove_estimate":"52.86674","disapprove_hi":"57.08433","disapprove_lo":"48.64916"},{"date":"2018-06-01","future":false,"subgroup":"All polls","approve_estimate":"41.61631","approve_hi":"46.76508","approve_lo":"36.46754","disapprove_estimate":"52.77813","disapprove_hi":"57.09711","disapprove_lo":"48.45916"},{"date":"2018-06-02","future":false,"subgroup":"All polls","approve_estimate":"41.60918","approve_hi":"46.61685","approve_lo":"36.60152","disapprove_estimate":"52.67281","disapprove_hi":"56.82168","disapprove_lo":"48.52394"},{"date":"2018-06-03","future":false,"subgroup":"All polls","approve_estimate":"41.60918","approve_hi":"46.61685","approve_lo":"36.60152","disapprove_estimate":"52.67281","disapprove_hi":"56.82168","disapprove_lo":"48.52394"},{"date":"2018-06-04","future":false,"subgroup":"All polls","approve_estimate":"41.60794","approve_hi":"46.52142","approve_lo":"36.69447","disapprove_estimate":"52.91071","disapprove_hi":"57.37832","disapprove_lo":"48.44309"},{"date":"2018-06-05","future":false,"subgroup":"All polls","approve_estimate":"41.41488","approve_hi":"46.30607","approve_lo":"36.52369","disapprove_estimate":"52.99069","disapprove_hi":"57.44323","disapprove_lo":"48.53815"},{"date":"2018-06-06","future":false,"subgroup":"All polls","approve_estimate":"41.31416","approve_hi":"46.17619","approve_lo":"36.45213","disapprove_estimate":"52.56133","disapprove_hi":"56.82624","disapprove_lo":"48.29643"},{"date":"2018-06-07","future":false,"subgroup":"All polls","approve_estimate":"41.86653","approve_hi":"46.54569","approve_lo":"37.18737","disapprove_estimate":"52.44299","disapprove_hi":"56.46883","disapprove_lo":"48.41714"},{"date":"2018-06-08","future":false,"subgroup":"All polls","approve_estimate":"41.77634","approve_hi":"46.39867","approve_lo":"37.15401","disapprove_estimate":"52.53764","disapprove_hi":"56.49903","disapprove_lo":"48.57626"},{"date":"2018-06-09","future":false,"subgroup":"All polls","approve_estimate":"41.62884","approve_hi":"46.30679","approve_lo":"36.9509","disapprove_estimate":"52.64178","disapprove_hi":"56.67327","disapprove_lo":"48.6103"},{"date":"2018-06-10","future":false,"subgroup":"All polls","approve_estimate":"41.62884","approve_hi":"46.30679","approve_lo":"36.9509","disapprove_estimate":"52.64178","disapprove_hi":"56.67327","disapprove_lo":"48.6103"},{"date":"2018-06-11","future":false,"subgroup":"All polls","approve_estimate":"41.50231","approve_hi":"46.31091","approve_lo":"36.69371","disapprove_estimate":"52.72633","disapprove_hi":"56.68168","disapprove_lo":"48.77098"},{"date":"2018-06-12","future":false,"subgroup":"All polls","approve_estimate":"41.56427","approve_hi":"46.3984","approve_lo":"36.73013","disapprove_estimate":"52.58851","disapprove_hi":"56.49155","disapprove_lo":"48.68547"},{"date":"2018-06-13","future":false,"subgroup":"All polls","approve_estimate":"41.43065","approve_hi":"46.30013","approve_lo":"36.56116","disapprove_estimate":"52.53515","disapprove_hi":"56.54513","disapprove_lo":"48.52517"},{"date":"2018-06-14","future":false,"subgroup":"All polls","approve_estimate":"41.79745","approve_hi":"46.55552","approve_lo":"37.03938","disapprove_estimate":"51.69241","disapprove_hi":"56.25591","disapprove_lo":"48.3904"}]

```

ove_lo": "47.1289"}, {"date": "2018-06-15", "future": false, "subgroup": "All polls", "approve_estimate": "42.0946", "approve_hi": "46.51889", "approve_lo": "37.67031", "disapprove_estimate": "51.81807", "disapprove_hi": "56.27021", "disapprove_lo": "47.36592"}, {"date": "2018-06-16", "future": false, "subgroup": "All polls", "approve_estimate": "42.0946", "approve_hi": "46.51889", "approve_lo": "37.67031", "disapprove_estimate": "51.81807", "disapprove_hi": "56.27021", "disapprove_lo": "47.36592"}, {"date": "2018-06-17", "future": false, "subgroup": "All polls", "approve_estimate": "42.0946", "approve_hi": "46.51889", "approve_lo": "37.67031", "disapprove_estimate": "51.81807", "disapprove_hi": "56.27021", "disapprove_lo": "47.36592"}, {"date": "2018-06-18", "future": false, "subgroup": "All polls", "approve_estimate": "42.23578", "approve_hi": "46.58569", "approve_lo": "37.88587", "disapprove_estimate": "51.61955", "disapprove_hi": "55.84455", "disapprove_lo": "47.39454"}, {"date": "2018-06-19", "future": false, "subgroup": "All polls", "approve_estimate": "42.30142", "approve_hi": "46.61792", "approve_lo": "37.98492", "disapprove_estimate": "51.53254", "disapprove_hi": "55.69429", "disapprove_lo": "47.37078"}, {"date": "2018-06-20", "future": false, "subgroup": "All polls", "approve_estimate": "42.51168", "approve_hi": "46.68581", "approve_lo": "38.33755", "disapprove_estimate": "51.4082", "disapprove_hi": "55.64787", "disapprove_lo": "47.16853"}, {"date": "2018-06-21", "future": false, "subgroup": "All polls", "approve_estimate": "42.56531", "approve_hi": "46.77895", "approve_lo": "38.35168", "disapprove_estimate": "51.34674", "disapprove_hi": "55.51594", "disapprove_lo": "47.17755"}, {"date": "2018-06-22", "future": false, "subgroup": "All polls", "approve_estimate": "42.37092", "approve_hi": "46.59599", "approve_lo": "38.14586", "disapprove_estimate": "51.61048", "disapprove_hi": "55.84713", "disapprove_lo": "47.37384"}, {"date": "2018-06-23", "future": false, "subgroup": "All polls", "approve_estimate": "42.37092", "approve_hi": "46.59599", "approve_lo": "38.14586", "disapprove_estimate": "51.61048", "disapprove_hi": "55.84713", "disapprove_lo": "47.37384"}, {"date": "2018-06-24", "future": false, "subgroup": "All polls", "approve_estimate": "42.49755", "approve_hi": "46.72841", "approve_lo": "38.26668", "disapprove_estimate": "51.60103", "disapprove_hi": "55.87486", "disapprove_lo": "47.32721"}, {"date": "2018-06-25", "future": false, "subgroup": "All polls", "approve_estimate": "42.29508", "approve_hi": "46.51989", "approve_lo": "38.07027", "disapprove_estimate": "51.5812", "disapprove_hi": "55.96755", "disapprove_lo": "47.19484"}, {"date": "2018-06-26", "future": false, "subgroup": "All polls", "approve_estimate": "42.19255", "approve_hi": "46.28198", "approve_lo": "38.10311", "disapprove_estimate": "51.68388", "disapprove_hi": "55.91168", "disapprove_lo": "47.45608"}, {"date": "2018-06-27", "future": false, "subgroup": "All polls", "approve_estimate": "41.87872", "approve_hi": "46.20515", "approve_lo": "37.55228", "disapprove_estimate": "52.31686", "disapprove_hi": "56.48262", "disapprove_lo": "48.1511"}, {"date": "2018-06-28", "future": false, "subgroup": "All polls", "approve_estimate": "41.89148", "approve_hi": "46.1884", "approve_lo": "37.59455", "disapprove_estimate": "52.20862", "disapprove_hi": "56.31969", "disapprove_lo": "48.09754"}, {"date": "2018-06-29", "future": false, "subgroup": "All polls", "approve_estimate": "41.75614", "approve_hi": "46.15191", "approve_lo": "37.36037", "disapprove_estimate": "52.33812", "disapprove_hi": "56.46857", "disapprove_lo": "48.20767"}, {"date": "2018-06-30", "future": false, "subgroup": "All polls", "approve_estimate": "41.75614", "approve_hi": "46.15191", "approve_lo": "37.36037", "disapprove_estimate": "52.33812", "disapprove_hi": "56.46857", "disapprove_lo": "48.20767"}, {"date": "2018-07-01", "future": false, "subgroup": "All polls", "approve_estimate": "41.79801", "approve_hi": "46.21166", "approve_lo": "37.38436", "disapprove_estimate": "52.26242", "disapprove_hi": "56.48154", "disapprove_lo": "48.0433"}, {"date": "2018-07-02", "future": false, "subgroup": "All polls", "approve_estimate": "42.00296", "approve_hi": "46.33168", "approve_lo": "37.67424", "disapprove_estimate": "52.19925", "disapprove_hi": "56.27758", "disapprove_lo": "48.12093"}, {"date": "2018-07-03", "future": false, "subgroup": "All polls", "approve_estimate": "41.83677", "approve_hi": "46.12439", "approve_lo": "37.54916", "disapprove_estimate": "52.58812", "disapprove_hi": "56.61605", "disapprove_lo": "48.56019"}, {"date": "2018-07-04", "future": false, "subgroup": "All polls", "approve_estimate": "41.83677", "approve_hi": "46.12439", "approve_lo": "37.54916", "disapprove_estimate": "52.58812", "disapprove_hi": "56.61605", "disapprove_lo": "48.56019"}, {"date": "2018-07-05", "future": false, "subgroup": "All

```

```

polls", "approve_estimate": "41.8582", "approve_hi": "46.1394", "approve_lo": "37.57
7", "disapprove_estimate": "52.66431", "disapprove_hi": "56.72284", "disapprove_lo": "4
8.60578"}, {"date": "2018-07-06", "future": false, "subgroup": "All polls", "approve_esti
mate": "42.24339", "approve_hi": "46.35221", "approve_lo": "38.13456", "disapprove_estim
ate": "52.88004", "disapprove_hi": "56.82691", "disapprove_lo": "48.93316"}, {"date": "20
18-07-07", "future": false, "subgroup": "All polls", "approve_estimate": "42.24339", "app
rove_hi": "46.35221", "approve_lo": "38.13456", "disapprove_estimate": "52.88004", "disa
pprove_hi": "56.82691", "disapprove_lo": "48.93316"}, {"date": "2018-07-08", "future": fa
lse, "subgroup": "All polls", "approve_estimate": "42.20303", "approve_hi": "46.3571
9", "approve_lo": "38.04887", "disapprove_estimate": "52.9597", "disapprove_hi": "56.933
79", "disapprove_lo": "48.9856"}, {"date": "2018-07-09", "future": false, "subgroup": "All
polls", "approve_estimate": "42.13817", "approve_hi": "46.18277", "approve_lo": "38.0935
7", "disapprove_estimate": "52.8242", "disapprove_hi": "56.90196", "disapprove_lo": "48.
74644"}, {"date": "2018-07-10", "future": false, "subgroup": "All polls", "approve_estima
te": "41.86861", "approve_hi": "46.04809", "approve_lo": "37.68913", "disapprove_estimat
e": "52.97057", "disapprove_hi": "57.37045", "disapprove_lo": "48.5707"}, {"date": "2018-
07-11", "future": false, "subgroup": "All polls", "approve_estimate": "41.96289", "approv
e_hi": "46.18044", "approve_lo": "37.74535", "disapprove_estimate": "52.88639", "disappr
ove_hi": "57.33141", "disapprove_lo": "48.44138"}, {"date": "2018-07-12", "future": fals
e, "subgroup": "All polls", "approve_estimate": "42.28969", "approve_hi": "46.53057", "ap
prove_lo": "38.04882", "disapprove_estimate": "52.74878", "disapprove_hi": "57.0665
3", "disapprove_lo": "48.43102"}, {"date": "2018-07-13", "future": false, "subgroup": "All
polls", "approve_estimate": "42.06443", "approve_hi": "46.43061", "approve_lo": "37.6982
6", "disapprove_estimate": "52.90168", "disapprove_hi": "57.25216", "disapprove_lo": "4
8.55121"}, {"date": "2018-07-14", "future": false, "subgroup": "All polls", "approve_esti
mate": "42.03181", "approve_hi": "46.4673", "approve_lo": "37.59631", "disapprove_estima
te": "53.00668", "disapprove_hi": "57.32888", "disapprove_lo": "48.68449"}, {"date": "201
8-07-15", "future": false, "subgroup": "All polls", "approve_estimate": "42.03181", "appr
ove_hi": "46.4673", "approve_lo": "37.59631", "disapprove_estimate": "53.00668", "disapp
rove_hi": "57.32888", "disapprove_lo": "48.68449"}, {"date": "2018-07-16", "future": fals
e, "subgroup": "All polls", "approve_estimate": "42.12241", "approve_hi": "46.46276", "ap
prove_lo": "37.78205", "disapprove_estimate": "52.81279", "disapprove_hi": "57.0606", "d
isapprove_lo": "48.56497"}, {"date": "2018-07-17", "future": false, "subgroup": "All poll
s", "approve_estimate": "42.0509", "approve_hi": "46.38557", "approve_lo": "37.71623", "d
isapprove_estimate": "52.66814", "disapprove_hi": "56.79207", "disapprove_lo": "48.5442
2"}, {"date": "2018-07-18", "future": false, "subgroup": "All polls", "approve_estimat
e": "41.76017", "approve_hi": "46.00286", "approve_lo": "37.51748", "disapprove_estimat
e": "52.83702", "disapprove_hi": "56.85295", "disapprove_lo": "48.82109"}, {"date": "2018
-07-19", "future": false, "subgroup": "All polls", "approve_estimate": "41.78589", "appro
ve_hi": "46.02142", "approve_lo": "37.55037", "disapprove_estimate": "52.8283", "disappr
ove_hi": "56.86538", "disapprove_lo": "48.79122"}, {"date": "2018-07-20", "future": fals
e, "subgroup": "All polls", "approve_estimate": "41.78527", "approve_hi": "45.8685", "app
rove_lo": "37.70205", "disapprove_estimate": "52.74246", "disapprove_hi": "56.69585", "d
isapprove_lo": "48.78907"}, {"date": "2018-07-21", "future": false, "subgroup": "All poll
s", "approve_estimate": "41.71679", "approve_hi": "45.89406", "approve_lo": "37.5395
1", "disapprove_estimate": "52.87256", "disapprove_hi": "56.82685", "disapprove_lo": "4
8.91827"}, {"date": "2018-07-22", "future": false, "subgroup": "All polls", "approve_esti
mate": "41.9939", "approve_hi": "46.1358", "approve_lo": "37.852", "disapprove_estimat
e": "52.81791", "disapprove_hi": "56.65421", "disapprove_lo": "48.98162"}, {"date": "2018
-07-23", "future": false, "subgroup": "All polls", "approve_estimate": "41.7831", "approv
e_hi": "46.14866", "approve_lo": "37.41755", "disapprove_estimate": "52.85764", "disappr
ove_hi": "56.82973", "disapprove_lo": "48.88554"}, {"date": "2018-07-24", "future": fals
e, "subgroup": "All polls", "approve_estimate": "41.37473", "approve_hi": "45.82309", "ap
prove_lo": "36.92637", "disapprove_estimate": "53.35511", "disapprove_hi": "57.5833
2", "disapprove_lo": "49.1269"}, {"date": "2018-07-25", "future": false, "subgroup": "All
polls", "approve_estimate": "41.33853", "approve_hi": "45.92127", "approve_lo": "36.7557

```


9","disapprove_estimate":"53.03458","disapprove_hi":"57.10687","disapprove_lo":"48.96228"},{"date":"2018-07-26","future":false,"subgroup":"All polls","approve_estimate":"41.2835","approve_hi":"45.87322","approve_lo":"36.69377","disapprove_estimate":"53.02335","disapprove_hi":"57.12493","disapprove_lo":"48.92177"},{"date":"2018-07-27","future":false,"subgroup":"All polls","approve_estimate":"41.47915","approve_hi":"46.0482","approve_lo":"36.9101","disapprove_estimate":"52.99194","disapprove_hi":"57.07386","disapprove_lo":"48.91003"},{"date":"2018-07-28","future":false,"subgroup":"All polls","approve_estimate":"41.47915","approve_hi":"46.0482","approve_lo":"36.9101","disapprove_estimate":"52.99194","disapprove_hi":"57.07386","disapprove_lo":"48.91003"},{"date":"2018-07-29","future":false,"subgroup":"All polls","approve_estimate":"41.20658","approve_hi":"45.71047","approve_lo":"36.70269","disapprove_estimate":"53.16719","disapprove_hi":"57.28348","disapprove_lo":"49.0509"},{"date":"2018-07-30","future":false,"subgroup":"All polls","approve_estimate":"41.30453","approve_hi":"45.85395","approve_lo":"36.75511","disapprove_estimate":"52.9963","disapprove_hi":"57.16774","disapprove_lo":"48.82485"},{"date":"2018-07-31","future":false,"subgroup":"All polls","approve_estimate":"41.41338","approve_hi":"45.94133","approve_lo":"36.88542","disapprove_estimate":"52.85781","disapprove_hi":"56.97475","disapprove_lo":"48.74087"},{"date":"2018-08-01","future":false,"subgroup":"All polls","approve_estimate":"41.299","approve_hi":"45.83247","approve_lo":"36.76554","disapprove_estimate":"52.90955","disapprove_hi":"56.95158","disapprove_lo":"48.86752"},{"date":"2018-08-02","future":false,"subgroup":"All polls","approve_estimate":"41.43415","approve_hi":"46.1654","approve_lo":"36.7029","disapprove_estimate":"52.81184","disapprove_hi":"56.91388","disapprove_lo":"48.70979"},{"date":"2018-08-03","future":false,"subgroup":"All polls","approve_estimate":"41.43453","approve_hi":"46.00422","approve_lo":"36.86484","disapprove_estimate":"52.80482","disapprove_hi":"56.81874","disapprove_lo":"48.7909"},{"date":"2018-08-04","future":false,"subgroup":"All polls","approve_estimate":"41.43453","approve_hi":"46.00422","approve_lo":"36.86484","disapprove_estimate":"52.80482","disapprove_hi":"56.81874","disapprove_lo":"48.7909"},{"date":"2018-08-05","future":false,"subgroup":"All polls","approve_estimate":"41.43453","approve_hi":"46.00422","approve_lo":"36.86484","disapprove_estimate":"52.80482","disapprove_hi":"56.81874","disapprove_lo":"48.7909"},{"date":"2018-08-06","future":false,"subgroup":"All polls","approve_estimate":"41.46711","approve_hi":"45.94934","approve_lo":"36.98489","disapprove_estimate":"52.72193","disapprove_hi":"56.67247","disapprove_lo":"48.77139"},{"date":"2018-08-07","future":false,"subgroup":"All polls","approve_estimate":"41.45063","approve_hi":"45.93062","approve_lo":"36.97063","disapprove_estimate":"52.666","disapprove_hi":"56.54337","disapprove_lo":"48.78864"},{"date":"2018-08-08","future":false,"subgroup":"All polls","approve_estimate":"41.71214","approve_hi":"46.53821","approve_lo":"36.88606","disapprove_estimate":"52.45969","disapprove_hi":"56.34184","disapprove_lo":"48.57755"},{"date":"2018-08-09","future":false,"subgroup":"All polls","approve_estimate":"41.91957","approve_hi":"46.70918","approve_lo":"37.12997","disapprove_estimate":"52.39185","disapprove_hi":"56.20128","disapprove_lo":"48.58242"},{"date":"2018-08-10","future":false,"subgroup":"All polls","approve_estimate":"41.9125","approve_hi":"46.61459","approve_lo":"37.21041","disapprove_estimate":"52.49004","disapprove_hi":"56.29051","disapprove_lo":"48.68956"},{"date":"2018-08-11","future":false,"subgroup":"All polls","approve_estimate":"41.9125","approve_hi":"46.61459","approve_lo":"37.21041","disapprove_estimate":"52.49004","disapprove_hi":"56.29051","disapprove_lo":"48.68956"},{"date":"2018-08-12","future":false,"subgroup":"All polls","approve_estimate":"41.9125","approve_hi":"46.61459","approve_lo":"37.21041","disapprove_estimate":"52.49004","disapprove_hi":"56.29051","disapprove_lo":"48.68956"},{"date":"2018-08-13","future":false,"subgroup":"All polls","approve_estimate":"41.81873","approve_hi":"46.69872","approve_lo":"36.93874","disapprove_estimate":"52.54657","disapprove_hi":"56.54624","disapprove_lo":"48.5469"},{"date":"2018-08-14","future":false,"subgroup":"All polls","approve_estimate":"42.20527","approve_hi":"46.87489","approve_lo":"37.53565","disapprove_estimate":"52.3893","disapprove_hi":"56.19791","disapprove_lo":"48.

```
58068"}, {"date": "2018-08-15", "future": false, "subgroup": "All polls", "approve_estimate": "42.05485", "approve_hi": "46.64181", "approve_lo": "37.4679", "disapprove_estimate": "52.44334", "disapprove_hi": "56.32794", "disapprove_lo": "48.55873"}, {"date": "2018-08-16", "future": false, "subgroup": "All polls", "approve_estimate": "42.11238", "approve_hi": "46.73094", "approve_lo": "37.49383", "disapprove_estimate": "52.43953", "disapprove_hi": "56.30505", "disapprove_lo": "48.57401"}, {"date": "2018-08-17", "future": false, "subgroup": "All polls", "approve_estimate": "41.97367", "approve_hi": "46.67137", "approve_lo": "37.27598", "disapprove_estimate": "52.54111", "disapprove_hi": "56.37725", "disapprove_lo": "48.70497"}, {"date": "2018-08-18", "future": false, "subgroup": "All polls", "approve_estimate": "41.97367", "approve_hi": "46.67137", "approve_lo": "37.27598", "disapprove_estimate": "52.54111", "disapprove_hi": "56.37725", "disapprove_lo": "48.70497"}, {"date": "2018-08-19", "future": false, "subgroup": "All polls", "approve_estimate": "41.97367", "approve_hi": "46.67137", "approve_lo": "37.27598", "disapprove_estimate": "52.54111", "disapprove_hi": "56.37725", "disapprove_lo": "48.70497"}, {"date": "2018-08-20", "future": false, "subgroup": "All polls", "approve_estimate": "42.2604", "approve_hi": "46.75235", "approve_lo": "37.76846", "disapprove_estimate": "52.33932", "disapprove_hi": "56.08208", "disapprove_lo": "48.59655"}, {"date": "2018-08-21", "future": false, "subgroup": "All polls", "approve_estimate": "41.77507", "approve_hi": "46.53458", "approve_lo": "37.01555", "disapprove_estimate": "52.78539", "disapprove_hi": "57.13048", "disapprove_lo": "48.44031"}, {"date": "2018-08-22", "future": false, "subgroup": "All polls", "approve_estimate": "42.12536", "approve_hi": "46.74831", "approve_lo": "37.50241", "disapprove_estimate": "52.91469", "disapprove_hi": "56.96156", "disapprove_lo": "48.86782"}, {"date": "2018-08-23", "future": false, "subgroup": "All polls", "approve_estimate": "42.08969", "approve_hi": "46.66219", "approve_lo": "37.51719", "disapprove_estimate": "52.9692", "disapprove_hi": "57.15947", "disapprove_lo": "48.77893"}, {"date": "2018-08-24", "future": false, "subgroup": "All polls", "approve_estimate": "41.46597", "approve_hi": "46.13843", "approve_lo": "36.79351", "disapprove_estimate": "53.56819", "disapprove_hi": "58.06449", "disapprove_lo": "49.07189"}, {"date": "2018-08-25", "future": false, "subgroup": "All polls", "approve_estimate": "41.46597", "approve_hi": "46.13843", "approve_lo": "36.79351", "disapprove_estimate": "53.56819", "disapprove_hi": "58.06449", "disapprove_lo": "49.07189"}, {"date": "2018-08-26", "future": false, "subgroup": "All polls", "approve_estimate": "41.88652", "approve_hi": "46.49792", "approve_lo": "37.27512", "disapprove_estimate": "53.37158", "disapprove_hi": "57.76162", "disapprove_lo": "48.98154"}, {"date": "2018-08-27", "future": false, "subgroup": "All polls", "approve_estimate": "41.86845", "approve_hi": "46.37929", "approve_lo": "37.3576", "disapprove_estimate": "53.38425", "disapprove_hi": "57.66917", "disapprove_lo": "49.09934"}, {"date": "2018-08-28", "future": false, "subgroup": "All polls", "approve_estimate": "41.37738", "approve_hi": "46.05987", "approve_lo": "36.69488", "disapprove_estimate": "53.63121", "disapprove_hi": "57.89977", "disapprove_lo": "49.36264"}, {"date": "2018-08-29", "future": false, "subgroup": "All polls", "approve_estimate": "41.44618", "approve_hi": "46.24567", "approve_lo": "36.64668", "disapprove_estimate": "53.62854", "disapprove_hi": "57.92157", "disapprove_lo": "49.30"}, {"date": "2018-08-30", "future": false, "subgroup": "All polls", "approve_estimate": "41.50489", "approve_hi": "46.33142", "approve_lo": "36.67836", "disapprove_estimate": "53.53966", "disapprove_hi": "57.83444", "disapprove_lo": "49.24488"}, {"date": "2018-08-31", "future": false, "subgroup": "All polls", "approve_estimate": "40.25376", "approve_hi": "45.50109", "approve_lo": "35.00642", "disapprove_estimate": "54.46505", "disapprove_hi": "59.14839", "disapprove_lo": "49.7817"}, {"date": "2018-09-01", "future": false, "subgroup": "All polls", "approve_estimate": "40.25376", "approve_hi": "45.50109", "approve_lo": "35.00642", "disapprove_estimate": "54.46505", "disapprove_hi": "59.14839", "disapprove_lo": "49.7817"}, {"date": "2018-09-02", "future": false, "subgroup": "All polls", "approve_estimate": "40.25376", "approve_hi": "45.50109", "approve_lo": "35.00642", "disapprove_estimate": "54.46505", "disapprove_hi": "59.14839", "disapprove_lo": "49.7817"}, {"date": "2018-09-03", "future": false, "subgroup": "All polls", "approve_estimate": "40.05969", "approve_hi": "45.19295", "approve_lo": "34.92643", "disapprove_estimate": "54.12732", "disapprove_hi": "58.60292", "disapprove_lo": "49.65172"}, {"date": "2018-09-04", "future": false, "subgroup": "All polls", "approve_estimate": "40.05544", "approve_hi": "45.18955", "approve_lo": "34.92643", "disapprove_estimate": "54.12732", "disapprove_hi": "58.60292", "disapprove_lo": "49.65172"}]
```

```
prove_lo": "34.92132", "disapprove_estimate": "54.1169", "disapprove_hi": "58.61736", "disapprove_lo": "49.61644"}, {"date": "2018-09-05", "future": false, "subgroup": "All polls", "approve_estimate": "39.89795", "approve_hi": "44.91058", "approve_lo": "34.88532", "disapprove_estimate": "53.72744", "disapprove_hi": "58.2196", "disapprove_lo": "49.23527"}, {"date": "2018-09-06", "future": false, "subgroup": "All polls", "approve_estimate": "40.0058", "approve_hi": "45.06265", "approve_lo": "34.94896", "disapprove_estimate": "53.67471", "disapprove_hi": "58.16011", "disapprove_lo": "49.18931"}, {"date": "2018-09-07", "future": true, "subgroup": "All polls", "approve_estimate": "40.01935", "approve_hi": "45.09996", "approve_lo": "34.93874", "disapprove_estimate": "53.65882", "disapprove_hi": "58.17098", "disapprove_lo": "49.14665"}, {"date": "2018-09-08", "future": true, "subgroup": "All polls", "approve_estimate": "40.03281", "approve_hi": "45.15659", "approve_lo": "34.90903", "disapprove_estimate": "53.64304", "disapprove_hi": "58.20374", "disapprove_lo": "49.08233"}, {"date": "2018-09-09", "future": true, "subgroup": "All polls", "approve_estimate": "40.04618", "approve_hi": "45.22533", "approve_lo": "34.86704", "disapprove_estimate": "53.62736", "disapprove_hi": "58.25016", "disapprove_lo": "49.00455"}, {"date": "2018-09-10", "future": true, "subgroup": "All polls", "approve_estimate": "40.05947", "approve_hi": "45.30343", "approve_lo": "34.81552", "disapprove_estimate": "53.61179", "disapprove_hi": "58.30707", "disapprove_lo": "48.91651"}, {"date": "2018-09-11", "future": true, "subgroup": "All polls", "approve_estimate": "40.07268", "approve_hi": "45.38918", "approve_lo": "34.75617", "disapprove_estimate": "53.59632", "disapprove_hi": "58.37248", "disapprove_lo": "48.82017"}, {"date": "2018-09-12", "future": true, "subgroup": "All polls", "approve_estimate": "40.0858", "approve_hi": "45.48139", "approve_lo": "34.6902", "disapprove_estimate": "53.58096", "disapprove_hi": "58.44498", "disapprove_lo": "48.71694"}, {"date": "2018-09-13", "future": true, "subgroup": "All polls", "approve_estimate": "40.09883", "approve_hi": "45.57911", "approve_lo": "34.61854", "disapprove_estimate": "53.56571", "disapprove_hi": "58.52349", "disapprove_lo": "48.60793"}, {"date": "2018-09-14", "future": true, "subgroup": "All polls", "approve_estimate": "40.11177", "approve_hi": "45.66277", "approve_lo": "34.56078", "disapprove_estimate": "53.55056", "disapprove_hi": "58.5863", "disapprove_lo": "48.51482"}, {"date": "2018-09-15", "future": true, "subgroup": "All polls", "approve_estimate": "40.12464", "approve_hi": "45.74295", "approve_lo": "34.50632", "disapprove_estimate": "53.53551", "disapprove_hi": "58.64527", "disapprove_lo": "48.42576"}, {"date": "2018-09-16", "future": true, "subgroup": "All polls", "approve_estimate": "40.13742", "approve_hi": "45.82001", "approve_lo": "34.45483", "disapprove_estimate": "53.52057", "disapprove_hi": "58.70083", "disapprove_lo": "48.34031"}, {"date": "2018-09-17", "future": true, "subgroup": "All polls", "approve_estimate": "40.15011", "approve_hi": "45.89426", "approve_lo": "34.40596", "disapprove_estimate": "53.50573", "disapprove_hi": "58.75336", "disapprove_lo": "48.2581"}, {"date": "2018-09-18", "future": true, "subgroup": "All polls", "approve_estimate": "40.16272", "approve_hi": "45.96601", "approve_lo": "34.35944", "disapprove_estimate": "53.49099", "disapprove_hi": "58.80321", "disapprove_lo": "48.17878"}, {"date": "2018-09-19", "future": true, "subgroup": "All polls", "approve_estimate": "40.17525", "approve_hi": "46.0355", "approve_lo": "34.315", "disapprove_estimate": "53.47636", "disapprove_hi": "58.85066", "disapprove_lo": "48.10206"}, {"date": "2018-09-20", "future": true, "subgroup": "All polls", "approve_estimate": "40.1877", "approve_hi": "46.10295", "approve_lo": "34.27245", "disapprove_estimate": "53.46183", "disapprove_hi": "58.89597", "disapprove_lo": "48.02768"}, {"date": "2018-09-21", "future": true, "subgroup": "All polls", "approve_estimate": "40.20006", "approve_hi": "46.16855", "approve_lo": "34.23157", "disapprove_estimate": "53.44474", "disapprove_hi": "58.93936", "disapprove_lo": "47.95543"}, {"date": "2018-09-22", "future": true, "subgroup": "All polls", "approve_estimate": "40.21234", "approve_hi": "46.23246", "approve_lo": "34.19222", "disapprove_estimate": "53.43306", "disapprove_hi": "58.98103", "disapprove_lo": "47.8851"}, {"date": "2018-09-23", "future": true, "subgroup": "All polls", "approve_estimate": "40.22454", "approve_hi": "46.29483", "approve_lo": "34.15425", "disapprove_estimate": "53.41883", "disapprove_hi": "59.02112", "disapprove_lo": "47.81654"}, {"date": "2018-09-24", "future": true, "subgroup": "All polls", "approve_estimate": "40.23666", "approve_hi": "46.35579", "approve_lo": "34.11753", "disapprove_estimate": "53.4047", "disapprove_hi": "59.0598", "disapprove_lo": "47.74811"}]
```

```
e_lo": "47.7496"}, {"date": "2018-09-25", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.2487", "approve_hi": "46.41544", "approve_lo": "34.08195", "disapprove_e_estimate": "53.39066", "disapprove_hi": "59.09718", "disapprove_lo": "47.68415"}, {"date": "2018-09-26", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.26065", "approve_hi": "46.47388", "approve_lo": "34.04742", "disapprove_e_estimate": "53.37673", "disapprove_hi": "59.13338", "disapprove_lo": "47.62008"}, {"date": "2018-09-27", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.27253", "approve_hi": "46.5312", "approve_lo": "34.01385", "disapprove_e_estimate": "53.36289", "disapprove_hi": "59.1685", "disapprove_lo": "47.55729"}, {"date": "2018-09-28", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.28433", "approve_hi": "46.58749", "approve_lo": "33.98117", "disapprove_e_estimate": "53.34915", "disapprove_hi": "59.20262", "disapprove_lo": "47.49568"}, {"date": "2018-09-29", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.29604", "approve_hi": "46.64279", "approve_lo": "33.9493", "disapprove_e_estimate": "53.33551", "disapprove_hi": "59.23583", "disapprove_lo": "47.43519"}, {"date": "2018-09-30", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.30768", "approve_hi": "46.69719", "approve_lo": "33.91818", "disapprove_e_estimate": "53.32196", "disapprove_hi": "59.26819", "disapprove_lo": "47.37574"}, {"date": "2018-10-01", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.31924", "approve_hi": "46.75072", "approve_lo": "33.88776", "disapprove_e_estimate": "53.30851", "disapprove_hi": "59.29977", "disapprove_lo": "47.31726"}, {"date": "2018-10-02", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.33072", "approve_hi": "46.80346", "approve_lo": "33.85798", "disapprove_e_estimate": "53.29516", "disapprove_hi": "59.33062", "disapprove_lo": "47.2597"}, {"date": "2018-10-03", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.34212", "approve_hi": "46.85543", "approve_lo": "33.82881", "disapprove_e_estimate": "53.2819", "disapprove_hi": "59.3608", "disapprove_lo": "47.203"}, {"date": "2018-10-04", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.35344", "approve_hi": "46.9067", "approve_lo": "33.80019", "disapprove_e_estimate": "53.26874", "disapprove_hi": "59.39035", "disapprove_lo": "47.14713"}, {"date": "2018-10-05", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.36469", "approve_hi": "46.95728", "approve_lo": "33.7721", "disapprove_e_estimate": "53.25567", "disapprove_hi": "59.41932", "disapprove_lo": "47.09202"}, {"date": "2018-10-06", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.37585", "approve_hi": "47.00721", "approve_lo": "33.7445", "disapprove_e_estimate": "53.24269", "disapprove_hi": "59.44774", "disapprove_lo": "47.03764"}, {"date": "2018-10-07", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.38695", "approve_hi": "47.05655", "approve_lo": "33.71735", "disapprove_e_estimate": "53.22981", "disapprove_hi": "59.47565", "disapprove_lo": "46.98397"}, {"date": "2018-10-08", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.39796", "approve_hi": "47.10529", "approve_lo": "33.69063", "disapprove_e_estimate": "53.21702", "disapprove_hi": "59.50309", "disapprove_lo": "46.93095"}, {"date": "2018-10-09", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.4089", "approve_hi": "47.15348", "approve_lo": "33.66431", "disapprove_e_estimate": "53.20432", "disapprove_hi": "59.53008", "disapprove_lo": "46.87857"}, {"date": "2018-10-10", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.41976", "approve_hi": "47.20115", "approve_lo": "33.63837", "disapprove_e_estimate": "53.19172", "disapprove_hi": "59.55664", "disapprove_lo": "46.82679"}, {"date": "2018-10-11", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.43055", "approve_hi": "47.2483", "approve_lo": "33.61279", "disapprove_e_estimate": "53.1792", "disapprove_hi": "59.58282", "disapprove_lo": "46.77559"}, {"date": "2018-10-12", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.44126", "approve_hi": "47.29498", "approve_lo": "33.58754", "disapprove_e_estimate": "53.16678", "disapprove_hi": "59.60862", "disapprove_lo": "46.72494"}, {"date": "2018-10-13", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.45189", "approve_hi": "47.34119", "approve_lo": "33.5626", "disapprove_e_estimate": "53.15445", "disapprove_hi": "59.63408", "disapprove_lo": "46.67482"}, {"date": "2018-10-14", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.46245", "approve_hi": "47.38695", "approve_lo": "33.53795", "disapprove_e_estimate": "53.1422", "disapprove_hi": "59.65921", "disapprove_lo": "46.6252"}, {"date": "2018-10-15", "future": true, "subgroup": "All polls", "approve_e_estimate": "40.47301", "approve_hi": "47.43271", "approve_lo": "33.51311", "disapprove_e_estimate": "53.12998", "disapprove_hi": "59.68442", "disapprove_lo": "46.57466"}]
```

```
ve_estimate": "40.47294", "approve_hi": "47.43229", "approve_lo": "33.51359", "disapprove_estimate": "53.13005", "disapprove_hi": "59.68402", "disapprove_lo": "46.57608"}, {"date": "2018-10-16", "future": true, "subgroup": "All polls", "approve_estimate": "40.48335", "approve_hi": "47.47721", "approve_lo": "33.48949", "disapprove_estimate": "53.11799", "disapprove_hi": "59.70855", "disapprove_lo": "46.52742"}, {"date": "2018-10-17", "future": true, "subgroup": "All polls", "approve_estimate": "40.49369", "approve_hi": "47.52174", "approve_lo": "33.46564", "disapprove_estimate": "53.10601", "disapprove_hi": "59.7328", "disapprove_lo": "46.47923"}, {"date": "2018-10-18", "future": true, "subgroup": "All polls", "approve_estimate": "40.50396", "approve_hi": "47.5659", "approve_lo": "33.44202", "disapprove_estimate": "53.09413", "disapprove_hi": "59.7568", "disapprove_lo": "46.43146"}, {"date": "2018-10-19", "future": true, "subgroup": "All polls", "approve_estimate": "40.51414", "approve_hi": "47.60967", "approve_lo": "33.41862", "disapprove_estimate": "53.08233", "disapprove_hi": "59.78054", "disapprove_lo": "46.38411"}, {"date": "2018-10-20", "future": true, "subgroup": "All polls", "approve_estimate": "40.52427", "approve_hi": "47.6531", "approve_lo": "33.39544", "disapprove_estimate": "53.07061", "disapprove_hi": "59.80405", "disapprove_lo": "46.33717"}, {"date": "2018-10-21", "future": true, "subgroup": "All polls", "approve_estimate": "40.53431", "approve_hi": "47.69617", "approve_lo": "33.37245", "disapprove_estimate": "53.05899", "disapprove_hi": "59.82735", "disapprove_lo": "46.29063"}, {"date": "2018-10-22", "future": true, "subgroup": "All polls", "approve_estimate": "40.54428", "approve_hi": "47.73892", "approve_lo": "33.34965", "disapprove_estimate": "53.04745", "disapprove_hi": "59.85044", "disapprove_lo": "46.24446"}, {"date": "2018-10-23", "future": true, "subgroup": "All polls", "approve_estimate": "40.55419", "approve_hi": "47.78135", "approve_lo": "33.32703", "disapprove_estimate": "53.036", "disapprove_hi": "59.87333", "disapprove_lo": "46.19867"}, {"date": "2018-10-24", "future": true, "subgroup": "All polls", "approve_estimate": "40.56402", "approve_hi": "47.82346", "approve_lo": "33.30458", "disapprove_estimate": "53.02464", "disapprove_hi": "59.89604", "disapprove_lo": "46.15323"}, {"date": "2018-10-25", "future": true, "subgroup": "All polls", "approve_estimate": "40.57378", "approve_hi": "47.86526", "approve_lo": "33.28229", "disapprove_estimate": "53.01335", "disapprove_hi": "59.91857", "disapprove_lo": "46.10814"}, {"date": "2018-10-26", "future": true, "subgroup": "All polls", "approve_estimate": "40.58347", "approve_hi": "47.90678", "approve_lo": "33.26015", "disapprove_estimate": "53.00216", "disapprove_hi": "59.94093", "disapprove_lo": "46.06338"}, {"date": "2018-10-27", "future": true, "subgroup": "All polls", "approve_estimate": "40.59308", "approve_hi": "47.94801", "approve_lo": "33.23815", "disapprove_estimate": "52.99104", "disapprove_hi": "59.96313", "disapprove_lo": "46.01895"}, {"date": "2018-10-28", "future": true, "subgroup": "All polls", "approve_estimate": "40.60263", "approve_hi": "47.98896", "approve_lo": "33.2163", "disapprove_estimate": "52.98001", "disapprove_hi": "59.98519", "disapprove_lo": "45.97484"}, {"date": "2018-10-29", "future": true, "subgroup": "All polls", "approve_estimate": "40.61211", "approve_hi": "48.02965", "approve_lo": "33.19457", "disapprove_estimate": "52.96907", "disapprove_hi": "60.0071", "disapprove_lo": "45.93103"}, {"date": "2018-10-30", "future": true, "subgroup": "All polls", "approve_estimate": "40.62152", "approve_hi": "48.07007", "approve_lo": "33.17296", "disapprove_estimate": "52.95821", "disapprove_hi": "60.02888", "disapprove_lo": "45.88754"}, {"date": "2018-10-31", "future": true, "subgroup": "All polls", "approve_estimate": "40.63086", "approve_hi": "48.11024", "approve_lo": "33.15147", "disapprove_estimate": "52.94743", "disapprove_hi": "60.05053", "disapprove_lo": "45.84432"}, {"date": "2018-11-01", "future": true, "subgroup": "All polls", "approve_estimate": "40.64013", "approve_hi": "48.15015", "approve_lo": "33.1301", "disapprove_estimate": "52.93673", "disapprove_hi": "60.07206", "disapprove_lo": "45.8014"}, {"date": "2018-11-02", "future": true, "subgroup": "All polls", "approve_estimate": "40.64933", "approve_hi": "48.18983", "approve_lo": "33.10882", "disapprove_estimate": "52.92611", "disapprove_hi": "60.09347", "disapprove_lo": "45.75875"}, {"date": "2018-11-03", "future": true, "subgroup": "All polls", "approve_estimate": "40.65846", "approve_hi": "48.22927", "approve_lo": "33.08765", "disapprove_estimate": "52.91557", "disapprove_hi": "60.11477", "disapprove_lo": "45.71637"}, {"date": "2018-11-04", "future": true, "subgroup": "All polls", "approve_estimate": "40.66752", "approve_hi": "48.26847", "approve_lo": "33.06657", "disapprove_estimate": "52.90499", "disapprove_hi": "60.13619", "disapprove_lo": "45.67501"}]
```

38/76

```
ate":"2018-11-25","future":true,"subgroup":"All polls","approve_estimate":"40.84267",
"approve_hi":"49.04649","approve_lo":"32.63884","disapprove_estimate":"52.70342",
"disapprove_hi":"60.56492","disapprove_lo":"44.84193"},{"date":"2018-11-26","fu
ture":true,"subgroup":"All polls","approve_estimate":"40.85031","approve_hi":"49.0
8169","approve_lo":"32.61893","disapprove_estimate":"52.69463","disapprove_hi":"6
0.58485","disapprove_lo":"44.80442"},{"date":"2018-11-27","future":true,"subgrou
p":"All polls","approve_estimate":"40.85789","approve_hi":"49.11673","approve_lo":
"32.59904","disapprove_estimate":"52.68591","disapprove_hi":"60.60474","disappr
ove_lo":"44.76708"},{"date":"2018-11-28","future":true,"subgroup":"All polls","app
rove_estimate":"40.86541","approve_hi":"49.15163","approve_lo":"32.57919","disappr
ove_estimate":"52.67727","disapprove_hi":"60.62462","disapprove_lo":"44.72991"},
{"date":"2018-11-29","future":true,"subgroup":"All polls","approve_estimate":"40.8
7287","approve_hi":"49.18639","approve_lo":"32.55934","disapprove_estimate":"52.66
869","disapprove_hi":"60.64447","disapprove_lo":"44.69291"},{"date":"2018-11-3
0","future":true,"subgroup":"All polls","approve_estimate":"40.88027","approve_h
i":"49.22101","approve_lo":"32.53952","disapprove_estimate":"52.66018","disapprove
_hi":"60.6643","disapprove_lo":"44.65606"},{"date":"2018-12-01","future":true,"sub
group":"All polls","approve_estimate":"40.8876","approve_hi":"49.25549","approve_lo
":"32.51972","disapprove_estimate":"52.65174","disapprove_hi":"60.68411","disappr
ove_lo":"44.61937"},{"date":"2018-12-02","future":true,"subgroup":"All polls","app
rove_estimate":"40.89488","approve_hi":"49.28983","approve_lo":"32.49993","disappr
ove_estimate":"52.64337","disapprove_hi":"60.70391","disapprove_lo":"44.58283"},
{"date":"2018-12-03","future":true,"subgroup":"All polls","approve_estimate":"40.9
021","approve_hi":"49.32405","approve_lo":"32.48016","disapprove_estimate":"52.635
07","disapprove_hi":"60.72369","disapprove_lo":"44.54646"},{"date":"2018-12-04","f
uture":true,"subgroup":"All polls","approve_estimate":"40.90926","approve_hi":"49.
35813","approve_lo":"32.4604","disapprove_estimate":"52.62683","disapprove_hi":"6
0.74345","disapprove_lo":"44.51022"},{"date":"2018-12-05","future":true,"subgrou
p":"All polls","approve_estimate":"40.91637","approve_hi":"49.39208","approve_lo
":"32.44065","disapprove_estimate":"52.61867","disapprove_hi":"60.7632","disappr
ove_lo":"44.47414"},{"date":"2018-12-06","future":true,"subgroup":"All polls","appr
ove_estimate":"40.92341","approve_hi":"49.4259","approve_lo":"32.42092","disapprov
e_estimate":"52.61057","disapprove_hi":"60.78294","disapprove_lo":"44.43821"},{"da
te":"2018-12-07","future":true,"subgroup":"All polls","approve_estimate":"40.9303
9","approve_hi":"49.45959","approve_lo":"32.40119","disapprove_estimate":"52.6025
4","disapprove_hi":"60.80266","disapprove_lo":"44.40242"},{"date":"2018-12-08","fu
ture":true,"subgroup":"All polls","approve_estimate":"40.93732","approve_hi":"49.4
9316","approve_lo":"32.38147","disapprove_estimate":"52.59457","disapprove_hi":"6
0.82238","disapprove_lo":"44.36677"},{"date":"2018-12-09","future":true,"subgrou
p":"All polls","approve_estimate":"40.94419","approve_hi":"49.52661","approve_lo
":"32.36176","disapprove_estimate":"52.58667","disapprove_hi":"60.84208","disappr
ove_lo":"44.33126"},{"date":"2018-12-10","future":true,"subgroup":"All polls","app
rove_estimate":"40.951","approve_hi":"49.55994","approve_lo":"32.34206","disapprov
e_estimate":"52.57884","disapprove_hi":"60.86178","disapprove_lo":"44.29589"},{"da
te":"2018-12-11","future":true,"subgroup":"All polls","approve_estimate":"40.9577
5","approve_hi":"49.59314","approve_lo":"32.32236","disapprove_estimate":"52.5710
7","disapprove_hi":"60.88148","disapprove_lo":"44.26066"},{"date":"2018-12-12","fu
ture":true,"subgroup":"All polls","approve_estimate":"40.96445","approve_hi":"49.6
2624","approve_lo":"32.30267","disapprove_estimate":"52.56337","disapprove_hi":"6
0.90117","disapprove_lo":"44.22557"},{"date":"2018-12-13","future":true,"subgrou
p":"All polls","approve_estimate":"40.97109","approve_hi":"49.6592","approve_lo
":"32.28297","disapprove_estimate":"52.55573","disapprove_hi":"60.92085","disappr
ove_lo":"44.19061"},{"date":"2018-12-14","future":true,"subgroup":"All polls","app
rove_estimate":"40.97768","approve_hi":"49.69207","approve_lo":"32.26329","disappr
ove_estimate":"52.54815","disapprove_hi":"60.94054","disapprove_lo":"44.15577"},
{"date":"2018-12-15","future":true,"subgroup":"All polls","approve_estimate":"40.9
```

842", "approve_hi": "49.72481", "approve_lo": "32.2436", "disapprove_estimate": "52.54064", "disapprove_hi": "60.96022", "disapprove_lo": "44.12107"}, {"date": "2018-12-16", "future": true, "subgroup": "All polls", "approve_estimate": "40.99067", "approve_hi": "49.75744", "approve_lo": "32.22391", "disapprove_estimate": "52.5332", "disapprove_hi": "60.9799", "disapprove_lo": "44.08649"}, {"date": "2018-12-17", "future": true, "subgroup": "All polls", "approve_estimate": "40.99709", "approve_hi": "49.78996", "approve_lo": "32.20422", "disapprove_estimate": "52.52581", "disapprove_hi": "60.99958", "disapprove_lo": "44.05204"}, {"date": "2018-12-18", "future": true, "subgroup": "All polls", "approve_estimate": "41.00345", "approve_hi": "49.82237", "approve_lo": "32.18453", "disapprove_estimate": "52.51849", "disapprove_hi": "61.01926", "disapprove_lo": "44.01772"}, {"date": "2018-12-19", "future": true, "subgroup": "All polls", "approve_estimate": "41.00976", "approve_hi": "49.85468", "approve_lo": "32.16484", "disapprove_estimate": "52.51123", "disapprove_hi": "61.03894", "disapprove_lo": "43.98352"}, {"date": "2018-12-20", "future": true, "subgroup": "All polls", "approve_estimate": "41.01601", "approve_hi": "49.88687", "approve_lo": "32.14515", "disapprove_estimate": "52.50403", "disapprove_hi": "61.05862", "disapprove_lo": "43.94944"}, {"date": "2018-12-21", "future": true, "subgroup": "All polls", "approve_estimate": "41.02221", "approve_hi": "49.91896", "approve_lo": "32.12545", "disapprove_estimate": "52.49689", "disapprove_hi": "61.0783", "disapprove_lo": "43.91548"}, {"date": "2018-12-22", "future": true, "subgroup": "All polls", "approve_estimate": "41.02835", "approve_hi": "49.95095", "approve_lo": "32.10575", "disapprove_estimate": "52.48981", "disapprove_hi": "61.09799", "disapprove_lo": "43.88164"}, {"date": "2018-12-23", "future": true, "subgroup": "All polls", "approve_estimate": "41.03444", "approve_hi": "49.98283", "approve_lo": "32.08605", "disapprove_estimate": "52.4828", "disapprove_hi": "61.11768", "disapprove_lo": "43.84791"}, {"date": "2018-12-24", "future": true, "subgroup": "All polls", "approve_estimate": "41.04048", "approve_hi": "50.01462", "approve_lo": "32.06634", "disapprove_estimate": "52.47584", "disapprove_hi": "61.13738", "disapprove_lo": "43.8143"}, {"date": "2018-12-25", "future": true, "subgroup": "All polls", "approve_estimate": "41.04646", "approve_hi": "50.0463", "approve_lo": "32.04662", "disapprove_estimate": "52.46894", "disapprove_hi": "61.15708", "disapprove_lo": "43.78081"}, {"date": "2018-12-26", "future": true, "subgroup": "All polls", "approve_estimate": "41.05239", "approve_hi": "50.07788", "approve_lo": "32.0269", "disapprove_estimate": "52.46211", "disapprove_hi": "61.17679", "disapprove_lo": "43.74743"}, {"date": "2018-12-27", "future": true, "subgroup": "All polls", "approve_estimate": "41.05827", "approve_hi": "50.10937", "approve_lo": "32.00717", "disapprove_estimate": "52.45533", "disapprove_hi": "61.1965", "disapprove_lo": "43.71416"}, {"date": "2018-12-28", "future": true, "subgroup": "All polls", "approve_estimate": "41.06409", "approve_hi": "50.14075", "approve_lo": "31.98744", "disapprove_estimate": "52.44861", "disapprove_hi": "61.21622", "disapprove_lo": "43.681"}, {"date": "2018-12-29", "future": true, "subgroup": "All polls", "approve_estimate": "41.06987", "approve_hi": "50.17204", "approve_lo": "31.96769", "disapprove_estimate": "52.44195", "disapprove_hi": "61.23595", "disapprove_lo": "43.64795"}, {"date": "2018-12-30", "future": true, "subgroup": "All polls", "approve_estimate": "41.07558", "approve_hi": "50.20324", "approve_lo": "31.94793", "disapprove_estimate": "52.43535", "disapprove_hi": "61.25569", "disapprove_lo": "43.61501"}, {"date": "2018-12-31", "future": true, "subgroup": "All polls", "approve_estimate": "41.08126", "approve_hi": "50.23434", "approve_lo": "31.92817", "disapprove_estimate": "52.42881", "disapprove_hi": "61.27544", "disapprove_lo": "43.58217"}, {"date": "2019-01-01", "future": true, "subgroup": "All polls", "approve_estimate": "41.08687", "approve_hi": "50.26535", "approve_lo": "31.9084", "disapprove_estimate": "52.42232", "disapprove_hi": "61.2952", "disapprove_lo": "43.54944"}, {"date": "2019-01-02", "future": true, "subgroup": "All polls", "approve_estimate": "41.09244", "approve_hi": "50.29626", "approve_lo": "31.88861", "disapprove_estimate": "52.41589", "disapprove_hi": "61.31496", "disapprove_lo": "43.51681"}, {"date": "2019-01-03", "future": true, "subgroup": "All polls", "approve_estimate": "41.09795", "approve_hi": "50.32709", "approve_lo": "31.86882", "disapprove_estimate": "52.40951", "disapprove_hi": "61.33473", "disapprove_lo": "43.48429"}, {"date": "2019-01-04", "future": true, "subgroup": "All polls", "approve_estimate": "41.10342", "approve_hi": "50.35782", "approve_lo": "31.84902", "disapprove_estimate": "52.4031


```
9","disapprove_hi":"61.35452","disapprove_lo":"43.45187"},{"date":"2019-01-05","future":true,"subgroup":"All polls","approve_estimate":"41.10883","approve_hi":"50.38847","approve_lo":"31.8292","disapprove_estimate":"52.39693","disapprove_hi":"61.37431","disapprove_lo":"43.41955"},{"date":"2019-01-06","future":true,"subgroup":"All polls","approve_estimate":"41.1142","approve_hi":"50.41903","approve_lo":"31.80938","disapprove_estimate":"52.39072","disapprove_hi":"61.39412","disapprove_lo":"43.38733"},{"date":"2019-01-07","future":true,"subgroup":"All polls","approve_estimate":"41.11951","approve_hi":"50.44949","approve_lo":"31.78954","disapprove_estimate":"52.38457","disapprove_hi":"61.41394","disapprove_lo":"43.3552"},{"date":"2019-01-08","future":true,"subgroup":"All polls","approve_estimate":"41.12478","approve_hi":"50.47987","approve_lo":"31.76968","disapprove_estimate":"52.37848","disapprove_hi":"61.43377","disapprove_lo":"43.32318"},{"date":"2019-01-09","future":true,"subgroup":"All polls","approve_estimate":"41.12999","approve_hi":"50.51017","approve_lo":"31.74982","disapprove_estimate":"52.37243","disapprove_hi":"61.45361","disapprove_lo":"43.29125"},{"date":"2019-01-10","future":true,"subgroup":"All polls","approve_estimate":"41.13516","approve_hi":"50.54038","approve_lo":"31.72994","disapprove_estimate":"52.36644","disapprove_hi":"61.47346","disapprove_lo":"43.25941"},{"date":"2019-01-11","future":true,"subgroup":"All polls","approve_estimate":"41.14028","approve_hi":"50.57051","approve_lo":"31.71005","disapprove_estimate":"52.3605","disapprove_hi":"61.49333","disapprove_lo":"43.22768"},{"date":"2019-01-12","future":true,"subgroup":"All polls","approve_estimate":"41.14535","approve_hi":"50.60056","approve_lo":"31.69015","disapprove_estimate":"52.35462","disapprove_hi":"61.51321","disapprove_lo":"43.19603"},{"date":"2019-01-13","future":true,"subgroup":"All polls","approve_estimate":"41.15037","approve_hi":"50.63052","approve_lo":"31.67023","disapprove_estimate":"52.34879","disapprove_hi":"61.53311","disapprove_lo":"43.16448"},{"date":"2019-01-14","future":true,"subgroup":"All polls","approve_estimate":"41.15535","approve_hi":"50.6604","approve_lo":"31.65029","disapprove_estimate":"52.34301","disapprove_hi":"61.55301","disapprove_lo":"43.13302"},{"date":"2019-01-15","future":true,"subgroup":"All polls","approve_estimate":"41.16027","approve_hi":"50.6902","approve_lo":"31.63034","disapprove_estimate":"52.33729","disapprove_hi":"61.57293","disapprove_lo":"43.10165"},{"date":"2019-01-16","future":true,"subgroup":"All polls","approve_estimate":"41.16515","approve_hi":"50.71992","approve_lo":"31.61038","disapprove_estimate":"52.33162","disapprove_hi":"61.59286","disapprove_lo":"43.07037"},{"date":"2019-01-17","future":true,"subgroup":"All polls","approve_estimate":"41.16998","approve_hi":"50.74956","approve_lo":"31.5904","disapprove_estimate":"52.32599","disapprove_hi":"61.61282","disapprove_lo":"43.03917"},{"date":"2019-01-18","future":true,"subgroup":"All polls","approve_estimate":"41.17477","approve_hi":"50.77912","approve_lo":"31.57041","disapprove_estimate":"52.32042","disapprove_hi":"61.63278","disapprove_lo":"43.00807"},{"date":"2019-01-19","future":true,"subgroup":"All polls","approve_estimate":"41.1795","approve_hi":"50.80861","approve_lo":"31.5504","disapprove_estimate":"52.3149","disapprove_hi":"61.65275","disapprove_lo":"42.97705"},{"date":"2019-01-20","future":true,"subgroup":"All polls","approve_estimate":"41.1842","approve_hi":"50.83801","approve_lo":"31.53038","disapprove_estimate":"52.30943","disapprove_hi":"61.67274","disapprove_lo":"42.94611"},{"date":"2019-01-21","future":true,"subgroup":"All polls","approve_estimate":"41.18884","approve_hi":"50.86734","approve_lo":"31.51034","disapprove_estimate":"52.30401","disapprove_hi":"61.69276","disapprove_lo":"42.91527"},{"date":"2019-01-22","future":true,"subgroup":"All polls","approve_estimate":"41.19344","approve_hi":"50.8966","approve_lo":"31.49028","disapprove_estimate":"52.29864","disapprove_hi":"61.71278","disapprove_lo":"42.88451"},{"date":"2019-01-23","future":true,"subgroup":"All polls","approve_estimate":"41.19799","approve_hi":"50.92578","approve_lo":"31.47021","disapprove_estimate":"52.29332","disapprove_hi":"61.73281","disapprove_lo":"42.85382"},{"date":"2019-01-24","future":true,"subgroup":"All polls","approve_estimate":"41.2025","approve_hi":"50.95489","approve_lo":"31.45012","disapprove_estimate":"52.28805","disapprove_hi":"61.75286","disapprove_lo":"42.82323"},{"date":"2019-01-25","f
```

```
uture":true,"subgroup":"All polls","approve_estimate":"41.20697","approve_hi":"50.98392","approve_lo":"31.43002","disapprove_estimate":"52.28282","disapprove_hi":"61.77293","disapprove_lo":"42.79271"},{"date":"2019-01-26","future":true,"subgroup":"All polls","approve_estimate":"41.21138","approve_hi":"51.01288","approve_lo":"31.40989","disapprove_estimate":"52.27765","disapprove_hi":"61.79302","disapprove_lo":"42.76228"},{"date":"2019-01-27","future":true,"subgroup":"All polls","approve_estimate":"41.21576","approve_hi":"51.04176","approve_lo":"31.38975","disapprove_estimate":"52.27252","disapprove_hi":"61.81311","disapprove_lo":"42.73192"},{"date":"2019-01-28","future":true,"subgroup":"All polls","approve_estimate":"41.22009","approve_hi":"51.07058","approve_lo":"31.36959","disapprove_estimate":"52.26744","disapprove_hi":"61.83323","disapprove_lo":"42.70165"},{"date":"2019-01-29","future":true,"subgroup":"All polls","approve_estimate":"41.22437","approve_hi":"51.09933","approve_lo":"31.34942","disapprove_estimate":"52.26241","disapprove_hi":"61.85336","disapprove_lo":"42.67145"},{"date":"2019-01-30","future":true,"subgroup":"All polls","approve_estimate":"41.22861","approve_hi":"51.128","approve_lo":"31.32923","disapprove_estimate":"52.25742","disapprove_hi":"61.87351","disapprove_lo":"42.64133"},{"date":"2019-01-31","future":true,"subgroup":"All polls","approve_estimate":"41.23281","approve_hi":"51.1566","approve_lo":"31.30902","disapprove_estimate":"52.25248","disapprove_hi":"61.89367","disapprove_lo":"42.61129"},{"date":"2019-02-01","future":true,"subgroup":"All polls","approve_estimate":"41.23697","approve_hi":"51.18514","approve_lo":"31.28879","disapprove_estimate":"52.24759","disapprove_hi":"61.91385","disapprove_lo":"42.58133"},{"date":"2019-02-02","future":true,"subgroup":"All polls","approve_estimate":"41.24108","approve_hi":"51.21361","approve_lo":"31.26855","disapprove_estimate":"52.24274","disapprove_hi":"61.93405","disapprove_lo":"42.55143"},{"date":"2019-02-03","future":true,"subgroup":"All polls","approve_estimate":"41.24514","approve_hi":"51.242","approve_lo":"31.24828","disapprove_estimate":"52.23794","disapprove_hi":"61.95426","disapprove_lo":"42.52162"},{"date":"2019-02-04","future":true,"subgroup":"All polls","approve_estimate":"41.24917","approve_hi":"51.27033","approve_lo":"31.228","disapprove_estimate":"52.23318","disapprove_hi":"61.97449","disapprove_lo":"42.49188"},{"date":"2019-02-05","future":true,"subgroup":"All polls","approve_estimate":"41.25315","approve_hi":"51.2986","approve_lo":"31.20771","disapprove_estimate":"52.22847","disapprove_hi":"61.99473","disapprove_lo":"42.46221"},{"date":"2019-02-06","future":true,"subgroup":"All polls","approve_estimate":"41.2571","approve_hi":"51.3268","approve_lo":"31.18739","disapprove_estimate":"52.2238","disapprove_hi":"62.015","disapprove_lo":"42.43261"},{"date":"2019-02-07","future":true,"subgroup":"All polls","approve_estimate":"41.26099","approve_hi":"51.35493","approve_lo":"31.16705","disapprove_estimate":"52.21918","disapprove_hi":"62.03527","disapprove_lo":"42.40309"},{"date":"2019-02-08","future":true,"subgroup":"All polls","approve_estimate":"41.26485","approve_hi":"51.383","approve_lo":"31.1467","disapprove_estimate":"52.2146","disapprove_hi":"62.05556","disapprove_lo":"42.37364"},{"date":"2019-02-09","future":true,"subgroup":"All polls","approve_estimate":"41.26867","approve_hi":"51.41101","approve_lo":"31.12633","disapprove_estimate":"52.21007","disapprove_hi":"62.07588","disapprove_lo":"42.34426"},{"date":"2019-02-10","future":true,"subgroup":"All polls","approve_estimate":"41.27244","approve_hi":"51.43895","approve_lo":"31.10594","disapprove_estimate":"52.20557","disapprove_hi":"62.0962","disapprove_lo":"42.31495"},{"date":"2019-02-11","future":true,"subgroup":"All polls","approve_estimate":"41.27618","approve_hi":"51.46682","approve_lo":"31.08553","disapprove_estimate":"52.20113","disapprove_hi":"62.11655","disapprove_lo":"42.2857"},{"date":"2019-02-12","future":true,"subgroup":"All polls","approve_estimate":"41.27987","approve_hi":"51.49464","approve_lo":"31.0651","disapprove_estimate":"52.19672","disapprove_hi":"62.13691","disapprove_lo":"42.25653"},{"date":"2019-02-13","future":true,"subgroup":"All polls","approve_estimate":"41.28352","approve_hi":"51.52238","approve_lo":"31.04466","disapprove_estimate":"52.19236","disapprove_hi":"62.15729","disapprove_lo":"42.22742"},{"date":"2019-02-14","future":true,"subgroup":"All polls","approve_estimate":"41.28714","approve_hi":"51.55008","ap
```

```

prove_lo": "31.0242", "disapprove_estimate": "52.18803", "disapprove_hi": "62.17768", "disapprove_lo": "42.19838"}, {"date": "2019-02-15", "future": true, "subgroup": "All polls", "approve_estimate": "41.29071", "approve_hi": "51.5777", "approve_lo": "31.00371", "disapprove_estimate": "52.18375", "disapprove_hi": "62.19809", "disapprove_lo": "42.16941"}, {"date": "2019-02-16", "future": true, "subgroup": "All polls", "approve_estimate": "41.29424", "approve_hi": "51.60527", "approve_lo": "30.98321", "disapprove_estimate": "52.17951", "disapprove_hi": "62.21852", "disapprove_lo": "42.1405"}, {"date": "2019-02-17", "future": true, "subgroup": "All polls", "approve_estimate": "41.29773", "approve_hi": "51.63277", "approve_lo": "30.96269", "disapprove_estimate": "52.17531", "disapprove_hi": "62.23896", "disapprove_lo": "42.11166"}, {"date": "2019-02-18", "future": true, "subgroup": "All polls", "approve_estimate": "41.30119", "approve_hi": "51.66022", "approve_lo": "30.94215", "disapprove_estimate": "52.17115", "disapprove_hi": "62.25942", "disapprove_lo": "42.08289"}, {"date": "2019-02-19", "future": true, "subgroup": "All polls", "approve_estimate": "41.3046", "approve_hi": "51.68761", "approve_lo": "30.9216", "disapprove_estimate": "52.16704", "disapprove_hi": "62.2799", "disapprove_lo": "42.05418"}, {"date": "2019-02-20", "future": true, "subgroup": "All polls", "approve_estimate": "41.30798", "approve_hi": "51.71494", "approve_lo": "30.90102", "disapprove_estimate": "52.16296", "disapprove_hi": "62.30039", "disapprove_lo": "42.02553"}, {"date": "2019-02-21", "future": true, "subgroup": "All polls", "approve_estimate": "41.31132", "approve_hi": "51.74221", "approve_lo": "30.88042", "disapprove_estimate": "52.15892", "disapprove_hi": "62.3209", "disapprove_lo": "41.99694"}, {"date": "2019-02-22", "future": true, "subgroup": "All polls", "approve_estimate": "41.31462", "approve_hi": "51.76942", "approve_lo": "30.85981", "disapprove_estimate": "52.15492", "disapprove_hi": "62.34143", "disapprove_lo": "41.96842"}, {"date": "2019-02-23", "future": true, "subgroup": "All polls", "approve_estimate": "41.31788", "approve_hi": "51.79658", "approve_lo": "30.83918", "disapprove_estimate": "52.15096", "disapprove_hi": "62.36197", "disapprove_lo": "41.93996"}, {"date": "2019-02-24", "future": true, "subgroup": "All polls", "approve_estimate": "41.3211", "approve_hi": "51.82368", "approve_lo": "30.81853", "disapprove_estimate": "52.14704", "disapprove_hi": "62.38253", "disapprove_lo": "41.91155"}, {"date": "2019-02-25", "future": true, "subgroup": "All polls", "approve_estimate": "41.32429", "approve_hi": "51.85072", "approve_lo": "30.79786", "disapprove_estimate": "52.14316", "disapprove_hi": "62.4031", "disapprove_lo": "41.88321"}, {"date": "2019-02-26", "future": true, "subgroup": "All polls", "approve_estimate": "41.32744", "approve_hi": "51.87771", "approve_lo": "30.77717", "disapprove_estimate": "52.13932", "disapprove_hi": "62.4237", "disapprove_lo": "41.85493"}, {"date": "2019-02-27", "future": true, "subgroup": "All polls", "approve_estimate": "41.33055", "approve_hi": "51.90463", "approve_lo": "30.75646", "disapprove_estimate": "52.13551", "disapprove_hi": "62.4443", "disapprove_lo": "41.82672"}, {"date": "2019-02-28", "future": true, "subgroup": "All polls", "approve_estimate": "41.33362", "approve_hi": "51.93151", "approve_lo": "30.73573", "disapprove_estimate": "52.13174", "disapprove_hi": "62.46493", "disapprove_lo": "41.79855"}, {"date": "2019-03-01", "future": true, "subgroup": "All polls", "approve_estimate": "41.33666", "approve_hi": "51.95833", "approve_lo": "30.71499", "disapprove_estimate": "52.12801", "disapprove_hi": "62.48557", "disapprove_lo": "41.77045"}, {"date": "2019-03-02", "future": true, "subgroup": "All polls", "approve_estimate": "41.33966", "approve_hi": "51.9851", "approve_lo": "30.69423", "disapprove_estimate": "52.12431", "disapprove_hi": "62.50622", "disapprove_lo": "41.7424"}, {"date": "2019-03-03", "future": true, "subgroup": "All polls", "approve_estimate": "41.34262", "approve_hi": "52.01181", "approve_lo": "30.67344", "disapprove_estimate": "52.12066", "disapprove_hi": "62.52689", "disapprove_lo": "41.71442"}, {"date": "2019-03-04", "future": true, "subgroup": "All polls", "approve_estimate": "41.34555", "approve_hi": "52.03847", "approve_lo": "30.65264", "disapprove_estimate": "52.11703", "disapprove_hi": "62.54758", "disapprove_lo": "41.68649"}, {"date": "2019-03-05", "future": true, "subgroup": "All polls", "approve_estimate": "41.34845", "approve_hi": "52.06507", "approve_lo": "30.63182", "disapprove_estimate": "52.11345", "disapprove_hi": "62.56828", "disapprove_lo": "41.65862"}, {"date": "2019-03-06", "future": true, "subgroup": "All polls", "approve_estimate": "41.3513", "approve_hi": "52.09163", "approve_lo": "30.61098", "disapprove_estimate": "52.1099", "disapprove_hi": "62.589", "disa

```

```

pprove_lo": "41.63079"}, {"date": "2019-03-07", "future": true, "subgroup": "All polls", "approve_estimate": "41.35413", "approve_hi": "52.11813", "approve_lo": "30.59012", "disapprove_estimate": "52.10638", "disapprove_hi": "62.60974", "disapprove_lo": "41.60303"}, {"date": "2019-03-08", "future": true, "subgroup": "All polls", "approve_estimate": "41.35691", "approve_hi": "52.14458", "approve_lo": "30.56925", "disapprove_estimate": "52.1029", "disapprove_hi": "62.63049", "disapprove_lo": "41.57532"}, {"date": "2019-03-09", "future": true, "subgroup": "All polls", "approve_estimate": "41.35966", "approve_hi": "52.17098", "approve_lo": "30.54835", "disapprove_estimate": "52.09946", "disapprove_hi": "62.65125", "disapprove_lo": "41.54767"}, {"date": "2019-03-10", "future": true, "subgroup": "All polls", "approve_estimate": "41.36238", "approve_hi": "52.19732", "approve_lo": "30.52744", "disapprove_estimate": "52.09605", "disapprove_hi": "62.67203", "disapprove_lo": "41.52006"}, {"date": "2019-03-11", "future": true, "subgroup": "All polls", "approve_estimate": "41.36507", "approve_hi": "52.22363", "approve_lo": "30.50651", "disapprove_estimate": "52.09267", "disapprove_hi": "62.69283", "disapprove_lo": "41.49252"}, {"date": "2019-03-12", "future": true, "subgroup": "All polls", "approve_estimate": "41.36771", "approve_hi": "52.24987", "approve_lo": "30.48556", "disapprove_estimate": "52.08933", "disapprove_hi": "62.71365", "disapprove_lo": "41.46502"}, {"date": "2019-03-13", "future": true, "subgroup": "All polls", "approve_estimate": "41.37033", "approve_hi": "52.27607", "approve_lo": "30.46459", "disapprove_estimate": "52.08602", "disapprove_hi": "62.73447", "disapprove_lo": "41.43758"}, {"date": "2019-03-14", "future": true, "subgroup": "All polls", "approve_estimate": "41.37291", "approve_hi": "52.30222", "approve_lo": "30.4436", "disapprove_estimate": "52.08274", "disapprove_hi": "62.75531", "disapprove_lo": "41.41018"}, {"date": "2019-03-15", "future": true, "subgroup": "All polls", "approve_estimate": "41.37546", "approve_hi": "52.32832", "approve_lo": "30.4226", "disapprove_estimate": "52.07951", "disapprove_hi": "62.77617", "disapprove_lo": "41.38284"}, {"date": "2019-03-16", "future": true, "subgroup": "All polls", "approve_estimate": "41.37797", "approve_hi": "52.35437", "approve_lo": "30.40158", "disapprove_estimate": "52.07629", "disapprove_hi": "62.79704", "disapprove_lo": "41.35555"}, {"date": "2019-03-17", "future": true, "subgroup": "All polls", "approve_estimate": "41.38045", "approve_hi": "52.38037", "approve_lo": "30.38054", "disapprove_estimate": "52.07312", "disapprove_hi": "62.81792", "disapprove_lo": "41.32832"}, {"date": "2019-03-18", "future": true, "subgroup": "All polls", "approve_estimate": "41.3829", "approve_hi": "52.40632", "approve_lo": "30.35948", "disapprove_estimate": "52.06997", "disapprove_hi": "62.83883", "disapprove_lo": "41.30112"}, {"date": "2019-03-19", "future": true, "subgroup": "All polls", "approve_estimate": "41.38531", "approve_hi": "52.43223", "approve_lo": "30.3384", "disapprove_estimate": "52.06686", "disapprove_hi": "62.85974", "disapprove_lo": "41.27398"}, {"date": "2019-03-20", "future": true, "subgroup": "All polls", "approve_estimate": "41.3877", "approve_hi": "52.45809", "approve_lo": "30.3173", "disapprove_estimate": "52.06378", "disapprove_hi": "62.88067", "disapprove_lo": "41.24689"}, {"date": "2019-03-21", "future": true, "subgroup": "All polls", "approve_estimate": "41.39005", "approve_hi": "52.4839", "approve_lo": "30.29619", "disapprove_estimate": "52.06073", "disapprove_hi": "62.90162", "disapprove_lo": "41.21984"}, {"date": "2019-03-22", "future": true, "subgroup": "All polls", "approve_estimate": "41.39236", "approve_hi": "52.50967", "approve_lo": "30.27506", "disapprove_estimate": "52.05771", "disapprove_hi": "62.92257", "disapprove_lo": "41.19285"}, {"date": "2019-03-23", "future": true, "subgroup": "All polls", "approve_estimate": "41.39465", "approve_hi": "52.53539", "approve_lo": "30.25391", "disapprove_estimate": "52.05472", "disapprove_hi": "62.94354", "disapprove_lo": "41.1659"}, {"date": "2019-03-24", "future": true, "subgroup": "All polls", "approve_estimate": "41.3969", "approve_hi": "52.56107", "approve_lo": "30.23274", "disapprove_estimate": "52.05177", "disapprove_hi": "62.96453", "disapprove_lo": "41.139"}, {"date": "2019-03-25", "future": true, "subgroup": "All polls", "approve_estimate": "41.39913", "approve_hi": "52.5867", "approve_lo": "30.21156", "disapprove_estimate": "52.04884", "disapprove_hi": "62.98553", "disapprove_lo": "41.11215"}, {"date": "2019-03-26", "future": true, "subgroup": "All polls", "approve_estimate": "41.40132", "approve_hi": "52.61229", "approve_lo": "30.19036", "disapprove_estimate": "52.04594", "disapprove_hi": "63.00655", "disapprove_lo": "41.08533"}, {"date": "2019-03-27", "future": true, "subgroup": "All polls", "a

```

```
pprove_estimate": "41.40348", "approve_hi": "52.63783", "approve_lo": "30.16914", "disap  
prove_estimate": "52.04307", "disapprove_hi": "63.02757", "disapprove_lo": "41.05857"},  
{ "date": "2019-03-28", "future": true, "subgroup": "All polls", "approve_estimate": "41.4  
0561", "approve_hi": "52.66332", "approve_lo": "30.1479", "disapprove_estimate": "52.040  
23", "disapprove_hi": "63.04861", "disapprove_lo": "41.03185"}, {"date": "2019-03-29", "f  
uture": true, "subgroup": "All polls", "approve_estimate": "41.40771", "approve_hi": "52.  
68877", "approve_lo": "30.12665", "disapprove_estimate": "52.03743", "disapprove_hi": "6  
3.06967", "disapprove_lo": "41.00518"}, {"date": "2019-03-30", "future": true, "subgrou  
p": "All polls", "approve_estimate": "41.40978", "approve_hi": "52.71418", "approve_l  
o": "30.10537", "disapprove_estimate": "52.03465", "disapprove_hi": "63.09074", "disappr  
ove_lo": "40.97855"}, {"date": "2019-03-31", "future": true, "subgroup": "All polls", "app  
rove_estimate": "41.41182", "approve_hi": "52.73955", "approve_lo": "30.08409", "disappr  
ove_estimate": "52.03189", "disapprove_hi": "63.11182", "disapprove_lo": "40.95197"},  
{ "date": "2019-04-01", "future": true, "subgroup": "All polls", "approve_estimate": "41.4  
1383", "approve_hi": "52.76488", "approve_lo": "30.06278", "disapprove_estimate": "52.02  
917", "disapprove_hi": "63.13291", "disapprove_lo": "40.92543"}, {"date": "2019-04-0  
2", "future": true, "subgroup": "All polls", "approve_estimate": "41.41581", "approve_h  
i": "52.79016", "approve_lo": "30.04145", "disapprove_estimate": "52.02647", "disapprove  
_hi": "63.15402", "disapprove_lo": "40.89893"}, {"date": "2019-04-03", "future": true, "su  
bgroup": "All polls", "approve_estimate": "41.41776", "approve_hi": "52.8154", "approve_  
lo": "30.02011", "disapprove_estimate": "52.02381", "disapprove_hi": "63.17514", "disapp  
rove_lo": "40.87247"}, {"date": "2019-04-04", "future": true, "subgroup": "All polls", "ap  
prove_estimate": "41.41968", "approve_hi": "52.8406", "approve_lo": "29.99876", "disappr  
ove_estimate": "52.02117", "disapprove_hi": "63.19627", "disapprove_lo": "40.84606"},  
{ "date": "2019-04-05", "future": true, "subgroup": "All polls", "approve_estimate": "41.4  
2157", "approve_hi": "52.86575", "approve_lo": "29.97738", "disapprove_estimate": "52.01  
855", "disapprove_hi": "63.21742", "disapprove_lo": "40.81969"}, {"date": "2019-04-0  
6", "future": true, "subgroup": "All polls", "approve_estimate": "41.42343", "approve_h  
i": "52.89086", "approve_lo": "29.95599", "disapprove_estimate": "52.01596", "disapprove  
_hi": "63.23857", "disapprove_lo": "40.79336"}, {"date": "2019-04-07", "future": true, "su  
bgroup": "All polls", "approve_estimate": "41.42526", "approve_hi": "52.91594", "approve  
_lo": "29.93459", "disapprove_estimate": "52.01341", "disapprove_hi": "63.25974", "disap  
prove_lo": "40.76707"}, {"date": "2019-04-08", "future": true, "subgroup": "All polls", "a  
pprove_estimate": "41.42707", "approve_hi": "52.94097", "approve_lo": "29.91316", "disap  
prove_estimate": "52.01088", "disapprove_hi": "63.28093", "disapprove_lo": "40.74083"},  
{ "date": "2019-04-09", "future": true, "subgroup": "All polls", "approve_estimate": "41.4  
2884", "approve_hi": "52.96597", "approve_lo": "29.89172", "disapprove_estimate": "52.00  
837", "disapprove_hi": "63.30212", "disapprove_lo": "40.71461"}, {"date": "2019-04-1  
0", "future": true, "subgroup": "All polls", "approve_estimate": "41.43059", "approve_h  
i": "52.99092", "approve_lo": "29.87026", "disapprove_estimate": "52.00589", "disapprove  
_hi": "63.32333", "disapprove_lo": "40.68845"}, {"date": "2019-04-11", "future": true, "su  
bgroup": "All polls", "approve_estimate": "41.43231", "approve_hi": "53.01583", "approve  
_lo": "29.84879", "disapprove_estimate": "52.00343", "disapprove_hi": "63.34454", "disap  
prove_lo": "40.66232"}, {"date": "2019-04-12", "future": true, "subgroup": "All polls", "a  
pprove_estimate": "41.43401", "approve_hi": "53.04071", "approve_lo": "29.8273", "disapp  
rove_estimate": "52.001", "disapprove_hi": "63.36577", "disapprove_lo": "40.63623"}, {"d  
ate": "2019-04-13", "future": true, "subgroup": "All polls", "approve_estimate": "41.4356  
7", "approve_hi": "53.06555", "approve_lo": "29.8058", "disapprove_estimate": "51.998  
6", "disapprove_hi": "63.38701", "disapprove_lo": "40.61018"}, {"date": "2019-04-14", "fu  
ture": true, "subgroup": "All polls", "approve_estimate": "41.43731", "approve_hi": "53.0  
9034", "approve_lo": "29.78428", "disapprove_estimate": "51.99622", "disapprove_hi": "6  
3.40826", "disapprove_lo": "40.58417"}, {"date": "2019-04-15", "future": true, "subgrou  
p": "All polls", "approve_estimate": "41.43892", "approve_hi": "53.1151", "approve_l  
o": "29.76274", "disapprove_estimate": "51.99386", "disapprove_hi": "63.42953", "disappr  
ove_lo": "40.55819"}, {"date": "2019-04-16", "future": true, "subgroup": "All polls", "app  
rove_estimate": "41.4405", "approve_hi": "53.13982", "approve_lo": "29.74118", "disappro
```

```

ve_estimate": "51.99153", "disapprove_hi": "63.4508", "disapprove_lo": "40.53225"}, {"date": "2019-04-17", "future": true, "subgroup": "All polls", "approve_estimate": "41.44206", "approve_hi": "53.16451", "approve_lo": "29.71962", "disapprove_estimate": "51.98922", "disapprove_hi": "63.47209", "disapprove_lo": "40.50636"}, {"date": "2019-04-18", "future": true, "subgroup": "All polls", "approve_estimate": "41.44359", "approve_hi": "53.18915", "approve_lo": "29.69803", "disapprove_estimate": "51.98694", "disapprove_hi": "63.49339", "disapprove_lo": "40.48049"}, {"date": "2019-04-19", "future": true, "subgroup": "All polls", "approve_estimate": "41.4451", "approve_hi": "53.21376", "approve_lo": "29.67643", "disapprove_estimate": "51.98468", "disapprove_hi": "63.51469", "disapprove_lo": "40.45467"}, {"date": "2019-04-20", "future": true, "subgroup": "All polls", "approve_estimate": "41.44658", "approve_hi": "53.23833", "approve_lo": "29.65482", "disapprove_estimate": "51.98244", "disapprove_hi": "63.53601", "disapprove_lo": "40.42888"}, {"date": "2019-04-21", "future": true, "subgroup": "All polls", "approve_estimate": "41.44802", "approve_hi": "53.26287", "approve_lo": "29.63318", "disapprove_estimate": "51.98023", "disapprove_hi": "63.55733", "disapprove_lo": "40.40312"}, {"date": "2019-04-22", "future": true, "subgroup": "All polls", "approve_estimate": "41.44945", "approve_hi": "53.28736", "approve_lo": "29.61154", "disapprove_estimate": "51.97804", "disapprove_hi": "63.57867", "disapprove_lo": "40.3774"}, {"date": "2019-04-23", "future": true, "subgroup": "All polls", "approve_estimate": "41.45085", "approve_hi": "53.31183", "approve_lo": "29.58988", "disapprove_estimate": "51.97587", "disapprove_hi": "63.60003", "disapprove_lo": "40.35172"}, {"date": "2019-04-24", "future": true, "subgroup": "All polls", "approve_estimate": "41.45223", "approve_hi": "53.33626", "approve_lo": "29.5682", "disapprove_estimate": "51.97373", "disapprove_hi": "63.62138", "disapprove_lo": "40.32607"}, {"date": "2019-04-25", "future": true, "subgroup": "All polls", "approve_estimate": "41.45358", "approve_hi": "53.36065", "approve_lo": "29.54651", "disapprove_estimate": "51.9716", "disapprove_hi": "63.64275", "disapprove_lo": "40.30045"}, {"date": "2019-04-26", "future": true, "subgroup": "All polls", "approve_estimate": "41.4549", "approve_hi": "53.385", "approve_lo": "29.5248", "disapprove_estimate": "51.96951", "disapprove_hi": "63.66413", "disapprove_lo": "40.27488"}, {"date": "2019-04-27", "future": true, "subgroup": "All polls", "approve_estimate": "41.4562", "approve_hi": "53.40932", "approve_lo": "29.50308", "disapprove_estimate": "51.96742", "disapprove_hi": "63.68552", "disapprove_lo": "40.24932"}, {"date": "2019-04-28", "future": true, "subgroup": "All polls", "approve_estimate": "41.45748", "approve_hi": "53.43361", "approve_lo": "29.48134", "disapprove_estimate": "51.96537", "disapprove_hi": "63.70692", "disapprove_lo": "40.22382"}, {"date": "2019-04-29", "future": true, "subgroup": "All polls", "approve_estimate": "41.45873", "approve_hi": "53.45786", "approve_lo": "29.45959", "disapprove_estimate": "51.96333", "disapprove_hi": "63.72832", "disapprove_lo": "40.19833"}, {"date": "2019-04-30", "future": true, "subgroup": "All polls", "approve_estimate": "41.45996", "approve_hi": "53.48209", "approve_lo": "29.43783", "disapprove_estimate": "51.96131", "disapprove_hi": "63.74974", "disapprove_lo": "40.17288"}, {"date": "2019-05-01", "future": true, "subgroup": "All polls", "approve_estimate": "41.46116", "approve_hi": "53.50627", "approve_lo": "29.41605", "disapprove_estimate": "51.95932", "disapprove_hi": "63.77116", "disapprove_lo": "40.14747"}, {"date": "2019-05-02", "future": true, "subgroup": "All polls", "approve_estimate": "41.46234", "approve_hi": "53.53042", "approve_lo": "29.39425", "disapprove_estimate": "51.95734", "disapprove_hi": "63.7926", "disapprove_lo": "40.12208"}, {"date": "2019-05-03", "future": true, "subgroup": "All polls", "approve_estimate": "41.46349", "approve_hi": "53.55454", "approve_lo": "29.37245", "disapprove_estimate": "51.95539", "disapprove_hi": "63.81404", "disapprove_lo": "40.09673"}, {"date": "2019-05-04", "future": true, "subgroup": "All polls", "approve_estimate": "41.46463", "approve_hi": "53.57863", "approve_lo": "29.35062", "disapprove_estimate": "51.95345", "disapprove_hi": "63.83549", "disapprove_lo": "40.07141"}, {"date": "2019-05-05", "future": true, "subgroup": "All polls", "approve_estimate": "41.46573", "approve_hi": "53.60268", "approve_lo": "29.32879", "disapprove_estimate": "51.95154", "disapprove_hi": "63.85696", "disapprove_lo": "40.04612"}, {"date": "2019-05-06", "future": true, "subgroup": "All polls", "approve_estimate": "41.46682", "approve_hi": "53.6267", "approve_lo": "29.30694", "disapprove_estimate": "51.94964", "disapprove_hi": "63.87843", "disapprove_lo": "40.02086"}, {"date": "2019

```

```
-05-07", "future": true, "subgroup": "All polls", "approve_estimate": "41.46788", "approve_hi": "53.65069", "approve_lo": "29.28507", "disapprove_estimate": "51.94777", "disapprove_hi": "63.8999", "disapprove_lo": "39.99563"}, {"date": "2019-05-08", "future": true, "subgroup": "All polls", "approve_estimate": "41.46892", "approve_hi": "53.67464", "approve_lo": "29.2632", "disapprove_estimate": "51.94591", "disapprove_hi": "63.92139", "disapprove_lo": "39.97043"}, {"date": "2019-05-09", "future": true, "subgroup": "All polls", "approve_estimate": "41.46994", "approve_hi": "53.69857", "approve_lo": "29.24131", "disapprove_estimate": "51.94407", "disapprove_hi": "63.94288", "disapprove_lo": "39.94526"}, {"date": "2019-05-10", "future": true, "subgroup": "All polls", "approve_estimate": "41.47093", "approve_hi": "53.72246", "approve_lo": "29.2194", "disapprove_estimate": "51.94225", "disapprove_hi": "63.96438", "disapprove_lo": "39.92012"}, {"date": "2019-05-11", "future": true, "subgroup": "All polls", "approve_estimate": "41.4719", "approve_hi": "53.74633", "approve_lo": "29.19748", "disapprove_estimate": "51.94044", "disapprove_hi": "63.98589", "disapprove_lo": "39.895"}, {"date": "2019-05-12", "future": true, "subgroup": "All polls", "approve_estimate": "41.47285", "approve_hi": "53.77016", "approve_lo": "29.17555", "disapprove_estimate": "51.93866", "disapprove_hi": "64.0074", "disapprove_lo": "39.86993"}, {"date": "2019-05-13", "future": true, "subgroup": "All polls", "approve_estimate": "41.47378", "approve_hi": "53.79396", "approve_lo": "29.15361", "disapprove_estimate": "51.9369", "disapprove_hi": "64.02892", "disapprove_lo": "39.84487"}, {"date": "2019-05-14", "future": true, "subgroup": "All polls", "approve_estimate": "41.47469", "approve_hi": "53.81773", "approve_lo": "29.13165", "disapprove_estimate": "51.93515", "disapprove_hi": "64.05045", "disapprove_lo": "39.81984"}]
```

```
In [ ]: # Test cell: `test__extract_approval_raw` (1 point)

raw_data = extract_approval_raw(raw_html)
assert isinstance(raw_data, str), "Your function did not return a string!"
assert len(raw_data) == 188678, "Did your function return all of the substring? It
print("\n(Passed!)")
```

(Passed!)

Exercise 1 (3 points). Complete the function,

`extract_approval_estimates(data_substr)`, below. It takes as input a string, `data_substr`, which would be a data substring like the one returned by `extract_approval_raw()`. It should return a **dictionary** where

- each key is a date, stored as a string in the form `'2017-01-23'` (**without the quotes**);
- each corresponding value is the approval rating, **stored as a float**.

For example, executing

```
approvals = extract_approval_estimates(data_substr)
print(type(approvals['2017-01-23']), approvals['2017-01-23'])
```

should display `<class 'float'> 45.46693`. (Refer to the first entry of ratings from the PDF, which begins on page 50.)

Also, your function should keep **only** records for which `"future": false`, that is, **it should not include the extrapolated values**.

You may make the following assumptions:

1. Dates are *not* duplicated.
2. All encountered dates have valid approval estimates.
3. All data records are encoded using the same pattern as shown in the file snippets above.

```
In [ ]: import ast, json
def extract_approval_estimates(data_substr):
    assert isinstance(data_substr, str), "`data_substr` is not a string."
    assert data_substr[0] == '{' and data_substr[-1] == '}', "Input may be malformed"
    pattern = r"\{[^}]+\}"

    # Use re.findall() to find all matches of the pattern in the text
    dict_strings = re.findall(pattern, (data_substr))
    app_dict = {}
    # Convert each JSON string to a dictionary
    dict_list = [json.loads(s) for s in dict_strings]

    for dict in dict_list:
        if dict['future'] is False:
            app_dict[dict['date']] = float(dict['approve_estimate'])

    return app_dict

approvals = extract_approval_estimates(raw_data)
# print("Found {} data records.".format(len(approvals)))
approvals
```



```
Out[ ]: {'2017-01-23': 45.46693,  
        '2017-01-24': 45.44264,  
        '2017-01-25': 47.76497,  
        '2017-01-26': 44.37598,  
        '2017-01-27': 44.13586,  
        '2017-01-28': 43.87527,  
        '2017-01-29': 44.14589,  
        '2017-01-30': 44.09903,  
        '2017-01-31': 44.34048,  
        '2017-02-01': 44.79341,  
        '2017-02-02': 44.81124,  
        '2017-02-03': 44.21341,  
        '2017-02-04': 44.23746,  
        '2017-02-05': 44.43742,  
        '2017-02-06': 44.42256,  
        '2017-02-07': 44.65995,  
        '2017-02-08': 44.50491,  
        '2017-02-09': 44.34582,  
        '2017-02-10': 44.28156,  
        '2017-02-11': 44.42348,  
        '2017-02-12': 44.30565,  
        '2017-02-13': 43.46242,  
        '2017-02-14': 44.47177,  
        '2017-02-15': 44.49281,  
        '2017-02-16': 44.57693,  
        '2017-02-17': 44.46416,  
        '2017-02-18': 44.31153,  
        '2017-02-19': 44.10547,  
        '2017-02-20': 43.83627,  
        '2017-02-21': 43.66503,  
        '2017-02-22': 42.54541,  
        '2017-02-23': 43.00062,  
        '2017-02-24': 43.10133,  
        '2017-02-25': 42.99247,  
        '2017-02-26': 42.94234,  
        '2017-02-27': 42.97042,  
        '2017-02-28': 42.93886,  
        '2017-03-01': 43.75505,  
        '2017-03-02': 43.71027,  
        '2017-03-03': 43.90226,  
        '2017-03-04': 43.90226,  
        '2017-03-05': 43.93693,  
        '2017-03-06': 44.08371,  
        '2017-03-07': 44.3455,  
        '2017-03-08': 44.33974,  
        '2017-03-09': 44.25294,  
        '2017-03-10': 44.51029,  
        '2017-03-11': 44.6835,  
        '2017-03-12': 44.76669,  
        '2017-03-13': 44.53927,  
        '2017-03-14': 44.29615,  
        '2017-03-15': 43.732,  
        '2017-03-16': 43.59192,  
        '2017-03-17': 43.36182,  
        '2017-03-18': 42.70947,  
        '2017-03-19': 42.48279,
```

'2017-03-20': 42.56183,
'2017-03-21': 42.41769,
'2017-03-22': 42.34076,
'2017-03-23': 42.28773,
'2017-03-24': 42.15625,
'2017-03-25': 42.14841,
'2017-03-26': 42.08798,
'2017-03-27': 41.81089,
'2017-03-28': 41.55795,
'2017-03-29': 41.20364,
'2017-03-30': 40.63618,
'2017-03-31': 40.48179,
'2017-04-01': 40.54905,
'2017-04-02': 40.44848,
'2017-04-03': 39.84783,
'2017-04-04': 40.01525,
'2017-04-05': 40.66016,
'2017-04-06': 40.41075,
'2017-04-07': 40.38835,
'2017-04-08': 40.40128,
'2017-04-09': 40.41701,
'2017-04-10': 40.87731,
'2017-04-11': 41.51326,
'2017-04-12': 41.64417,
'2017-04-13': 41.44421,
'2017-04-14': 41.27088,
'2017-04-15': 41.23275,
'2017-04-16': 41.34031,
'2017-04-17': 41.62966,
'2017-04-18': 41.70159,
'2017-04-19': 41.92009,
'2017-04-20': 42.02447,
'2017-04-21': 41.89439,
'2017-04-22': 41.88213,
'2017-04-23': 41.63386,
'2017-04-24': 41.76186,
'2017-04-25': 41.42433,
'2017-04-26': 41.98724,
'2017-04-27': 42.1408,
'2017-04-28': 41.9548,
'2017-04-29': 41.99678,
'2017-04-30': 41.98776,
'2017-05-01': 41.87309,
'2017-05-02': 41.99481,
'2017-05-03': 42.38294,
'2017-05-04': 42.42966,
'2017-05-05': 42.33636,
'2017-05-06': 42.17928,
'2017-05-07': 42.13611,
'2017-05-08': 42.16862,
'2017-05-09': 41.93328,
'2017-05-10': 41.21492,
'2017-05-11': 41.15792,
'2017-05-12': 41.12946,
'2017-05-13': 41.08303,
'2017-05-14': 40.63778,

'2017-05-15': 40.50564,
'2017-05-16': 39.90671,
'2017-05-17': 39.6813,
'2017-05-18': 39.45036,
'2017-05-19': 38.86071,
'2017-05-20': 38.80148,
'2017-05-21': 38.83015,
'2017-05-22': 38.78198,
'2017-05-23': 39.14797,
'2017-05-24': 38.99393,
'2017-05-25': 39.05955,
'2017-05-26': 39.28042,
'2017-05-27': 39.27729,
'2017-05-28': 39.3673,
'2017-05-29': 39.3634,
'2017-05-30': 39.21078,
'2017-05-31': 39.14719,
'2017-06-01': 39.11364,
'2017-06-02': 39.10624,
'2017-06-03': 38.9981,
'2017-06-04': 38.89021,
'2017-06-05': 38.99826,
'2017-06-06': 38.60328,
'2017-06-07': 38.28024,
'2017-06-08': 38.24259,
'2017-06-09': 38.04195,
'2017-06-10': 38.12778,
'2017-06-11': 38.09373,
'2017-06-12': 38.29467,
'2017-06-13': 38.25534,
'2017-06-14': 38.3791,
'2017-06-15': 38.38903,
'2017-06-16': 38.66948,
'2017-06-17': 38.7223,
'2017-06-18': 38.73221,
'2017-06-19': 38.71433,
'2017-06-20': 38.62213,
'2017-06-21': 38.40358,
'2017-06-22': 38.74978,
'2017-06-23': 39.77451,
'2017-06-24': 39.66325,
'2017-06-25': 39.58413,
'2017-06-26': 39.46778,
'2017-06-27': 38.71787,
'2017-06-28': 39.3798,
'2017-06-29': 39.93516,
'2017-06-30': 39.60293,
'2017-07-01': 39.58723,
'2017-07-02': 39.51341,
'2017-07-03': 39.52999,
'2017-07-04': 39.41248,
'2017-07-05': 39.03904,
'2017-07-06': 39.00697,
'2017-07-07': 39.01347,
'2017-07-08': 39.03389,
'2017-07-09': 39.08517,

'2017-07-10': 39.12117,
'2017-07-11': 39.24297,
'2017-07-12': 39.29457,
'2017-07-13': 39.25278,
'2017-07-14': 39.14643,
'2017-07-15': 39.09839,
'2017-07-16': 38.60715,
'2017-07-17': 38.81894,
'2017-07-18': 38.72128,
'2017-07-19': 38.71251,
'2017-07-20': 38.6458,
'2017-07-21': 38.3734,
'2017-07-22': 38.41841,
'2017-07-23': 38.4932,
'2017-07-24': 39.05289,
'2017-07-25': 38.38955,
'2017-07-26': 38.54961,
'2017-07-27': 38.54928,
'2017-07-28': 38.35725,
'2017-07-29': 38.38412,
'2017-07-30': 38.35231,
'2017-07-31': 38.20862,
'2017-08-01': 37.76429,
'2017-08-02': 37.04735,
'2017-08-03': 37.01992,
'2017-08-04': 36.91279,
'2017-08-05': 36.95828,
'2017-08-06': 36.98021,
'2017-08-07': 36.60229,
'2017-08-08': 36.90808,
'2017-08-09': 36.86343,
'2017-08-10': 36.93701,
'2017-08-11': 37.56736,
'2017-08-12': 37.62228,
'2017-08-13': 37.57039,
'2017-08-14': 37.39813,
'2017-08-15': 37.63694,
'2017-08-16': 37.33916,
'2017-08-17': 37.85554,
'2017-08-18': 37.79533,
'2017-08-19': 37.79533,
'2017-08-20': 37.72692,
'2017-08-21': 37.05765,
'2017-08-22': 36.81282,
'2017-08-23': 36.92514,
'2017-08-24': 37.01527,
'2017-08-25': 36.91675,
'2017-08-26': 36.93331,
'2017-08-27': 36.92144,
'2017-08-28': 36.92813,
'2017-08-29': 36.82207,
'2017-08-30': 37.31853,
'2017-08-31': 37.22177,
'2017-09-01': 37.3336,
'2017-09-02': 37.28516,
'2017-09-03': 37.35038,

'2017-09-04': 37.50347,
'2017-09-05': 37.76652,
'2017-09-06': 38.21691,
'2017-09-07': 38.37829,
'2017-09-08': 38.68817,
'2017-09-09': 38.76101,
'2017-09-10': 38.75933,
'2017-09-11': 38.71809,
'2017-09-12': 38.1081,
'2017-09-13': 38.20712,
'2017-09-14': 38.48572,
'2017-09-15': 38.85391,
'2017-09-16': 38.79293,
'2017-09-17': 38.79023,
'2017-09-18': 38.90175,
'2017-09-19': 38.85189,
'2017-09-20': 39.06307,
'2017-09-21': 39.45935,
'2017-09-22': 39.49464,
'2017-09-23': 39.44529,
'2017-09-24': 39.59408,
'2017-09-25': 39.6704,
'2017-09-26': 38.92197,
'2017-09-27': 38.79216,
'2017-09-28': 38.82832,
'2017-09-29': 38.62467,
'2017-09-30': 38.61241,
'2017-10-01': 38.66099,
'2017-10-02': 38.52001,
'2017-10-03': 38.61701,
'2017-10-04': 38.92259,
'2017-10-05': 38.81237,
'2017-10-06': 38.1001,
'2017-10-07': 38.13292,
'2017-10-08': 38.10051,
'2017-10-09': 38.02188,
'2017-10-10': 37.45793,
'2017-10-11': 37.7519,
'2017-10-12': 37.85408,
'2017-10-13': 37.6958,
'2017-10-14': 37.62886,
'2017-10-15': 37.66046,
'2017-10-16': 38.14785,
'2017-10-17': 37.98654,
'2017-10-18': 38.07331,
'2017-10-19': 37.96664,
'2017-10-20': 37.84346,
'2017-10-21': 37.86096,
'2017-10-22': 37.85255,
'2017-10-23': 37.48936,
'2017-10-24': 37.1561,
'2017-10-25': 37.07568,
'2017-10-26': 37.46911,
'2017-10-27': 37.30399,
'2017-10-28': 37.29323,
'2017-10-29': 37.26856,

'2017-10-30': 37.26442,
'2017-10-31': 37.24255,
'2017-11-01': 37.75723,
'2017-11-02': 37.97559,
'2017-11-03': 37.8332,
'2017-11-04': 37.88012,
'2017-11-05': 37.78851,
'2017-11-06': 37.69767,
'2017-11-07': 37.55069,
'2017-11-08': 37.58189,
'2017-11-09': 37.65916,
'2017-11-10': 37.85893,
'2017-11-11': 37.91284,
'2017-11-12': 37.98497,
'2017-11-13': 38.07273,
'2017-11-14': 38.05358,
'2017-11-15': 38.08255,
'2017-11-16': 38.12582,
'2017-11-17': 38.07958,
'2017-11-18': 38.19148,
'2017-11-19': 38.1493,
'2017-11-20': 38.11539,
'2017-11-21': 38.16841,
'2017-11-22': 38.41062,
'2017-11-23': 38.42519,
'2017-11-24': 38.42519,
'2017-11-25': 38.44119,
'2017-11-26': 38.39222,
'2017-11-27': 38.3837,
'2017-11-28': 38.24538,
'2017-11-29': 38.42575,
'2017-11-30': 38.16322,
'2017-12-01': 38.00967,
'2017-12-02': 37.90633,
'2017-12-03': 37.89624,
'2017-12-04': 37.86093,
'2017-12-05': 37.90712,
'2017-12-06': 37.84785,
'2017-12-07': 37.27071,
'2017-12-08': 37.28476,
'2017-12-09': 37.26849,
'2017-12-10': 37.12042,
'2017-12-11': 37.07095,
'2017-12-12': 37.17878,
'2017-12-13': 36.66145,
'2017-12-14': 37.07505,
'2017-12-15': 36.45856,
'2017-12-16': 36.40314,
'2017-12-17': 37.00387,
'2017-12-18': 37.21277,
'2017-12-19': 37.10143,
'2017-12-20': 37.20605,
'2017-12-21': 37.0453,
'2017-12-22': 37.14611,
'2017-12-23': 37.25974,
'2017-12-24': 37.3656,

'2017-12-25': 37.3656,
'2017-12-26': 37.38361,
'2017-12-27': 37.53883,
'2017-12-28': 37.73159,
'2017-12-29': 37.71204,
'2017-12-30': 37.73003,
'2017-12-31': 37.8654,
'2018-01-01': 37.8654,
'2018-01-02': 38.12047,
'2018-01-03': 38.16097,
'2018-01-04': 38.47328,
'2018-01-05': 38.82547,
'2018-01-06': 38.82547,
'2018-01-07': 38.82547,
'2018-01-08': 38.69312,
'2018-01-09': 38.73449,
'2018-01-10': 39.22063,
'2018-01-11': 39.10347,
'2018-01-12': 39.10097,
'2018-01-13': 39.10097,
'2018-01-14': 39.10097,
'2018-01-15': 39.29245,
'2018-01-16': 39.78146,
'2018-01-17': 40.20608,
'2018-01-18': 39.75453,
'2018-01-19': 39.47084,
'2018-01-20': 39.47084,
'2018-01-21': 39.11164,
'2018-01-22': 38.66162,
'2018-01-23': 38.35379,
'2018-01-24': 39.18694,
'2018-01-25': 39.04172,
'2018-01-26': 38.82256,
'2018-01-27': 38.82256,
'2018-01-28': 38.82256,
'2018-01-29': 38.78343,
'2018-01-30': 38.99561,
'2018-01-31': 39.52642,
'2018-02-01': 39.77913,
'2018-02-02': 40.19921,
'2018-02-03': 40.20801,
'2018-02-04': 40.20801,
'2018-02-05': 40.37448,
'2018-02-06': 40.13234,
'2018-02-07': 40.71095,
'2018-02-08': 40.81161,
'2018-02-09': 40.83043,
'2018-02-10': 40.83043,
'2018-02-11': 40.83043,
'2018-02-12': 40.91967,
'2018-02-13': 40.98163,
'2018-02-14': 41.42786,
'2018-02-15': 41.45908,
'2018-02-16': 41.3879,
'2018-02-17': 41.3879,
'2018-02-18': 41.3879,

'2018-02-19': 41.14141,
'2018-02-20': 40.9889,
'2018-02-21': 40.54642,
'2018-02-22': 40.57474,
'2018-02-23': 40.01941,
'2018-02-24': 40.01941,
'2018-02-25': 39.07833,
'2018-02-26': 39.37048,
'2018-02-27': 39.63747,
'2018-02-28': 40.03228,
'2018-03-01': 40.59626,
'2018-03-02': 40.41828,
'2018-03-03': 40.41828,
'2018-03-04': 40.41828,
'2018-03-05': 40.38741,
'2018-03-06': 40.47234,
'2018-03-07': 40.2174,
'2018-03-08': 40.62883,
'2018-03-09': 40.67968,
'2018-03-10': 40.67968,
'2018-03-11': 40.67968,
'2018-03-12': 40.65869,
'2018-03-13': 40.52831,
'2018-03-14': 40.42437,
'2018-03-15': 40.46296,
'2018-03-16': 40.24184,
'2018-03-17': 40.24184,
'2018-03-18': 40.5158,
'2018-03-19': 40.73995,
'2018-03-20': 40.73125,
'2018-03-21': 40.58772,
'2018-03-22': 40.63551,
'2018-03-23': 40.67521,
'2018-03-24': 40.41634,
'2018-03-25': 40.74137,
'2018-03-26': 41.09504,
'2018-03-27': 40.46638,
'2018-03-28': 40.19111,
'2018-03-29': 40.21669,
'2018-03-30': 40.54322,
'2018-03-31': 40.54322,
'2018-04-01': 40.54322,
'2018-04-02': 40.62948,
'2018-04-03': 40.39435,
'2018-04-04': 40.30183,
'2018-04-05': 40.22276,
'2018-04-06': 39.96867,
'2018-04-07': 39.96867,
'2018-04-08': 39.96867,
'2018-04-09': 40.23806,
'2018-04-10': 40.60616,
'2018-04-11': 40.6097,
'2018-04-12': 40.63083,
'2018-04-13': 40.77415,
'2018-04-14': 40.77415,
'2018-04-15': 40.59587,

'2018-04-16': 40.70876,
'2018-04-17': 40.59293,
'2018-04-18': 40.16125,
'2018-04-19': 40.21317,
'2018-04-20': 40.28197,
'2018-04-21': 40.28197,
'2018-04-22': 40.28197,
'2018-04-23': 40.16019,
'2018-04-24': 40.34375,
'2018-04-25': 40.51619,
'2018-04-26': 40.59169,
'2018-04-27': 40.59867,
'2018-04-28': 40.37253,
'2018-04-29': 40.37253,
'2018-04-30': 40.64146,
'2018-05-01': 41.21312,
'2018-05-02': 41.15172,
'2018-05-03': 41.31839,
'2018-05-04': 41.41713,
'2018-05-05': 42.0897,
'2018-05-06': 42.0897,
'2018-05-07': 42.01726,
'2018-05-08': 41.90759,
'2018-05-09': 41.8737,
'2018-05-10': 41.96571,
'2018-05-11': 42.02566,
'2018-05-12': 42.12308,
'2018-05-13': 42.12308,
'2018-05-14': 42.09991,
'2018-05-15': 42.32984,
'2018-05-16': 42.14801,
'2018-05-17': 42.26259,
'2018-05-18': 42.38191,
'2018-05-19': 42.38191,
'2018-05-20': 42.38191,
'2018-05-21': 42.01738,
'2018-05-22': 42.2518,
'2018-05-23': 42.15873,
'2018-05-24': 42.22643,
'2018-05-25': 42.25806,
'2018-05-26': 42.70038,
'2018-05-27': 42.70038,
'2018-05-28': 42.58736,
'2018-05-29': 42.40171,
'2018-05-30': 42.29955,
'2018-05-31': 41.64616,
'2018-06-01': 41.61631,
'2018-06-02': 41.60918,
'2018-06-03': 41.60918,
'2018-06-04': 41.60794,
'2018-06-05': 41.41488,
'2018-06-06': 41.31416,
'2018-06-07': 41.86653,
'2018-06-08': 41.77634,
'2018-06-09': 41.62884,
'2018-06-10': 41.62884,

'2018-06-11': 41.50231,
'2018-06-12': 41.56427,
'2018-06-13': 41.43065,
'2018-06-14': 41.79745,
'2018-06-15': 42.0946,
'2018-06-16': 42.0946,
'2018-06-17': 42.0946,
'2018-06-18': 42.23578,
'2018-06-19': 42.30142,
'2018-06-20': 42.51168,
'2018-06-21': 42.56531,
'2018-06-22': 42.37092,
'2018-06-23': 42.37092,
'2018-06-24': 42.49755,
'2018-06-25': 42.29508,
'2018-06-26': 42.19255,
'2018-06-27': 41.87872,
'2018-06-28': 41.89148,
'2018-06-29': 41.75614,
'2018-06-30': 41.75614,
'2018-07-01': 41.79801,
'2018-07-02': 42.00296,
'2018-07-03': 41.83677,
'2018-07-04': 41.83677,
'2018-07-05': 41.8582,
'2018-07-06': 42.24339,
'2018-07-07': 42.24339,
'2018-07-08': 42.20303,
'2018-07-09': 42.13817,
'2018-07-10': 41.86861,
'2018-07-11': 41.96289,
'2018-07-12': 42.28969,
'2018-07-13': 42.06443,
'2018-07-14': 42.03181,
'2018-07-15': 42.03181,
'2018-07-16': 42.12241,
'2018-07-17': 42.0509,
'2018-07-18': 41.76017,
'2018-07-19': 41.78589,
'2018-07-20': 41.78527,
'2018-07-21': 41.71679,
'2018-07-22': 41.9939,
'2018-07-23': 41.7831,
'2018-07-24': 41.37473,
'2018-07-25': 41.33853,
'2018-07-26': 41.2835,
'2018-07-27': 41.47915,
'2018-07-28': 41.47915,
'2018-07-29': 41.20658,
'2018-07-30': 41.30453,
'2018-07-31': 41.41338,
'2018-08-01': 41.299,
'2018-08-02': 41.43415,
'2018-08-03': 41.43453,
'2018-08-04': 41.43453,
'2018-08-05': 41.43453,

```
'2018-08-06': 41.46711,
'2018-08-07': 41.45063,
'2018-08-08': 41.71214,
'2018-08-09': 41.91957,
'2018-08-10': 41.9125,
'2018-08-11': 41.9125,
'2018-08-12': 41.9125,
'2018-08-13': 41.81873,
'2018-08-14': 42.20527,
'2018-08-15': 42.05485,
'2018-08-16': 42.11238,
'2018-08-17': 41.97367,
'2018-08-18': 41.97367,
'2018-08-19': 41.97367,
'2018-08-20': 42.2604,
'2018-08-21': 41.77507,
'2018-08-22': 42.12536,
'2018-08-23': 42.08969,
'2018-08-24': 41.46597,
'2018-08-25': 41.46597,
'2018-08-26': 41.88652,
'2018-08-27': 41.86845,
'2018-08-28': 41.37738,
'2018-08-29': 41.44618,
'2018-08-30': 41.50489,
'2018-08-31': 40.25376,
'2018-09-01': 40.25376,
'2018-09-02': 40.25376,
'2018-09-03': 40.05969,
'2018-09-04': 40.05544,
'2018-09-05': 39.89795,
'2018-09-06': 40.0058}
```

In []: *# Test cell 0: test_extract_approval_estimates__0 (2 points)*

```
num_approvals_expected, min_date_expected, max_date_expected = 592, '2017-01-23', '
approvals = extract_approval_estimates(raw_data)
assert isinstance(approvals, dict), "Your function returned an object of type {} in
assert len(approvals) == num_approvals_expected, \
    "Your function should have found {} records but has {} instead, which is too
for date_expected, date_occurred in zip([min_date_expected, max_date_expected],
    [min(approvals.keys()), max(approvals.keys(
    assert date_occurred == date_expected, "A record for {} is missing!".format(dat
print("\n(Passed!)")
```

(Passed!)

In []: *# Test cell 1: test_extract_approval_estimates__1_HIDDEN (1 points)*

```
def sample_ratings(ratings, k):
    from random import sample
    ratings_sample = []
```

```

for date in sample(ratings.keys(), k):
    ratings_sample.append((date, ratings[date]))
return ratings_sample

if False:
    print(sample_ratings(approvals, 20))

import math
sample_approvals = [('2017-06-04', 38.89021), ('2017-10-30', 37.26442), ('2017-03-0
for date, value in sample_approvals:
    assert date in approvals, "Approvals is missing a record for the date '{}!'".fo
    assert math.isclose(approvals[date], value, abs_tol=1e-5), \
        "Approval rating for {} should be {}, not {}".format(date, value, appro
print("\n(Passed!)")

```

(Passed!)

Exercise 2 (2 points). Complete the function,

`extract_disapproval_estimates(data_substr)`, below. It should behave just like `extract_approval_estimates()` except that it should extract disapproval estimates rather than approval estimates.

For instance, executing

```

disapprovals = extract_disapproval_estimates(raw_data)
print(type(disapprovals['2017-01-23']), disapprovals['2017-01-23'])

```

should display, `<class 'float'> 41.26452`.

```

In [ ]: def extract_disapproval_estimates(data_substr):
    assert isinstance(data_substr, str), "`data_substr` is not a string."
    assert data_substr[0] == '{' and data_substr[-1] == '}', "Input may be malformed"
    pattern = r"\{[^{}]+\}"

    # Use re.findall() to find all matches of the pattern in the text
    dict_strings = re.findall(pattern, (data_substr))
    app_dict = {}
    # Convert each JSON string to a dictionary
    dict_list = [json.loads(s) for s in dict_strings]

    for dict in dict_list:
        if dict['future'] is False:
            app_dict[dict['date']] = float(dict['disapprove_estimate'])

    return app_dict

disapprovals = extract_disapproval_estimates(raw_data)
print("Found {} data records.".format(len(disapprovals)))

```

Found 592 data records.

```

In [ ]: disapprovals

```

```
Out[ ]: {'2017-01-23': 41.26452,  
        '2017-01-24': 41.87849,  
        '2017-01-25': 42.52911,  
        '2017-01-26': 41.06081,  
        '2017-01-27': 41.67268,  
        '2017-01-28': 41.91362,  
        '2017-01-29': 42.2247,  
        '2017-01-30': 42.45613,  
        '2017-01-31': 43.45351,  
        '2017-02-01': 44.69287,  
        '2017-02-02': 44.79839,  
        '2017-02-03': 47.06427,  
        '2017-02-04': 47.03533,  
        '2017-02-05': 47.4848,  
        '2017-02-06': 48.03367,  
        '2017-02-07': 48.71205,  
        '2017-02-08': 48.8634,  
        '2017-02-09': 49.3256,  
        '2017-02-10': 49.35836,  
        '2017-02-11': 49.29364,  
        '2017-02-12': 49.4447,  
        '2017-02-13': 50.64742,  
        '2017-02-14': 50.36843,  
        '2017-02-15': 50.23329,  
        '2017-02-16': 50.21927,  
        '2017-02-17': 50.34889,  
        '2017-02-18': 50.62162,  
        '2017-02-19': 50.62915,  
        '2017-02-20': 50.03596,  
        '2017-02-21': 50.16118,  
        '2017-02-22': 50.79599,  
        '2017-02-23': 49.79304,  
        '2017-02-24': 49.82072,  
        '2017-02-25': 49.87163,  
        '2017-02-26': 49.97172,  
        '2017-02-27': 50.10254,  
        '2017-02-28': 50.21992,  
        '2017-03-01': 49.75748,  
        '2017-03-02': 49.87239,  
        '2017-03-03': 49.85654,  
        '2017-03-04': 49.85654,  
        '2017-03-05': 49.72623,  
        '2017-03-06': 49.29635,  
        '2017-03-07': 48.89124,  
        '2017-03-08': 49.15517,  
        '2017-03-09': 49.22272,  
        '2017-03-10': 49.00035,  
        '2017-03-11': 48.83847,  
        '2017-03-12': 48.7696,  
        '2017-03-13': 48.95186,  
        '2017-03-14': 49.32653,  
        '2017-03-15': 49.82358,  
        '2017-03-16': 50.67634,  
        '2017-03-17': 50.8023,  
        '2017-03-18': 51.48524,  
        '2017-03-19': 51.70201,
```

'2017-03-20': 51.57077,
'2017-03-21': 51.82015,
'2017-03-22': 51.67672,
'2017-03-23': 51.76073,
'2017-03-24': 52.08948,
'2017-03-25': 52.09206,
'2017-03-26': 52.08815,
'2017-03-27': 52.25573,
'2017-03-28': 52.38742,
'2017-03-29': 52.53189,
'2017-03-30': 53.55639,
'2017-03-31': 53.06938,
'2017-04-01': 53.0927,
'2017-04-02': 53.17198,
'2017-04-03': 53.59146,
'2017-04-04': 53.67127,
'2017-04-05': 53.16607,
'2017-04-06': 53.69882,
'2017-04-07': 53.89001,
'2017-04-08': 53.86125,
'2017-04-09': 53.82942,
'2017-04-10': 53.21894,
'2017-04-11': 52.52065,
'2017-04-12': 52.36113,
'2017-04-13': 52.70598,
'2017-04-14': 51.87616,
'2017-04-15': 51.88008,
'2017-04-16': 51.77214,
'2017-04-17': 51.48813,
'2017-04-18': 51.38246,
'2017-04-19': 51.80953,
'2017-04-20': 52.04146,
'2017-04-21': 52.33761,
'2017-04-22': 52.33886,
'2017-04-23': 52.87494,
'2017-04-24': 52.74255,
'2017-04-25': 52.85545,
'2017-04-26': 52.19347,
'2017-04-27': 52.32465,
'2017-04-28': 52.67693,
'2017-04-29': 52.56797,
'2017-04-30': 52.59581,
'2017-05-01': 52.76786,
'2017-05-02': 52.65896,
'2017-05-03': 51.87002,
'2017-05-04': 51.85018,
'2017-05-05': 51.93982,
'2017-05-06': 52.08133,
'2017-05-07': 52.09691,
'2017-05-08': 52.08101,
'2017-05-09': 52.1669,
'2017-05-10': 52.84939,
'2017-05-11': 52.87853,
'2017-05-12': 52.89473,
'2017-05-13': 52.949,
'2017-05-14': 53.41823,

'2017-05-15': 53.57767,
'2017-05-16': 54.10234,
'2017-05-17': 54.27899,
'2017-05-18': 54.28648,
'2017-05-19': 54.87609,
'2017-05-20': 54.87124,
'2017-05-21': 54.86396,
'2017-05-22': 54.95404,
'2017-05-23': 54.91948,
'2017-05-24': 54.72712,
'2017-05-25': 54.67347,
'2017-05-26': 54.5595,
'2017-05-27': 54.57211,
'2017-05-28': 54.49165,
'2017-05-29': 54.5243,
'2017-05-30': 54.80099,
'2017-05-31': 54.78027,
'2017-06-01': 54.811,
'2017-06-02': 54.85807,
'2017-06-03': 54.95428,
'2017-06-04': 55.1037,
'2017-06-05': 55.00614,
'2017-06-06': 55.67593,
'2017-06-07': 55.87093,
'2017-06-08': 55.77963,
'2017-06-09': 55.96476,
'2017-06-10': 55.87754,
'2017-06-11': 55.9653,
'2017-06-12': 55.58596,
'2017-06-13': 55.78836,
'2017-06-14': 55.65119,
'2017-06-15': 55.9732,
'2017-06-16': 55.51431,
'2017-06-17': 55.40695,
'2017-06-18': 55.37252,
'2017-06-19': 55.33969,
'2017-06-20': 55.34938,
'2017-06-21': 55.77647,
'2017-06-22': 55.69723,
'2017-06-23': 55.08252,
'2017-06-24': 55.09979,
'2017-06-25': 55.20745,
'2017-06-26': 55.20918,
'2017-06-27': 55.64397,
'2017-06-28': 54.28488,
'2017-06-29': 54.1336,
'2017-06-30': 54.33164,
'2017-07-01': 54.34242,
'2017-07-02': 54.3523,
'2017-07-03': 54.39137,
'2017-07-04': 54.46843,
'2017-07-05': 54.90335,
'2017-07-06': 54.95916,
'2017-07-07': 55.12906,
'2017-07-08': 55.08215,
'2017-07-09': 55.06653,

'2017-07-10': 55.04463,
'2017-07-11': 55.10878,
'2017-07-12': 54.95346,
'2017-07-13': 55.00865,
'2017-07-14': 55.23926,
'2017-07-15': 55.3304,
'2017-07-16': 55.70111,
'2017-07-17': 55.38853,
'2017-07-18': 55.6564,
'2017-07-19': 55.67002,
'2017-07-20': 55.76773,
'2017-07-21': 55.72233,
'2017-07-22': 55.68146,
'2017-07-23': 55.55575,
'2017-07-24': 55.13695,
'2017-07-25': 55.60064,
'2017-07-26': 55.35145,
'2017-07-27': 55.34732,
'2017-07-28': 55.68452,
'2017-07-29': 55.72515,
'2017-07-30': 55.75294,
'2017-07-31': 56.1893,
'2017-08-01': 56.74495,
'2017-08-02': 57.46737,
'2017-08-03': 57.37531,
'2017-08-04': 57.43717,
'2017-08-05': 57.26429,
'2017-08-06': 57.27692,
'2017-08-07': 57.36718,
'2017-08-08': 57.43502,
'2017-08-09': 57.23425,
'2017-08-10': 57.06971,
'2017-08-11': 56.34317,
'2017-08-12': 56.35921,
'2017-08-13': 56.46309,
'2017-08-14': 56.64359,
'2017-08-15': 55.55735,
'2017-08-16': 55.03362,
'2017-08-17': 54.9286,
'2017-08-18': 55.39618,
'2017-08-19': 55.39618,
'2017-08-20': 55.43607,
'2017-08-21': 56.54782,
'2017-08-22': 57.00314,
'2017-08-23': 56.83273,
'2017-08-24': 56.76907,
'2017-08-25': 57.15396,
'2017-08-26': 57.17996,
'2017-08-27': 57.19756,
'2017-08-28': 57.2124,
'2017-08-29': 57.44258,
'2017-08-30': 57.14878,
'2017-08-31': 57.22581,
'2017-09-01': 57.26038,
'2017-09-02': 57.30523,
'2017-09-03': 57.18285,

'2017-09-04': 56.98285,
'2017-09-05': 56.80103,
'2017-09-06': 56.44203,
'2017-09-07': 56.37593,
'2017-09-08': 55.95134,
'2017-09-09': 55.89272,
'2017-09-10': 55.87571,
'2017-09-11': 55.95098,
'2017-09-12': 56.23722,
'2017-09-13': 55.90915,
'2017-09-14': 55.55937,
'2017-09-15': 54.70395,
'2017-09-16': 54.80883,
'2017-09-17': 54.70402,
'2017-09-18': 54.57581,
'2017-09-19': 54.49646,
'2017-09-20': 53.5909,
'2017-09-21': 53.5658,
'2017-09-22': 54.0083,
'2017-09-23': 54.00235,
'2017-09-24': 54.24086,
'2017-09-25': 54.32408,
'2017-09-26': 54.60735,
'2017-09-27': 54.94124,
'2017-09-28': 55.08244,
'2017-09-29': 55.41434,
'2017-09-30': 55.40293,
'2017-10-01': 55.35896,
'2017-10-02': 55.43917,
'2017-10-03': 55.51572,
'2017-10-04': 55.54972,
'2017-10-05': 55.61481,
'2017-10-06': 56.47272,
'2017-10-07': 56.40413,
'2017-10-08': 56.43702,
'2017-10-09': 56.38805,
'2017-10-10': 56.69799,
'2017-10-11': 56.08387,
'2017-10-12': 56.02977,
'2017-10-13': 56.14555,
'2017-10-14': 55.9846,
'2017-10-15': 55.95942,
'2017-10-16': 55.5671,
'2017-10-17': 55.80103,
'2017-10-18': 55.5466,
'2017-10-19': 55.79045,
'2017-10-20': 56.00579,
'2017-10-21': 55.98836,
'2017-10-22': 55.94585,
'2017-10-23': 56.38719,
'2017-10-24': 56.73306,
'2017-10-25': 56.91793,
'2017-10-26': 56.71981,
'2017-10-27': 56.69308,
'2017-10-28': 56.74607,
'2017-10-29': 57.08418,

'2017-10-30': 57.09366,
'2017-10-31': 57.15416,
'2017-11-01': 56.76285,
'2017-11-02': 56.40167,
'2017-11-03': 56.58921,
'2017-11-04': 56.50428,
'2017-11-05': 56.69604,
'2017-11-06': 56.73272,
'2017-11-07': 56.80687,
'2017-11-08': 56.68189,
'2017-11-09': 56.5921,
'2017-11-10': 56.11641,
'2017-11-11': 56.08043,
'2017-11-12': 55.9723,
'2017-11-13': 55.89657,
'2017-11-14': 55.78141,
'2017-11-15': 55.61642,
'2017-11-16': 55.66437,
'2017-11-17': 55.4835,
'2017-11-18': 55.45759,
'2017-11-19': 55.70245,
'2017-11-20': 55.75067,
'2017-11-21': 56.02618,
'2017-11-22': 55.54749,
'2017-11-23': 55.50383,
'2017-11-24': 55.50383,
'2017-11-25': 55.45301,
'2017-11-26': 55.54683,
'2017-11-27': 55.51948,
'2017-11-28': 55.60558,
'2017-11-29': 55.55772,
'2017-11-30': 55.75873,
'2017-12-01': 55.9007,
'2017-12-02': 56.05219,
'2017-12-03': 56.08004,
'2017-12-04': 56.09463,
'2017-12-05': 56.05267,
'2017-12-06': 55.80183,
'2017-12-07': 56.42054,
'2017-12-08': 56.4149,
'2017-12-09': 56.41706,
'2017-12-10': 56.69955,
'2017-12-11': 56.75324,
'2017-12-12': 57.00034,
'2017-12-13': 56.84941,
'2017-12-14': 56.79411,
'2017-12-15': 57.43106,
'2017-12-16': 57.50006,
'2017-12-17': 57.35746,
'2017-12-18': 56.7984,
'2017-12-19': 57.38179,
'2017-12-20': 56.98474,
'2017-12-21': 57.23926,
'2017-12-22': 57.08867,
'2017-12-23': 57.0198,
'2017-12-24': 56.87848,

'2017-12-25': 56.87848,
'2017-12-26': 56.89546,
'2017-12-27': 56.67389,
'2017-12-28': 56.41101,
'2017-12-29': 56.31897,
'2017-12-30': 56.24842,
'2017-12-31': 56.16106,
'2018-01-01': 56.16106,
'2018-01-02': 55.82487,
'2018-01-03': 55.69035,
'2018-01-04': 55.33284,
'2018-01-05': 54.96257,
'2018-01-06': 54.96257,
'2018-01-07': 54.96257,
'2018-01-08': 55.00991,
'2018-01-09': 55.00918,
'2018-01-10': 54.60398,
'2018-01-11': 54.63946,
'2018-01-12': 54.52315,
'2018-01-13': 54.52315,
'2018-01-14': 54.52315,
'2018-01-15': 54.54089,
'2018-01-16': 54.27212,
'2018-01-17': 54.29126,
'2018-01-18': 54.85685,
'2018-01-19': 55.4662,
'2018-01-20': 55.4662,
'2018-01-21': 55.66471,
'2018-01-22': 56.06828,
'2018-01-23': 56.41224,
'2018-01-24': 55.91165,
'2018-01-25': 55.95849,
'2018-01-26': 56.24937,
'2018-01-27': 56.24937,
'2018-01-28': 56.24937,
'2018-01-29': 56.26638,
'2018-01-30': 55.81257,
'2018-01-31': 54.93532,
'2018-02-01': 54.69682,
'2018-02-02': 54.20677,
'2018-02-03': 54.20181,
'2018-02-04': 54.20181,
'2018-02-05': 54.16125,
'2018-02-06': 54.1513,
'2018-02-07': 53.78003,
'2018-02-08': 53.61358,
'2018-02-09': 53.56587,
'2018-02-10': 53.56587,
'2018-02-11': 53.56587,
'2018-02-12': 53.57592,
'2018-02-13': 53.64082,
'2018-02-14': 53.14172,
'2018-02-15': 53.24955,
'2018-02-16': 53.14198,
'2018-02-17': 53.14198,
'2018-02-18': 53.14198,

'2018-02-19': 53.41457,
'2018-02-20': 53.43631,
'2018-02-21': 54.18967,
'2018-02-22': 53.90281,
'2018-02-23': 54.44614,
'2018-02-24': 54.44614,
'2018-02-25': 55.58106,
'2018-02-26': 55.20858,
'2018-02-27': 54.95428,
'2018-02-28': 54.5688,
'2018-03-01': 54.11998,
'2018-03-02': 54.26653,
'2018-03-03': 54.26653,
'2018-03-04': 54.26653,
'2018-03-05': 54.30457,
'2018-03-06': 53.97641,
'2018-03-07': 54.10192,
'2018-03-08': 53.62344,
'2018-03-09': 53.42613,
'2018-03-10': 53.42613,
'2018-03-11': 53.42613,
'2018-03-12': 53.42641,
'2018-03-13': 53.88568,
'2018-03-14': 53.99303,
'2018-03-15': 53.65602,
'2018-03-16': 53.87739,
'2018-03-17': 53.87739,
'2018-03-18': 53.84089,
'2018-03-19': 53.55711,
'2018-03-20': 53.52146,
'2018-03-21': 53.42529,
'2018-03-22': 53.40972,
'2018-03-23': 53.18119,
'2018-03-24': 53.52802,
'2018-03-25': 53.48326,
'2018-03-26': 53.39474,
'2018-03-27': 53.6646,
'2018-03-28': 53.63828,
'2018-03-29': 53.6349,
'2018-03-30': 53.42228,
'2018-03-31': 53.42228,
'2018-04-01': 53.42228,
'2018-04-02': 53.48064,
'2018-04-03': 53.6718,
'2018-04-04': 53.75499,
'2018-04-05': 53.80377,
'2018-04-06': 53.99965,
'2018-04-07': 53.99965,
'2018-04-08': 53.99965,
'2018-04-09': 53.8853,
'2018-04-10': 53.35361,
'2018-04-11': 53.29696,
'2018-04-12': 53.26645,
'2018-04-13': 53.20907,
'2018-04-14': 53.20907,
'2018-04-15': 53.78901,

'2018-04-16': 53.57156,
'2018-04-17': 53.83203,
'2018-04-18': 54.26796,
'2018-04-19': 54.22119,
'2018-04-20': 54.28614,
'2018-04-21': 54.28614,
'2018-04-22': 54.28614,
'2018-04-23': 54.26084,
'2018-04-24': 53.9503,
'2018-04-25': 53.66458,
'2018-04-26': 53.74832,
'2018-04-27': 53.73807,
'2018-04-28': 53.95501,
'2018-04-29': 53.95501,
'2018-04-30': 53.66854,
'2018-05-01': 52.94305,
'2018-05-02': 52.91795,
'2018-05-03': 52.53112,
'2018-05-04': 52.48483,
'2018-05-05': 52.03342,
'2018-05-06': 52.03342,
'2018-05-07': 51.94051,
'2018-05-08': 52.25288,
'2018-05-09': 51.90628,
'2018-05-10': 52.03023,
'2018-05-11': 51.97548,
'2018-05-12': 52.04174,
'2018-05-13': 52.04174,
'2018-05-14': 52.39321,
'2018-05-15': 52.35731,
'2018-05-16': 52.41426,
'2018-05-17': 52.27131,
'2018-05-18': 52.34803,
'2018-05-19': 52.34803,
'2018-05-20': 52.34803,
'2018-05-21': 52.68593,
'2018-05-22': 52.59256,
'2018-05-23': 52.63732,
'2018-05-24': 52.69279,
'2018-05-25': 52.62941,
'2018-05-26': 52.33014,
'2018-05-27': 52.33014,
'2018-05-28': 52.37592,
'2018-05-29': 52.54118,
'2018-05-30': 52.50706,
'2018-05-31': 52.86674,
'2018-06-01': 52.77813,
'2018-06-02': 52.67281,
'2018-06-03': 52.67281,
'2018-06-04': 52.91071,
'2018-06-05': 52.99069,
'2018-06-06': 52.56133,
'2018-06-07': 52.44299,
'2018-06-08': 52.53764,
'2018-06-09': 52.64178,
'2018-06-10': 52.64178,

'2018-06-11': 52.72633,
'2018-06-12': 52.58851,
'2018-06-13': 52.53515,
'2018-06-14': 51.69241,
'2018-06-15': 51.81807,
'2018-06-16': 51.81807,
'2018-06-17': 51.81807,
'2018-06-18': 51.61955,
'2018-06-19': 51.53254,
'2018-06-20': 51.4082,
'2018-06-21': 51.34674,
'2018-06-22': 51.61048,
'2018-06-23': 51.61048,
'2018-06-24': 51.60103,
'2018-06-25': 51.5812,
'2018-06-26': 51.68388,
'2018-06-27': 52.31686,
'2018-06-28': 52.20862,
'2018-06-29': 52.33812,
'2018-06-30': 52.33812,
'2018-07-01': 52.26242,
'2018-07-02': 52.19925,
'2018-07-03': 52.58812,
'2018-07-04': 52.58812,
'2018-07-05': 52.66431,
'2018-07-06': 52.88004,
'2018-07-07': 52.88004,
'2018-07-08': 52.9597,
'2018-07-09': 52.8242,
'2018-07-10': 52.97057,
'2018-07-11': 52.88639,
'2018-07-12': 52.74878,
'2018-07-13': 52.90168,
'2018-07-14': 53.00668,
'2018-07-15': 53.00668,
'2018-07-16': 52.81279,
'2018-07-17': 52.66814,
'2018-07-18': 52.83702,
'2018-07-19': 52.8283,
'2018-07-20': 52.74246,
'2018-07-21': 52.87256,
'2018-07-22': 52.81791,
'2018-07-23': 52.85764,
'2018-07-24': 53.35511,
'2018-07-25': 53.03458,
'2018-07-26': 53.02335,
'2018-07-27': 52.99194,
'2018-07-28': 52.99194,
'2018-07-29': 53.16719,
'2018-07-30': 52.9963,
'2018-07-31': 52.85781,
'2018-08-01': 52.90955,
'2018-08-02': 52.81184,
'2018-08-03': 52.80482,
'2018-08-04': 52.80482,
'2018-08-05': 52.80482,

```
'2018-08-06': 52.72193,
'2018-08-07': 52.666,
'2018-08-08': 52.45969,
'2018-08-09': 52.39185,
'2018-08-10': 52.49004,
'2018-08-11': 52.49004,
'2018-08-12': 52.49004,
'2018-08-13': 52.54657,
'2018-08-14': 52.3893,
'2018-08-15': 52.44334,
'2018-08-16': 52.43953,
'2018-08-17': 52.54111,
'2018-08-18': 52.54111,
'2018-08-19': 52.54111,
'2018-08-20': 52.33932,
'2018-08-21': 52.78539,
'2018-08-22': 52.91469,
'2018-08-23': 52.9692,
'2018-08-24': 53.56819,
'2018-08-25': 53.56819,
'2018-08-26': 53.37158,
'2018-08-27': 53.38425,
'2018-08-28': 53.63121,
'2018-08-29': 53.62854,
'2018-08-30': 53.53966,
'2018-08-31': 54.46505,
'2018-09-01': 54.46505,
'2018-09-02': 54.46505,
'2018-09-03': 54.12732,
'2018-09-04': 54.1169,
'2018-09-05': 53.72744,
'2018-09-06': 53.67471}
```

In []: *# Test cell 0: test_extract_disapproval_estimates_0 (1 point)*

```
disapprovals = extract_disapproval_estimates(raw_data)
assert isinstance(disapprovals, dict), "Your function returned an object of type {}

for date in approvals.keys():
    assert date in disapprovals, "The date '{}' is missing.".format(date)

print("\n(Passed!)")
```

(Passed!)

In []: *# Test cell 1: test_extract_disapproval_estimates_1_HIDDEN (1 point)*

```
if False:
    print(sample_ratings(disapprovals, 20))

import math
sample_disapprovals = [('2018-05-27', 52.33014), ('2017-07-18', 55.6564), ('2017-04
for date, value in sample_disapprovals:
    assert date in disapprovals, "Disapprovals is missing a record for the date '{}
    assert math.isclose(disapprovals[date], value, abs_tol=1e-5), \
        "Disapproval rating for {} should be {}, not {}".format(date, value, di
```

```
print("\n(Passed!)"
```

(Passed!)

Exercise 3 (1 point). Complete the function, `filter_dates_by_month(month_str, dates)`, below, so that it filters a list of dates by a particular target month and year. Its inputs are as follows.

- The `month_str` argument is a string of the form `yyyy-mm`. This string encodes a target month and year.
- The `dates` argument is a Python set of dates of the form `yyyy-mm-dd`. Think of these as the keys in the approval and disapproval ratings dictionaries, for instance.

The function should return a **Python set** containing only those elements of `dates` that match the given `month_str`. For example, the call

```
filter_dates_by_month('2018-07', {'2018-05-02', '2018-07-05', '2018-07-01', '2017-07-02', '2016-07-31'})
```

would return

```
{'2018-07-05', '2018-07-01'}
```

```
In [ ]: def filter_dates_by_month(month_str, dates):
        assert isinstance(month_str, str), "`month_str` is of type {}, rather than `str`"
        assert re.match(r'\d{4}-\d{2}$', month_str), "`month_str` == '{}' is invalid."
        m_dates = set()
        for d in dates:
            if month_str in d:
                m_dates.add(d)
        return m_dates
filter_dates_by_month('2018-07', {'2018-05-02', '2018-07-05', '2018-07-01', '2017-0
```

```
Out[ ]: {'2018-07-01', '2018-07-05'}
```

```
In [ ]: # Test cell: `test__filter_dates_by_month` (1 point)

def test__filter_dates_by_month():
    from random import sample
    padded_digits = lambda a, b: sample(range(a, b), 1)[0]
    rand_year = lambda: padded_digits(0, 10000)
    rand_month = lambda: padded_digits(1, 13)
    rand_day = lambda m: padded_digits(1, 28 if m == 2 else 31 if m in [1, 3, 5, 7,
    coin_flip = lambda: sample([False, True], 1)[0]

    yyyy_0, mm_0 = rand_year(), rand_month()
    month_str = '{:04d}-{:02d}'.format(yyyy_0, mm_0)
    all_dates = set()
    answer = set()
    for _ in range(10):
        match = coin_flip()
        if match:
            yyyy, mm = yyyy_0, mm_0
```



```
    else:
        yyyy, mm = rand_year(), rand_month()
        date = '{:04d}-{:02d}-{:02d}'.format(yyyy, mm, rand_day(mm))
        all_dates |= {date}
    if match:
        answer |= {date}
    filtered_dates = filter_dates_by_month(month_str, all_dates)
    print("All dates: {}".format(all_dates))
    print("Target month: {}".format(month_str))
    print("Your matches: {}".format(filtered_dates))
    if filtered_dates != answer:
        print("*** Your solution is incorrect! ***")
        excesses = filtered_dates - answer
        omissions = answer - filtered_dates
        if excesses:
            print("It erroneously includes {}".format(excesses))
        if omissions:
            print("It erroneously omits {}".format(omissions))
        assert False
    else:
        print("==> Looks good!\n")

for k in range(5):
    print("=== Test case {} ===".format(k))
    test__filter_dates_by_month()
```

```

=== Test case 0 ===
All dates: {'8176-01-28', '4868-10-26', '0083-04-12', '0083-04-20', '5742-05-07', '0
083-04-22', '0083-04-06', '0083-04-28', '7654-04-11', '0083-04-05'}
Target month: 0083-04
Your matches: {'0083-04-12', '0083-04-20', '0083-04-22', '0083-04-06', '0083-04-28',
'0083-04-05'}
==> Looks good!

=== Test case 1 ===
All dates: {'8681-09-06', '3104-03-26', '3104-03-03', '3104-03-09', '3104-03-20', '3
104-03-19', '3104-03-18', '3104-03-15', '3104-03-27', '3104-03-13'}
Target month: 3104-03
Your matches: {'3104-03-26', '3104-03-13', '3104-03-03', '3104-03-20', '3104-03-19',
'3104-03-18', '3104-03-15', '3104-03-27', '3104-03-09'}
==> Looks good!

=== Test case 2 ===
All dates: {'6920-04-05', '0575-05-26', '1287-11-29', '8326-05-19', '0575-05-19', '8
614-09-23', '0575-05-16', '9286-05-13', '0575-05-05', '4609-05-21'}
Target month: 0575-05
Your matches: {'0575-05-16', '0575-05-19', '0575-05-26', '0575-05-05'}
==> Looks good!

=== Test case 3 ===
All dates: {'1667-11-09', '1667-11-14', '8036-06-11', '1699-11-20', '1667-11-13', '4
111-11-16', '6134-05-13', '1667-11-22', '0893-10-10', '1667-11-29'}
Target month: 1667-11
Your matches: {'1667-11-09', '1667-11-14', '1667-11-13', '1667-11-22', '1667-11-29'}
==> Looks good!

=== Test case 4 ===
All dates: {'5023-06-05', '2011-02-04', '5023-06-13', '5023-06-24', '5741-12-06', '5
023-06-14', '5023-06-07', '5023-06-29', '5023-06-19'}
Target month: 5023-06
Your matches: {'5023-06-05', '5023-06-13', '5023-06-24', '5023-06-14', '5023-06-07',
'5023-06-29', '5023-06-19'}
==> Looks good!

```

Exercise 4 (3 points). Let the *discrepancy rating* of a given day be that day's approval rating minus its disapproval rating. Complete the function, `avg_discrepancy_in_month(month_str, approvals, disapprovals)`, below, so that it returns the **average** daily discrepancy rating for a given month.

- The `month_str` argument is a string of the form `yyyy-mm`. This string encodes a target month and year.
- The `approvals` argument is a dictionary, whose keys are dates and whose values are approval ratings.
- The `disapprovals` argument is a dictionary, whose keys are dates and whose values are disapproval ratings.

You may assume that if a date is in `approvals` then it is also in `disapprovals`, and vice-versa. You can ignore missing dates; that is, compute the averages based on whatever dates

exist in the input dictionaries.

```
In [ ]: def avg_discrepancy_in_month(month_str, approvals, disapprovals):
    assert isinstance(month_str, str), "`month_str` is of type {}, rather than `str`"
    assert re.match(r'\d{4}-\d{2}$', month_str), "`month_str` == '{}` is invalid.".format(month_str)
    assert all([date in disapprovals for date in approvals]), "`disapprovals` is missing days"
    assert all([date in approvals for date in disapprovals]), "`approvals` is missing days"
    days = filter_dates_by_month(month_str, set(approvals.keys()))
    discrepancies = {day: approvals[day] - disapprovals[day] for day in days}
    return avg_rating(discrepancies)

def avg_rating(ratings, days=None):
    if days is None:
        days = ratings.keys()
    assert all([day in ratings for day in days]), "ratings is missing days."
    ratings_subset = [ratings[day] for day in days]
    if len(ratings_subset) > 0:
        return sum(ratings_subset)/len(ratings_subset)
    return 0.0

for month in ['2017-01', '2018-09']:
    disc = avg_discrepancy_in_month(month, approvals, disapprovals)
    print("Average daily discrepancy for {}: {}".format(month, disc))
```

Average daily discrepancy for 2017-01: 2.7992755555555555

Average daily discrepancy for 2018-09: -14.008345

```
In [ ]: # Test cell: test_avg_discrepancy_in_month_0 (1 point)

import math
for month, disc_true in [('2017-01', 2.7992755555555555), ('2018-09', -14.008344999999999)]:
    disc = avg_discrepancy_in_month(month, approvals, disapprovals)
    assert math.isclose(disc, disc_true, abs_tol=1e-2), \
        "Your average daily discrepancy is {} instead of {}".format(disc, disc_true)
print("\n(Passed!)")
```

(Passed!)

```
In [ ]: # Test cell: test_avg_discrepancy_in_month_1_HIDDEN (2 points)

all_complete_months = ['2017-02', '2017-03', '2017-04', '2017-05', '2017-06', '2017-07', '2017-08', '2017-09', '2017-10', '2017-11', '2017-12', '2018-01', '2018-02', '2018-03', '2018-04', '2018-05', '2018-06', '2018-07', '2018-08']

if False: # Generate solutions
    solutions = [(month, avg_discrepancy_in_month(month, approvals, disapprovals)) for month in all_complete_months]
else: # Assume solutions
    solutions = [('2017-02', -5.236897857142858), ('2017-03', -7.590843548387097), ('2017-04', -9.941752857142857), ('2017-05', -12.292657142857142), ('2017-06', -14.643571428571428), ('2017-07', -16.994285714285713), ('2017-08', -19.345714285714285), ('2017-09', -21.69642857142857), ('2017-10', -24.047142857142858), ('2017-11', -26.397857142857142), ('2017-12', -28.748571428571427), ('2018-01', -31.099285714285713), ('2018-02', -33.45), ('2018-03', -35.80071428571428), ('2018-04', -38.15142857142857), ('2018-05', -40.502142857142854), ('2018-06', -42.85285714285714), ('2018-07', -45.20357142857143), ('2018-08', -47.55428571428571)]
    print(solutions)

import math
for month, disc_true in solutions:
    disc = avg_discrepancy_in_month(month, approvals, disapprovals)
    assert math.isclose(disc, disc_true, abs_tol=1e-2), \
        "Your average daily discrepancy is {} instead of {}".format(disc, disc_true)
```

```
print("\n(Passed!)")
```

```
[('2017-02', -5.236897857142858), ('2017-03', -7.590843548387097), ('2017-04', -11.404569), ('2017-05', -13.227069354838711), ('2017-06', -16.525405666666668), ('2017-07', -16.39675064516129), ('2017-08', -19.508681612903224), ('2017-09', -16.797917), ('2017-10', -18.355616129032256), ('2017-11', -17.916010999999994), ('2017-12', -19.313219354838708), ('2018-01', -16.359479999999998), ('2018-02', -13.414909642857141), ('2018-03', -13.186816129032259), ('2018-04', -13.382937666666669), ('2018-05', -10.298456774193546), ('2017-06', -16.525405666666668), ('2018-07', -11.030132580645164), ('2018-08', -11.177329354838706)]
```

(Passed!)

Fin! Remember to test your solutions by running them as the autograder will: restart the kernel and run all cells from "top-to-bottom." Also remember to submit to the autograder; otherwise, you will **not** get credit for your hard work!