


PRESIDENTIAL ELECTION MAPS

FROM 1920

TEAM FIVETHIRTYNINE





PROJECT OUTLINE

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01

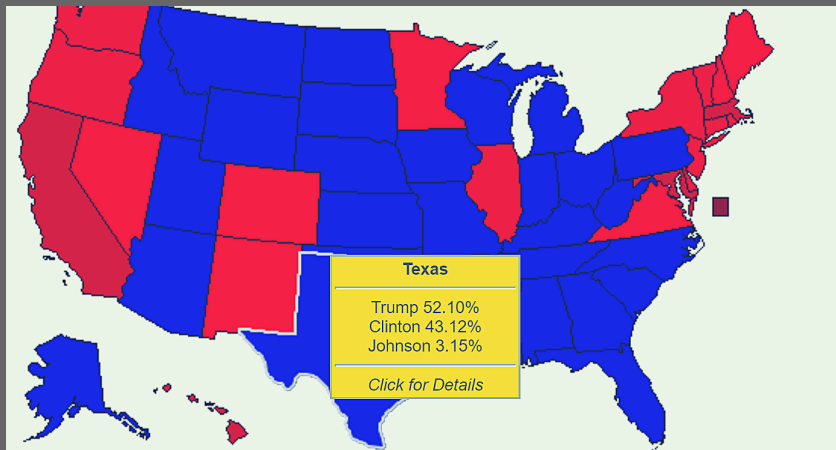
INTRODUCTION

IDEA

Build an interactive app with map and table to show United States Presidential Election Results from year 1920.

People could choose the years, candidates or states to check the results.

FIRST PANEL



The first panel is the U.S. map.
Our map has been colored
according to election results.

SECOND PANEL

This panel has a table to show
the detailed results of each
candidates in each states.

	Presidential Candidate	Vice Presidential Candidate	Political Party	Popular Vote		Electoral Vote	
■	Donald J. Trump	Michael R. Pence	Republican	62,985,134	45.93%	304	56.5%
■	Hillary Clinton	Tim Kaine	Democratic	65,853,652	48.02%	227	42.2%
■	Write-ins	-	-	1,154,084	0.84%	7	1.3%
■	Gary Johnson	William F. Weld	Libertarian	4,489,235	3.27%	0	0.0%
■	Dr. Jill Stein	Ajamu Baraka	Green	1,457,226	1.06%	0	0.0%
■	Evan McMullin	Mindy Finn	Independent	732,273	0.53%	0	0.0%
■	Other (+)	-	-	453,880	0.33%	0	0.0%
	Total			137,125,484		538	

pics source: <https://uselectionatlas.org/RESULTS/>

INTRODUCTION

DATA SOURCE

We used the data from Wikipedia.

		Hillary Clinton Democratic			Donald Trump Republican			Gary Johnson Libertarian			Jill Stein Green			Evan McMullin Independent			Others	
State or district	Electoral method	#	%	Electoral votes	#	%	Electoral votes	#	%	Electoral votes	#	%	Electoral votes	#	%	Electoral votes	#	%
Alabama	WTA	729,547	34.36%	—	1,318,255	62.08%	9	44,467	2.09%	—	9,391	0.44%	—	—	—	—	21,712	1.02%
Alaska	WTA	116,454	36.55%	—	163,387	51.28%	3	18,725	5.88%	—	5,735	1.80%	—	—	—	—	14,307	4.49%
Arizona	WTA	1,161,167	45.13%	—	1,252,401	48.67%	11	106,327	4.13%	—	34,345	1.33%	—	17,449	0.68%	—	1,476	0.06%
Arkansas	WTA	380,494	33.65%	—	684,872	60.57%	6	29,829	2.64%	—	9,473	0.84%	—	13,255	1.17%	—	12,712	1.12%
California	WTA	8,753,788	61.73%	55	4,483,810	31.62%	—	478,500	3.37%	—	278,657	1.96%	—	39,596	0.28%	—	147,244	1.04%
Colorado	WTA	1,338,870	48.16%	9	1,202,484	43.25%	—	144,121	5.18%	—	38,437	1.38%	—	28,917	1.04%	—	27,418	0.99%
Connecticut	WTA	897,572	54.57%	7	673,215	40.93%	—	48,676	2.96%	—	22,841	1.39%	—	2,108	0.13%	—	508	0.03%
Delaware	WTA	235,603	53.09%	3	185,127	41.72%	—	14,757	3.32%	—	6,103	1.37%	—	706	0.16%	—	1,518	0.34%
District of Columbia	WTA	282,830	90.48%	3	12,723	4.07%	—	4,906	1.57%	—	4,258	1.36%	—	—	—	—	6,551	2.52%
Florida	WTA	4,504,975	47.82%	—	4,617,886	49.02%	29	207,043	2.20%	—	64,399	0.68%	—	—	—	—	25,736	0.28%
Georgia	WTA	1,877,963	45.64%	—	2,089,104	50.77%	16	125,306	3.05%	—	7,674	0.19%	—	13,017	0.32%	—	1,668	0.04%

data source: https://en.wikipedia.org/wiki/United_States_presidential_election,_2016

METHODS

WEB SCRAPING

- Wikipedia table includes state results for all presidential candidates

		Hillary Clinton Democratic			Donald Trump Republican			Gary Johnson Libertarian			Jill Stein Green			Evan McMullin Independent			Others	
State or district	Electoral method	#	%	Electoral votes	#	%	Electoral votes	#	%	Electoral votes	#	%	Electoral votes	#	%	Electoral votes	#	%
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Hawaii	WTA	266,891	62.22%	3	128,847	30.03%	—	15,954	3.72%	—	12,737	2.97%	—	—	—	—	4,508	1.05%
Idaho	WTA	189,765	27.49%	—	409,055	59.26%	4	28,331	4.10%	—	8,496	1.23%	—	46,476	6.73%	—	8,132	1.18%

WEB SCRAPING

02

METHODS

- Filter desired table from Wikipedia page
- Make the format of tables consistent across years
- Difficulties: Maine & Nebraska
- Allocate electoral votes by congressional district & overall popular vote
- Keep overall state popular vote only

State	Hillary Clinton Democratic Vote	Hillary Clinton Democratic %	Hillary Clinton Democratic E	Donald Trump Republican Vote	Donald Trump Republican %	Donald Trump Republican E	Gary Johnson Libertarian Vote	Gary Johnson Libertarian %	Gary Johnson Libertarian E	Jill Stein Green Vote	Jill Stein Green %
AL	729547	34.36	0	1318255	62.08	9	44467	2.09	0	9391	0.44
AK	116454	36.55	0	163387	51.28	3	18725	5.88	0	5735	1.80
AZ	1161167	45.13	0	1252401	48.67	11	106327	4.13	0	34345	1.33
AR	380494	33.65	0	684872	60.57	6	29829	2.64	0	9473	0.84
CA	8753788	61.73	55	4483810	31.62	0	478500	3.37	0	278657	1.96
CO	1338870	48.16	9	1202484	43.25	0	144121	5.18	0	38437	1.38
CT	897572	54.57	7	673215	40.93	0	48676	2.96	0	22841	1.39
DE	235603	53.09	3	185127	41.72	0	14757	3.32	0	6103	1.37
DC	282830	90.48	3	12723	4.07	0	4906	1.57	0	4258	1.36
FL	4504975	47.82	0	4617886	49.02	29	207043	2.20	0	64399	0.68
GA	1877963	45.64	0	2089104	50.77	16	125306	3.05	0	7674	0.19
HI	266891	62.22	3	128847	30.03	0	15954	3.72	0	12737	2.97

METHODS

SHINY

structure inspired by SuperZip app

01 US map with states specified

- visualize using leaflet
- construct U.S. map using spatial data from "albersusa"
- color palette details state level results

02

Presidential Election App

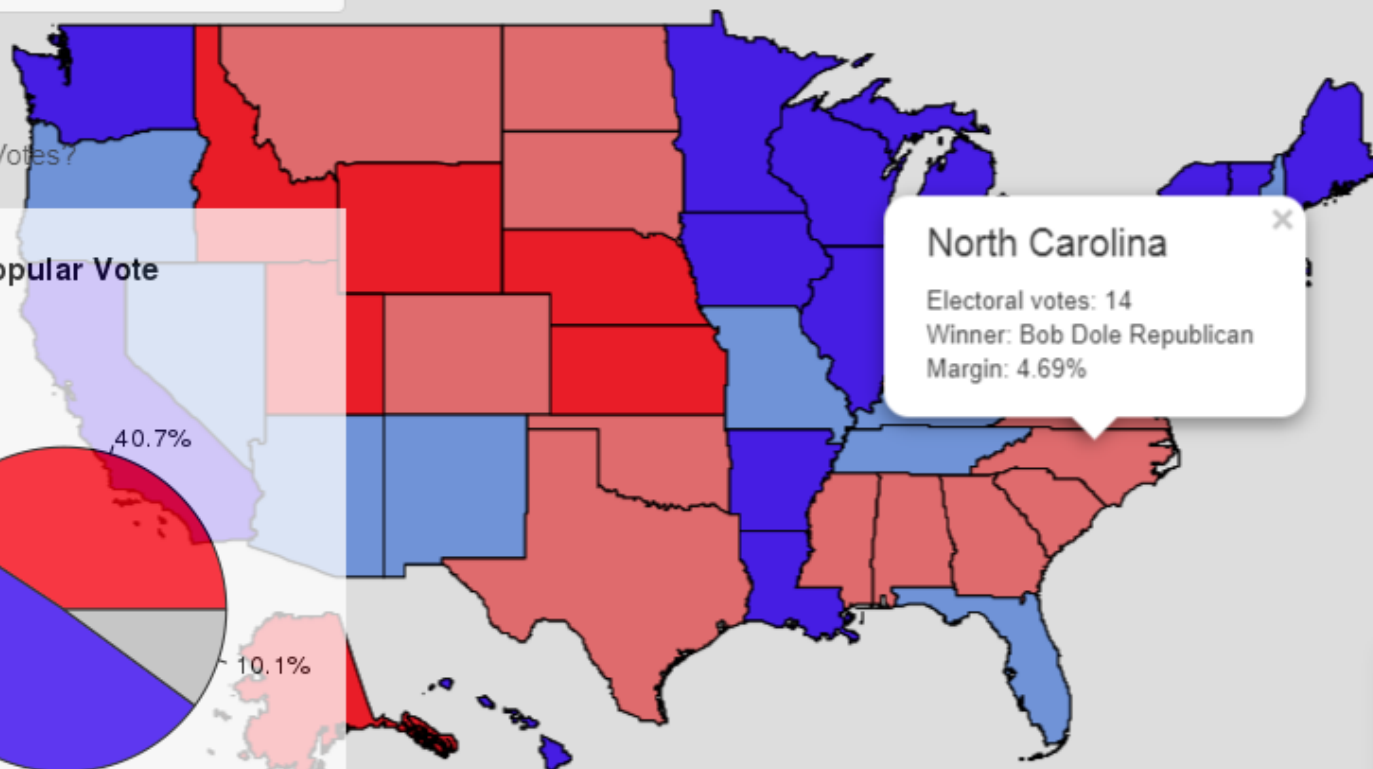
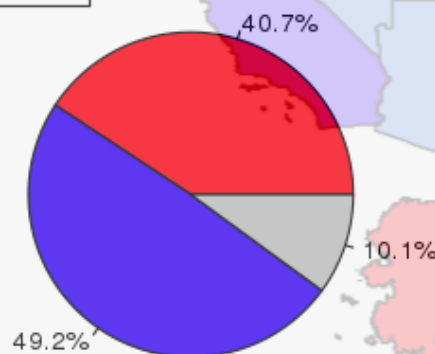
Year

1996

See Results

☐ Display Electoral Votes?

Popular Vote



North Carolina

Electoral votes: 14
Winner: Bob Dole Republican
Margin: 4.69%





SHINY

02 detail result of elections

- a dataframe is displayed
 - concise way of displaying large amount of information

02
METHODS

SHINY

02 detail result of elections

Electoral College Electoral Map Election Data

Candidate

Bob Dole ▼

State

none ▼

See Candidate Data

Show 25 ▼ entries Search:

State	Popular Vote	Percentage	Electoral Vote
AL	769044	50.12	9
AK	122746	50.80	3
AZ	622073	44.29	0
AR	325416	36.80	0
CA	3828380	38.21	0
CO	691848	45.80	8

02
METHODS



RESULT

SHOW SHINY APP

03



04

DISCUSSION

ADVANTAGE

- Interactive map with stand alone election data
- More robust information on third party candidates

DISCUSSION

DISADVANTAGE

- Non-standard formatting of Wikipedia tables
- Difficulty scraping data for Maine and Nebraska

04

DISCUSSION

FUTURE DEVELOPMENTS

- **Add temporal component:
interactively display
electoral trends over
time**