

Electronic Companion

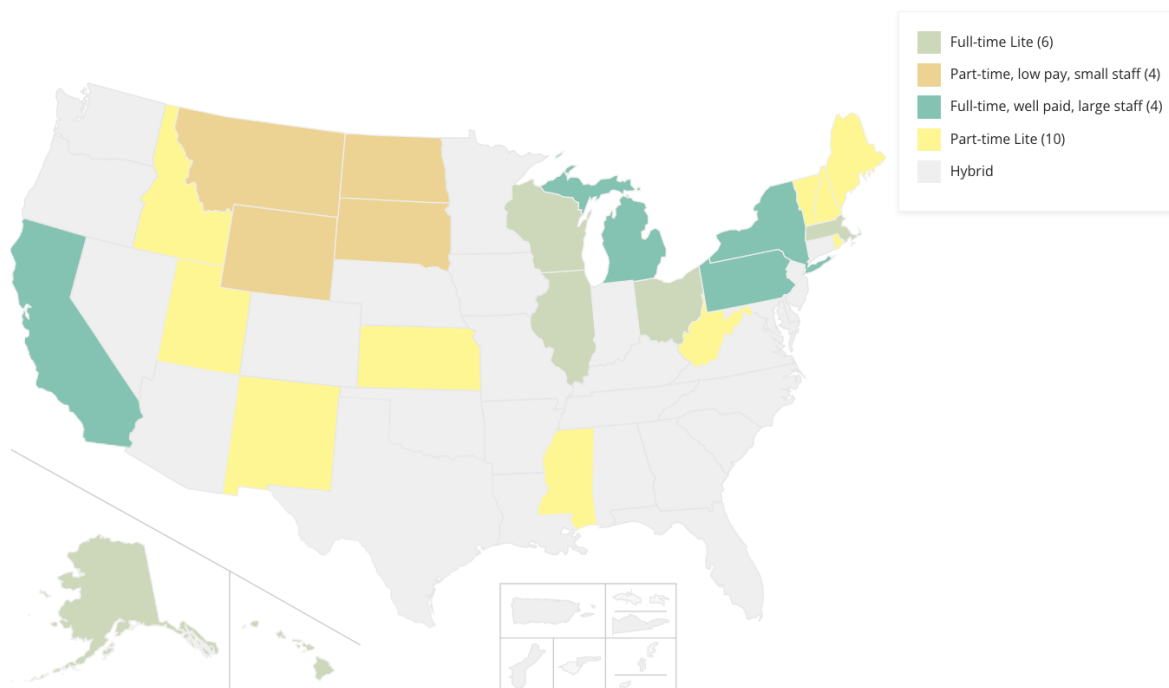
*Going the Distance: The Impact of Commute on
Gender Diversity in Public Service*

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2024

Electronic Companion

EC.1. NCSL Legislature Classification



Average Job Time, Compensation and Staff Size by Category of Legislature

Category of Legislature	Time on the Job (1)	Compensation (2)	Total Staff (3)
Green	84%	\$82,358	1,250
Gray	74%	\$41,110	469
Gold	57%	\$18,449	160

Notes

1. Estimated proportion of a full-time job spent on legislative work including time in session, constituent service, interim committee work, and election campaigns. *Source: 2014 NCSL survey of all state legislators.*
2. Estimated average annual compensation of legislators including salary, per diem, and any other unvouchered expense payments. *Source: NCSL 2014.*
3. Average number of staff--partisan and nonpartisan--working for the legislature. *Source: NCSL 2015.*

Figure EC.1 National Conference of State Legislatures (2021) classification of each state legislature as full-time, part-time, or hybrid. The image and information are taken directly from the NCSL website.

EC.2. Analysis of District Appearances in Cross-State Pairs

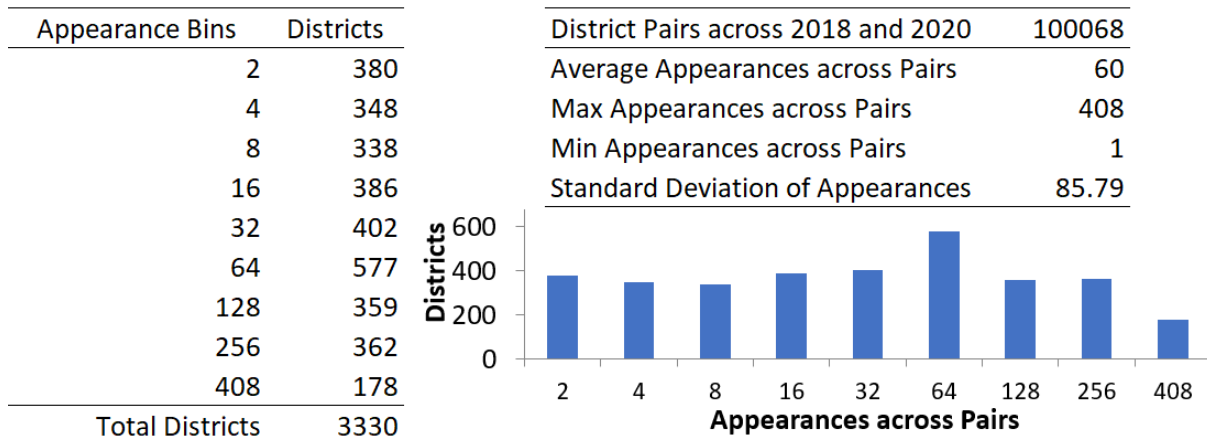


Figure EC.2 Summary statistics and a histogram of the number of times districts appear in cross-state pairs.

EC.3. Conjoint Study Materials (Students)

Instructions

In this study, we will present you with 12 sets of hypothetical job descriptions for a political position. Each set will have 3 options. Your task is to select the option from each set that would **maximize** the likelihood of you running for political office. You will then be asked whether you would seriously consider running for office given the selected option.

Below is a sample screenshot of the task with answers selected for illustration:

Daily Commute Time	3 Hours per Roundtrip	3 Hours per Roundtrip	3 Hours per Roundtrip
Daily Work Hours	6 Hours per Day	4 Hours per Day	8 Hours per Day
Annual Salary	\$60,000 per Year	\$40,000 per Year	\$80,000 per Year
Work from Home %	50%	0%	50%
Paid Parental Leave	Yes	Yes	No
Child Daycare	Yes	Yes	No
	<input type="button" value="Select"/>	<input type="button" value="Select"/>	<input checked="" type="button" value="✓"/>

Would you seriously consider running for office based on the job description you chose above?

Throughout this study, you will imagine that you are years old in a post-pandemic world. Please answer the following questions about the life you would anticipate having at years old:

What is your marital status?

- Single
- Married

How many children under the age of 18 do you anticipating having at years old?

Screen 1

Screen 2

Job Attribute Descriptions

The job descriptions consist of the following attributes. The definitions of these attributes will be made available to you throughout this experiment.

- **Daily Commute Time:** Daily roundtrip commute time from your home to your office at the capitol and back home.
- **Daily Work Hours:** Expected hours worked per business day (Monday thru Friday) for the position, not including commute time.
- **Annual Salary:** Annual salary in today's dollars.
- **Work from Home %:** Percent of time allowed to work from home.
- **Paid Parental Leave:** Whether the position comes with 12 weeks of paid parental leave for birth or adoption of a child.
- **Child Daycare:** Whether the position comes with free onsite daycare for children under five years old during working hours.

Only the attributes mentioned above can differ among the job descriptions, and you should assume that **any other attributes not mentioned** (e.g., position title, term of office, insurance benefits provided by the position, etc.) are identical among the job descriptions.

Screen 3

To ensure you understand the details of the hypothetical scenario in the future that we are asking you to imagine, we would like for you to answer the following questions. You will not be able to proceed with the study unless you answer these questions correctly.

In imagining this scenario, are you living during a pandemic?

- Yes
- No

In this hypothetical scenario, how old are you?

- 25 Years Old
- 35 Years Old

Screen 4

To ensure you understand details of the task you are about to complete, we would like for you to answer the following questions. You will not be able to proceed with the study unless you answer these questions correctly.

Fill in the blank. In this study, when you are presented with a set of hypothetical job descriptions for the political position, you should pick the one from the set that _____ the chance that you would run for political office.

- minimizes
- maximizes
- reduces

When you are choosing among a set of hypothetical job descriptions which will contain specific attributes of the political position, you should assume that any other attributes not included in the descriptions are identical among the job descriptions.

- True
- False
- Cannot be determined

Screen 5

Below is task 1 of 12.

Hover over each job attribute (e.g., *Daily Commute Time*, etc.) to see its definition. Only the attributes mentioned below can differ among the job descriptions, and you should assume that any other attributes not mentioned (e.g., position title, term of office, insurance benefits provided by the position, etc.) are identical among the job descriptions.

While deciding which job description is preferable, recall the following hypothetical information about yourself in this scenario in the future:

- Age: years old
- Marital Status:
- Number of Children:
- There is no pandemic.

Please select the job description from each set of three that would maximize the likelihood of you running for political office. Then answer the subsequent question.

Daily Commute Time	<input type="text"/> per Roundtrip	<input type="text"/> per Roundtrip	<input type="text"/> per Roundtrip
Daily Work Hours	8 Hours per Day	4 Hours per Day	6 Hours per Day
Annual Salary	\$80,000 per Year	\$40,000 per Year	\$60,000 per Year
Work from Home %	50%	50%	0%
Paid Parental Leave	No	No	Yes
Child Daycare	Yes	Yes	No
	<input type="button" value="Select"/>	<input type="button" value="Select"/>	<input type="button" value="Select"/>

Would you seriously consider running for office based on the job description you chose above?

Screen 6

EC.4. Conjoint Study Materials (Candidates)

Thank you for your willingness to participate in our survey! Your participation will allow us to investigate the incentives of people who run for political office. This survey will take approximately 15 minutes.

The following page contains a consent form describing this research study and your role as a study participant. After reading through it, you will continue on to the survey tasks.

Screen 1

Permission to Take Part in a Human Research Study at University of Illinois at Urbana-Champaign

You are being asked to participate in a voluntary research study. The purpose of this study is to investigate differences in career choice decisions between political candidates for state house and senate. Knowledge gained from this study will be published in academic journals. Participating in this study will involve answering questions in an online survey for about 15 minutes. For research purposes, participants may be misled about certain aspects of this study during the course of the survey. There are no risks related to this research; benefits related to this research include contributing to academic knowledge. Participation in research is completely voluntary.

Principal Investigator Name and Title: Vanitha Virudachalam, Assistant Professor
Department and Institution: Business Administration, Gies College of Business, University of Illinois at Urbana-Champaign
Contact Information: vanitha@illinois.edu

What procedures are involved?

You will answer questions and make choices in a survey. The vendor Sawtooth Software will be used to administer the survey and analyze the collected data. The gift card will be distributed by Rybbon.

This research will be performed online. You will need to participate one time. This survey will last for about 15 minutes.

Will my study-related information be kept confidential?

We will use all reasonable efforts to keep your personal information confidential, but we cannot guarantee absolute confidentiality. When this research is discussed or published, no one will know that you were in the study. But, when required by law or university policy, identifying information may be seen or copied by: a) The Institutional Review Board that approves research studies; b) The Office for Protection of Research Subjects and other university departments that oversee human subjects research; c) University and state auditors responsible for oversight of research; or d) the Gies College of Business Department of Business Administration, the funder of this research.

Will I be reimbursed for any expenses or paid for my participation in this research?

Participants will be offered a gift certificate upon completion of this survey. They will receive \$7 base pay and potentially a \$3 bonus.

Screen 2

Can I withdraw or be removed from the study?

If you decide to participate, you are free to withdraw your consent and discontinue participation at any time. Your participation in this research is voluntary. Your decision whether or not to participate, or to withdraw after beginning participation, will not affect your current or future dealings with the University of Illinois at Urbana-Champaign.

The researchers also have the right to stop your participation in this study without your consent if they believe it is in your best interests or you were to object to any future changes that may be made in the study plan.

Will data collected from me be used for any other research?

Your de-identified information could be used for future research without additional informed consent.

Who should I contact if I have questions?

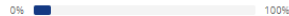
Contact Vanitha Virudachalam, Assistant Professor at vanitha@illinois.edu if you have any questions about this study or your part in it, or if you have concerns or complaints about the research.

What are my rights as a research subject?

If you have any questions about your rights as a research subject, including concerns, complaints, or to offer input, you may call the Office for the Protection of Research Subjects (OPRS) at 217-333-2670 or e-mail OPRS at irb@illinois.edu. If you would like to complete a brief survey to provide OPRS feedback about your experiences as a research participant, you can do so through a link on the OPRS website: <https://oprs.research.illinois.edu/>. You will have the option to provide feedback or concerns anonymously or you may provide your name and contact information for follow-up purposes.

Please print this consent form if you would like to retain a copy for your records.

I have read and understand the above consent form. I certify that I am 18 years old or older. By pressing 'Next' and continuing with this survey, I indicate my willingness to voluntarily take part in this study.

0%  100%

Screen 3

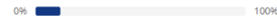
What was your age when you began your 2020 political campaign?

years old

During your campaign, how long did you expect your daily roundtrip commute to the state capital would be if you won your race in 2020? (Select the closest answer.)

- Less than 1 hour
 1 hour
 2 hours
 3 or more hours

During the campaign, what was the zip code of your place of residence? (Please enter your five-digit zip code.)

0%  100%

Screen 4

Recall the period when you were [Script] years old and began your 2020 political campaign. Please answer the following questions about your life during that period:

What was your marital status?

- Single
- Married

How many children under the age of 18 did you have at [Script] years old when you began your 2020 political campaign?

 child(ren)

Back Next

0% 100%

Screen 5

Instructions

Your Task

In this study, we will present you with 12 sets of hypothetical employee benefits packages that would accompany the political position you ran for in 2020. Each set will have 3 packages. Your task is to select the package from each set of three that would maximize the likelihood of you running for the same political position as you did in 2020 given the employee benefits offered and the following demographic information about yourself circa 2020:

- Age: [Script] years old
- Marital Status: [Script]
- Number of Children: [Script]
- Zip Code of Residence: [Script]
- Capitol Commute Time: [Script] per Roundtrip

Your Reward

You will be offered \$7 for your participation in this study. Additionally, you are eligible for a \$3 bonus if we determine that you were likely truthful in your responses. We assess this using a proprietary artificial intelligence ("AI") tool that has been developed using survey responses from state senate candidates.

How the AI tool works

The demographic information you provided, as shown above, will be processed by the AI. Based on your information, the AI will assign a hidden likelihood score ranging from 0 (least likely to run for office) to 100 (most likely to run for office) to each employee benefits package. At the end of the study, one of the 12 sets of hypothetical employee benefits packages you are presented with will be chosen. If you have picked the package with the highest likelihood score within the set of three packages, you will be awarded the \$3 bonus.

Based on preliminary responses, state house candidates' preferences align with the AI 90% of the time, in which case, subjects will earn the \$3 bonus. In case your choice differs, you will still earn the \$3 bonus if your response is consistent with the pool of house candidates we are currently surveying. Given the high predictive accuracy of the AI, it is in your best interest to answer truthfully.

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Screen 6

Employee Benefit Definitions

The hypothetical employee benefits for the political position you ran for in 2020 consist of the following. The definitions of these benefits will be made available to you throughout this experiment.

- **Work from Home Allowance:** Percent of time allowed to work from home.
- **Paid Parental Leave:** Whether the position comes with 12 weeks of paid parental leave for birth or adoption of a child.
- **Child Daycare:** Whether the position comes with free onsite daycare for children under five years old during working hours.

Only the employee benefits mentioned above can differ among the employee benefits packages offered, and you should assume that any other attributes not mentioned about the position you ran for in 2020 (e.g., work hours, salary, insurance benefits, etc.) do not change based on the hypothetical employee benefits packages offered.

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0% 100%

Screen 7

Sample Screenshot of Task

Below is a sample screenshot of the task with an answer selected for illustration.

Hover over each employee benefit (e.g., *Paid Parental Leave*, etc.) to see its definition. Only the employee benefits mentioned can differ among the employee benefits packages offered, and you should assume that any other attributes not mentioned about the position you ran for in 2020 (e.g., work hours, salary, insurance benefits, etc.) do not change based on the hypothetical employee benefits packages offered.

While deciding which employee benefits package is preferable, recall the following information about yourself at the time of this scenario:

- Age: [Script] years old
- Marital Status: [Script]
- Number of Children: [Script]
- Zip Code of Residence: [Script]
- Capitol Commute Time: [Script] per Roundtrip

Please select the employee benefits package from each set of three that would maximize the likelihood of you running for the same political position as you did in 2020.

Work from Home Allowance	25%	0%	75%
Paid Parental Leave	No	Yes	No
Child Daycare	Yes	No	Yes
	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Screen 8

To ensure you understand the details of the task that we are asking you to complete, we would like for you to answer the following questions. You will not be able to proceed with the study unless you answer these questions correctly.

When asked to indicate your top preference for each of the 12 sets of hypothetical employee benefits packages that would accompany the political position you ran for in 2020, you should do this by **randomly selecting** options.

- True
- False

In the scenarios you are evaluating, you are years old.

- True
- False

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Screen 9

To ensure you understand the details of the task that we are asking you to complete, we would like for you to answer the following questions. You will not be able to proceed with the study unless you answer these questions correctly.

In this study, when you are presented with a set of hypothetical employee benefits packages accompanying the political position you ran for in 2020, you should pick the one from the set that _____ the chance that you would run for the position. (Fill in the blank.)

- minimizes
- maximizes
- reduces

When you are choosing among hypothetical employee benefits packages accompanying the position you ran for in 2020, you should assume that any other attributes not mentioned about the position (e.g., work hours, salary, insurance benefits, etc.) do not change based on the hypothetical employee benefits packages offered.

- True
- False
- Cannot be determined

Upon completing this survey, you will be offered a gift certificate. You will receive at least \$7, but you are eligible for a \$3 bonus payment. How can you maximize the chance of receiving a bonus payment?

- Randomly select answers
- Answer at least half of the questions
- Answer all questions with your true preferences

Screen 10

Below is task 1 of 12.

Hover over each employee benefit (e.g., *Paid Parental Leave*, etc.) to see its definition. Only the employee benefits mentioned can differ among the employee benefits packages offered, and you should assume that **any other attributes not mentioned about the position you ran for in 2020** (e.g., work hours, salary, insurance benefits, etc.) **do not** change based on the hypothetical employee benefits packages offered.

While deciding which employee benefits package is preferable, recall the following information about yourself at the time of this scenario:

- Age: years old
- Marital Status:
- Number of Children:
- Zip Code of Residence:
- Capitol Commute Time: per Roundtrip

Please select the employee benefits package from each set of three that would maximize the likelihood of you running for the same political position as you did in 2020.

Work from Home Allowance	25%	0%	75%
Paid Parental Leave	No	Yes	No
Child Daycare	Yes	No	Yes
	<input type="button" value="Select"/>	<input type="button" value="Select"/>	<input type="button" value="Select"/>

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Screen 11

We would like to learn more about your employment outside of political office and where you planned to live if elected in 2020.

In each of the following scenarios, how many hours per week had you worked or planned to work in a job other than the elected position you were running for in 2020.

	Hours per Week
Prior to election	<input type="text"/>
Post-election, when legislature was in session	<input type="text"/>
Post-election, when legislature was not in session	<input type="text"/>

What percentage of the year did you plan to live in the district you would represent if you were elected? Please enter a number between 0 and 100.

Is there anything else you would like the research team to know?

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Screen 12

Processing survey responses to check if respondent is eligible for bonus. Please wait.



Screen 13

Thank you for completing our survey!

The goal of this research is to investigate career choice decisions. In the survey you just completed, deception was used to elicit truthful responses from participants. Participants were told that their responses were analyzed using AI, and that they would receive a bonus payment if a randomly-selected response matched the response predicted to maximize the likelihood of running for office. This was intended to prevent participants from randomly selecting answers in order to finish the survey as quickly as possible. **In actuality, no such analysis was performed, and all participants will receive the full reward amount of \$10.**

We thank you again for your participation in this research. Should you have any additional questions, concerns, or complaints, please contact Vanitha Virudachalam at vanitha@illinois.edu.

To be redirected to Rybbon and claim your \$10 reward, click the button below.

Screen 14

EC.5. Tables**Table EC.1 2020 Filing Deadlines for Republican and Democratic Party State Legislature Candidates
Ballotpedia (2023)**

State	Filing Deadline
Alabama	11/8/2019
Arkansas	11/12/2019
Illinois	12/2/2019
California	12/6/2019
Texas	12/9/2019
Ohio	12/18/2019
North Carolina	12/20/2019
Mississippi	1/10/2020
Kentucky	1/10/2020
Maryland	1/24/2020
West Virginia	1/25/2020
Indiana	2/7/2020
Pennsylvania	2/18/2020
Nebraska	3/2/2020
Georgia	3/6/2020
Montana	3/9/2020
New Mexico	3/10/2020
Oregon	3/10/2020
Idaho	3/13/2020
Iowa	3/13/2020
Nevada	3/13/2020
Maine	3/16/2020
Colorado	3/17/2020
Utah	3/19/2020
Virginia	3/26/2020
New Jersey	3/30/2020
South Carolina	3/30/2020
Missouri	3/31/2020
South Dakota	3/31/2020
New York	4/2/2020
Tennessee	4/2/2020
Arizona	4/6/2020
North Dakota	4/6/2020
Oklahoma	4/10/2020
Michigan	4/21/2020
Washington	5/15/2020
Vermont	5/28/2020
Wyoming	5/29/2020
Alaska	6/1/2020
Kansas	6/1/2020
Wisconsin	6/1/2020
Massachusetts	6/2/2020
Hawaii	6/2/2020
Minnesota	6/2/2020
Connecticut	6/11/2020
Florida	6/12/2020
New Hampshire	6/12/2020
Rhode Island	6/24/2020*
Delaware	7/14/2020
Louisiana	7/24/2020

*Declaration of candidacy deadline

Table EC.2 Data corresponding to Figure 3 for part-time legislatures

PTLeg	Average	Lower 95% CI	Upper 95% CI
$\Delta Distance$	$\Delta PctFemale$	$\Delta PctFemale$	$\Delta PctFemale$
10	1.37	0.62	2.12
20	2.75	1.25	4.25
30	4.12	1.87	6.37
40	5.49	2.49	8.49
50	6.87	3.12	10.62
60	8.24	3.74	12.74
70	9.61	4.36	14.86
80	10.99	4.99	16.99
90	12.36	5.61	19.11
100	13.73	6.23	21.23
110	15.11	6.86	23.36
120	16.48	7.48	25.48
130	17.85	8.11	27.60

Table EC.3 Data corresponding to Figure 3 for hybrid legislatures

HybridLeg	Average	Lower 95% CI	Upper 95% CI
$\Delta Distance$	$\Delta PctFemale$	$\Delta PctFemale$	$\Delta PctFemale$
10	-0.32	-1.10	0.46
20	-0.65	-2.21	0.91
30	-0.97	-3.31	1.37
40	-1.30	-4.42	1.82
50	-1.62	-5.52	2.28
60	-1.94	-6.62	2.73
70	-2.27	-7.73	3.19
80	-2.59	-8.83	3.65
90	-2.92	-9.94	4.10
100	-3.24	-11.04	4.56
110	-3.56	-12.14	5.01
120	-3.89	-13.25	5.47
130	-4.21	-14.35	5.92

Table EC.4 Data corresponding to Figure 3 for full-time legislatures

FTLeg	Average	Lower 95% CI	Upper 95% CI
$\Delta Distance$	$\Delta PctFemale$	$\Delta PctFemale$	$\Delta PctFemale$
10	-1.66	-2.89	-0.44
20	-3.33	-5.78	-0.88
30	-4.99	-8.67	-1.31
40	-6.66	-11.56	-1.75
50	-8.32	-14.45	-2.19
60	-9.98	-17.34	-2.63
70	-11.65	-20.23	-3.06
80	-13.31	-23.12	-3.50
90	-14.98	-26.01	-3.94
100	-16.64	-28.91	-4.38
110	-18.31	-31.80	-4.81
120	-19.97	-34.69	-5.25
130	-21.63	-37.58	-5.69

References

- Ballotpedia (2023) State and federal candidate filing deadlines for 2020. URL https://ballotpedia.org/State_and_federal_candidate_filing_deadlines_for_2020.
- National Conference of State Legislatures (2021) Full- and part-time legislatures. URL <https://www.ncsl.org/research/about-state-legislatures/full-and-part-time-legislatures.aspx>.