

# **Online Appendix**

## **Re-evaluating the Role of Ideology in Chile**

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# 1 Appendix A: Selection of Cerrillos

Table A1 allows us to visually examine how Cerrillos is an excellent predictor of national electoral results. The first column provides the year of the presidential election, the second column the name of the presidential candidate, the third the vote share of that candidate across the entire country, the fourth the vote share of that candidate only in Cerrillos, and the fifth the absolute difference between the third and fourth columns. The TAD (total absolute difference) will correspond to the sum of the fifth column, which is reported in the first row of table A2.<sup>1</sup>

Table A1: Comparison between Chile and Cerrillos

Election	Candidate	Chile Vote Share	Cerrillos Vote Share	Absolute difference
1989	Patricio Aylwin	0.551	0.573	0.022
1989	Hernán Büchi	0.294	0.280	0.014
1989	Francisco Errázuriz	0.154	0.146	0.008
1993	Eduardo Frei	0.579	0.579	0
1993	Arturo Alesandri	0.244	0.224	0.02
1993	José Piñera	0.061	0.071	0.01
1993	Manfred Max Neef	0.055	0.068	0.013
1993	Eugenio Pizarro	0.046	0.047	0.001
1993	Cristián Reitze	0.011	0.008	0.003
1999	Ricardo Lagos	0.479	0.495	0.016
1999	Joaquín Lavín	0.475	0.459	0.016
1999	Gladys Marín	0.031	0.034	0.003
1999	Tomás Hirsch	0.005	0.004	0.001
1999	Sara Larraín	0.004	0.003	0.001
1999	Arturo Frei Bolívar	0.003	0.002	0.001
2005	Michelle Bachelet	0.459	0.465	0.006
2005	Sebastián Piñera	0.254	0.263	0.009
2005	Joaquín Lavín	0.232	0.212	0.02
2005	Tomás Hirsch	0.054	0.058	0.004
2009	Sebastián Piñera	0.440	0.433	0.007
2009	Eduardo Frei	0.296	0.262	0.034
2009	Marco Enríquez-Ominami	0.201	0.237	0.036
2009	Jorge Arrate	0.062	0.066	0.004
2013	Michelle Bachelet	0.467	0.464	0.003
2013	Evelyn Matthei	0.250	0.241	0.009
2013	Marco Enríquez-Ominami	0.109	0.142	0.033
2013	Franco Parisi	0.101	0.087	0.014
2013	Marcel Claude	0.028	0.027	0.001
2013	Alfredo Sfeir	0.023	0.017	0.006
2013	Roxana Miranda	0.012	0.012	0
2013	Ricardo Israel	0.005	0.005	0
2013	Tomás Jocelyn-Holt	0.001	0.001	0

<sup>1</sup> There is a group of municipalities that do not have electoral data before 2004 because they were created after that year, or are not comparable across time because they were divided to generate two municipalities. One example is the new municipality of Alto Hospicio, which was part of Iquique (Region de Tarapacá). Therefore, both of these counties were excluded from the computation of the total absolute difference when trying to find the municipality with the lowest TAD in Chile.

## 2 Appendix B: Selection of Recoleta and Independencia

As a way to increase the sample size, I include two other municipalities in the study. In this case, I selected the second and third municipalities in the Santiago province that best predict national electoral results.<sup>2</sup> Table A2 provides the total absolute difference (TAD) and the standard deviation of the 32 absolute differences per municipality in the Santiago province. Recoleta and Independencia are the second and third best predictors. As a reminder, I use the results for the presidential candidates who ran after the transition to democracy and before the 2017 presidential election (i.e., 1989, 1993, 1999, 2005, 2009, and 2013) to compute the TAD.

Table A2: Total absolute differences (TAD) for counties in the Santiago province

County	Total absolute differences	Standard deviation of the absolute differences
Cerrillos	0.32	0.01
Recoleta	0.44	0.01
Independencia	0.45	0.01
El Bosque	0.46	0.01
Quinta Normal	0.48	0.01
La Cisterna	0.50	0.02
Macul	0.52	0.02
San Miguel	0.53	0.02
La Florida	0.57	0.02
Maipú	0.60	0.02
Estación Central	0.61	0.02
Conchalí	0.64	0.02
Quilicura	0.71	0.02
Peñalolen	0.77	0.02
Santiago	0.83	0.03
Renca	0.94	0.03
Pudahuel	0.94	0.03
San Joaquín	0.95	0.02
La Granja	0.95	0.03
Huechuraba	0.97	0.03
Lo Prado	0.98	0.03
Nuñoa	1.09	0.03
San Ramón	1.10	0.03
Pedro Aguirre Cerda	1.26	0.03
Lo Espejo	1.28	0.03
Cerro Navia	1.28	0.03
La Pintana	1.44	0.04
La Reina	1.55	0.04
Providencia	2.59	0.07
Lo Barnechea	3.13	0.11
Las Condes	3.63	0.11
Vitacura	4.45	0.13

<sup>2</sup> Due to budget constraints, I restricted the geographic location of the second and third best predictors to the Santiago province since the new municipalities needed to be located close to Cerrillos, so that the same enumerators could easily implement the survey.

### 3 Appendix C: Survey Design

The survey was implemented in August 2017, three months before the presidential election. The sampling strategy had two different stages. In the first, I selected three municipalities that are good predictors of national electoral results. In the second, four enumerators used a random walk to select respondents in three municipalities. They were given a starting point and then had to invite participants in every third household until covering the entire assigned area. Enumerators had to report their locations at the beginning and end of each workday using smartphones with GPS. The survey was implemented under [ANONIMIZED] University IRB Protocol IRB-AAAR5187.

Enumerators presented the conjoint experiment by reading this paragraph: “This final section attempts to understand your political preferences. We will show you profiles of hypothetical presidential candidates (non-real). You should tell us which you prefer for president. Each candidate has three attributes: ideology, profession, and age. We will repeat this exercise 5 times.” After evaluating the pair, participants had to answer the following question: “Who would you vote for for president?”

The values are, in the case of ideology, “left” and “right;” for profession, “gardener,” “teacher,” and “engineer;” and for age, “30,” “40,” and “50.” Vignettes were not read to participants. I used the last three presidential elections as a reference to build these candidates. Just to provide a few examples, there have been candidates with the following professions: engineer (Eduardo Frei, 2009), teacher (Eduardo Artes, 2017), and housewife without college education (Roxana Miranda, 2013); and with the following ages: 36 years-old (Marco Enriquez-Ominami, 2009), 47 years-old (Beatriz Sanchez, 2017 election), and 56 years-old (Marcel Claude, 2013 election). Regarding ideology, there were 21 candidates in these elections, and none could be considered truly centrist. Traditional politicians such as Michele Bachelet or Sebastian Piñera are considered center-left or center-right, respectively. The only candidate who belongs to a political party that explicitly places itself at the center of the ideological spectrum, Ricardo Israel from the PRI, received less than 1% of the votes, and the PRI just after the election joined the center-right coalition Chile Vamos. As a result, the conjoint did not include a pure centrist candidate. Summing up, the attributes used in the conjoint resemble real candidates who have run for the presidency.

The survey also contains a framing experiment before the conjoint where respondents had to imagine possible negative scenarios (e.g., being affected by a natural disaster). The pure control condition of the framing experiment did not mention any hypothetical scenario. I only focus on the control group of that framing experiment to avoid any possible contamination.

Finally, as mentioned in the manuscript, Cerrillos, Recoleta and Independencia consist of low and middle-income neighborhoods. See reports with the socioeconomic level of each neighborhood in these municipalities on the website of the [Biblioteca del Congreso Nacional](#).

## **4 Appendix D: Alternative Coding for Likely Voters**

As a robustness check, I use two other approaches to measure likely voters. For the first alternative strategy, a 1 refers to respondents who voted in the last presidential election, and who have a candidate for the next presidential election; and 0 otherwise. For the second alternative strategy, a 1 refers to respondents who expressed at least a small interest in politics, and who voted in the last presidential election; and 0 otherwise. The results are similar to those reported in the paper. Likely left- and right-wing voters heavily rely on candidates' ideological labels. The differences between likely and unlikely voters are significant for left- and right-wing respondents at the 0.1 level.

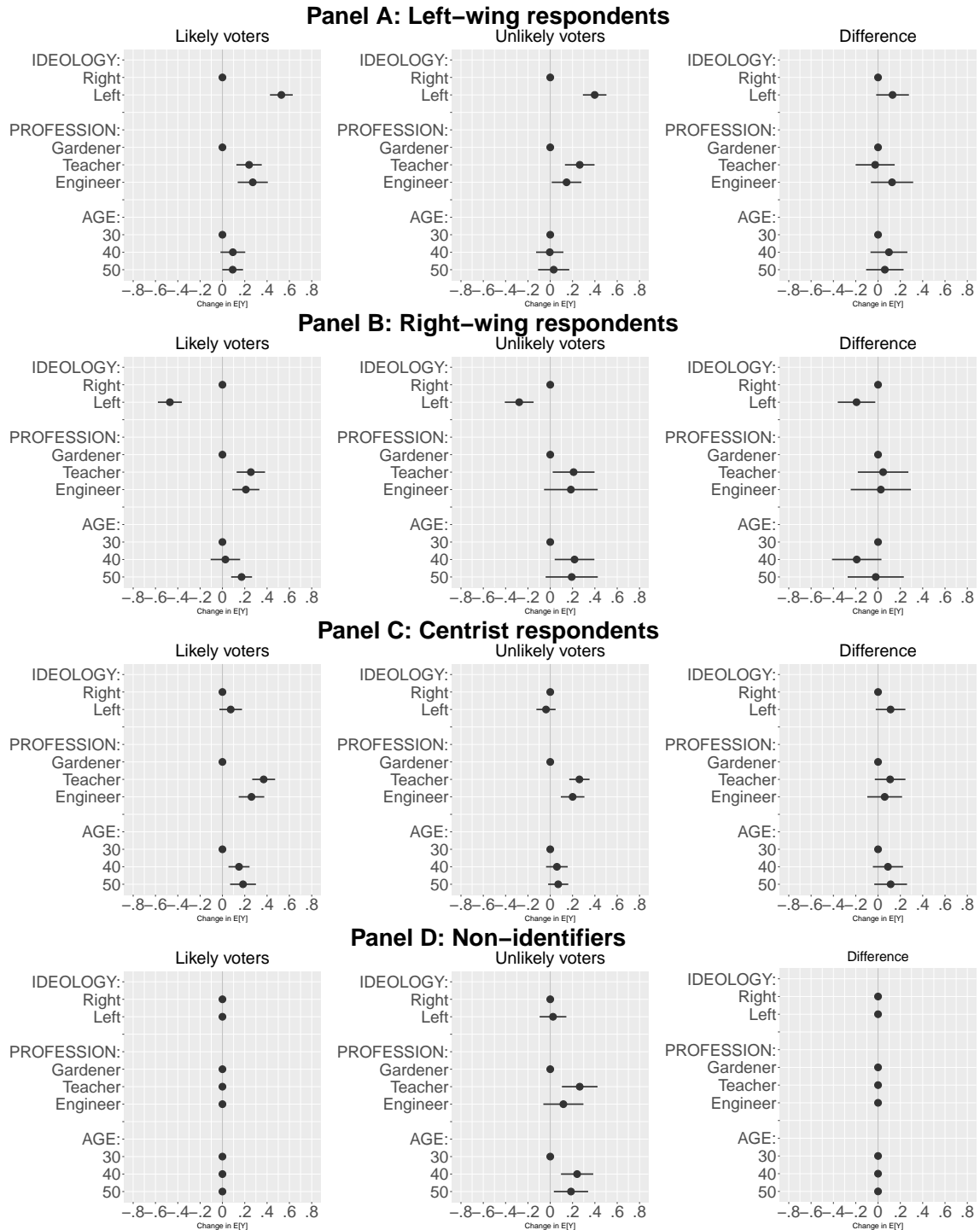


Figure A1: Effects of candidates' attributes on probability of being voted using first alternative coding for likely voters

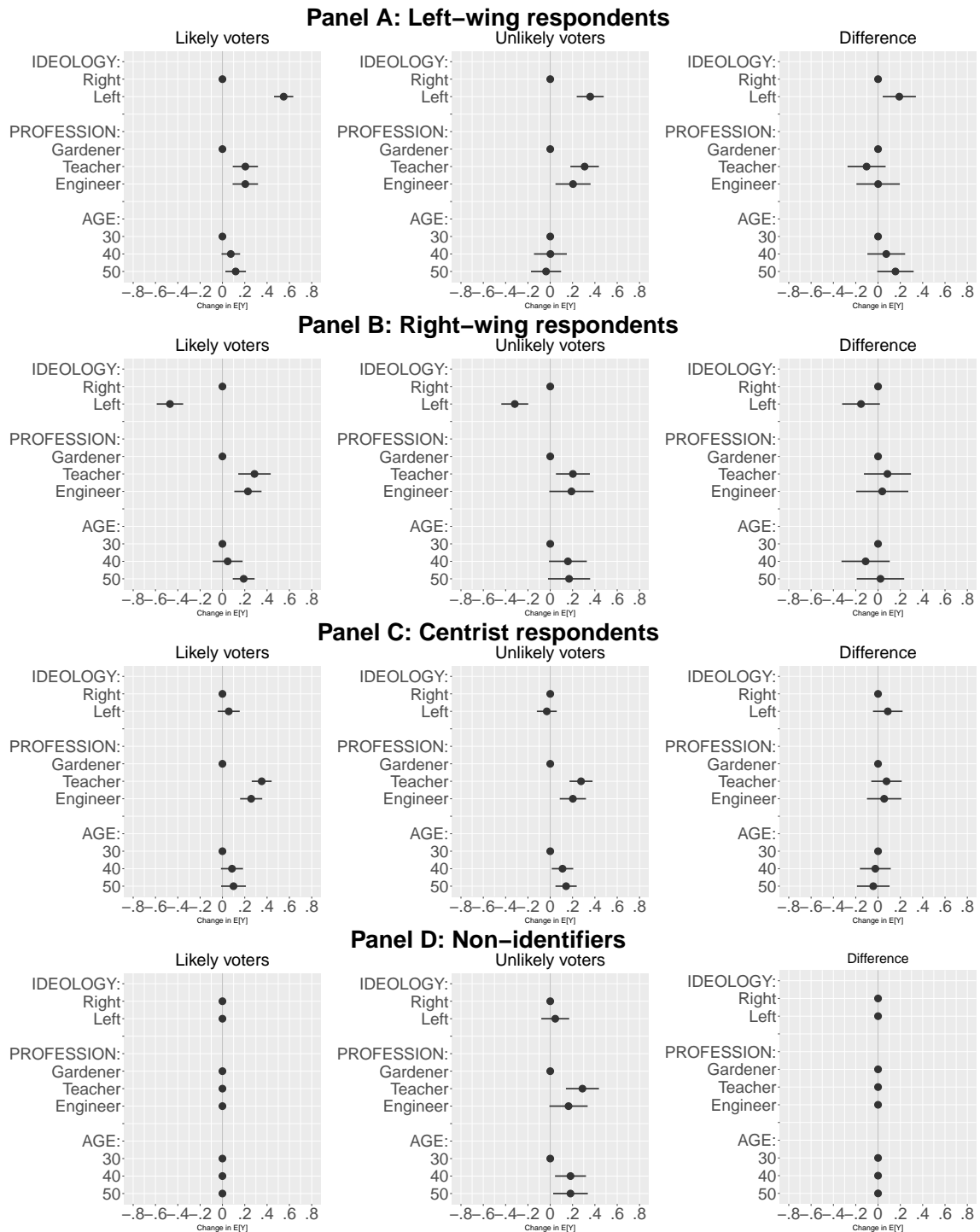


Figure A2: Effects of candidates' attributes on probability of being voted using second alternative coding for likely voters

## 5 Appendix E: Comparison with CEP Survey

I use the CEP survey implemented in July–August 2017 as a benchmark. Table A3 summarizes the results for age, gender, education, electoral participation, and political preferences. The results show that the sample used in this study is very similar to the nationally representative CEP survey conducted in August 2017.

The larger difference corresponds to education (0.64 vs. 0.70 for high school education or more). This is, however, part of the research design: the sample of this study aims to have a larger proportion of less educated voters, who, based on the literature, we would expect to be less ideological.

Table A3: Comparison between samples

Variable	Survey	CEP
18-24 years old	0.09	0.08
25-34 years old	0.13	0.14
35-44 years old	0.21	0.17
45-54 years old	0.14	0.17
55 or older	0.44	0.43
Female	0.60	0.60
High school or less	0.64	0.70
Vote next election	0.62	0.59
Vote past election	0.64	0.65
Pinera vote share	0.28	0.32
Guiller vote share	0.17	0.17
Sanchez vote share	0.12	0.12



## 6 Appendix F: Alternative Coding for Ideology

As a robustness check, I used the coding strategy used by [Zechmeister \(2015\)](#) to identify left, right, and centrist voters. She coded those who respond 1, 2, or 3 as “left;” those who respond 4, 5, 6, or 7 as “center;” and those who respond 8, 9, or 10 as “right.” Figure [A3](#) summarizes the results when using her coding strategy. The findings are very similar for both approaches. Left- and right-wing respondents rely on candidates’ ideological labels to make electoral choices. Additionally, the saliency of ideology is higher for likely left-wing voters than for unlikely left-wing voters. This last pattern is not as clear for right-wing respondents, probably because the confidence intervals have increased since this coding strategy for ideology is stricter than the one used in the manuscript (and, as a result, the samples are smaller).

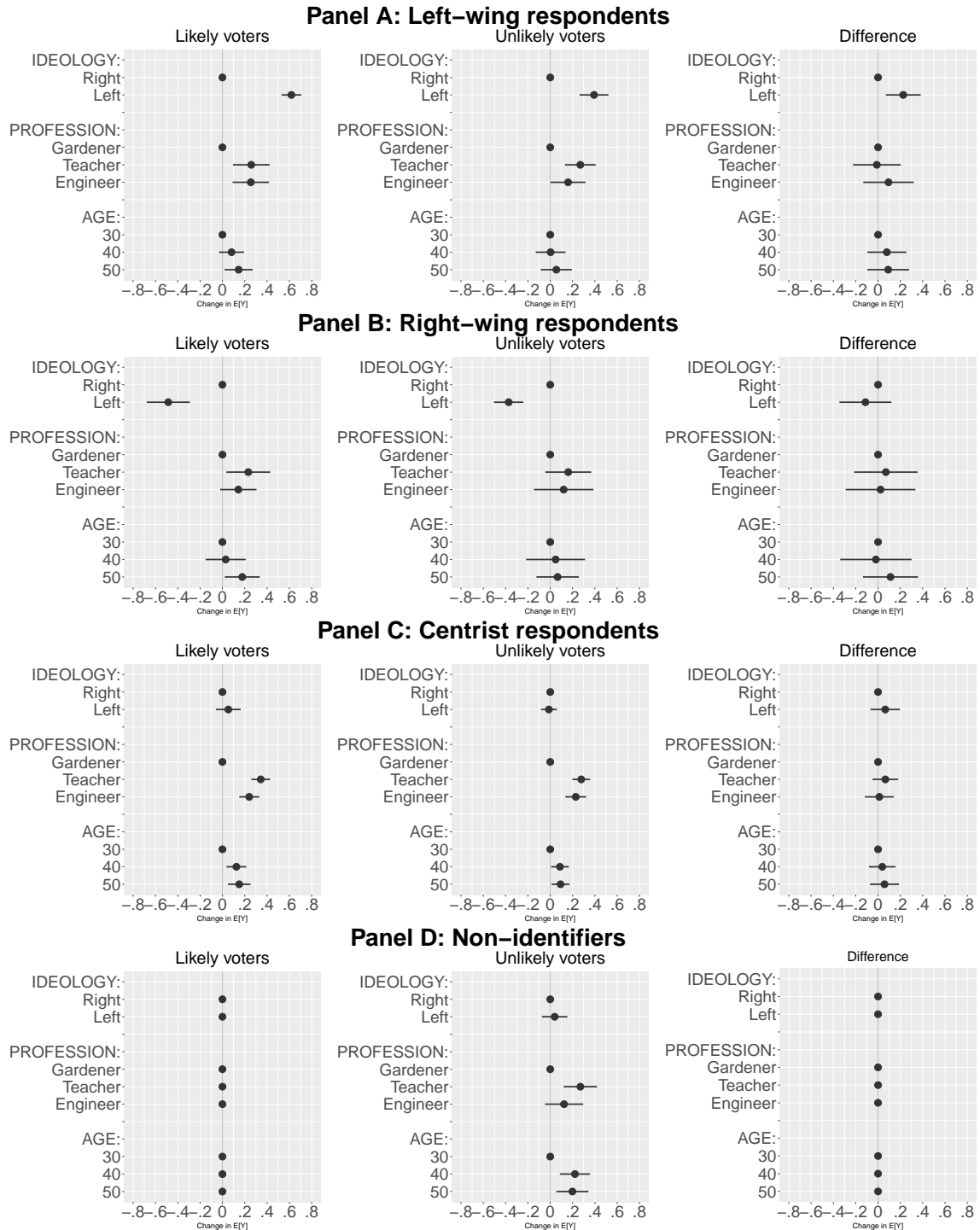


Figure A3: Effects of candidates' attributes on probability of being voted using alternative coding for ideology

## 7 Appendix G: Regression Tables

In this section I provide the results from the main figure in the manuscript in a table format. Table A4 reports the results for left-wing respondents, table A5 for right-wing respondents, table A6 for centrists, and table A7 for non-identifiers.

Table A4: Left-wing respondents

	Electoral Choice
Left-wing	0.382*** (0.052)
Professor	0.278*** (0.061)
Engineer	0.171** (0.068)
40 years old	0.008 (0.062)
50 years old	0.023 (0.064)
Likely voter	-0.158** (0.069)
Left-wing*Likely voter	0.187** (0.073)
Professor*Likely voter	-0.064 (0.087)
Engineer*Likely voter	0.082 (0.096)
40 years old*Likely voter	0.085 (0.080)
50 years old*Likely voter	0.077 (0.083)
Likely voter*Likely voter	0.053 (0.050)
Observations	694

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A5: Right-wing respondents

	Electoral Choice
Left-wing	−0.311*** (0.059)
Professor	0.237*** (0.080)
Engineer	0.212** (0.100)
40 years old	0.152* (0.082)
50 years old	0.156* (0.092)
Likely voter	0.126 (0.094)
Left-wing*Likely voter	−0.174** (0.085)
Professor*Likely voter	0.016 (0.106)
Engineer*Likely voter	−0.008 (0.116)
40 years old*Likely voter	−0.101 (0.107)
50 years old*Likely voter	0.047 (0.106)
Likely voter*Likely voter	0.310*** (0.080)
Observations	474

*Note:*

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

Table A6: Centrist respondents

	Electoral Choice
Left-wing	−0.024 (0.040)
Professor	0.271*** (0.046)
Engineer	0.226*** (0.054)
40 years old	0.070 (0.046)
50 years old	0.093** (0.043)
Likely voter	−0.171** (0.069)
Left-wing*Likely voter	0.097 (0.073)
Professor*Likely voter	0.110 (0.070)
Engineer*Likely voter	0.007 (0.077)
40 years old*Likely voter	0.084 (0.070)
50 years old*Likely voter	0.080 (0.079)
Likely voter*Likely voter	0.250*** (0.043)
Observations	1384

*Note:*

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

Table A7: Non-identifiers

	Electoral Choice
Left-wing	0.040 (0.058)
Professor	0.270*** (0.076)
Engineer	0.124 (0.087)
40 years old	0.221*** (0.069)
50 years old	0.198*** (0.073)
Likely voter	0.071 (0.067)
Observations	320

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## 8 Appendix H: Conjoint Diagnostics

Table A8 provides a balance test to check whether the attributes were correctly randomized. I regress a covariate (i.e., female) on the attributes (i.e., ideology, profession, and age), expecting to find that these variables are not predicting respondents' gender. I find no evidence of imbalances.

Table A8: Balance check (female)	
	Female
Left	−0.024 (0.018)
Teacher	−0.029 (0.023)
Engineer	−0.015 (0.021)
40	0.018 (0.022)
50	0.022 (0.021)
<i>Note:</i> *p<0.1; **p<0.05; ***p<0.01	

Table A9 shows the proportion of hypothetical candidates who present each of the attribute levels, illustrating that the randomization of candidates' characteristics was properly implemented.

Table A9: Proportion of respondents for each attribute level

Attribute	Left	Right	
Proportion	0.481	0.518	
Attribute	Gardener	Teacher	Engineer
Proportion	0.330	0.322	0.336
Attribute	30 years	40 years	50 years
Proportion	0.341	0.322	0.336

Table A10 reports a test for profile order effects, which evaluates whether the effects of the attributes are conditional on the pair they are been evaluated in (the conjoint experiment has five pairs of candidates per respondent). In other words, I want to check whether a particular attribute has the same importance for respondents regardless of which pair it is evaluated in. I regress the outcome on the attributes, indicators of the number of the pair, and an interaction between these variables. I find no systematic evidence of profile order effects. The table only reports the interaction terms.

Table A10: Profile order effects

	Electoral Choice
Left*Pair2	−0.012 (0.083)
Left*Pair3	−0.011 (0.085)
Left*Pair4	−0.038 (0.082)
Left*Pair5	0.038 (0.084)
Professor*Pair2	−0.074 (0.100)
Engineer*Pair2	−0.082 (0.099)
Professor*Pair3	−0.057 (0.104)
Engineer*Pair3	−0.124 (0.099)
Professor*Pair4	−0.160 (0.101)
Engineer*Pair4	−0.165 (0.102)
Professor*Pair5	0.074 (0.108)
Engineer*Pair5	−0.164 (0.101)
40*Pair2	0.073 (0.104)
50*Pair2	0.107 (0.102)
40*Pair3	−0.026 (0.108)
50*Pair3	0.073 (0.102)
40*Pair4	0.069 (0.111)
50*Pair4	0.212** (0.103)
40*Pair5	−0.040 (0.108)
50*Pair5	0.065 (0.102)

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01



## 9 Appendix I: Centrists and Non-identifiers

To identify hidden or latent ideological respondents within the centrists and non-identifiers, I use extra variables: government approval, support for iron-fist policy preferences, and connecting iron-fist policy preferences with ideological labels. Regarding the first variable, only 21% of the CEP respondents approved of how Michele Bachelet was managing the government. As a result, government approval should be a good proxy for latent left-wing respondents. However, disapproval can be explained by right-wing respondents who disagree with the government agenda, or by left-wing respondents who think the government is too moderate. Therefore, I use a second approach to identify latent left-wing respondents, which is a combination of two variables: not supporting iron-fist crime-reduction policies and associating iron-fist policies with right-wing politicians.

In the case of latent right-wing respondents, as mentioned before, not approving of the government might include some left-wing respondents. Therefore, I classify centrist and non-identifiers as latent right-wing respondents if they do not approve the government of Michele Bachelet, support iron-fist policies for reducing crime, and associate such iron-fist crime-reduction policies with right-wing politicians. Finally, non-ideological respondents are those who are neither latent left- nor latent right-wing respondents.

## 10 Appendix J: Results without Interaction

Figure A4 reports the results without using the interaction for likely voters. As expected, candidates' ideological labels are very relevant for left- and right-wing respondents when making electoral decisions and irrelevant for centrists and non-identifiers.

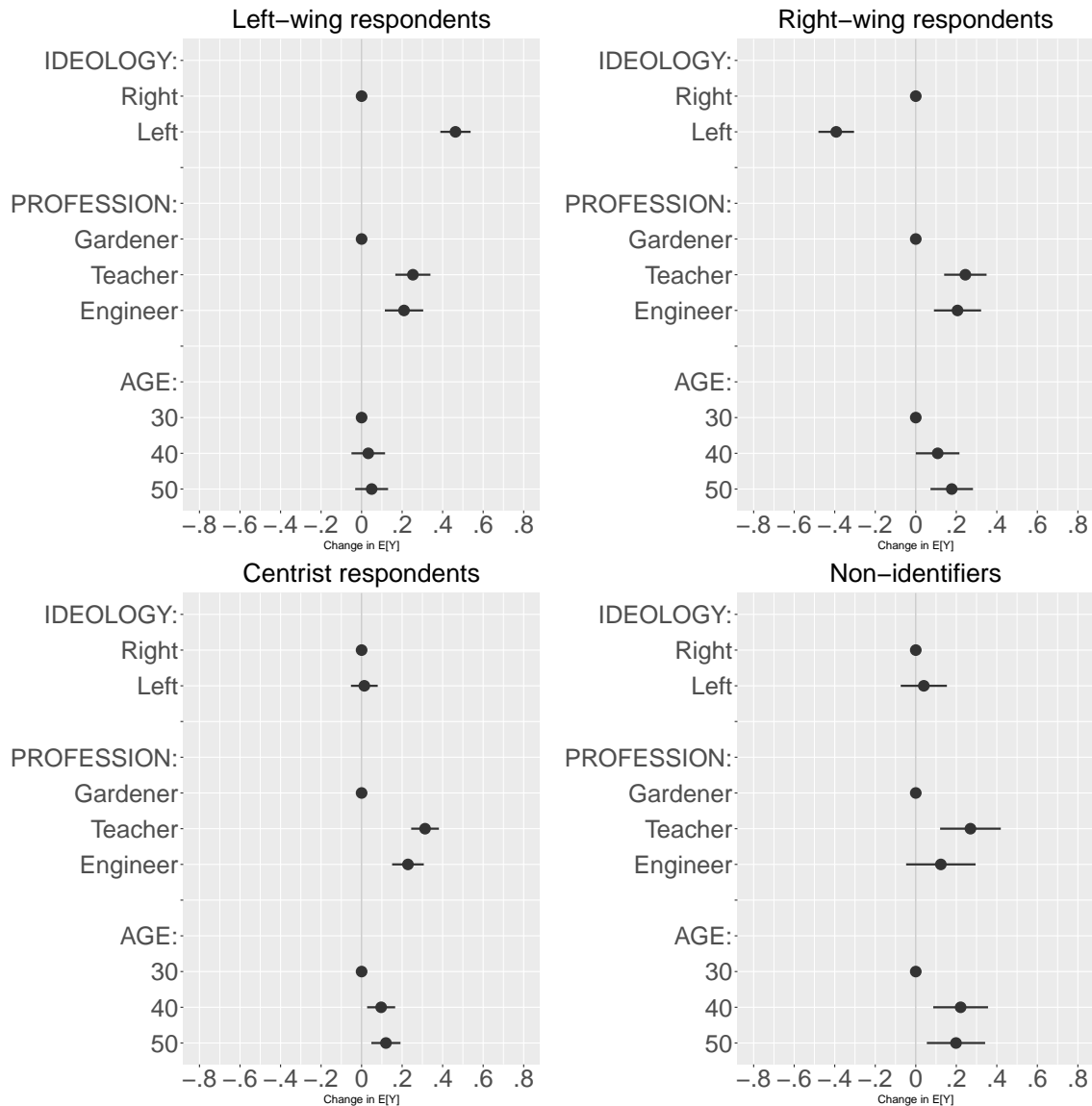


Figure A4: Effects of candidates' attributes on probability of being voted

## 11 Appendix K: Non-identifiers

The sample from this study contains a smaller number of non-identifiers in comparison with the nationally representative survey implemented by the CEP in July–August 2017 (CEP, 2017). Table A11 compares the proportion of respondents who did not place themselves on the ideological spectrum in four different samples: first, the entire CEP survey; second, a subset of urban respondents from the metropolitan region in the CEP; third, a subset of respondents who live in the municipalities used in this study (only two of the three municipalities had respondents in the CEP); and fourth, the sample used in this study. The goal of this exercise is to show that the numbers for these three municipalities are similar when comparing the CEP survey and my sample. Just in case, it is important to note that the CEP survey is not representative at the local level.

Table A11: Non-ideological voters

Sample	Proportion
Entire CEP sample	0.32
CEP Urban and Metropolitan	0.27
CEP Cerrillos and Independencia	0.18
Cerrillos, Recoleta, and Independencia	0.13

The results show that people from the urban metropolitan area, and specifically from Cerrillos, Recoleta, and Independencia, seem to be more ideological than the average Chilean voter. In any case, since this paper is based on analyzing the data for each of the four subgroups of voters (left, right, center, and non-identifiers), I would not expect this to bias the main results.

## 12 Appendix L: Same Age

Here I show that including candidates who are 30 years old is not affecting respondents' decisions. In this analysis, I subset the sample to cases where the age in a pair was the same (e.g., both hypothetical candidates were 50 years old), and as a result age stops being a relevant criteria. Because of the small size of the sample, it is not possible to include the interaction for likely voters. As a consequence, the results should be compared with those reported in appendix J. As expected, left- and right-wing respondents are making ideological decisions when selecting candidates, and centrists and non-identifiers rely on the profession of the candidates. In summary, including the age of candidates should not affect how respondents use ideology to select politicians.

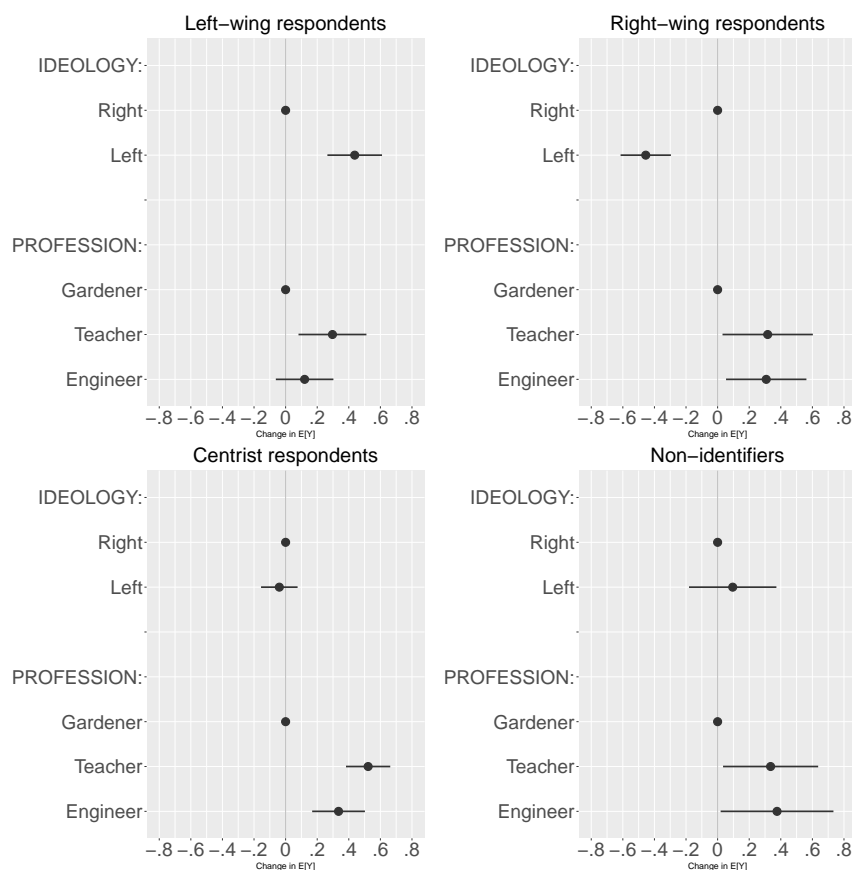


Figure A5: Effects of candidates' attributes on probability of being voted (same age)

## 13 Appendix M: Survey Questions Used in the Paper

a3. How much interest do you have in politics? [READ OPTIONS] (1) A lot (2) Some (3) A little (4) None (88) DK [DO NOT READ] (99) DA [DO NOT READ]

a5. On this card there is a 1–10 scale that goes from left to right. Where 1 means left and 10 means right. According to the meaning that the terms "left" and "right" have for you, and thinking of your own political leanings, where would you place yourself on this scale? [GIVE CARD]

a10. If the elections were held this Sunday, which candidate would you vote for? [DO NOT READ OPTIONS] (1) Sebastián Piñera (2) Beatriz Sánchez (3) Alejandro Guillier (4) Carolina Goic (5) Marco Enriquez-Ominami (6) Other (88) DK [DO NOT READ] (99) DA [DO NOT READ]

a11. Did you vote in the last presidential election in 2013? [READ OPTIONS]: (1) Yes (2) No [GO TO A12] (88) DK [GO TO A12] (99) DA [GO TO A12]

b1. How old are you?

b2. What is the highest education level you've attained? [READ OPTIONS] (1) Primary incomplete (2) Primary complete (3) Secondary incomplete (4) Secondary complete (5) Technical incomplete (6) Technical complete (7) College incomplete (8) College complete (9) Graduate studies (88) DK [DO NOT READ] (99) DA [DO NOT READ]

b6. Gender [DO NOT ASK]: (1) Male (2) Female

c1. Some politicians propose increasing the distribution of social benefits in Chile—for example, to increasing housing subsidies. With which politicians do you associate the distribution of social benefits? [READ OPTIONS] (1) Left-wing politicians (2) Right-wing politicians (88) DK [DO NOT READ] (99) DA [DO NOT READ]

c2. Some politicians propose using iron-fist policies to combat delinquency in Chile—for example, increasing penalties for crimes such as theft or robbery. With which politicians do you associate the use of iron-fist policies? [READ OPTIONS] (1) Left-wing politicians (2) Right-wing politicians (88) DK [DO NOT READ] (99) DA [DO NOT READ]

d2. Do you think that to reduce crime authorities should apply iron-fist policies or should focus on the rehabilitation of criminals? [READ OPTIONS] (1) Use iron-fist policies (2) Focus on rehabilitation (88) DK [DO NOT READ] (99) DA [DO NOT READ]

This final section attempts to understand your political preferences. We will show you profiles of hypothetical presidential candidates (non-real). You should tell us who you prefer for president. Each candidate has three attributes: ideology, profession, and age. We will repeat this exercise 5 times.

e1. Who would you select for president? (1) candidate 1 (2) candidate 2 (88) DK (99) DA

e2. Who would you select for president? (1) candidate 1 (2) candidate 2 (88) DK (99) DA

e3. Who would you select for president? (1) candidate 1 (2) candidate 2 (88) DK (99) DA

e4. Who would you select for president? (1) candidate 1 (2) candidate 2 (88) DK (99) DA

e5. Who would you select for president? (1) candidate 1 (2) candidate 2 (88) DK (99) DA

## References

- CEP. 2017. Estudio Nacional de Opinión Pública N° 80. Technical Report Julio-Agosto 2017 Centro de Estudios Públicos.
- Zechmeister, Elizabeth. 2015. Left-Right Identifications and the Latin American Voter. In *The Latin American Voter*. The University of Michigan Press.