Pre-Analysis Plan: Determinants of Office-Seeking*

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This project investigates the determinants of office-seeking behavior among people who are involved in local and state government. In the context of a survey of current office-holders — most of whom are local elected officials or staffers — we implement a conjoint survey experiment that asks respondents to rate their interest in running for higher office. We vary several institutional and electoral features that are thought to affect people's willingness to run for office, such as salary, opposing candidate's ideology and experience, and the campaign environment. Additionally, by asking respondents to assess the probability that they would win in the election scenarios, we plan to estimate how important "scare-off" is in discouraging potential candidates from running for office.

1 Population, Sample, and Recruitment

The study population is the universe of state and local government employees with the capacity to influence public policy — including both elected office-holders, staffers of elected officials, and local bureaucrats (e.g., city managers). We obtained a proprietary list of contact information for all government employees with publicly-available email addresses in the United States from a government data vendor, KnowWho, Inc., in the winter of 2016. After removing individual entries with incomplete or redundant contact information, we selected a random sample of 10,400 people.

We sent emails to the sample via Qualtrics which included a link to a survey we requested that they complete. Sample respondents who did not respond to the survey were sent a follow-up email two weeks after the initial recruitment email. Of the 10,400 people contacted, 734 people responded to the survey. A total of 734 responses were collected between February 23, 2017 and April 20, 2017. The study described here was presented in the earlier half of an omnibus survey that also contained questions about policy issues and local political representation.

*This pre-analysis plan was written after data were collected, but before the data have been downloaded or analyzed.

2 Experimental Design

In order to assess respondents' willingness to run for higher office, we presented them with several hypothetical election scenarios in the form of a conjoint survey experiment. We varied several features of the office and the campaign environment, then asked respondents to report their interest in running for office in each scenario as well as their assessment of the probability that they would win if they did run. This design allows us to estimate the causal effect of several factors in respondents' assessments of running for higher office.

2.1 Treatment Description

We asked respondents to imagine a race for State Legislature or State Senate[1] with the following introduction:

> In the United States, the quality of government depends on the individuals who run for elected office. The purpose of the next section is to better understand what factors influence how individuals like yourself decide whether or not to run for office. We will describe a series of different pairs of general election scenarios. After each pair of scenarios, we will ask you a couple of short questions. These scenarios are hypothetical and are not meant to reflect a particular state.

We then showed each respondent 3 pairs of election scenarios, for a total of 6 per subject. For each election scenario, we randomized 5 attributes of the election, with the following levels:

- **Annual salary:**
  - $15,000
  - $50,000
  - $80,000
- **You'd need to raise:**
  - $25,000
  - $100,000
  - $300,000
- **Opponent's experience:**
  - Is the incumbent
  - Mayor of a town of 15,000 people
  - Never held elected office
- **Opponent's ideology:**

[1] Almost all respondents were asked about State Legislature; only respondents who are currently state legislators were asked about State Senate.

First, consider two election scenarios for a seat in a **state legislature** with the following characteristics:

	Election 1	Election 2
Opponent's experience:	Mayor of a town of 15,000 people	Is the incumbent
Opponent's ideology:	Very liberal	Moderate
Opponent's campaign advertising:	Mostly negative ads	No negative ads
You'd need to raise:	$100,000	$25,000
Annual salary:	$80,000	$50,000

Figure 1: Screenshot of a conjoint prompt.

  - Very liberal
  - Somewhat liberal
  - Moderate
  - Somewhat conservative
  - Very conservative

- **Opponent's campaign advertising:**
  - No negative ads
  - Mostly negative ads

The order of the attributes was randomized across respondents. Additionally, respondents were only paired against opponents with opposing ideologies. That is, respondents who self-identified as liberal — as assessed by a standard 5-point ideological self-placement scale administered earlier in the survey — were only paired against opponents who are moderate, somewhat, or very conservative, and vice versa for conservative respondents. Moderate respondents were shown the entire range. Figure 1 shows an example of the prompt.

2.2 Outcome Measurement

After viewing the election scenarios, we asked the following two questions about *each* scenario:

- How interested would you be in running in each election? Very interested, moderately interested, somewhat interested, slightly interested, not interested
- If you were to run, how likely is it that you would win in each election? Very likely, moderately likely, 50/50, moderately unlikely, very unlikely

The order of the questions and answer choices were randomized for each respondent. In the terminology of Hainmueller, Hopkins and Yamamoto (2014, p. 6), this is a *rating-based conjoint analysis*, as opposed to a *choice-based conjoint*.

2.3 Measured Covariates

In addition to the experimental, we measured several baseline covariates, including:

- Partisanship: 7-point scale. In analysis this will be recoded to a three-point scale (Democratic, Independent, Republican) where "leaners" are counted as partisans.
- Ideology: 5-point scale.
- Current office held and length of tenure in current office and length of tenure in government including prior positions.*
- Sex.*
- Age.*
- Education.*
- Race/ethnicity.*

Asterisks indicate that the covariates are measured after the conjoint experiment. Specific question wordings are available in the survey instrument that accompanies this document.

3 Analysis

3.1 Main Effects

Randomization of the attributes allows unbiased estimation of the causal effect of each variable on the outcome measures. A linear regression of the outcome variable on a set of indicator variables for each attribute level will recover the average marginal component effect (AMCE) (Hainmueller, Hopkins and Yamamoto, 2014, p. 10), the marginal effect of the attribute level compared to the baseline attribute level, averaged over the joint distribution of the other attributes.

In particular, we will run the following baseline regressions. Let $i = 1, \ldots, N$ denote respondents and let $t = 1, \ldots, 6$ indicate the profile the respondent has rated (each respondent sees three pairs of profiles, for a total of 6). The baseline specification is as follows:

$$\begin{aligned} Y_{it} = \; & \alpha_i + \\ & \beta_{11}\text{Salary50k}_{it} + \beta_{12}\text{Salary80k}_{it} + \\ & \beta_{21}\text{Raise100k}_{it} + \beta_{22}\text{Raise300k}_{it} + \\ & \beta_{31}\text{OpponentMayor}_{it} + \beta_{32}\text{OpponentIncumbent}_{it} + \\ & \beta_{41}\text{OpponentSomewhatIdeol}_{it} + \beta_{42}\text{OpponentVeryIdeol}_{it} + \\ & \beta_{51}\text{NegativeAds}_{it} + \epsilon_{it} \end{aligned}$$

Y_{it} is either outcome measure, interest or win probability. α_i is a respondent fixed effect that accounts for unobserved respondent-level heterogeneity and ϵ_{it} is an error term. The coefficients β provide estimates of the AMCE for each attribute. The baseline categories are

Category	Coefficient	Interest	Win Probability
Salary	β_{11}	$-$	?
	β_{12}	$--$	?
Fundraising	β_{21}	$-$	$-$
	β_{22}	$--$	$--$
Opponent	β_{31}	$-$	$-$
	β_{32}	$--$	$--$
Opponent ideology	β_{41}	$+$	$+$
	β_{42}	$++$	$++$
Negative ads	β_{51}	$-$	?

Table 1: Hypothesized signs for each coefficient in the baseline specification for both dependent variables. Within each category, the magnitude of the effect is indicated by a single or double plus or minus sign. For instance, for the interest outcome, we hypothesize that $\beta_{12} < \beta_{11} < 0$.

the ones that appear in the list above but not in the regression. Because respondents could only see opponents who are ideologically opposed to them, we will collapse the full set of opponent ideologies into "moderate," "somewhat ideological," and "very ideological."

Table 1 shows hypotheses for the signs of each coefficient for each outcome variable.

First, we hypothesize that larger salaries will lead to higher interest in running for office by increasing the material value attached to the office.

Second, we expect that larger fundraising burdens will lead to decreased interest and decreased assessed win probability. Fundraising is generally seen as an unpleasant necessity in politics, so may decrease the value attached to the office. Additionally, larger fundraising burdens should decrease people's self-assessed win probability because their opponent has already decided to enter the race. Respondents may reasonably assume that any opponent who decides to enter the race expects to be able to raise enough money to win.

Third, we hypothesize that running against a more experienced opponent will decrease interest and decrease assessed win probability. The decreased interest should primarily operate via scare-off.[2]

Fourth, we expect that running against more ideologically extreme opponents will increase both the value of winning and the probability of winning. The reason it should increase the value of winning is that an extremist who holds an opposing ideology will implement policy further from respondents' ideal point than moderates. The reason it should increase the probability of winning is that our sample is restricted to people who are currently in office. Respondents are thus more likely to be "in step" with their state's politics than extremist challengers with opposing ideology, and so more likely to win.[3]

Finally, we expect that negative advertisements will decrease interest by making the process of running for office more unpleasant.

We have no hypotheses about the effect of salary or negative advertisements on assessed win probability.

[2]We will address mechanisms in the next section.

[3]This hypothesis assumes that ideological congruence influences who becomes a local/state politician (and thus who is selected into our sample).

All standard errors will be clustered at the respondent level.

3.2 Mediation Analysis

In addition to the main effects, we plan to conduct mediation analysis to estimate the importance of "scare-off" in deterring candidate entry. Using the R package `mediate` (Tingley et al., 2014), we will decompose the total effect of each attribute (the AMCE, in the language of conjoint analysis) into direct and indirect effects (Imai, Tingley and Yamamoto, 2013).

We will model respondent's assessed win probability using an ordered probit model with outcomes collapsed to $\{Likely, Tossup, Unlikely\}$. In addition to treatment indicators, we will include respondent-level covariates in this model. The exact model specification will be determined via cross validation. We will then use a linear regression model in modeling the interest outcome variable.

Each attribute will be analyzed separately, as opposed to jointly as in the main effects analysis. Uncertainty estimates in the causal mediation analysis will be obtained using the block bootstrap, with resampling at the respondent level.

This analysis is intended to be exploratory; we expect that the mediation effects are nonzero but do not have specific hypotheses about the relative magnitudes across factors.

3.3 Subpopulations of Interest

We plan to re-run all of the above analyses on several subsamples. First, we will subset to elected officials to ensure that the findings are robust to the exclusion of officials who do not hold elected office. Second, we will subset to men and women to examine the possibility that they perceive the costs and benefits of running for office differently. While the literature has pointed to women being less willing generally to run for office, we do not have any explicit hypotheses about the relative magnitudes of the treatment effects across gender, so this analysis is exploratory.

References

Hainmueller, Jens, Daniel J. Hopkins and Teppei Yamamoto. 2014. "Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments." *Political Analysis* 22(1):1–30.

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Tingley, Dustin, Teppei Yamamoto, Kentaro Hirose, Luke Keele and Kosuke Imai. 2014. "mediation: R package for Causal Mediation Analysis." *Journal of Statistical Software* 59(5).