

Choosing Not To Choose - On the Link between Information and Abstention

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Abstract

We use an original dataset that allow us to circumvent a number of estimation difficulties that have plagued previous studies of the relationship between information and abstention. Our results show that information is a major determinant of abstention.

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Introduction

Because of the lack of success of a number of cost-based explanations¹, both political scientists and economists (Matsusaka (1995), Feddersen and Pesendorfer (1996,1999), Ghirardato and Katz (2002)) have recently turned to (lack of) information and its consequences as determinants of both abstention and roll off². In this paper, we focus on the empirical support for this link and use a dataset that allows us to circumvent many of the shortcomings of previous studies.

The recent theoretical studies on information and abstention ground their focus on information by referring to examples of roll off where ballot items that seem to have received less media attention (and hence about which voters were likely to be less informed) had higher abstention percentages. Ghirardato and Katz (2002) use the example of the 1998 California election where about 97% of the voters did vote for the Governor but only about 70% for the Supreme Court Judge and conclude ‘Overwhelmingly, the voters discussed in the previous paragraph vote on those elections on which more information is publicly available (p.2)’. Feddersen and Pesendorfer (1996, 1999) use the example of the 1994 Illinois election where about one million more people voted on who should be the next Governor than on whether the state constitution should be amended. They also refer to a stylized fact of the empirical studies on voter turnout that the more educated voters are more likely to vote. As more educated people are likely to be more informed this supports the

¹ For a review of (economic) theories of voting see Aldrich, 1993 and Dhillon and Peralta, 2002.

² Roll off occurs when a voter votes on some but not all items on the ballot.

importance they attach to information. Matsusaka (1995) also refers to the link between education and abstention and further mentions the positive correlations found between turnout and campaign spending; and turnout and being contacted by campaign workers.

Larcinese (2002), however, rightly observes that the endogeneity of information acquisition makes estimation of the effect of information on abstention difficult: 'Individual incentives to be informed are correlated with other incentives to participate in political life: this makes the effects of information hardly identifiable in empirical research.' His instrumental variable estimates do show however a positive and significant effect of information on turnout³. Lassen (2003) criticizes Larcinese's instruments as not being really exogenous. His natural experiment data however confirm Larcinese's finding that information matters⁴.

It is important to note that both Larcinese (2002) and Lassen (2003) focus on abstention. Some empirical studies focus, like us, on the roll off phenomenon, some of which try to control for information. Using aggregate data, Bowler et al (1992) find that more campaign expenditures lead to lowered roll off on ballot propositions in California. Wattenberg et al (2000) take vote data from the US National Election Study. They find, in cases where voters have to choose both for the president and the

³ The degree of information as measured by the knowledge a voter has of the names of candidates and of British politics is instrumented by media coverage and whether the voter reads a quality newspaper. Lassen (2003) argues that the latter instrument 'could be related to unobserved heterogeneity (e.g. values) and, thus, is determined jointly with political information'.

⁴ See Aidt (2000) for some evidence on what voters actually know.

House, that, using a sample of people that participated in the presidential elections, more informed voters were more likely to vote for the House. They use three variables to measure the level of information of a voter: whether or not the voter knew which party controlled the House, whether the voter recognized the names of the (major party's) House candidates and whether the voter had had contact with any of the House candidates through for example mail or television. While this study is probably the one that best approaches the ideal test of the effect of information, it has two drawbacks. The first is that it assumes that all voters have full information on the presidential elections. Ideally, the difference in the extent to which a voter is informed about the House elections and the presidential elections should be used as explicative variable. Indeed, voters who did not know which party controlled the House might also not know the President's party. But that lack of knowledge did not prevent them from voting in the presidential election. In this case, information itself cannot be considered as a determinant of the decision of whether or not to abstain. Second, using survey data is problematic as actual turnout is often found to be lower than self-reported turnout. Matsusaka and Palda (1999) warn that this measurement error can lead to biased estimates as it is non-random, especially since mis-reporting voters are on average older and more educated.

Data

The data we use here come from more than 16000 questionnaires that were mailed to faculty all over the United States by the National Research Council (NRC, 1995).

For each doctorate program, faculty had to answer the following questions:

B1. Familiarity with work of Program Faculty

Mark (x) One

1. ___ Considerable familiarity
2. ___ Some familiarity
3. ___ Little or no familiarity

B2. Scholarly Quality of Program Faculty

Mark (x) One

1. ___ Distinguished
2. ___ Strong
3. ___ Good
4. ___ Adequate
5. ___ Marginal
6. ___ Not sufficient for doctoral education

9. ___ Don't know well enough to evaluate⁵

Hence, for each answer we get information on the degree of familiarity (question B1) and on whether or not there is abstention (option '9' in B2). Hence, we can easily test whether there is a link between the degree of information one has and the likelihood of abstention.

The main part of our analysis will focus on about 750 faculty members that were also asked to give, for each program they rated, the number of faculty names they

⁵ We should point out the phrasing of our abstention variable. Option 9 reads 'Don't know well enough to evaluate'. So one can wonder what one should do if one does not want to evaluate a program for other reasons than lack of information. The most straightforward thing would still be to cross 9 as the effect of crossing 9 still gives you your preferred option, unlike any other choice. This is confirmed by the data, some people actually did cross 9 despite the fact that they claim to be very familiar with the program.

recognized. This supplies us with a more informative (because continuous) indicator of familiarity⁶.

Advantages and Disadvantages of Our Data

Of course, the context of the data we use is different from the typical first-past-the-post-election ballot. However, the setup of this reputation survey is rather similar to the Single Transferable Vote method (used amongst other in Ireland, see Benoit and March, 2002) where voters have the possibility to rank several candidates. In our case, scientists give grades to programs, which basically means ranking programs in terms of their quality. Moreover, the typical voting decision can be separated into a decision whether or not to vote, followed by a decision for whom to vote. In that sense, our questionnaire data are similar in the first part, the decision whether or not to rate and only different in the second part, rather than choosing between two candidates (as in the case of a first-past-the-post decision), the scientist has to choose between 6 different possible grades.

Our 'ballot' is also longer than the typical ballot: the scientists were asked to rate somewhere between 30 and 60 departments, which is considerably more than the typical number of issues on a ballot (though the 1994 California ballot given in Wattenberg et al (2000) counts 25 different items). However, the items on our ballot are much more similar: a scientist rates 30 to 60 university department within his

⁶ As we also have information on the number of faculty of each rated program, we experimented with both the absolute and the relative number of people recognized.

specialization. The decision whether or not to rate program A is much more similar to the decision whether or not to rate program B, than the decision to vote in the presidential elections is to the decision whether or not to participate in the vote on say, smoking regulations⁷. This similarity combined with the large number of items provides us with an ideal setting for a fixed effects estimation procedure. Moreover, note that we know the degree of familiarity of the raters with all programs that they rate which means that we can look at the effect of differences in the degree of familiarity on whether or not a rater abstains from rating a specific program. This is different from the approach of Wattenberg et al (2000) who only use information on one of the items under consideration⁸.

Also in contrast to Wattenberg et al (2002) and in contrast to most of the literature on turnout, we have information on real choices rather than ex-post survey information. Hence, the problem of non-random mis-representation errors which typically plagues survey-based turnout studies is completely absent in our context.

Like in real elections, both benefits and costs of participation are extremely small - giving grade 0 rather than grade 5, will decrease the average score by 0.025 given that the number of raters is about 200⁹. And surveys are sent to the 'voters'. This corresponds well with the theoretical setup of both Feddersen and Pesendorfer

⁷ Which was the case of the 1994 California ballot (Wattenberg et al. (2002)).

⁸ As mentioned above, they use (lack of) information on House candidates to explain why people participate in presidential election but not in House election. They do not control, however, for what voters know about the presidential election.

(1996, 1999) and Ghirardo and Katz (2002) who assume that the cost of voting is negligible. In addition, the endogeneity of information acquisition is likely to be much less of a problem in our context as there is no such thing as an electoral campaign during which voters can acquire information. In addition, all raters were provided with the same information: together with the questionnaire, each rater was sent a list with the names of the faculty and the number of recent graduates of each program, and the programs to be rated were randomly assigned to raters.

In addition to information on the familiarity of the rater with each program, we can also control for a number of other factors that affect the faculty members' participation decisions. An important factor is the sequence of the program. We know for each program the 'place on the ballot' which allows us to capture 'voter fatigue'. Note that the NRC randomized this 'place on the ballot'. Several studies have studied the issue of ballot order on votes and roll-off (f.e. Bowler et al, 1992).

In rating a research program, like in voting, some faculty members are more concerned with the final outcome than others. For instance, faculty members who live in the same region as the program are more seriously affected by the rating's outcome. Either because they want to promote their friends' or their collaborators' program, or because they want to destroy their competitors. As such considerations

⁹ Hence in our context, the chance of influencing the result is 1, the benefit however is very smaller.

can influence participation we include a ‘partisan’-dummy that takes 1 if the rated program is located in the region of the rater¹⁰.

Finally, many theoretical papers assume rational voters. The hypothesis of rational behavior should be much easier to accept when looking at a sample of scientists than when looking at a sample randomly drawn from the whole population.

Some Descriptive Statistics

Each of the 7876 completed questionnaires has about 50 ratings. Table 1 gives the descriptive statistics for the question on the scholarly quality of the program faculty (B2).

[INSERT TABLE 1 HERE]

In about 165000 cases, a rater indicated that he was not familiar with the program. In 86% of these cases, the rater did choose to abstain and hence, not evaluate the program. When the raters indicate that they have some familiarity with the program, the percentage of abstention decreases massively. Less than 5% do abstain in these circumstances. And ‘considerably’ informed voters almost never abstain. Note that for this question, 96% of the abstention can be explained by a lack of information¹¹!

Hence, table 1 supports the recent theoretical models in stressing the importance of informational asymmetries to explain the choice of whether or not to choose.

¹⁰ The regions are as defined by the NRC: New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, Pacific.

¹¹ $141749 / (39 + 5878 + 141749)$

However, the Swing Voter Curse model of Feddersen and Pesendorfer (1996, 1999) also implies that only completely informed voters should vote, a prediction that is clearly rejected by the data. From the moment, voters have ‘some’ information, it is very likely that they will vote.

For 10% of the sample, the NRC also asked raters to give for each program they had to rate the number of faculty they recognized¹². Also these data show that familiarity and abstention go together: if a rater does not recognize any of the names of the program faculty, he or she abstains in 87% of the cases. Recognizing one person, increases the chance of voting to about one half; recognizing two persons implies a 75% chance to vote. And abstention becomes extremely rare when recognizing 5 or more names.

Econometric Analysis

So far we presented crude descriptive statistics which tend to show a clear relation between abstention and information. However, abstention can be influenced by a number of observed and unobserved factors including the cost to vote. As a result, one should take into account the effects of those factors that affects participation. To do that we confine our attention to the sample of 10 % and run following basic conditional logit regressions:

$$PR(\text{Abst.})_{ij} = \alpha + \beta * (\text{considerable familiarity})_{ij} + \chi * (\text{some familiarity})_{ij} + \mu_i + \varepsilon_{ij}$$

Using conditional logit implies that we control for fixed effects (μ_i)¹³. This means that our estimates take into account the differences in voting behavior across voters that are individual-specific. Those differences can either come from different costs to voting or from different information levels the individuals have about the program. In other words, our estimates are based on the voting behavior of a specific person in situations with different degrees of ‘informedness’. In addition, this means that we now look at the roll-off phenomenon – why do people vote on some items while abstaining on other items.

[INSERT TABLE 2 HERE]

In specification (1) we regress abstention on the dummies reflecting different degrees of familiarity. Results do provide strong support for the Swing Voter’s Curse: when a rater has little or no familiarity with the program to be rated, he or she is much more likely to abstain than when he or she has some familiarity. And when that same rater has considerable familiarity with the program, he or she is even more likely to vote. The pseudo R^2 is further extremely high given the sample size of over 30000.

Specification (2) that uses the number of people recognized as an indicator of familiarity confirms this: the more faculty a rater recognizes, the less likely it is that he or she abstains from rating the program¹⁴.

¹² 10% of the sample corresponds to 724 individuals.

¹³ The fixed effects capture, amongst others, field differences.

¹⁴ Using the relative number of people recognized gives similar results but a slightly lower Pseudo R^2 (0.48).

Specification (3) includes both familiarity variables and adds a control variable for partisanship and for the cost of voting. The coefficients of the familiarity variables remain clearly negative confirming the importance of information. Note, however, that again our results are not supporting the ‘extreme’ predictions of the Swing Voter Curse theory: people will vote from the moment they have some information, they do not need to be sure with probability 1. Partisanship, here represented by a dummy that takes the value one if the institution of the rater and the rated institution are situated in the same region, seems only of minor importance in explaining the decision of whether or not to vote. The coefficient has an expected negative sign, meaning that a rater is more likely to rate programs of direct competitors. The cost of voting or ‘voter fatigue’, here captured by the sequence of the program, does matter. Its coefficient is clearly positive, indicating the programs that come later in the questionnaire, are less likely to be rated. Note however, that these three additional variables add little in terms of explanatory power. Using the relative number of people recognized or sequence-specific dummies rather than a linear trend gave similar results.

A disadvantage of the conditional logit specification is that it is difficult to assess the size of the coefficients. As an approximation we give in specification (4), the fixed effect least squares results. Having considerable or even only some information massively decreases the chance not to vote (from 80% to 7%). For each faculty member recognized, the chance to abstain decreases by 0.5%. If rater and rated program are located in the same region, the chance to vote is 1% higher. Finally, a rater is 3% more likely to rate the first program that is presented to him than the 50th program that is presented to him.

Conclusions

In this article, we empirically test the importance of the information as a determinant of roll-off. Previous studies that have tried to tackle this issue are plagued by

estimation problems. To circumvent these problems, we used a questionnaire that has been organized by the National Research Council to assess the reputation of research-doctorate programs. These data allow us to discern the 'pure' effect of being informed on the probability of participation. Our results show that the degree of familiarity is a major determinant of the decision whether or not to abstain. This finding implies that theoretical studies that assume that all voters have full information are likely to be unrealistic and that empirical studies that do so are likely to lead to biased inferences.

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Tables

Table 1: The Scholarly Quality of Program Faculty

	Vote	Abstain	% abstain
Considerable familiarity	69566	39	0.06
Some familiarity	133072	5878	4.23
Little or no Familiarity	22744	141749	86.17

Table 2: Conditional (fixed-effects) logit

Variables	(1)	(2)	(3)	(4)
Cons familiarity	-10.38** (20.3)	---	-8.16** (15.6)	-0.73*** (124)
Some familiarity	-6.28** (69.4)	---	-5.26** (53)	-0.73*** (206)
Nr. Recognized	---	1.63** (73.5)	-0.49** (19.1)	-0.005*** (10.1)
Same region	---	---	-0.18* (2.1)	-0.013* (2.2)
Program sequence	---	---	0.012** (6.6)	0.0006** (6.2)
Constant	---	---	---	0.8*** (249)
Pseudo R ²	0.73	0.54	0.75	0.67
N of observations	30652	30652	30652	33253
Log likelihood	-4249	-7166	-3983	

Note: Little Familiarity is the benchmark. T-statistics are reported in parentheses. *=significant at 5% and **=significant at 1%.