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Popular Trust, Mistrust, and Approval:
Measuring and Understanding Citizens' Attitudes Toward Democratic Institutions

A dissertation presented by

Chiara Superti

to

The Department of Government

in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy
in the subject of
Political Science

Harvard University
Cambridge, Massachusetts
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Popular Trust, Mistrust, and Approval:

Measuring and Understanding Citizens' Attitudes Toward Democratic Institutions

Abstract

High levels of political trust and approval are believed to be the basis of a healthy democracy. Attempts to gauge citizens' political attitudes have flourished in the past decades, but political science has yet to converge on a valid – and cross-nationally comparable – measure of popular political approval. Meanwhile, from New York City's Zucconi Park to Istanbul's *Gezi* Park, from Madrid's *Puerta Del Sol* to Cairo's *Tahrir* square, popular political discontent is on the rise and historic manifestations of it remain difficult to interpret, reverse, or anticipate. The essays in this manuscript introduce a new measure of political approval and propose a different institutional interpretation of the determinants of political trust.

The first essay, "Individual Blank Voting, Mobilized Protest Voting, and Voting Abstention," compares different forms of electoral dissent – individual blank voting, mobilized null voting, and voting abstention – across Italy and in the Basque Country of Spain. It demonstrates that the least studied of the three – blank voting – expresses the most conscious and educated rejection of political candidates, parties, and electoral systems.

The second essay, "Measuring Discontent and Predicting Trouble," proposes the use of unconventional voting as a powerful alternative metric of popular electoral approval, by showing the existence of a systematic link between blank and null voting, and larger popular protests. I demonstrate that the rate of blank and null voting at the national level is a reliable proxy of larger popular discontent and an effective predictor of future protests. As such, it is comparable to other widely used measures of perceived electoral quality and popular approval, while being much less costly,

time consuming, and with greater disaggregation potential.

In the last essay, "Corruption and Trust in Institutions, Evidence from Israel," Noam Gidron and I exploit a natural experiment offered by Israel's unique immigration law, which expedites naturalization for Jewish immigrants. We find that cultural norms, as shaped by levels of corruption in immigrants' sending countries, affect only their initial levels of trust, while subsequent exposures to socially inclusive institutions (e.g., the military) shape a mature and more positive political attitude.

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To Emanuela, Ester, and Germana.
The Three Great Women of My Life.

List of Authors

Noam Gidron contributed to Chapter 4.

Chapter 1

Studying Popular Political Attitudes

Politicians and academics alike go to considerable efforts in trying to measure, understand – and possibly respond to – citizens' attitudes toward political parties (Poguntke 1996; Torcal et al. 2002; Bardi 1996) and institutions (Algan and Cahuc 2013; Dinesen and Hooghe 2010; Maxwell 2013; Nunn and Wantchekon 2009; Rothstein and Stolle 2008). High levels of political trust and approval are believed to be at the basis of a healthy democracy, securing high quality of government, increasing social capital, supporting more effective democratic governance, and enhancing civic and political participation, economic growth, and prosperity(Alvarez et al. 2008; Nannestad 2008; Scholz and Lubell 1998).

During the past thirty years, these realizations have increased the number of attempts to capture citizens' attitudes through various types of surveys and polls aimed at both experts and citizens (e.g., Comparative Study of Electoral System,[1] The World Value Survey,[2] the European Social

[1] http://www.cses.org/.

[2] http://www.worldvaluessurvey.org/wvs.jsp.

Survey,[3] the Electoral Integrity Project[4]). These tools ask citizens about their levels of trust in different institutions, political approval of the electoral offering, and satisfaction with their governments. Nevertheless, these methods are not fully satisfactory: the surveys' responses do not deliver a reliable measure of citizens' attitudes. Polls are "snapshots of moving targets. Responses vary with the phrasing and context of the questions that are asked" (Nye et al. 1997, p. 5). Moreover, surveys are often difficult to compare across countries, and time. As King et al. (2004) point out, "the comparability of most of our survey questions has not even been studied" (p. 192).

While political science has yet to converge on a single convincing way to measure and monitor political discontent, popular dissent is worryingly trending upward. Since the beginning of the century, it has often exploded into unexpected large-scale protests. From the Spanish *Indignados*' demonstrations to the Arab Spring, from the Istanbul's *Gezi* Park to New York City's Zuccotti Park, recent history is teaching us that even historic manifestations of popular political disapproval remain difficult to interpret, reverse, and anticipate.

Much can still be done to achieve a more accurate estimate of citizens' political attitudes and to develop a deeper understanding of the determinants shaping political trust. The three essays in this manuscript contribute to both goals. They do so by introducing a new measure of popular political approval together with a different institutional interpretation of the origins of political trust (and mistrust) in democratic institutions.

Chapter 2, "Individual Blank Voting, Mobilized Protest Voting, and Voting Abstention," analyzes a form of expression of discontent that political scientists have largely neglected [5] – protest

[3] http://www.europeansocialsurvey.org/.

[4] https://sites.google.com/site/electoralintegrityproject4/home.

[5] Power and Garand (2007) discuss the reasons why political scientists have not spent much time studying the specific case of blank and null voting. The main reason according to the two authors is that political scientists tend to care more about "party identification and/or the allocation of political power" (p. 433), focus on areas like the United States were the phenomenon is negligible, and because blank votes are often considered difficult to interpret.

within the ballot. Several forms of political dissent unfold during the electoral process: abstention, election boycotting (Beaulieu and Hyde 2009), voting for anti-party or anti-establishment parties (i.e. Spanish *Podemos* or Italian 5-Star Movement), and unconventional voting, such as blank voting, ballot spoiling, write-in votes, and so on.[6] The paper focuses on three examples of political discontent expressions: individual protest voting (the case of blank voting), the mobilized version of protest voting (the case of mobilized null voting), and voting abstention. By comparing these forms of dissent, this paper demonstrates that the least studied of the three – blank voting – expresses the most conscious rejection of political candidates, parties, or the electoral system. Moreover, and contrary to common wisdom, I show that blank voting is used by educated voters, who understand the symbolic political value of the ballot and leverage it for their expression of protest. The paper takes advantage of exogenous political and institutional variation in two cases: the Spanish national elections in the autonomous region of the Basque Country and the Italian municipal elections. It provides empirical evidence that this behavior is stimulated by disaffection toward electoral institutions or political parties, particularly in highly educated areas, where a larger pool of politically sophisticated citizens live and vote.

Chapter 3, "Measuring Discontent and Predicting Trouble," delves into the question of how to measure popular political approval. The paper proposes the use of unconventional voting as a powerful alternative metric for political discontent. I show a link between unconventional voting behaviors, such as blank and null voting, and larger popular protest, riots, and street demonstrations. Moreover, I provide systematic evidence for the existence across countries of a particular path of popular political discontent: from the ballot to the streets. This happens through two non-mutually-exclusive mechanisms. On the one hand, those citizens, who individually choose to express their disapproval of political parties and electoral procedures through the ballot, are giving

[6] Uggla (2008) uses as dependent variables blank voting, null voting, and the vote for extra-parliamentary parties. The author claims that these three phenomena are significant and worth investigating.

voice to a popularly felt sentiment of discontent. Therefore, they might represent an early wave of expression of political unhappiness. On the other hand, those same individuals are more likely to be potential "dissenters" – actively driving or supporting larger popular protest.

This paper demonstrates that the rate of blank and null voting at the aggregate national level is a valid proxy of larger popular discontent and a reliable predictor of future protest. As such, it has similar predictive and explanatory power as other widely used measures of perceived electoral quality and popular approval, while costing much less, consuming less time, and containing greater disaggregation potential.

Chapter 4, "Corruption and Trust in Institutions, Evidence from Israel," is the product of a collaboration with my colleague Noam Gidron. The paper addresses two questions: does the cultural legacy of corruption determine citizens' attitudes toward democratic institutions in the present, regardless of the latter's quality? If trust in institutions is not completely stable over time, which factors may affect it? Scholars often point to the role of the quality of governance and cultural legacies in shaping individual levels of trust in democratic institutions. However, it is extremely difficult to disentangle these two factors, which are usually endogenous to each other (Fisman and Miguel 2007). In this paper, we exploit a natural experiment offered by Israel's unique immigration law; a provision that allows expedited naturalization for Jewish immigrants.

Jews migrate to Israel from several different countries, with different levels of political corruption. These individuals are immediately integrated as citizens into the Israeli democratic system and interact as citizens with its institutions. The majority of the immigrants are attracted to Israel not because of the political institutions of the country but because of the religious and cultural environment and because of the easier path to naturalization. This allows us to keep the receiving country's institutional features constant while varying the political corruption in immigrants' background. Moreover, the religious and cultural appeal of the country diminishes the selection

on the dependent variable of immigrants, namely, the quality of institutions. Finally, the naturalization law's fast-track for Jewish immigrants eliminates the experience of being a non-citizen, which might bias immigrants against the receiving country's institutions. Therefore, Israel is the best empirical case to disentangle the impact of institutions from the effect of cultural legacy, thus shedding light on the determinants of citizens' trust as well as changes in trust over time.

We find that cultural norms, as shaped by the levels of corruption in the home country, have a strong effect on immigrants' initial levels of trust in democratic institutions. However, immigrants adapt their attitudes and adopt higher levels of trust the longer they are exposed to institutions of higher quality, and even more so following interactions with socially inclusive institutions, like the military. We exploit the example of military service, which is mandatory only for immigrants who arrived before the age of 22.[7] Accounting for possible self-selection problems, we find that individuals who did not serve in the Israeli Defense Forces appear to have lower trust in state institutions. Our findings contribute to an ongoing debate about the determinants and malleability of political trust.

Together, the three papers have important theoretical and practical implications. They illuminate the pivotal role played by institutions (e.g., electoral systems, voting regulations, and the military service) in shaping the attitudes of citizens. Cultural norms and ideology are only secondary actors, which are either setting the initial levels of trust or influencing the choice of channels for the expression of discontent. Most importantly, these conclusions set a non-deterministic approach to citizens' political approval and trust. By showing that inclusive institutions -– those which favor citizens' expression and direct involvement – can shape these attitudes, these conclusions suggest the construction of such institutions should be an object of policy and reform.

Furthermore, my work contributes to an open debate regarding the introduction of an alterna-

[7] As explained in the chapter this threshold was changed after 2001.

tive official channel of protest *within* the ballot – the none-of-the-above or blank-vote option. This option has been introduced already in several countries around the world, including India since 2013, Colombia since the 1990s, and the state of Nevada in the United States since the 1970s. Yet the policy's impact remains unclear. Although the following essays do not test the effects of these policies explicitly, my findings suggest that the introduction of such a voting option would have a positive net impact on the quality of the democratic process. First, a blank-vote option increases the possibilities for citizens' expression, thus increasing their satisfaction toward the system. Second, it allows popular discontent to be channeled and recorded as such by political institutions of government and representation. Lastly, an official channel of protest adds a source of accountability for the parties participating in the elections especially in many contexts where there is a dominant party that faces no real party competition, but also where all parties are perceived as equally corrupt.[8]

[8]Replication files to see the analysis contained in this manuscript are available here: Superti (2015).

Chapter 2

Individual Blank Voting, Mobilized Protest Voting, and Voting Abstention

"I didn't think any of the candidates in my constituency were fit to enter the Parliament, so I clicked on NOTA [*none of the above*]"

Indian voter, 2013 on The Times of India (2014).

"The campaign of fear that has been conducted by both sides against the blank vote [...] To those who fear I say: there is nothing more fascist than voting out of fear. For this reason, I insist, I will vote blank"

Mauricio Vargas on El Tiempo (Vargas 2014)[1]

[1]Translation by the author. Original quote: "La campaña del miedo ha sido dirigida por ambos bandos en contra del voto en blanco [...] A quienes tienen miedo les digo: no hay nada más fascista que votar por miedo. Por eso, insisto, votaré en blanco."

2.1 Introduction

The first decades of the 2000s have been characterized by the expansion of mass political discontent. Large-scale demonstrations and riots have been shaking many democratic regimes, from the French *banlieues*' riots to Occupy Wall Streets and the Spanish *Indignados*. Similarly, voting abstention is rampant across western societies, from the United States to Italy. Nonetheless, and despite the significant amount of scholarly work dedicated to both protest and abstention,[2] social scientists have failed to systematically predict massive outbursts of political discontent. I claim that academics[3] and practitioners have overlooked for too long a missing link in the chain of political protest: protest *within* the electoral process. Protest voting, in this paper, is the act of using the ballot in unconventional ways – ways for which ballots were not originally intended – to make a political statement.

Specifically, there exist a number of citizens who on election day walk all the way to the polling station and intentionally cast a protest vote, either by leaving the ballot completely blank (blank vote), or nullifying it on purpose (null vote).[4][5] Who are these blank and null voters?[6] How are they

[2]For abstention see for example: Blais and Carty (1990); Aldrich (1993); Franklin (2004); Blais (2006); Geys (2006), for protest see for example: Della Porta and Reiter (1998); Aelst and Walgrave (2001); Norris et al. (2005).

[3]For reasons explaining this vacuum in the literature see Mott (1926); McAllister and Makkai (1993); Power and Garand (2007).

[4]For an existing example of the use of the blank and null vote together, see Uggla (2008). For examples of papers, instead, that distinguish null from blank see Driscoll and Nelson (2014). I also discuss briefly the empirical choice of using blank voting in the case of Italy, and a comparison of both votes in Spain.

[5]As explained later in the paper, some countries have the official blank option, available on the ballot in several political contexts: Ukraine, Thailand, United States (Nevada), India and Colombia. Other countries like Sweden and Israel allow the choice of a completely white paper to insert in the urn when voting. I will discuss at the end what is the relationship between this vote and the one I describe.

[6]Note that partial abstention is, instead, a different phenomenon. Authors like Ghirardato and Katz (2002) and Degan and Merlo (2011) explain the phenomenon of partial abstention as a result of lack of information. Voters who go to the polls on a multiple-race election day would vote for the race they are informed about and leave the other blank. Blank or null voters are very different from partial abstentionists, with different motives and different incentives, as I will show in the next sections of this paper.

different from individual abstetionists or mobilized protesters?

In the vast literature on voting behavior, blank and null voting finds very little explanation,[7] while in the limited literature on the blank and null vote, no consensus has been reached regarding the determinants of this behavior. Several authors have attributed blank and null voting to unfortunate socioeconomic features leading to the incompetence of voters (Mott 1926; McAllister and Makkai 1993; Power and Roberts 1995; Power and Garand 2007), or a sense of social alienation (Stiefbold 1965; Power and Roberts 1995; Zulfikarpasic 2001). Others (Zulfikarpasic 2001; Herron and Sekhon 2005; Power and Garand 2007; Uggla 2008) claim that this behavior is actually due to institutional and political factors and is a form of political protest.[8] My paper supports this latter camp. However, my work goes one step further in the identification of the multifaceted nature of this vote. I demonstrate not only that blank and null voting is an intentional political action, but that the individual (non-mobilized) version of it is lead by *sophisticated protesters*. They send a political message that is more resolute and informed than that of abstentionists, who are often politically apathetic (Rosenthal and Sen 1973), or organized protest voters, who are often ideologically driven and externally mobilized, just as any other form of political demonstrations (Aelst and Walgrave 2001).

Nowadays, protest voting is a more widespread form of political protest than is commonly believed. It involves more people than street demonstrations in several Western democracies. The people who participated in the famous Spanish mass protest of the *indignados* in 2011, which

[7]For a review of models of voting see Dhillon and Peralta (2002); Blais (2000). Examples of formal models considering the spoiled ballot are Myatt (2012) and Rosenthal and Sen (1973).

[8]For an excellent overview of the approaches see Uggla (2008). For other literature referring to the blank and null voting and presenting the dual nature of this phenomenon as both incompetent and political protest, see Rosenthal and Sen (1973); Damore et al. (2012); Driscoll and Nelson (2014); Uggla (2008); Zulfikarpasic (2001). The work of Rosenthal and Sen (1973) deserves a separate note. It is the most successful application of spatial models on blank voting. They model voting behavior and account for blank voting as an important voting option, which is influenced by short-term factors. They show how a combination of alienation and heuristic models account for the variation in blank vote cast in the first and second ballot in French elections (1958-68).

brought hundreds of thousands of citizens to the street and gained significant media coverage, were fewer than those who, in the same year, cast a blank and null vote, over 700,000.[9] Furthermore, in countries like Italy,[10] Chile,[11] and Colombia, blank voting often collects more votes than many minor or extreme parties, usually considered the recipients of protest votes (Uggla 2008).[12]

In this paper, I demonstrate that blank and null voting is an expression of higher political sophistication both in absolute terms, and relative to abstention and mobilized protest voters. I do so by focusing on individual[13] blank and null voting in recent elections in the north-western region of Spain, Basque Country, and Italy.

These cases have been selected because, first of all, they are both democracies with voluntary voting systems, which allows me to investigate this behavior in a context where the costs of abstaining are zero. Furthermore, these two countries are among the few non-compulsory democratic systems to record blank votes separately from null votes.[14] Both blank and null voting can be forms of individual protest and both have been mobilized at times, from the Peronists' blank vote in the

[9]This number includes a vote for the blank-null party, *Escaños en blanco*, a party that aims to represent explicitly this form of protest, cast by 97,673 people (Ministerio del Interior España 2013), and the blank vote and null vote each cast by over 300,000 people. The estimated number of people who participated in the street protests of *indignados* organized by 15-M movement in Madrid in 2011 is reported to be around 50,000 in various important cities of Spain like Madrid and Barcelona: http://goo.gl/N3XFM, or http://goo.gl/NMk4Qc.

[10]In Italy in 2013 parties with a share of the vote between 0 and 7% - which corresponds to: plus or minus one standard deviation from the cross-national average - won a total of 83 seats only in the Lower House; blank and null voting of 3.59% was larger than the vote share of 42 parties (Website of Italian Ministry of Interior 2013). It is instructive to compare the average blank and null vote rate since 2003 to the threshold of representation in the vast majority of Proportional or Mixed Member Proportional electoral systems, which range from 2 to 5% (e.g., 2% for the Knesset in Israel until 2015, and then it was increased to 3.25%.

[11]For Chile I refer to the elections since 2014 when the compulsory status of voting was lifted.

[12]I do not discuss the vote for small parties and candidates, which has often been classified as a vote of protest. It has been shown that this vote is actually often driven by the support for these parties' political ideology. People choosing these parties actually share the platform of the parties (Van der Brug et al. 2000; Erlingsson and Persson 2011; Neocleous and Startin 2003).

[13]With "individual," in this paper, I mean a vote that is not mobilized on large scale by existing organized groups or prompted by large-scale mobilization campaigns.

[14]France just had its first European election in 2014 with this distinction.

1950s to the Basques' null ballots in 2004. However, when non-mobilized, the blank vote appears to be a cleaner message of protest than the null vote, which is sometimes due to voters' involuntary mistakes.

Finally, the Basque country and Italy display unique variation along different dimensions of interest: institutional and political discontent, education, and protest mobilization. I leveraged these features empirically to obtain a proper causal identification and consistent evidence of the sophisticated nature of individual blank voters.

However, the findings of this paper are generalizable to other western democracies with non-compulsory voting regulations. Individual blank or null voting is far from being simply a Southern European phenomenon and has become a more common political choice across several countries in the last 40 years. During this period its aggregate levels have been increasing significantly. In non-compulsory voting regimes, for instance, the phenomenon has more than doubled from the levels of the 1970s, from 1.26% to 3.4% (Institute for Democracy and Electoral Assistance 2013), showing a much steeper increase than abstention,[15] and a similar trend to that of citizens' participation in lawful demonstrations (Aelst and Walgrave 2001).[16]

The findings of this paper about the sophisticated nature of the individual blank and null vote, combined with the realization of the increasing trends of the phenomenon within voluntary voting systems, have important theoretical and practical implications. First, the paper contributes to a more nuanced understanding of voting. By showing that the act of leaving the ballot blank, which

[15]The vote's average calculated since 2003. This rising tendency is not the domain of only a few cases, but it is a shared pattern of the majority of the countries. Indeed, the median value of these same periods also shows a similar relationship: it has doubled from .9% (1970s) to 1.8% (after 2003) (Institute for Democracy and Electoral Assistance 2013). Abstention has increased only 40% in the same period. The blank and null vote here is measured as "invalid vote" which is an aggregate of both blank and null. This measure contains a component that is not protest but simply mistakes of the voters.

[16] This estimate is based on Aelst and Walgrave (2001) table 1 where the proportion of respondents who participated in lawful demonstrations across the time is reported for France, Netherlands, Belgium, West Germany, the UK, and the US.

would be deemed irrational by many, is chosen by sophisticated citizens, I provide evidence for the expressive nature of voting. Indeed, if those better equipped to understand the limited impact of their single vote in any large election (Downs 1957) are the same who are more likely to turn out and cast a blank vote, voting must be driven by more than simple instrumental goals.

Second, this line of work contributes to the debate over the importance of recording this form of protest and of possibly introducing an institutional "blank vote" on the ballot. Since the introduction in the 1970s of the "none-of-these-candidates" option on the ballot in Nevada, the United States has been witnessing an active discussion of the topic (Damore et al. 2012). Similar debates have taken place in India (Tembhekar 2014) and Colombia (Corte Constitucional de Colombia 2011), two countries that also have institutionalized this vote. Furthermore, France has recently decided to record the blank vote and to separate it from the null vote. By doing so, France aim to provide its voters with a clear channel of dissent (Licourt 2014), as Italy and Spain already do. The final section of this paper delves into this debate. It introduces the different cases of blank vote institutionalization, presents the different existing justifications in favor of an official blank and null vote, and offers a further argument in terms of political responsiveness, derived directly from the findings of the paper.

2.2 Theoretical Framework

2.2.1 Why Using the Ballot As a Tool of Protest?

The first and basic hypothesis presented in this paper is that blank and null voting is a form of political protest used by dissatisfied citizens. However, why would anyone decide to use the ballot to express discontent – a use of the ballot that would eliminate even a small chance of having an impact on the political outcome?

The reason I support in this paper is that for many voters the value of the vote goes far beyond the simple selection of candidates and is driven by more than just the interest in influencing the electoral outcome. It is a channel for political expression (Brennan and Hamlin 1998), a source of political identity (Karst 1985), and a tool of political protest. This approach to voting departs from the classical literature coming out of the seminal work of Downs (1957), in which voting has often been defined as an instrumental behavior based on a political cost-benefit calculation and on voters' chances (perceived or real) of influencing the electoral outcome of the specific election (Dhillon and Peralta 2002; Aldrich 1993). In the last two decades, breaking with the rational choice tradition, several scholars have been reconsidering voting from different perspectives. Two important families of models are the "bounded rationality" (Bendor 2010) models, which relaxes the assumption about the information and cognitive skills of individuals, and the expressive behavior models (Schuessler 2000; Wolfinger 1980; Tyran 2004), which shifts the focus from the outcome to the process of voting. According to this last approach voting is more about confirming one's individual political identity (Brennan and Hamlin 1998; Schuessler 2000; Hillman 2010). Voting is more like "cheering at a football match than it is like purchasing an asset portfolio." (Brennan and Hamlin 1998, p. 150).[17] It would be about "being," about identity, to the extent that it confirms one's political belonging and ideas. A Democrat *becomes* a Democrat by voting for the Democratic Party and showing electoral support for it (Schuessler 2000). In addition, political theorists like Judith Shklar have analyzed the symbolic value of the vote (Shklar 1991) and its role for political identification and integration (Karst 1989, 1985).

Alternative frameworks, instead, try to reconcile a more instrumental approach to voting with the possibility of protest voting. They claim that a vote can also be exploited by voters as "a signal

[17]Even consumer behavior has been considered less and less as driven by a purely cost-benefit analysis of products. Since Levy (1959), also in the realm of marketing the role play by symbolism and status affirmation dominates any other.

of dissatisfaction with their most preferred party" (Kselman and Niou 2011, p. 240). This type of vote would, hence, be used strategically to warn the favorite party (Kselman and Niou 2011; Kang 2004; Franklin et al. 1994). Although this approach is rarely used to this end, it can offer an explanation for blank and null voting. In Myatt (2012), for instance, blank and null voting embodies a communicative strategy enacted by the voter supporting one specific candidate, but wanting to signal some level of disappointment for specific policies by "avoiding a critically large winning margin; he wishes to prevent a landslide win" (Myatt 2012, p. 2). Blank and null voting can both have a signal-jamming role, understood by the candidates running (Myatt 2012), and be pivotal to the future behavior of voters and candidates (Castanheira 2003; Piketty 2000).

This last framework remains, however, less convincing than the expressive model presented above. The reason is that any approach that focuses on voters' strategic attempts to influence the outcome of an election faces similar challenges to the traditional instrumental interpretation of voting. Since the value of one single vote is minimal in large elections, it remains unclear what strategic signal individual voters can send by blank voting, or how they can realistically have a pivotal role in large constituencies.

2.2.2 What Kind of Political Discontent Provokes Protest Voting?

There are various types of political grievances that protest voting, through a blank or null vote, might represent. However, the most obvious and common sources of discontent are the political offering (i.e., parties and candidates running for office) and the institutional constrains (i.e., elections procedures and voting rules).

Rejection of the Political Offering

The first type of discontent, the popular perception of the low quality of the politicians and party system is the most significant cause of protest voting through a blank or null ballot and has had different origins in history, from large-scale parties' mobilizations to voters' uncoordinated individual choice. The majority of the mobilized versions of this protest fit in one of the following scenarios: the protest of an "illegal" party after having been outlawed, and the protest of legal opposition parties against a perceived democratic backslide of the government or fraudulent elections. Important examples of outlawed and illegal political movements that set in motions waves of blank or null voting can be found in Latin America and Southern Europe. Blank or null votes were used by the supporters of the guerrilla movement *Sendero Luminoso* in Peru (Palmer 1986) in the 1980s. The "Shining Path," a Marxist-leninist movement, created in the early 1960s by Abimael Guzmán Reynoso, was able to convince 56% of the voters in Ayacucho's municipal elections to cast a blank or null vote in 1983 (Palmer 1986). Another example, discussed at length in this paper, is that of the mobilized null votes chosen by the supporters of the banned *Batasuna* party in 2004 in the Basque Country, a western region of Spain. In Brazil in the 1950 elections, Luis Carlos Prestes, leader of the outlawed communist party, urged all his followers to cast a blank ballot with a call for it published in a communist newspaper ("Red Blank Ballots" 1950).

However, the most famous case of blank ballot surge among those lead by outlawed parties is found in Argentina, in the 1960s (Canton and Jorrat 1980; "Peronists Win" 1959). In the election of 1957 for the Constitutional Convention, Perón, from his exile in Venezuela, asked his supporters to cast a blank ballot, which ended up being the first "party" in the race with 2,115,861 votes, with almost 10000 more votes than the first party (UCRP) ("Blank Ballots Top Argentine" 1957; Snow 1963).

On the other hand, sometimes blank and null votes are mobilized by legal opposition parties,

which aim to de-legitimize the ruling party (Beaulieu and Hyde 2009) and possibly invalidate the election (Patrawart 2011). A recent instance of this is represented by the case of Thailand in 2006. In the election for the Parliament, the main opposition parties called for a boycott of the elections, in response to widespread discontent with the single-party government controlled by a populist party – *Thai Rak Thai* – whose leader, owner of a telecommunications empire, had been accused of corruption. Thai electoral rules allow for the "no vote" option on the ballot. The large share of "no vote" (33%) together with the invalid vote (13%) made it impossible to fill all the seats and left 49 seats vacant (Patrawart 2011). This fact, and evidences of electoral fraud by the TRT, eventually forced the Supreme Court to invalidate the elections ("Thai court rules" 2006; Patrawart 2011).

Another interesting case of opposition parties' organizing of blank voting comes from Bolivia. In the 2011 first Bolivian election for four national courts (Plurinational Constitutional Tribunal, Supreme Court of Justice, Consejo de Magistratura and Agro-ambient Court), the opposition mobilized up to 60% of invalid votes (Driscoll and Nelson 2014). This direct election of judges was part of a constitutional reform lead by the *Movimiento Al Socialismo* (MAS) of Evo Morales (Driscoll and Nelson 2014). The call for a null vote to protest against the MAS government, combined with the lack of electoral campaign, which was not allowed by law, produced a high level of blank and null voting ("Elecciones judiciales" 2011).

While the mobilized demonstrations of dissent toward the political offering can be quite large in magnitude, they are usually quite infrequent. On the contrary, much more common is the individual choice of protest voting. This is represented by the vote of individuals who decide autonomously to reject all the political parties and candidates. They do so based on their own political motivations and not on behalf of existing political parties. This individual vote is not a sign of support or loyalty for any external political force but a direct rejection of the political options available.

Citizens' movements have been created in several countries to lobby governments for the recog-

nition of the blank vote as a valid electoral choice. These groups (e.g., the French *Parti du Vote-Blanc* or the British *None-of-the-above*) often run "awareness" campaigns to explain the meaning of this individual choice. For instance, a citizens' movement called *Movimiento Ciudadano por el vote blanco computable* (Citizens movement for the computable blank vote) was created at the beginning of the 2000s in Spain. In their website,[18] these activists claim that the movement targets those who "do not feel represented by any other political option." Connected to this movement is *Escaños en Blanco* (blank ballot), a registered political party that aims to leave seats empty. These organizations cooperate with the goal of defending the right of those who want to cast a vote of protest; one that is actually counted as such. In 2011, this party in Cataluña obtained 1.47% of the votes ("Resultados elecciones " 2011). Similar parties currently exist also in France, United Kingdom, Colombia, Wales (UK), and Serbia (Consortium for Elections and Political Process Strengthening 2012).

In the mission statements of these blank voters' movement from table 2.1 there are several references to the desire to participate in the democratic process, the sense of duty toward the society, and a vivid disappointment with the political offering. For examples the Colombian organization claims to represent"those who want democracy but has no one for whom to vote" (Voteenblanco).

Disapproval of the Electoral Constraints

The second type of discontent that protest voting might be channeling is the disaffection with the electoral institutions or voting regulations. This form of political disaffection is less obvious and self-evident and, hence, requires some more explanation. It has to do with the amount of flexibility

[18] http://www.votoenblancocomputable.org/

NAME PARTY/MOV	COUNTRY	MESSAGE/MISSION	WEBSITE/ SOURCE
Escaño Blanco (Blank Ballot)	SPAIN	"For whoever does not feel represented by any other political option" (Orig: "A quien no se siente representado por ningúna otra opción política.")	http://www.votoenblancocomputable.org/
None-of-the-above	UK	"Vote for a candidate you really want, or vote blank in protest. Both will help to revitalise UK politics"	http://www.blankvote.org.uk/
Voto en Blanco (Blank Vote)	COLOMBIA	"[…] those who want democracy but has no one for whom to vote" (Orig: "[...] los que queremos la democracia, pero no tenemos por quien votar")	http://voteenblanco.org/
No-Candidate-Deserve-My-Vote	WALES (UK)	"This party gives a voice to those who feel disillusioned or disenfranchised by the choice of political parties or their candidates."	http://www.nocandidate.org.uk/
Parti du Vote-Blanc (Party of Blank Vote)	FRANCE	"Blank vote identifies the will to participate to the democratic process but it marks a rejection of the proposed options." (Orig: "Voter blanc indique une volonté de participer au débat démocratique mais marque un refus des choix proposés.)	http://www.parti-du-vote-blanc.fr/
None-of-the-above (NOTA)	UNITED STATES	"All legitimate consent requires the ability to withhold consent; therefore, the legitimate consent of voters requires they be able to withhold their consent in an election to office."	http://nota.org/
Parti-nul (Null Party)	QUEBEC (CANADA)	"Why create *Parti Nul*? Because voters have no clear way to express, without a doubt, their dissatisfaction with regard to political parties, the electoral process, or political institutions in general. […]."	http://www.partinul.org/en/mission/

Figure 2.1: **Blank vote movements' mission statements**

and the expressive possibilities that voting rules allow for.[19] There are two main factors to consider in understanding the relationship between voting rules and popular discontent: the number of viable candidates that an electoral system tends to produce, and the type and number of preferences that the voters are allowed to allocate. For instance, a ballot in a Single Member District election (e.g., UK) will usually tend to produce a two-party system (Duverger 1963), while a more proportional system increases the probability of having a higher number of parties on the ballot (Blais and Carty 2006). This dimension of the electoral system, hence, shapes the number of parties and candidates among which the voter can choose (Taagepera and Shugart 1989; Lijphart 1990).

The second factor is the type of preferences voters can express, if any. The vote can be a one-shot approval of one of the candidates and a party at the same time, like in the United States. In other cases, it records a ranking of preferences, as in the Single-Transferable-Vote (STV), used for example in Malta, the Australian upper house, and Ireland.[20] In the STV system, voters can declare a different level of approval for all (or some) of the candidates, which is then taken into consideration in the counting of the votes.

Other ballots permit voters to split the ticket and express separate preferences for candidates and parties (e.g., Italian local elections). This means that the voter can separately approve the individual candidate and the party platform, without being constrained in showing support for both. Similar is the case of many Mixed Member systems (e.g., Germany, Venezuela, and Italy pre 2005) where voters can express separate preferences for different parties or candidates in the same election (Shugart and Wattenberg 2001).[21]

These features define how much and how complex of a political opinion a voter can really ex-

[19] It is important to note that this paper does not discuss ballots' "design" in terms of colors, order of the names or use of symbols, for a discussion of this see Reynolds and Steenbergen (2006).

[20] For a discussion on the STV see for example: Farrell et al. (1996)

[21] Often a part of the representatives are elected through a plurality system and the others through a proportional system.

press,[22] by building a "ceiling" for citizens' expressiveness (Hirschman 1982). Decreases in terms of the expressiveness of the electoral systems will always be perceived by voters as a limitation of their political participation. More limiting systems cause greater political discontent and will witness a higher average rate of protest voting in the form of blank or null voting.

The fact that the ballot limits the participation potential of individuals is evident in moments of reform and introduction of new types of ballots. For example, in many European countries, the nineteenth century restriction of what was accepted as "valid" vote led to the disenfranchisement of many people who used the voting to convey their opinions and discontent. Ihl and Deloye (1991) studied the ballots from the 1881 legislative election in France when around 3% of the national vote was voided, some regions experiencing as much as 20% invalid votes. The authors found that many citizens had expressed strong discontent through the ballot.

Hence, the first two hypotheses tested in this paper are:

> *Hypothesis 1.a*: In general, political discontent, either toward the political offering or the institutional constrains, will increase the use of the ballot to channel political protest.

> *Hypothesis 1.b*: The specific discontent induced by more constraining electoral systems will witness, on average, more *individual* blank and null voting than more "expression promoting" electoral systems.

[22] A similar classification of the ballots structure is presented by Pereira and Andrade e Silva (2009). They create a "freedom of choice" index. Although their focus is more on the number of choices their index could be considered an operationalization of this idea of expressive range available to the voters. Instead, for a different way of classifying electoral systems based on the incentive to collect a personal vote they produce see Carey and Shugart (1995).

2.2.3 Who Uses the Electoral Channel to Express Political Discontent?

Who uses the electoral channel to express discontent? Voters who, in non-compulsory voting systems, individually choose to cast a blank or null ballot understand the voting process in its practical and symbolic aspects. They are politically sophisticated, and they posses the resources in terms of education and political knowledge to make such a choice on their own.

This description of voters hides a paradigm shift, from the classical Downsian rational choice tradition (Downs 1957) to expressive behavioral models (Wolfinger 1980; Schuessler 2000; Tyran 2004). As explained eloquently by Schuessler (2000), it is in the relationship between education and voting behavior that the classical rational choice models, both decision-theory or game theoretical, fail. Voters are assumed to have a high enough level of awareness to be able to choose their preferred candidates based on candidates' policy orientation. However, rationally they are expected neither to gather information (Rosenstone and Hansen 1993; Downs 1957) nor to vote in large elections (Downs 1957).

These predictions about the voting behavior of educated voters are inconsistent with what has been found empirically: educated voters vote also in large elections, and more so than uneducated people (Verba et al. 1993; Luskin 1987).[23] Higher education makes the political decisions of citizens more resolute (Matsusaka 1995)[24] and produces a sense of entitlement in expressing political opinion and voicing political needs (Rosenstone and Hansen 1993; Cohen et al. 2001).[25] In fact, educated citizens participate more in all forms of political activities (Hansen et al. 1987; Wolfinger

[23]For a meta-analysis of the correlates of voting at the individual levels across several empirical studies see Smets and Van Ham (2013).

[24]Educated voters are also more predictable, and more extreme (Palfrey and Poole 1987). Many reasons exist as to why some people might gather more information. First of all, high education level leads voters to gather information on various fields, including politics. A strong personal interest in politics, a strongly informed social network, a strong sense of civic duty (Feddersen and Sandroni 2006), and a weak sense of partisanship (Larcinese 2009) also lead to information gathering.

[25]This is sometimes defined in the literature as "internal political efficacy" (Niemi et al. 1991).

1980; Verba et al. 1993; Lassen 2005), including political protest (Marsh and Kaase 1979; Aelst and Walgrave 2001).

I claim that it is despite their understanding of the limited impact of each single vote, and because of the expressive and symbolic value they assign to their own vote (Shklar 1991), that sophisticated voters are more likely to vote in general. Only in extremely rare pivotal conditions, when their vote is likely to make a numerical difference, might they be driven by a precise cost-benefit calculation weighted by the chances of influencing the electoral outcome. In the other cases, precisely because of their high level of understanding of the limited, marginal impact of one vote, better educated and politically sophisticated voters will be more prone to be expressive voters. As Judge Learned Hand declared, expressing a sentiment that is typical of sophisticated voters,

> "OF COURSE [*sic*] I know how illusory would be the belief that my vote determined anything; but nevertheless when I go to the polls I have a satisfaction in the sense that we are all engaged in a common venture" (Quoted in Shklar (1991), p. 25)[26]

Furthermore, and most importantly for this paper, given their symbolic and expressive use of the ballot, sophisticated voters will be more likely to implement unconventional voting behaviors like voting blank. The choice of expressing political disaffection with the party or electoral system through the ballot is then more intelligible. This is summarized in the following hypotheses:

> *Hypothesis 2.a*: In general, the political discontent expressed in the different use of *individual* blank or null votes will be a function of citizens' political sophistication.

In the particular case of the discontent produced by electoral systems:

[26]Quoted in (Shklar 1991), but originally from Karst (1989).

Hypothesis 2.b: The sensitivity of voters to electoral institutions, and to the different levels of expression allowed by the systems, will be a function of citizens' political sophistication, and will be expressed in the form of different use of *individual* blank or null voting.

2.2.4 Blank and Null Voting Or Other Demonstrations of Dissent?

Are all forms of protest within the electoral context the same? Two ways of demonstrating political dissent are studied often in political science: abstention (Birch 2010) and organized protest (Aelst and Walgrave 2001). What I show in this paper is that neither of these forms are as much of a politically sophisticated choice as blank and null voting. In particular, in the case of organized protest, the ideal comparison, even more than street demonstrations, is organized protest that uses the ballot.

In contrast to others, blank and null voting remains a less commonly chosen form of protest. Using Tilly's framework, it could be said that the idea of blank voting is not easily available in many countries' political culture or "repertoire of contentions" (Tilly 1978, 1986; Tarrow 1993). The repertoire, according to Tilly (1978), is about what individuals *know how to do* in the moment in which they want to send a political message. It is also about the set of options that the society in which the individual lives considers valid and culturally appropriate styles of protest. Only rarely can blank and null voting be considered a mainstream form of demonstration of dissent.

As mentioned before, a few countries have experienced forms of large-scale, ideologically mobilized blank and null voting in their history. From these examples we can learn about the amount of efforts necessary to make the supporters aware of the protest tool chosen. For instance, the correspondence between Péron and John William Cooke, Péron's representative in Argentina after the leader's exile, reveals the complex campaign put in place to promote the use of the blank vote

and the symbolism of this vote discussed at length within the party. *Palabra Argentina*,[27] the most important newspaper of the *Peronistas* in the late 1950s (Pirro 2014), was campaigning for the use of this vote; pamphlets were produced and sent from Bolivia, Paraguay, Uruguay, and Brazil; and clandestine publications were spreading the word in the entire country (Cooke and Duhalde 2007).

As in the Argentinian case, mobilized blank and null voting is a function of the capacity of the organizer to mobilize its supporters by explaining to them the symbolic value and importance of that behavior. More than with other widely known forms of political protest, like street demonstrations or petitions, the success of the mobilized protest voting will depend on the level of control of the territory and ideological grip of the mobilizing force, on their capacity to activate ideological and partisan cues (Verba et al. 1978). If not driven by ideological, well-organized mobilization, blank and null voting has to depend on individuals' understanding of its political potential. For this reason, individual blank and null voting is a sophisticated political choice. These observations lead to two more hypotheses tested in this paper:

> *Hypothesis 3.a:* The political discontent that is expressed in the different use of *mobilized* protest voting will be a function of citizens' mobilization potential, i.e., their ideology and receptivity to mobilization messages.
>
> *Hypothesis 3.b: Mobilized* protest vote will not be a function of political sophistication, but voters' ideology and mobilizing forces' communication capacities will guide the choice of this means of protest.

Finally, the comparison with abstention is even more striking. The literature has often shown that turnout is positively correlated with education (Lijphart 1997; Rosenstone and Hansen 1993; Verba 1987) and that abstention is often due to apathy or long term socioeconomic trends (Rosenthal and

[27] *Palabra Argentina* published from 1955 to 1958 (Pirro 2014).

Sen 1973).

Hypothesis 4: *Abstention* is not driven by political sophistication, but by the lack thereof, and is not a strong expression of political discontent.

2.3 Case Selection and Data

2.3.1 Case Selection

In this paper, I present two empirical cases: the national vote in the Basque Country, in Spain, and the local vote in Italian municipalities. Spain and Italy have been chosen because within the group of democratic countries with voluntary voting systems, they display some unique political and institutional variation that can be leveraged empirically to obtain a clean causal identification. First, they offer the opportunity to causally identify the impact of different electoral institutions, political discontent, and mobilization. Italy has an electoral system for the selection of mayors that changes above a specific threshold of number of inhabitants, offering the opportunity to exploit a regression discontinuity design (Bordignon et al. 2013) to get to the causal impact of different systems on blank voting. Spain, and precisely the Basque Country, experienced a sudden mobilization of null voting in 2004 driven by a ban on the nationalistic party *Batasuna*. This proscription, as explained in detail later, can be seen as exogenous shock of discontent on the population, and caused a wave of mobilization in 2004.

Second, both contexts allow me to test the heterogeneous effect of the explanatory variables (institutional differences and mobilization) as a function of local variations in the presence of highly educated and political knowledgeable individuals.[28]

[28]For a similar approach see Duflo (2001).

Moreover, they offer data at the smallest level of aggregation available above the individual level for electoral results and socioeconomic data: the municipal level.[29] Finally, both Spain and Italy record the null separately from the blank vote. This allows an analysis of the blank vote, which is less problematic and contains only a minor component of measurement error, in the case of Italy, and a direct comparison of the blank versus the null vote in Spain, where the mobilization stimulated explicitly ballot spoiling. The "error" component that is present in the records of null voting, once I account for possible institutional and socioeconomic changes, can actually be disregarded as a classical measurement error. This type of measurement error leads to more imprecise estimates, with larger variance, when used as a dependent variable (Hausman 2001) as in this paper.

2.3.2 Data

For the Spanish case, I use the municipal election data from Ministerio del Interior España (2013), from 1989 to 2011 for 250 Basque municipalities. These are combined with demographic, educational, and socioeconomic data from the Instituto Vasco de Estadística (EUSTAT) (2013).

For the Italian case I used the replication data from Bordignon et al. (2013) that collects the Italian municipal elections from 1999 to 2010 for 7843 municipalities.[30] I integrated this dataset with data from the archive of the Ministry of Internal Affairs (Website of Italian Ministry of Interior 2013, 2014). Finally, I combined the data with some socioeconomic and demographic data from the Italian Bureau of Statistics (2014) and the Ministry of Education, University and Research

[29] Any use of aggregate data to test individual-level theories poses the challenge of ecological inference fallacy (King 2013), the study of blank and null voting does not offer an easily available solution. The alternative approach, which I use in Chapter 3 of the manuscript, is the use of an individual-level survey. This is bound to suffer from a different issue: the bias in self-reporting voting behavior (Wolfinger 1980; Sigelman 1982; Bertrand and Mullainathan 2001). I attempt to attenuate the ecological inference problem by using the smallest aggregation available: municipalities within countries (or regions) with the same political and institutional settings.

[30] For the analysis I used the first round electoral results.

Statistical Bureau (Website of Ministry of Education, University and Research 2014).

2.4 Mobilized Protest Voting, Individual Protest Voting, and Voting Abstention: the Case of the Basque Country

The first case, the analysis of the Lower House national elections in the Basque Country from 1996 to 2008, allows me to compare directly the trends and nature of individual blank voting – when individuals cast them because of their own initiative and without large-scale coordination – and mobilized protest voting – when citizens' discontent is mobilized by a party.

2.4.1 Background: Origins of Mobilized and Endemic Political Discontent

In March 2003, one of the Basque nationalist parties, *Herri Batasuna*, was officially interdicted from participating in any election. Before its ban, *Batasuna* (or EH/HB) had quite a strong grip, especially on local elections: in the province of Guipúzcoa it reached the 26% of the votes on average, followed by Vizcaya with 17% and Álava with 11% (see figure 2.3, panel *c*).

The reason for the proscription was the recognition of *Batasuna*'s connection to the terrorist movement ETA (*Euskadi Ta Askatasuna*).[31] In the aftermath of 9/11, Spain increased its efforts to fight local terrorism, and in 2002 its Parliament passed a revision of the Law of Political Parties

[31] ETA started its more visible activity in the 1960s with a series of bombings against Franco's regime and continued under democracy despite the level of autonomy conferred to the region within the Spanish state (Justice 2005). Since 1959, its year of creation, ETA has been responsible for 836 deaths, 3391 terrorist attacks and an attempt on the life of the Primer Minister Jose Maria Aznar in 1995 (Ayres 2004; Sawyer 2002). *Herri Batasuna* (HB) was created in 1978 as a coalition of various nationalistic parties, and as a political wing of ETA. In 1998, many members of the party were arrested and HB was substituted in the political arena by Euskal Herritarrok (EH). Finally, after 2001 EH's electoral debacle, *Batasuna* emerged (Sawyer 2002). Although members of *Batasuna* never disclosed a connection to ETA, they, at time, publicly supported violent actions conducted by the organization (Justice 2005).

"prohibiting that a political party could, in a repetitive and serious way [...] support politically the violence and the activity of terrorist group. " (Jefatura del Estado 2002, p. 23600).[32] In August of the same year, *Batasuna* was suspended, and its official proscription arrived in March 2003 (Sawyer 2002).

This ban caused great political discontent in the region. In response to it, *Batasuna*'s leader Arnaldo Otegi asked the supporters to invalidate/spoil the ballot (Gastaminza 2004). The success of the call to protest was also reinforced by an *Al-Qaeda* terrorist attack in Madrid, which happened a few days before the election, and of which ETA was initially incorrectly accused.[33]

The case of this proscription offers a good test of how the ballot gets mobilized as a tool of protest, and who responds to this call. Furthermore, it allows a comparison of the mobilized protest to a non-mobilized blank vote, which is responding to a more generalized discontent about the quality of Spanish politicians. Indeed, reasons for broader popular political discontent existed prior to (and regardless of) the ban on *Batasuna*. The 1980s and 1990s in Spain were characterized by wide-spread political corruption. Transparency International assigned a a score of 4.35 to Spain on a scale from 1 (for the highest corruption level perceived) to 10 (for the lowest corruption level) in the mid-1990s. The score of those years is much lower than the 7 points that characterized Spain in the 2000s (Transparency International 2014). During the government of Felipe Gonzáles,[34] 1982-1996, numerous important political corruption scandals were revealed, such as the *Filesa* affair in 1993 (Pujas and Rhodes 1999).

[32]Original quote: "impidiendo que un partido político pueda, de forma reiterada y grave, [...] apoyar políticamente la violencia y las actividades de bandas terroristas," translation by the author.

[33] The mobilization happened within the electoral context of what could be classified as a rigid ballot with limited expressive range. Indeed, the Spanish electoral system for the lower house is a closed list proportional system (D'Hondt) with district magnitude (i.e.,the number of seats assigned per district) varying from 1 to 35 and a legal threshold of 3% (Lago and Martínez 2007). In this system voters can pick a list of candidates to vote for, but the position of the candidates on the list is fixed, and it is not possible for the voters to change the order in which the candidates get elected.

[34]Prime Minister from the *Partido Socialista Obrero Español*

Evidence of the existence of this discontent are the large protests that erupted in 2011 and the subsequent foundation of anti-establishment, anti-corruption parties like *Podemos* and *Ciudadanos*.[35] Moreover, a movement that advocate the use of a blank vote in response to the political corruption, was created in 2004, *Escaños en blanco* (Blank Ballots). This a party aims to promote explicitly this form of protest as an individual choice of citizens. In 2004 and 2008, this party was not well-known, and the outreach of its awareness campaign was very limited. The party won less than 0.5% of votes in the lower house elections.[36]

2.4.2 Empirical Strategy for Spanish Case

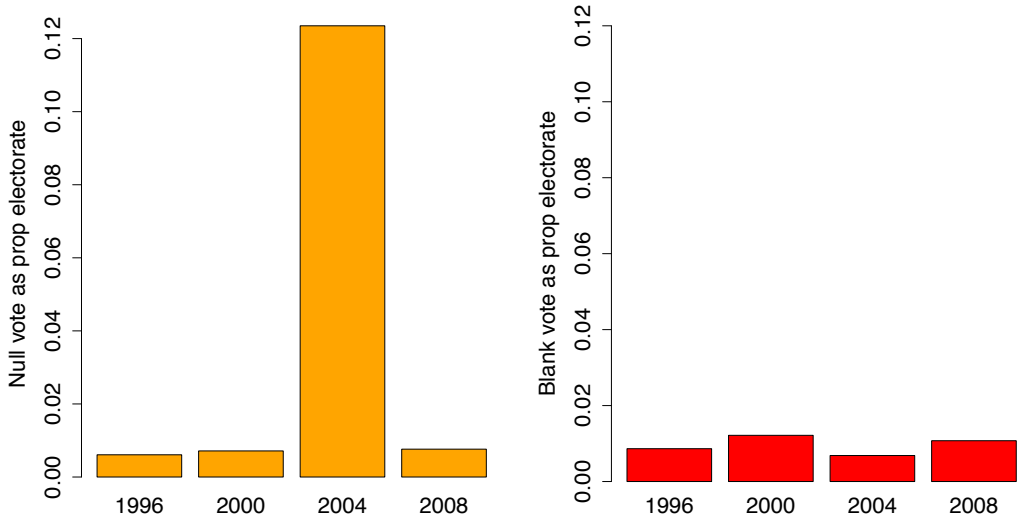
The section has two goals. The first is to show the impact of a sudden increase of discontent, and its mobilization, on the use of the null vote as a form of protest. I demonstrate how the variation in the use of this tool within municipalities is based on the ideological grip of *Batasuna* and its mobilization potential. The second is to compare the interaction between discontent and education in the case of the mobilized form of protest, as well as of the individual version of it.

It is clear how the proscription of the *Batasuna* party, and the subsequent mobilization, produced a change in the voting behavior within the *Pais Vasco*. Figure 2.2 (panel *a*) introduces the striking difference in patterns of null voting when this form of unconventional voting was hijacked by *Batasuna* in 2004. The same increase is not observed in blank voting (panel *b*), which, instead, is quite consistent across those years. The magnitude of blank voting is larger, however, when looking only at the "non-mobilized" years (1996, 2000, 2008).

If the mobilization explained the peak of null voting in 2004, what accounts for the variation of null voting across municipalities? I test here which features of the municipalities made them

[35]For a description of *Podemos* see Tremlett (2015); for *Ciudadanos* see Kassam (2015).

[36]For more information about Escaños en Blanco see http://escanos.org/.



(a) Null Vote

(b) Blank Vote

Figure 2.2: **Distribution of blank and null vote in the Basque Country across time:** panel *a* presents the level of null vote (as a proportion of the electorate in the Basque Country) while panel *b* is the blank vote. The period considered includes the elections for the Lower House from 1989 to 2011.

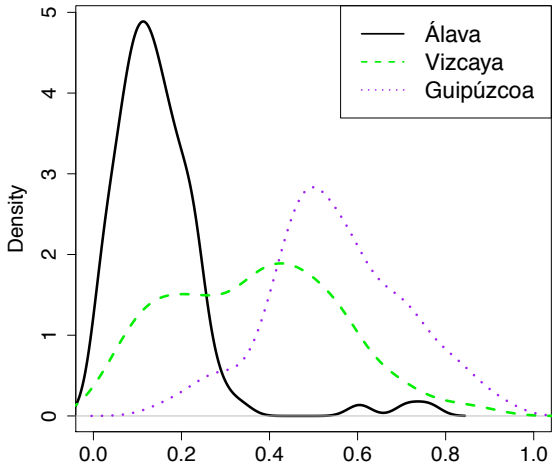
more prone to respond to the mobilization. The key feature is obviously the ideological support for the party and for the Basque nationalist cause. By using an approach similar to Duflo (2001), my identification strategy exploits both the time variation, before and after the 2004 mobilization, and the geographical variation in the nationalistic sentiment, representing the potential level of discontent, proxied by three variables: the proportion of literate Euskara (local language) speakers, the proportion of illiterate ones, and *Batasuna*'s share of the vote in the municipal election of 1999 (see figure 2.3).

As presented in figure 2.3, there is a significant variation in Euskara speakers between the three main provinces (Álava, Vizcaya and Guipúzcoa) of the Basque Country[37] and within them, as well as of the vote for *Batasuna* in 1999. This variation can be leveraged as a measure of the intensity of the "treatment" (i.e., the mobilization) which equally impacted all the areas, but with different strengths depending on the potential discontent and potential reception-capacity of individuals.[38]

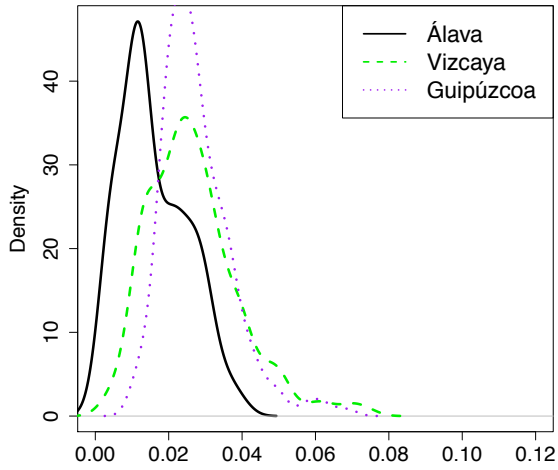
In municipalities with a high proportion of Euskara literate voters there was a large peak in null voting in 2004. The gray lines and points (the "post-ban" points) in figure 2.4 panels *a* to *c* demonstrates that the phenomenon was a short term one and that in 2008 the null vote was already not displaying any correlation with potential nationalism. The leader of *Batasuna* himself admitted that the strategy of "illegal" voting had not been intended for a long time ("Otegi admite que" 2009). After the peak of the 2003/2004 elections the mobilized protest voters returned to either voting for various candidates supported by *Batasuna* at the time, or else they abstained. Furthermore, the comparison of these three panels also shows that all the chosen proxies of nationalism capture the variation in the heterogeneous effect of mobilization. However, the proportion of lit-

[37] In my analysis I focus only on this autonomous community. However, the "greater" Basque Country would also include the autonomous community of Navarre and a part of South-western France.

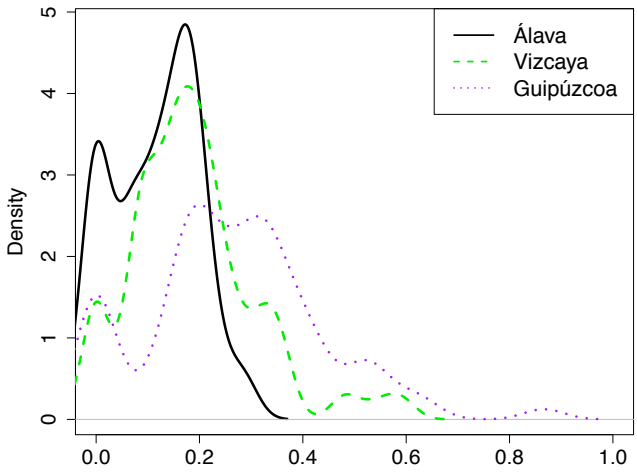
[38] As explained in Duflo (2001), the combination of geographical and temporal variation can be assumed exogenous and the different impact of the treatment can be estimated.



(a) Distr. Euskara Speakers (lit.)

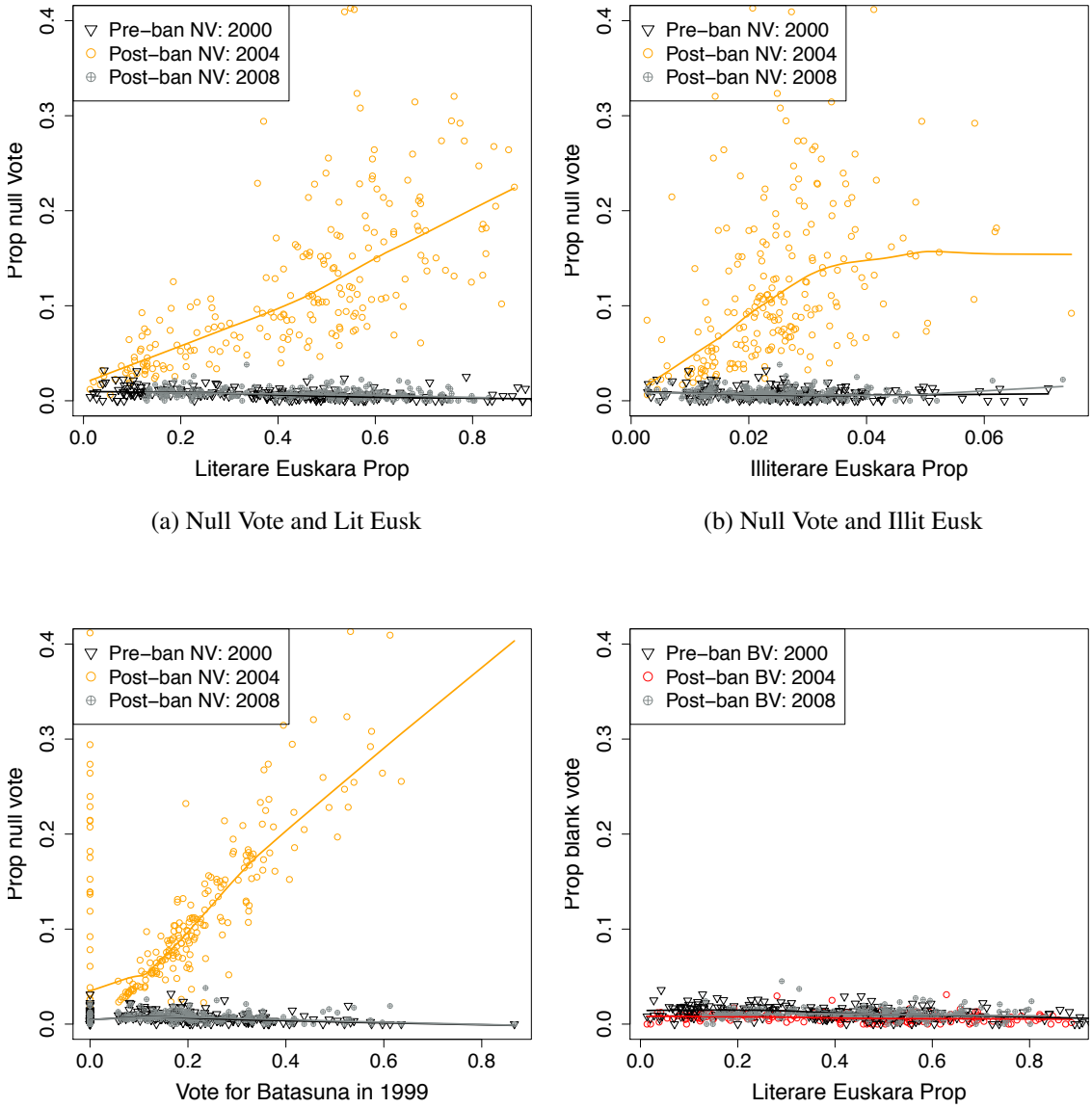


(b) Distr. Euskara Speakers (illit.)



(c) Distr. 1999 Vote for Batasuna

Figure 2.3: **Distribution of the Euskara speakers (both literate and not) and *Batasuna*'s vote across Basque provinces:** these three figures display the distribution in each of the regions of the proportion of Euskara-literate and Euskara-illiterate across the time considered (1996-2008). The third panel *c* of this figure displays the share of votes received by *Euskal Herritarrok* (then *Batasuna*) in the local elections of 1999 across the three provinces of the Basque Country: Álava, Vizcaya, and Guipúzcoa.



(a) Null Vote and Lit Eusk

(b) Null Vote and Illit Eusk

(c) Null Vote and *Batasuna* vote 1999

(d) Blank Vote and Lit Eusk

Figure 2.4: **Pre- and post-ban use of blank and null vote in the Basque Country:** panel *a* presents the difference in the null vote before and after the ban on *Batasuna* as a function of the proportion of individuals who are literate in Euskara in each municipality. Panel *b* shows the same for illiterate Euskara speakers; panel *c* as a function of the vote for *Batasuna* in the municipal elections of 1999. Panel *d*, on the other hand, shows the different pattern of blank voting. The lines are drawn based on a non-parametric lowess smoothing. Source: Ministerio del Interior España (2013) and Instituto Vasco de Estadística (EUSTAT) (2013).

erate Euskara speakers (panel *a*) and the previous electoral support for *Batasuna* (panel *c*) display the strongest relationship. This is consistent with the idea that accessibility to the message of mobilization might play an important role in the success of the mobilization itself. Finally, the blank vote (as shown in panel *d*) was above 1% of the voters across all proportion of Euskara speakers. This vote, not mobilized in the Basque nationalist protest, was most likely determined by the other source of political discontent, the endemic political corruption. Later, I test whether it was done by different types of dissatisfied voters from those who were mobilized in 2004.

To test more rigorously these non-parametric findings in the case of the lower house election within the Basque region I run linear models, with the rate of null voting and the rate of blank voting[39] expressed as a proportion of eligible voters, as my dependent variables. Each specification includes the variable *High Education* defined as higher-than-secondary education,[40] socioeconomic variables (i.e., total unemployment registered as proportion of population and gross added value of agricultural sector), and population size.

The potential nationalist support, as explained before, is represented by *Euskara* speakers, literate or illiterate. I assumed that these two groups, while equally likely to be sharing the same level of support for nationalism, might be differently receptive to a mobilization campaign. Illiterate individuals might lack the knowledge of the language, which could limit the access to some of the messages, but illiteracy might also be a proxy of less involvement and attention to the nationalistic cause.

I also control for some features of the election in the specific area, the number of parties that received at least one vote, and the level of competition calculated as the difference between the second party and the third party. In fact, in Spain, the PSOE (Socialist Party) and PP (Popular

[39]This latter includes the vote for the "blank" party, *Escaños en Blanco*.

[40]From the website:"degree Studies, Higher Engineering and similar, in addition to Holders of postgraduate qualifications, postgraduates, masters, doctorates and specialist qualifications" (Instituto Vasco de Estadística (EUSTAT) 2013).

Party) are often the two main parties in the races. A large value of the "competition level" variable will indicate that those two parties dominate the scene, while a small one will indicate a multiparty environment in which smaller parties can also compete.

In each specification I include the municipal-level fixed effects that control for all the time invariant characteristics of the municipalities, and the municipal specific time trends which account for potential problematic pre-trends in some municipalities. In other words, if a number of municipalities had already been observing increases in their levels of blank and null voting, this would be captured by these controls.

2.4.3 Spanish Case Results

Sudden Discontent, Mobilization, and Ideology

The results from the model and specification presented above confirmed that the ban on *Batasuna* and the mobilization that followed had a strong impact on null voting. The parametric analysis (reported in full in the appendix in table 5.2) confirmed that the interaction between mobilization and various proxies of nationalism is positive and significant, with the exception of the less "educated," illiterate, Euskara speaker proxy, which does not reach statistical significance. Figure 2.5 summarized the key finding by plotting the coefficients on the two interactions terms from the model that includes all the controls, municipal dummies and individual time trends. These coefficients should be interpreted substantively as the expected change in null voting under mobilization in areas with difference of no literate Euskara speakers versus municipalities with all literate Euskara speakers. In other words, the areas with no Euskara speakers (the minimum is 0.01) and those with all Euskara speaker (actual maximum is 0.95) witness a difference of 23 percentage points. For the case of the illiterate Euskara speakers, this is a much less realistic scenario, since they represent a smaller proportion of the Basques in each municipality.

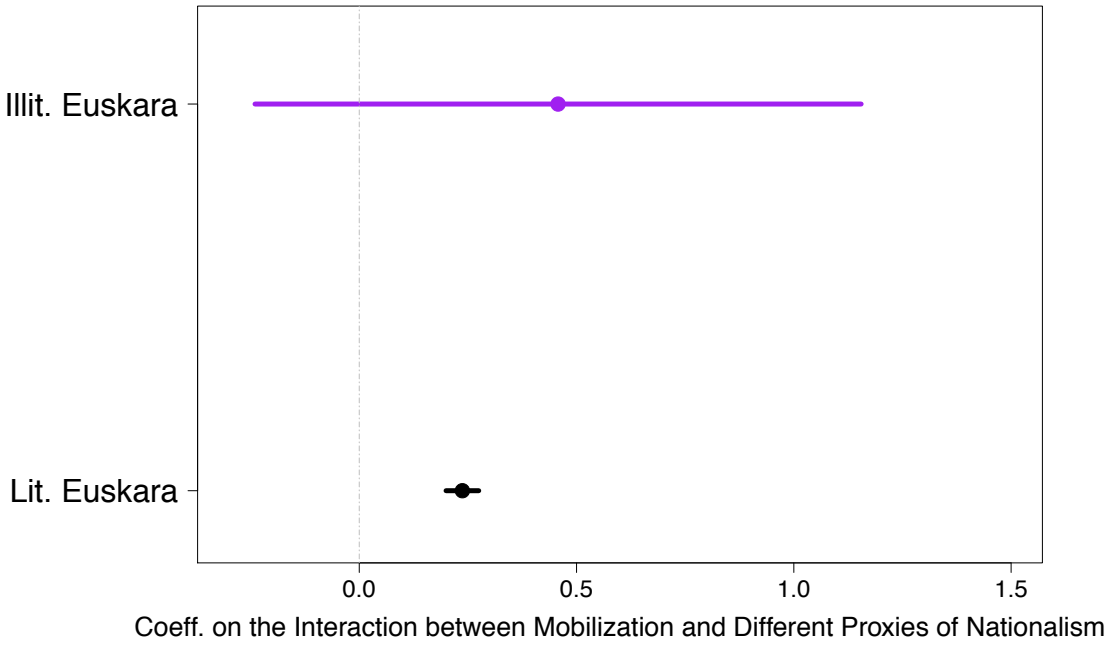


Figure 2.5: **Coefficients from the interactions between mobilization and proxies of nationalism:** this reports the coefficients from the model that includes all the controls, municipal dummies and individual time trends. This coefficient corresponds to the extreme expected change in null voting if we were to compare municipalities with no Euskara speakers to municipalities with all Euskara speakers. This kind of change correspond roughly to the actual minimum (1%) and the maximum (95%) level in the actual distribution of Euskara *literate* speakers. The illiterate Euskara speakers, instead, are a much smaller proportion and also a much more noisy proxy.

Education Role in Mobilized versus Individual Protest Voting

Once proven that the 2004 phenomenon was driven by the discontented nationalist Basques mobilized by *Batasuna*, I can now compare that special year with the ordinary (smaller) individual use of the blank vote in the other years, which experienced a less sudden type of discontent and no mobilization.

I run simple cross-sectional versions of the model described above for four different years, three non-mobilized years (1996, 2000, 2008) and one with high mobilization (2004). In this analysis, I capture the change at the municipal levels of the most important determinants of the number of blank votes, null votes, and abstentions.

In the years that had no mobilization, education is the largest positive determinant of blank vote and null voting, although larger and statistically significant only for the former. In 2004, the relationship changes drastically, but only for the null vote, the vote chosen by *Batasuna* to symbolize the protest. The coefficient on high education in 2004 becomes highly negative and depicts a strong negative relationship between high education and protest voting.[41]

While the results are fully reported in the appendix in tables 5.3 and 5.4, figure 2.6 panel *a* summarizes visually the key findings. For each year, the panel displays the coefficients on high education in two models: one run on null votes (orange on the right) and the other on blank votes (red on the left). The bars represent the 90% confidence intervals and help me show how the estimates of the coefficients in the case of blank voting are positive and significant, while in the case of the null voting they rarely reach statistical significance, except in 2004 when the coefficient is significant but switches sign.

Instead, the opposite relationship between high education and average abstention emerges.

[41] This is also confirmed by running a triple interaction between Euskara speakers, education and mobilization (see appendix table 5.2).

Unsurprisingly, abstention is constantly and systematically negatively correlated with education across all years considered.[42]

2.5 Political Sophistication, High Education, and Protest Voting: Italian Municipal Elections

The second case of the Italian municipal elections (from 1999 to 2010) allows to compare blank voting, null voting, and abstention across electoral systems with different expressive possibilities that should produce different levels of satisfaction among voters, as discussed in the theory section. Italy did not witness any strong mobilization of the blank or null vote in this period, so I can test the hypotheses regarding the heterogeneous use of *individual* protest voting as a function of the level of political education.

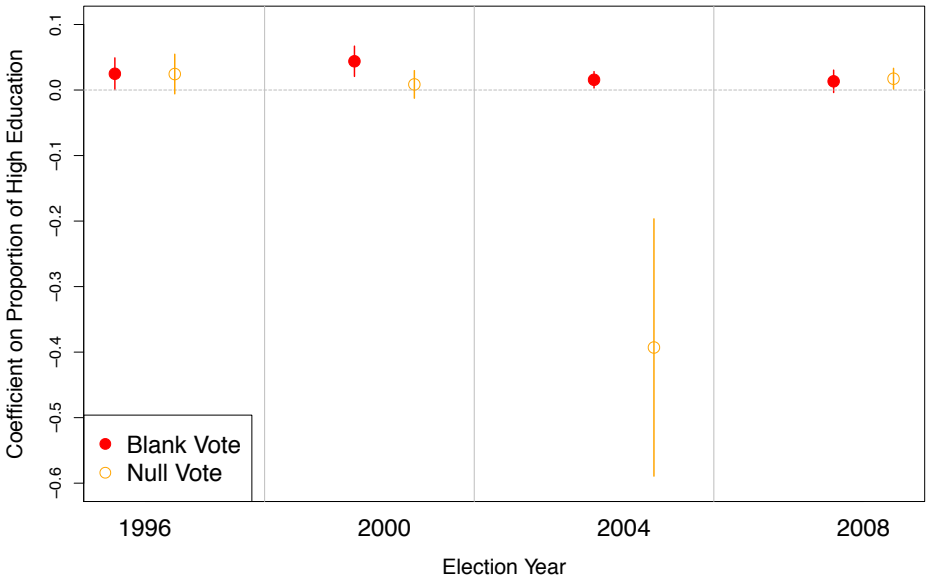
2.5.1 Background: Origins of Institutional Discontent

Mayors and the municipal councils in Italy are either elected through a plurality system (FPTP) in municipalities with fewer than 15,000 inhabitants,[43] or by a runoff system. The plurality system assigns victory to the mayoral candidate with the highest vote share. In the runoff system, on the other hand, if none of the candidates receive more than 50% of the votes in the first round, the two candidates with the highest shares run in a second round alone.

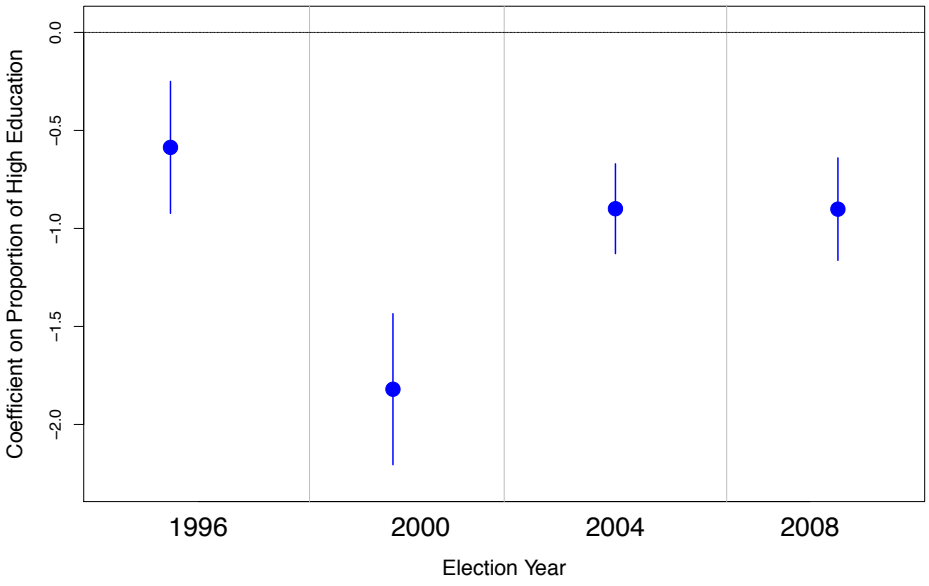
The ballot used for larger municipalities allows for more political expression in three ways.

[42]The even more significant negative correlation in 2000 might be explained by the fact that in that election the list supported by *Batasuna*, EH, did not run and supported abstention (El Pais 2000).

[43]The threshold is at 10,000 inhabitants in Sicily and 3000 in the autonomous province of Trento.



(a) Blank Vote, Null Vote, and High Education



(b) Abstention and High Education

Figure 2.6: **Coefficients on High Education from the four cross-sectional models:** I show the different coefficients on the variable of high education proportions, across the years. The units of analysis are the 217 municipalities and the bars are the 90% confidence intervals. *Source: Ministerio del Interior España (2013).*

First, while the plurality system creates a bipartisan party system and forces voters into strategic voting (Duverger 1963), a runoff system (or majority system) allows for a higher number of parties and a sincere vote in the first round. "Compared to plurality systems the majority rule is not so obviously biased against minor parties, thereby providing a wider variety of options to the voter" (Blais and Carty 1990, p. 168). As shown empirically by Bordignon et al. (2013), specifically in the case of Italian municipal elections, the runoff system increases the number of candidates running by 29%.

Furthermore, this system potentially (and often) has a second round of voting, allowing the voter to reconsider and evaluate the second round independently. In this way, the voters have often two moments of choice. Pereira and Andrade e Silva (2009), in creating their "freedom of choice" index for different electoral systems, assigned to the runoff system a score of 1.5 in the dimension they define as "number of choices." On the other hand, they assigned only a score of 1 to the plurality systems, which is indeed a very expression-limiting electoral system that allows only for one-shot approval of one candidate and party.

Finally, within the municipalities with more than 15,000 inhabitants, voters are allowed to split the ticket between the candidate for the position of mayor and the list/party, while this kind of vote is not permitted on the ballot of the cities below the threshold.

This case provides the opportunity to directly compare two types of ballots that offer a substantially different range of expressive opportunities for the voters, and also to address the question of what geographical areas are more sensitive to these institutional differences. The hypothesis presented earlier, 2.a and 2.b, regarding the relationship between individual protest voting and electoral institutions would lead us to expect higher levels of individual protest voting (in the form of blank voting) in the electoral system with less flexibility and fewer expressive possibilities, which, in this case, would be the plurality system.

I start by gathering a few simple empirical observations, summarized graphically in figures 2.7 and 2.8. These figures introduce the relationship between electoral system, number of candidates, and protest vote. The first empirical fact is the existence of a negative correlation between the level of blank voting and the expressive possibilities and flexibility of the ballots. By plotting the mean of blank voting across time, in figure 2.7 panel *a*, I demonstrates that the municipal elections' trends of blank voting across time are systematically higher in municipalities with plurality systems. Panel *b*, instead, shows the statistically noisy nature of the null vote that is partially composed of mistakes, more common in a more complex ballot (i.e., runoff system).[44]

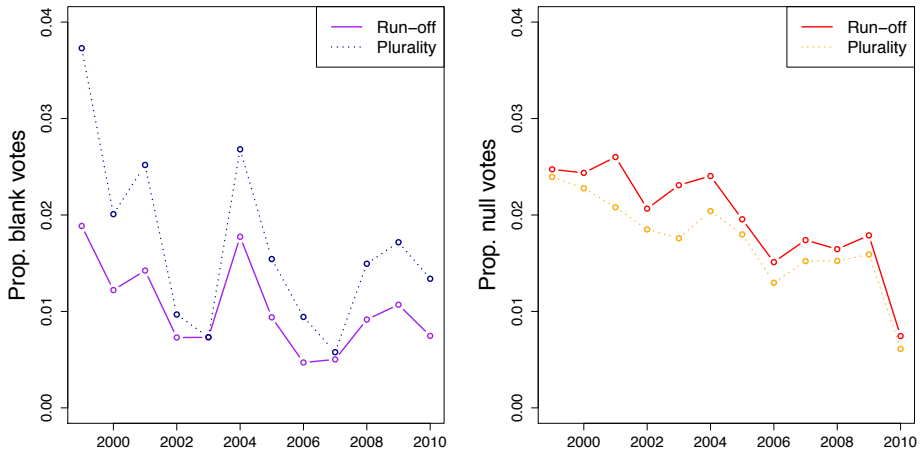
Furthermore, a positive relationship between number of candidates (stimulated by more proportional systems like the runoff system) and blank voting is confirmed in figure 2.8. Here protest voting, both as null voting and blank voting, clearly peaks in the cases where only one candidate runs, which are not that rare in smaller municipalities. Blank votes, the cleaner measure of individual protest voting, monotonically decrease with the increase in number of candidates. On the other hand, the null votes appear sensitive only to the extreme cases of single candidate races.

2.5.2 Empirical Strategy for the Italian Case

To get to the underlying causal dynamics of the case, I use the same empirical strategy proposed by Bordignon et al. (2013) – a sharp regression discontinuity[45] design – and I identify the treatment effect of having a runoff system. Due to the fact that neither local governments nor voters can choose their electoral systems, it is possible to assume that in cities of 15,000 inhabitant and cities of 14,999 the electoral system implemented is basically randomly assigned.

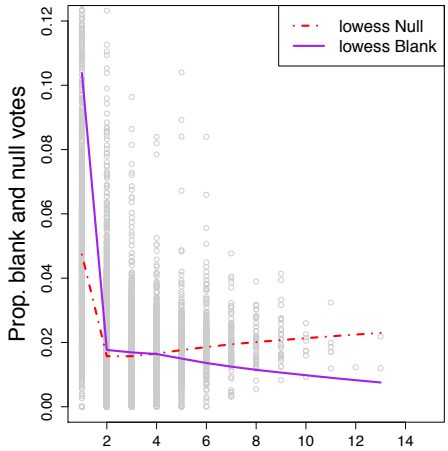
[44]In the section for the Italian elections I use the blank votes only, since they seem to follow the same trends and are a cleaner measure. When including null votes in the analysis the results are consistent, but with a slightly larger SE, as expected when including a measure with errors.

[45]It is possible to use a "sharp" design, since around the 15,000 threshold the probability of having a runoff electoral system jumps from zero to one.



(a) Blank Votes (municipal, Italy) (b) Null Votes (municipal, Italy)

Figure 2.7: **Relationship across the time of different electoral institutions, blank and null vote:** The two panels of this figure display the blank and null vote at the municipal level and show the differences between the municipalities with a runoff system and those with a plurality system.



(a) Number of Mayoral candidates

Figure 2.8: **Relationship between the number of mayoral candidates and blank and null votes:** the figure displays the relationship between blank and null votes and the number of candidates for the mayoral races.

While the ideal test would be run with cities right above and right below the threshold, the characteristics of my sample do not allow me to restrict the analysis to those. Instead, I test a bandwidth of 3,000 individuals above and below the threshold and I also apply other parametric approaches interacting the running variable with the treatment. I assume that the sample used is small enough to allow me to claim that the differences between the cities on either side of the discontinuity are minimal and that the "treatment" assignment – a two-round electoral system – is random. This design also allows me to assume that the likelihood of having a political scandal, a source of potential political discontent, is equal and larger than zero in both groups of cities above and below the threshold.[46]

By fitting a local linear regression without any other covariates, I estimate the local average treatment effect around the threshold, as:

$$\alpha = E\left[Y_i(1) - Y_i(0)|X_i = c\right] \tag{2.1}$$

Where c is the cut-off at which the electoral system changes, 15,000 inhabitants, around which I check the assumption of continuity of the conditional distribution function of the covariate of interest (population). This appears smooth around the cut-off as shown in figure 5.2 in the appendix, meaning that there seems to be no sign of self-selection around the threshold.[47]

I also test the relationship manually, by interacting the running variable (population) with the treatment variable (runoff electoral system) within a sample around the threshold, from 14,000 to 16,000 inhabitants, while controlling for two additional covariates: number-of-candidate fixed effects, year fixed effects, and Southern-region dummy (see appendix, table 5.5).

[46]Once conditioning on the population size (X_i), the treatment (T_i) and the potential outcomes (Rubin 2005), $Y_i(0)$ and $Y_i(1)$ are orthogonal,"unconfoundness assumption" (Imbens and Lemieux 2008).

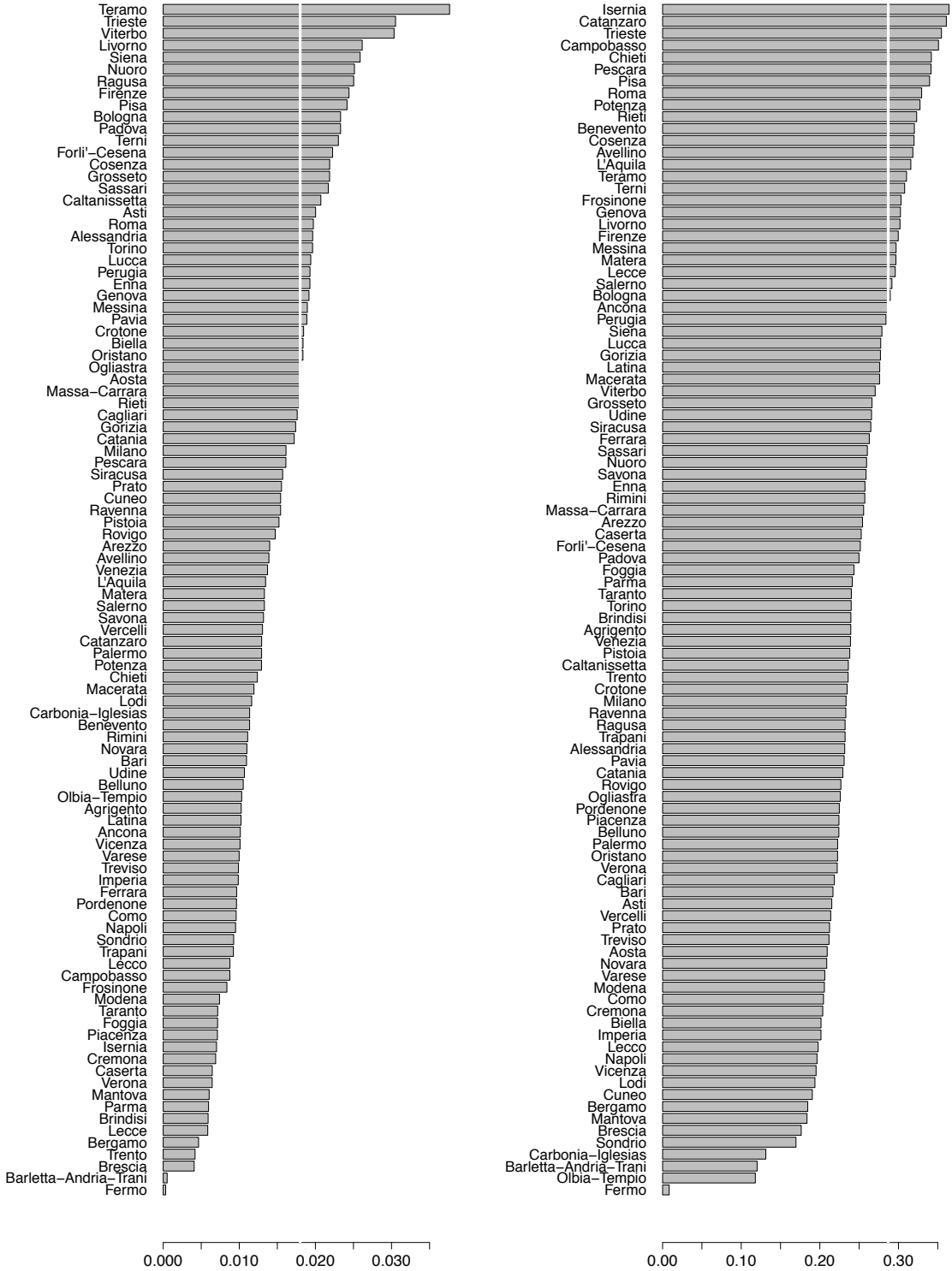
[47]The main assumptions are also confirmed by Bordignon et al. (2013) who use the same design to test different outcomes: number of candidates running and policy volatility.

Finally, I verify whether or not there exists a heterogeneous impact based on the availability of "potential" protest voters: individuals who are highly educated and politically engaged. To capture the presence of these groups of voters I use the number of students enrolled in different types of majors who are resident in each province (109 provinces) in each year (12 years) and divide them by the number of individuals with an age between 18 and 27 who live in the same province at the same time. Hence, students will be counted in the province where they reside – often where they were born and still vote[48] – not necessarily where the university they attend is located.

These measures of education intend to represent a proxy of the different types of individuals, as well as networks of families and peers, present in the different provinces. To be conservative, the variables are operationalized as dichotomous variable (*High Pol* and *High Edu*) to identify areas where there is a relatively high proportion of students, i.e., higher than the third quantile of the distribution (0.287 for university students in general, 0.018 for political science students). In particular, areas with higher proportions of students in political science are expected to have higher levels of political education and engagement on average. I assume that the choice of this academic path will be influenced by, and will then influence, peers and families.

Figure 2.9 shows the proportions of students (political science in panel *a* and all majors in panel *b*) out of the number of individuals between 18-27 per province. The vertical white lines represent the thresholds chosen to identify a province as *High Pol* or *High Edu*. Some of the provinces with high proportions of political sciences students are areas with important universities with famous political science departments, like Bologna and Florence.

[48] Many students change only the *domicilio* when studying in a different city. This is different from an official change of residency. It is quite common for university students to continue voting in their city of origin.



(a) Prop. of PoliSci Students per Province

(b) Prop. of All Students per Province

Figure 2.9: **Proportion of students in political science and in all universities**

2.5.3 Italian Case Results

As reported in table 2.1, the regression discontinuity design shows how the more representative system (runoff electoral system), which constrains citizens' voting preferences less (Duverger 1963), decreases significantly the number of blank votes.[49]

While having an impact on blank voters across all municipalities, the difference in electoral systems seems to have a strong and significant effect only in those municipalities that are located in provinces with high densities of students enrolled in universities. This would be consistent with the idea that protest voting in the form of blank ballots is used more as a channel of expression where there is a larger pool of politically sensitive and well-informed citizens. In terms of population participating in this form of protest, in provinces with high education rates the institutional difference account for an almost 1% increase, which corresponds to around 150 people in a small city of 15,000 inhabitants, but around 1,000 in a mid-size city of 100,000 people.

Interestingly, the null vote displays a non-statistically significant change under a runoff system. The positive direction of the effect could be due to the slightly higher chance of making mistakes in a runoff system offering more options in its first round.

Lastly, no change in turnout was witnessed in areas with mid or low education level. However, as expected by the literature (Blais and Dobrzynska 1998; Blais and Carty 1990), there was a positive increase of around 3% in the less constraining systems in areas with larger proportions of university students.

The differences estimated in areas with a high proportion of educated voters are roughly similar for turnout and blank votes: a third of a standard deviation of the distribution in the case of the

[49]This is the opposite of what previous literature has found in the case of Brazil, where Power and Roberts (1995) found that there are more invalid votes in open-list proportional representation, a system allowing for the expression of preferences for candidates, than in SMD (a plurality system). There are various reasons for the discrepancy in these findings. First of all, Brazil has a compulsory system, which creates different incentives and costs of abstaining and voting.

former, and a fifth in the latter. However, the effect on turnout disappears (-0.004)[50] if I use the high proportion of political science students as a proxy, while the blank vote difference slightly increases to .0063 and remains highly significant (see figure 2.10, showing the same for manual regression discontinuity).

Furthermore, the change in turnout is not robust to the introduction, as a control, of the number of candidates. Indeed, as shown by Bordignon et al. (2013), the number of candidates is higher under runoff systems, and this variation seems to capture the entire effect of the electoral system. On the contrary, both the parametric and the non-parametric approaches demonstrate that the effect on blank voting is not due to the simple increase in candidates. The fact that the impact on blank voting survives, and actually increases to -0.007[51] when accounting for the number of candidates, brings evidence to the idea that the other features of this specific electoral system, the possibility of splitting the ticket and the possibility of a second round of voting, also play a role in voters' perceptions.

Figure 2.10 confirms these findings by displaying the drop in blank vote in the specifications with linear, quadratic, and cubic functional forms at either side of the discontinuity. This was done by transforming the running variable so as to have zero as the threshold, and then interacting it with the dummy of the treatment. In this way, the coefficient on the lower term is interpreted as the jump of blank voting from a plurality to a runoff electoral system. Moreover, the last bar on the right in figure 2.10 shows the larger drop that the blank vote witnessed in the areas that have a high proportion of political science students.

Table 2.1 reports the results of a regression discontinuity designed done with a "triangular" kernel used in the local linear fitting. The estimates represent the change in voting behavior under the runoff system. The standard errors are clustered at the municipal level. The label "High edu"

[50] With a p value of 0.77.

[51] With p value of 0.01.

indicates that the estimation was run only on the subset of municipalities which are in areas with high proportions of university students, while "med-low edu" identifies that the estimation is based on the other municipalities.

Table 2.1: **Regression Discontinuity Results**

Dependent variable	Bandwidth	Observations	Estimate	Std. Error	Pr(> | z |)
Blank Vote (high edu)	3000	141	**-0.006** *	0.003	0.086
Blank Vote (med-low edu)	3000	524	-0.001	0.001	0.359
Turnout (high edu)	3000	157	**0.029** *	0.015	0.060
Turnout (med-low edu)	3000	496	-0.020	0.015	0.195
Null Vote (high edu)	3000	141	0.002	0.002	0.310
Null Vote (med-low edu)	3000	520	0.004	0.003	0.179

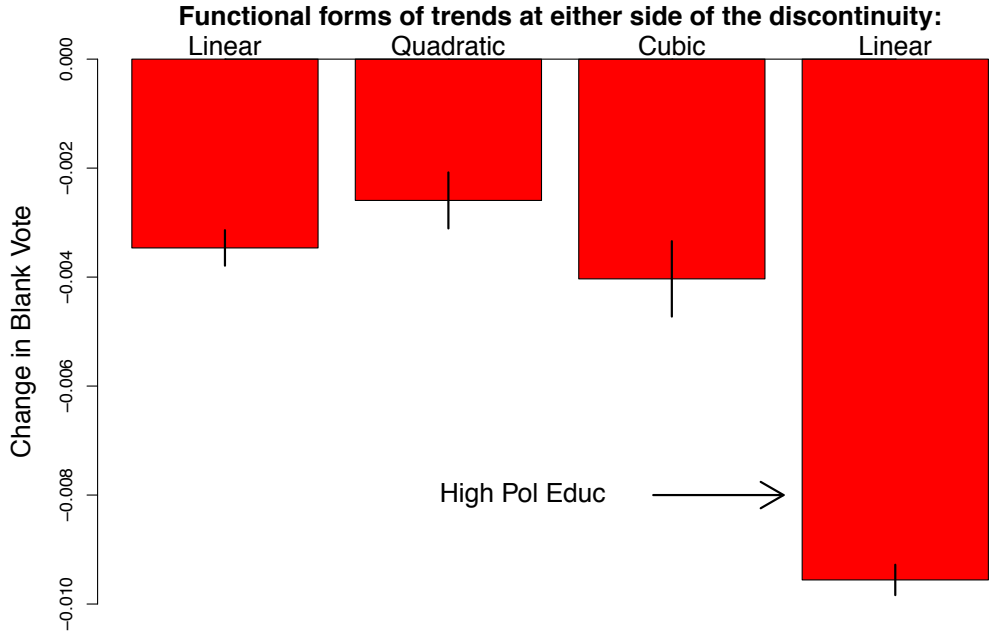


Figure 2.10: **Drop in blank vote in the manual regression discontinuity:** this figure reports the drop in blank vote in the different specifications with three different functional forms and, in the last bar to the right, within areas with high proportions of political science students only.

2.6 Conclusions

2.6.1 Results Summary

Here I summarize the results of the two cases (see also table 2.2). The Spanish case allowed me to compare the features of two different types of protest voting: a mobilized protest vote and an individually chosen protest vote. The data shows how individual protest voting, in the form of a blank vote, appears to be more prominent in areas where a larger proportion of highly educated individuals vote, while the opposite is true for mobilized null voting. Furthermore, abstention appears to be systematically negatively correlated with the proportion of highly educated individuals. This is consistent with the idea that the individual protest vote is a more sophisticated and educated expression of discontent than abstention and mobilized protest. These last two behaviors are often driven by apathy in the case of abstentionism, and by ideology or party loyalty in the case of mobilized protest.[52]

The case of Italy, instead, helped me further illustrate the relationship between electoral institutions and protest voting. Some electoral systems, like the runoff system, offer more opportunities for voters to express their political opinions and are more flexible in accommodating discontent. Others, for example, plurality systems, are more constraining. Those of the former type witness much less protest voting, in the form of blank votes, and more strikingly so in areas where there is a larger pool of potential politically sophisticated voters. These findings are summarized in table 2.2.

[52] Driscoll and Nelson (2014) found the opposite relationship between blank vote, null vote, and education in the their study of the case of Bolivia. My interpretation of the difference lies in the different institutional context (i.e., compulsory voting versus voluntary voting system) and on the different type of mobilization, which in the case of Bolivia actually did focus on blank vote.

Table 2.2: **Summarizing the Findings.**

Individual blank vote is...	Case	Explanatory Variables
...politically sensitive to institutional changes and more so in high education areas	Italy	Elect. institutions, polisci students and from all universities.
...more sophisticated/educated than mobilized protest voting and abstention	Basque Country	Nationalism, Euskara speakers and high education

2.6.2 Discussion: Institutionalization of The Blank Vote?

Institutionalized Blank Voter Around the World

An institutionalized "blank vote" option is available to voters in a number of countries. A civic movement brought the "none of these candidates" option officially on the Nevada's ballot (USA) in the 1970s. In this state since 1975 the citizens have the possibility of choosing "None of these Candidates" for all the positions that are decided by a state-wide election. The option was brought to the ballot in the aftermath of the Watergate scandal to allow citizens to express their discontent. As Nate Silver said in a blog post: "In Nevada, No One Is Someone to Watch" (Silver 2011). In 1976, this vote actually won the plurality of the Republican primary for a House seat; in 1996 it represented more than the difference between Bill Clinton and Bob Dole, as it did in 1998 when in the Senate race the difference between Harry Reid and John Ensign was of about 395 votes while the "none" option received over 8000.

In 2012 the Republican party filed a lawsuit against the state of Nevada to eliminate the option on the ballot. The legal argument presented was that the voters of "NOTA" were disenfranchised since their vote could never win if it had won the plurality (Chereb 2012; Mahtesian 2012). The actual rational behind the lawsuit was the fear that "blank" votes would represent a loss for Mitt Romney who was the non-incumbent in that race.[53]

[53] The judge from the 9th district ruled the law unconstitutional, but the decision was then invalidated in the San Francisco Court of Appeal. The legal battle remains unfinished.

A much older and more common tradition of the US, which may as well be an alternative manifestation of blank and null vote in its protest nature, is the write-in procedure: the possibility of writing a name of a candidates who is not among those on the ballots. This option was the result of introduction of the Australian ballot system[54] at the end of the 1800,[55] which by construction, limited the possibility of choice to pre-selected candidates, already printed on the ballot. Hence, the need for the possibility of adding a name to the list of candidates at the polling station arose (Ricciani 1993). Thirty-five states and the District of Columbia allow the use of "write-in" candidates; six only at general elections (e.g., Arkansas); four only in specific cases (e.g., Nebraska) and four completely prohibit (Ricciani 1993).[56]

This type of vote has been used both to advance the actual candidacy of outsiders, with some successes (e.g., Lisa Murkowski in the 2010 senatorial elections) and as a form of protest (i.e., Donald Duck vote). A recent example of a provocative protest vote has been the campaign of the popular director Michael Moore who in the 2000 elections supported the candidacy (as a write-in) of a plant – a ficus for the Congressional race of New Jersey 11th district. The protest, according to the director, intended to challenge the lack of competition in many districts of the United States. In a television interview he declared:

> "It's amazing to see this kind of Ficus fever sweeping the nation, and I predict that this will help boost the turnout at the election in the fall, an election that otherwise was going to be attended by the smallest number of Americans ever in our history. So hopefully the plant will do some good in bringing some people out, who — you know, unfortunately we don't have "none of the above" on our ballots in this country, so the

[54]The Australian ballot is a secret ballot provided by the State, before its introduction, parties or other groups would deliver the ballots to the voters.

[55]With Massachusetts being the first one in 1888.

[56]This states are Nevada, Oklahoma, Hawaii, and Rhode Island. In particular, Hawaii was at the center of a Supreme Court case, Burick v. Takushi, in 1992 from Ricciani (1993).

> plant is a good way to vote ”none of the above [...]” (Moore 2000).

Another country where the blank vote option, in the form of “Against All,” had been used until recently is Russia. This vote had been in place since the 1991 with the official change of ballots from the Soviet ones. The option was eventually abolished in 2006. In its 15-year existence, “Against All” collected between 4.88 % in the second round of 1996 Presidential election, 4.7 % in the 2003 parliamentary election, and 3.45% in the presidential election of 2004 (Sakwa 2008). While, initial rationale behind the introduction of the law was to avoid the dissent to be dispersed to minor parties (Sakwa 2008), the United Russia (Putin’s ruling party) decided to eliminate as it started becoming more popular (especially in the regional elections), despite the protests of the opposition parties’ leaders claiming that this was a further sign of democratic backslide of the country (Johnson 2006).

Ukraine, on the other hand, currently maintains the option of ”against all” on its ballot, which collected 1.77% of the votes and impeded a larger party to enter the parliament (Santucci 2013). Similarly, Bangladesh has introduce the “None of the Above” box in the 2008 election. It collected only a small percentage of votes (.55%) but according to some monitoring organizations, like the European Union, this option should be classified as:

> “an additional mean of democratic control from voters’ perspective: those who decided to vote this way made a conscious choice not to abstain in order to express their opinion, and often had to queue for a couple of hours to do so - given that the turn-out reached 87,06% (the highest in the history of the country)” (Tannock 2008, p. 7).

A similar step was proposed by the Supreme Court in Pakistan for 2013 elections but rejected by Election commission (Desk 2013) and has been recently approved in India.

Since 1991, when Colombia decided to provide its citizens with the option of “voto en blanco” (blank vote) on the ballot (Shugart 2010), the country has witnessed a few cases of surge of this

vote. In 2010 the vote for the Andean parliament was almost invalidated by the 1,445,999 votes (the plurality) for the blank vote ("Elecciones al Parlamento" 2010). In the same year, the vote in blank overcomes the 50% threshold in the Indigenous seat for the parliamentary elections (Votebien 2010). Again, more recently, in the city of Bello (Antioquia), where the blank vote won the 2011 race for the mayor with 56.7% of the votes and it was propelled by political parties, *Liberal Colombiano* (Liberal Colombian) and the Green Party ("El voto en blanco" 2011).

Among all the cases mentioned, only in Colombia does the victory of this vote have actual consequences. If the blank vote wins the majority of the votes the election needs to be repeated, although only the first time. If the election has to be repeated, the candidates who were present in the invalidated election cannot participate anymore.[57]

As the ex-president of the Constitutional Court in Colombia, Jaime Araújo, declared in an interview on *Semana* ("El voto en blanco" 2014):

> "The blank vote is a peaceful revolution, a mechanism to channel much of the non-conformist behavior that exists in the country, and a way to renovate politics, Colombian society [...]."[58]

In other countries blank voting is officially allowed, like in Sweden and Israel, where voters can pick a blank piece of paper to insert as a vote. In many countries, such as in Italy, Spain and France, it does not have an official space on the ballot, but a blank ballot is recorded separately from a null vote.

[57]For details see the information provided by the government to the Colombian citizens here: http://goo.gl/cWUu23.

[58]Original quote: "el voto en blanco es una revolución pacífica, un mecanismo para canalizar tanto inconformismo que hay en el país, y un medio para renovar la política, la sociedad colombiana [...]," translation by the author.

The Normative Debate

A famous Portuguese author, José Saramago, tells a story of a fictional election where the blank vote wins an overwhelming majority. He introduces the debate on the meaning of a blank vote very eloquently with this quote:

> "[...]did you by any chance cast a blank vote [...] No, sir, I didn't but if I had I would be as much within the law as if I had voted for one of the parties listed or made my vote void by drawing a caricature of the prime minister, casting a blank vote, mister questioner, is an unrestricted right" (Saramago 2006, p. 42).

In reality, is blank voting an "unrestricted right"? With its findings, this paper intervenes directly in this heated discussion regarding the value of the blank vote and the introduction of an official "rejection" option on the ballot (i.e., "blank vote," or "none-of-these-candidates"). The arguments in favor can be gathered in two main groups: intrinsic and instrumental justifications. My findings imply a new argument for the latter category.

To start, across different countries, many have interpreted the institutionalization of the blank vote as providing citizens with the opportunity to voice their dissent. Hence, they recognize in this vote a principle of freedom of expression that is intrinsically important for democracy. Along these lines is the ruling by the Colombian Constitutional Court in 2011, which declared the blank vote as:

> "a political expression of dissent, abstention or nonconformity, with political effects [...] through which the protection of the freedom of the voter is promoted" (Corte Constitucional de Colombia 2011).[59]

[59]Translation by the author. From Sentence C-490 de 2011 of the Constitutional Court in reference to Law 1475 (Political Reform), see http://goo.gl/cWUu23

Similarly, California Proposition 23 declares that blank voting is a form of active dissent, as opposed to abstention, since "not voting does not get you heard, it just gets you labeled as apathetic" (Damore et al. 2012, p. 896).

A different approach claims that the blank vote is equal to a vote for a candidate and increases the representativeness of the democratic system. This second argument is well represented in the decision of the Indian Supreme Court,[60] which introduced the "none-of-the-above" vote in September 2013. The decision is based on the principle that democracy should allow for the option of rejecting all the candidates and that the right to "negatively" vote should be protected by secrecy as much as the "positive" vote, and that only the addition of the "NOTA" option on the ballot (or electronic voting screen) can ensure it (India Supreme Court 2013).

On the other hand, there is an instrumental argument defended in the United States, Colombia, and India, is that the existence of an institutionalized blank vote would increase party accountability, forcing them to self-reform and improve transparency.

> "It will have some effect on the political parties. If people prefer for [*sic*] NOTA over others, it will send a message to them that their choice of candidates is not right and we are unhappy," said a political expert from an Indian Think Thank, Nikhil Dey, as reported in the Indian Newspaper, *Times of India*, (Sharma 2013).

> "Suppose that the candidates, to be elected, had to win an active majority or plurality, defeating also "none of the above"? I believe that political parties might be forced to reinvigorate their organization, to rebuild active ties to their constituent communities and to draw many of the politically alienated back into the political process" (Nagle 1989).

[60]This sentence was in response to a petition from a civil rights group, *People's Union for Civil Liberties*.

In the United States there is an especially compelling case in favor of the use of the blank vote option in elections in which the competition between the two main parties is minimized:

> "Giving voters NOTA as a democratic weapon to combat the growing anti-competitive arsenal of incumbents appeals to many on both the right and the left [...] NOTA would force incumbents in even the most gerrymandered districts to fear the wrath of voters" ("None of the Above" 1990).

In this work, I provide a further possible instrumental justification for the institutionalization of the blank and null vote: a *political responsiveness argument*. I found that blank and null vote is a conscious message of discontent sent to the political system by knowledgeable voters, and that it is a symptom of the gap between citizens' need for expression and the amount of expressiveness allowed on the ballot. Hence, neglecting it might prevent governments and parties from reaching a better understanding of the political condition and sentiments that animate their country. The existence of an option on the ballot could eliminate any ambiguity behind this message and make it even more explicit and easy-to-interpret.

Chapter 3

Measuring Discontent and Predicting Trouble

3.1 Introduction

In the past decades, in their attempts to evaluate popular political discontent and predict its eruption, political scientists have focused mainly on polls and surveys.[1] These methods capture the self-reported attitudes of respondents – or experts – who are asked about their levels of trust in electoral institutions and political approval of the electoral offering. However, surveys' responses often do not deliver a reliable, easy-to-interpret, and objective measure of citizens' attitudes. Polls are "snapshots of moving targets. Responses vary with the phrasing and context of the questions that are asked" (Nye et al. 1997, p. 5). Hiscox (2006) shows that the framing of the question has important impact on responses, while (King et al. 2004) point to the lack of comparability of many

[1]Exmaples of these are: Comparative Study of Electoral System (http://www.cses.org/), The World Value Survey (http://www.worldvaluessurvey.org/wvs.jsp), the European Social Survey, (http://www.europeansocialsurvey.org/), and the Electoral Integrity Project (https://sites.google.com/site/electoralintegrityproject4/home).

of these responses across countries, time, and even individuals.

Unfortunately, while political science has yet to converge on a single convincing way to measure it, popular political discontent has been on the rise in the last 15 years (Norris et al. 2005), and the need to monitor discontent has become even more urgent: from the continuous drop in turnout in the United States to the success of anti-establishment parties in Italy, from election boycotts in Thailand to the the outburst of blank voting in Colombia, from the protests in *Gezi* park (Turkey) to those in Zucotti Park (United States), from the Spanish *Indignados* to the Arab Spring.

In this paper, I propose a possible solution to the described mismatch between the state of the art in political science and the reality of the increasing popular political discontent: the use of a behavioral measure. This is the recording of a behavior that, first, can be interpreted as an unambiguous "seal of disapproval" of the political offering and, second, has a similar meaning for citizens across different countries. I found it hidden behind a form of protest often neglected: the protest *within* the electoral context. Indeed, elections, one of the most important moment of political participation, can be the first stop of a particular path of popular discontent: from the ballot to the streets. In many different countries, citizens' unhappiness with political parties, politicians, or the electoral institutions often first takes form during elections and then moves beyond the boundaries of the electoral process by exploding into different and larger forms of political protest and organized dissent.

There are many examples of this path. Increases in the level of blank and null voting (i.e. the number of ballots left blank or spoiled) in a country's elections have been found to precede large-scale protest events in various countries over the years.[2] High proportion of blank voting was experienced in Iran in 2004 (Samii 2004) before the 2009 Green revolution. A similar spike was also observed in Ukraine in 2002 (OSCE-ODIHR 2002) before the 2004 Orange Revolution. In

[2] I define as protest events any form of political protest and rejection of the government: riots, demonstrations, and revolutions.

the Hong Kong Chief Executive's election of 2012 the proportion of ballots left voluntarily blank increased of 600% (Electoral Affairs Commission 2007, 2012), only two years before the large 2014 street pro-democracy street demonstrations.[3] In the Argentine election of 2001, the "voto bronca" (i.e. null and blank) got over 20% of the votes – more than tripling the 1999 election's rate – two months before massive popular protests (Escolar et al. 2002). Similarly, in Spain in 2011, in the midst of large anti-government protests (*indignados*), the general election registered twice the blank and null vote of the 2008 election (Ainger 2011).

In this paper, I show that hidden behind this anecdotal evidence there is actually a systematic link between unconventional voting behaviors, such as blank and null voting,[4] and larger popular protest – both contemporary and subsequent. This connection is due to two possible, and not mutually exclusive, mechanisms: the first is the fact that individuals choosing the blank and null vote are likely to be giving voice to a sentiment of discontent that is widely shared in the population; the second is that these individuals are also more likely to be potential "dissenters" – driving, or at least supporting, larger popular protest. These two mechanisms are fueled by the combination of qualities that these voters seem to possess and that make them ideal candidates for capturing, interpreting, and fomenting popular discontent: high-education, political disappointment, moderate political ideology, and propensity to make their voice heard.

This paper demonstrates that the existence of this link between protest voting and political malaise turns the rate of blank and null voting at the national level into a valid proxy for larger

[3]This election is done by a pre-selected committee (Kaiman 2014) of 1200 people in 2012 and 800 in 2007. The number of ballots left blank were 75 and 11 respectively.

[4]Due to the scope of the paper I do not delve in the discussion of the difference between blank and null or spoiled votes. Driscoll and Nelson (2014) discuss this difference in the context of Bolivian judicial election of 2011 and find that individuals with more education were more likely to report having spoiled the ballot than voting blank, which instead seems to be driven more by lack of information. However, I claim that these findings are due to the compulsory voting system and that the relationship between education, blank votes, and null votes is actually the opposite under non-compulsory systems. Furthermore, the Bolivian judicial election was characterized by a high level of mobilization of null/spoiled votes.

popular discontent and a reliable predictor of future protest. It is therefore equivalent to other widely used measures of electoral popular approval, but much less costly, less time consuming, and with more possibilities of disaggregation.

To show the effectiveness of this measure of political discontent, the paper develops in three parts. In the first part, I introduce the profile of blank or null voters as potential "moderate dissenters," that is, individuals with features that make them ideal candidates for expressing larger discontent and possibly fomenting organized expression of this same discontent – street demonstrations, anti-system movements creation, and even revolutions. In contrast to popular beliefs and some parts of the literature,[5] I show that these voters are often well-educated, care about politics and participate in it. Other scholars have already supported the idea that this behavior is a conscious voting choice and often a message of disapproval of the electoral process or political offering (i.e., political parties and candidates running in the elections).[6] However, I challenge the view, often present in this literature, that these voters are extreme, radical (Stiefbold 1965), or alienated (McAllister and Makkai 1993; Power and Roberts 1995). In reality, I show, the fundamental characteristic of these voters is exactly that of being ideologically moderate. This makes them, when unhappy, a good representation of potentially larger political malaise.

In the second and third sections of the paper I look at the aggregate value of blank and null voting. Based on these findings regarding the "moderate dissenters" profile of individual blank and null voters, we should expect blank and null voting at the national level to tell us something about possible larger discontent with the electoral process and political offering. I compare the aggregate values of this behavior with two accepted measures of either perceived electoral quality or popular discontent with the elections. The first measure is the experts-based electoral integrity

[5]Knack and Kropf (2003); Wattenberg et al. (2000); McAllister and Makkai (1993); Power and Roberts (1995); Mott (1926)

[6]Driscoll and Nelson (2014); Damore et al. (2012); Uggla (2008); Herron and Sekhon (2005); Zulfikarpasic (2001); Rosenthal and Sen (1973)

measure (Norris et al. 2014), which includes many dimensions along which the elections are evaluated. The second is the World Survey indicator of perceived electoral quality (The World Values Survey. 2014), based on population surveys. I show that blank and null voting is highly correlated with both these widely used measures and provides similar information while having lower costs of collection and more possibilities for disaggregation. In the third section, I confirm these findings by demonstrating how records of unconventional voting can predict street demonstrations, riots, and even revolutions.

Finally, across all sections, I offer a systematic comparison between blank and null voting and voting abstention. The latter is the voting behavior that is most commonly considered a sign of popular discontent and the political disaffection of citizens (Birch 2008, 2010). For this reason, it is fundamental for this paper to demonstrate that blank and null voting is also much more than a potential substitute for abstention. Measuring blank and null voting instead of voter turnout would improve the accuracy and precision of models which aim to identifying popular approval of elections. Indeed, I show that the predictive and explanatory power of voting abstention is much smaller and very limited when compared to that of blank and null voting.

These findings carry several implications. First, they show that the media and academia have misplaced their attention by focusing only on turnout. More work should be devoted to investigating and collecting data on blank and null voting and other less conventional voting behaviors.[7] Second, the findings suggest the need to include a blank and null voting variable as an explanatory and predictive factor in any model that seeks to account for popular evaluation of a specific election and the electoral political offering. This is particularly useful in those cases in which more complex measures of popular electoral approval may not be available (e.g. sub-national levels of

[7]Unconventional voting includes a number of voting behaviors that are not simply choosing a candidate. They include the choice of the official "non-of-the-above" ballot options, write-in choices, or blank/anti-systems parties in democratic contexts. In non-democratic systems they include also choices that do not follow the instructions of the regime, called "non-conformist voting."

elections or past elections).

Finally, given the premises of this paper, it remains to be tested how external shocks on blank and null voting, for instance the introduction of the "blank vote" ballot option, might affect other form of protests. Would a more expression-promoting ballot channel the discontent better and reverse or delay the link between this vote and larger political protest? Would the creation of a protest/blank vote party re-channel this tension?

3.1.1 Who Is a Blank and Null Voter? An Angry Moderate Voter

In this empirical section, I intend to show that the action of spoiling the ballot or leaving it blank, in non-compulsory systems,[8] is done by voters who posses both the skills and propensity to make their voices heard. They are educated and ideologically moderate,[9] but strongly unhappy with the current political offering in terms of parties and candidates present within the political system. They are also individuals who are prone to participate politically and to express their discontent through various democratic channels.[10] In other words, this phenomenon is dominated by individuals who are the most likely to start, lead or support other forms of large and organized political protest. As described by Nepstad and Bob (2006), political movements' leaders tend to be educated individuals with strong ties to the community and with "symbolic" capital (i.e. charisma). To check if this description mirrors the profile of blank and null voters, I use cross-national, individual-data from two waves of the survey, Comparative Study of Electoral Systems (CSES 2007, 2011). One wave includes 41 elections (6 in compulsory systems and 35 in non-compulsory ones); while the

[8]This paper focuses primarily on non-compulsory voting system. These same voting behaviors have different motivations and features in compulsory systems. Work done on compulsory systems makes opposite claims about the nature of this behavior (Driscoll and Nelson 2014; McAllister and Makkai 1993).

[9]In this they are similar to findings about other types of protesters, as we see in Dalton (2000), Parkin (1968), and Thomassen (1990), who do not find evidence of the fact that individuals involved in protests are radical and alienated.

[10]Similarly to what is found for participants in other forms of protest: see (Norris et al. 2005).

other includes 50 (10 in compulsory systems and 40 in non-compulsory systems).

Each survey interviewed an average of 1587 respondents per election (with a standard deviation of 582 individuals). The majority of these interviews were done face-to-face (for 67 elections) and the rest either via phone or mail or a combination of these methods. They were run on average less then two months after the elections (55 days on average). In the vast majority of cases surveys referred to the legislative elections. Of the 91 cases, only 14 were a combination of legislative and presidential elections, and 6 were only presidential.

The behavior of interest (blank voting or spoiling the ballot) is extracted from these surveys in two ways: by recording those who report having voted and "cast a blank ballot" and by investigating the specific options given by each country's survey. For instance, in the 2002 election in Portugal a "spoiled ballot" was identified with a the code of "15" instead of the usual "96" used in other countries; or Canadian respondent in the 2004 election's survey were given the option "None of them," after an exhaustive list of parties including the option "other." Among the respondents of countries with non-compulsory voting, 1,085 are blank and null voters, 20,108 admit having abstained, and 95,418 voted validly.

The propensity to protest is identified by the question: "Over the past five years or so, have you done any of the following things to express your views about something the government should or should not be doing? [...] taken part in a protest, march or demonstration?"[11] While the "participation" variable is based on participation in labor unions or employers organizations.

The variable for high education is operationalized as a dummy variable equal to 1 if the respondent has higher than secondary education. For the level of discontent with the political system, instead, I chose: "Do you feel yourself a little closer to one of the political parties than the others?" I coded as 1 those who answer "No" and 0 otherwise. To capture the highly disappointed

[11]This question only appears in wave 2 of the survey.

respondents, I code as zeros also those who refuse to answer. This way, I am able to distinguish a strong and resolute "No" from all other options.

Finally, for the ideological position of these individuals I use the question about self-identification. The respondents are asked to place their political positions on a scale from 0 (left) to 10 (right).[12] I also identified those who are ideologically extreme with a dummy variable: those who identified themselves as strongly leftist (from 0 to 3 on the scale) and strongly right wing (from 8 to 10 on the scale).

All the different specifications, presented in full in the appendix (tables 5.6 and 5.7), demonstrate that the profile of a blank voter is that of an educated voter who is prone to protest and participate, and does not identify with any party (at the time of the interview). However, contrary to what many would expect, these voters do not hold ideologically extreme positions and tend toward the center of the left-right spectrum. Indeed, both if I control for the variable "extreme" and if I include a quadratic functional form of the ideology variable, I systematically find that blank voters tend to the center of the political spectrum. There is an inverse u-shape relationship between political ideology and probability of voting blank (or null): extremism, on either side of the political spectrum, is actually a negative predictor of this behavior.

The moderate ideological position of these respondents is particularly important for the argument of this paper. Indeed, this feature is what makes blank and null voters "moderate dissenters." The fact that they hold relatively mainstream positions has two important implications. First, it means that their complaints are more accessible and can be shared by a larger portion of the population. Second, moderate dissenters might find it easier to appeal to larger sections of the population and promote collective action.

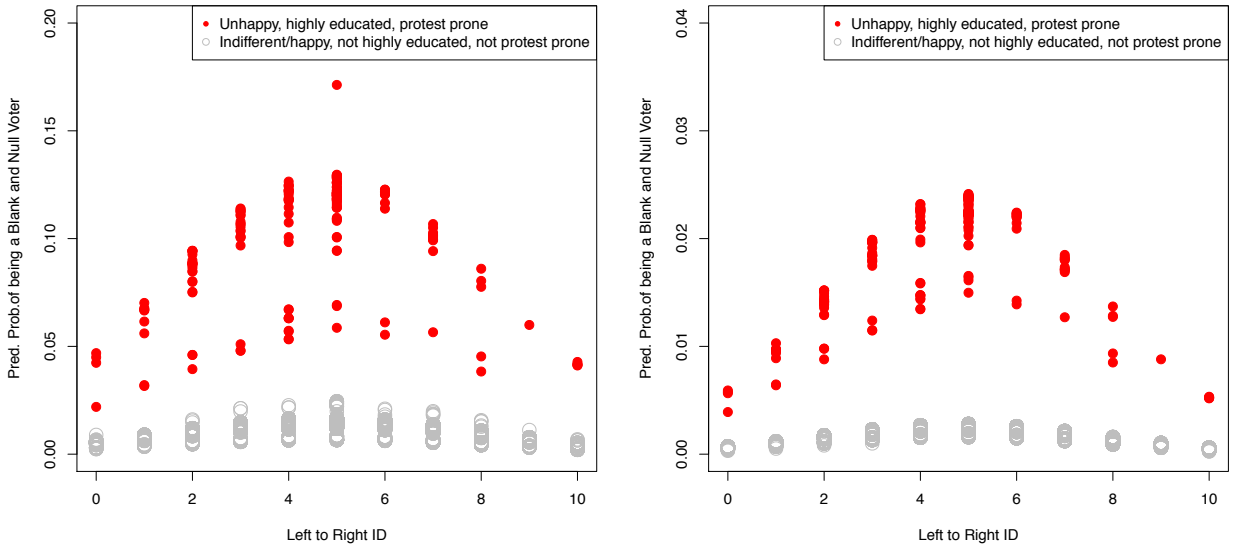
[12] "Where would you place yourself on this scale?" (CSES 2007).

A Blank and Null Voter is Not an Abstetionist

Are blank and null voters the same as abstentionists? Although the two behaviors are often mistakenly conflated in the literature (Gray and Caul 2000) they are very different in nature and typically followed by different types of voters (Zulfikarpasic 2001; Rosenthal and Sen 1973). This section shows that when comparing the two directly, those who report abstaining and those who report blank voting (or spoiling the ballot) have significantly different characteristics in terms of education, propensity to protest, level of discontent, and ideology.

When subsetting the data by types of voters and keeping only "non-valid voters" (i.e. blank voters, null voters, and abstentionists), all the individual-level predictors of blank and null voting already identified in the previous section have systematically stronger predictive power and are statistically significant. Indeed, individuals who have been participating in protests, have higher education, and find no party satisfactory, are much more likely to walk to the polling station and casting a blank vote than stay home (see table 5.7 in the appendix). As shown in figure 3.1, individuals who are highly educated, politically unhappy, and with a high propensity to protest have a 10-15% probability of being a blank voter, while less educated and more apathetic voters have almost no chance of casting a blank vote. This figure also displays the inverse u-shape relationship with ideology predicted by the model.

Obviously, it is known that there is a significant under-reporting of abstention due to the social desirability of voting (Karp and Brockington 2005). In contrast, blank and null voting does not show the same systematic bias. Indeed, figure 3.2, panel *a*, plots the difference between the rate of blank voting self-reported in each country and the rate that is recorded in the official electoral data. It can be noticed, especially if compared to panel b, that the direction of the bias in self-reporting changes across countries. In some elections, like the Denmark legislative election of 2001, voters seem to under-report; in other cases, like Portugal 2005, to over-report.



(a) Blank and null voters and absentionists only in the sample

(b) All voters

Figure 3.1: **Predicted probabilities of being a blank and null voter and *not* an abstentionist:** this figure displays the predicted probabilities of being a blank or null voter and not an abstentionist. This is done by looking only at a subset of "non-valid voters," that is blank and null voters and abstentionists. The predicted probabilities are plotted against the ideological self-reported position of the respondents.

This unsystematic bias has various potential consequences for my analysis. First, people under-reporting abstention tend to be more educated (Bernstein et al. 2001). This would mean that my coefficient on "high education" might be over-estimated. I might be capturing the probability of highly educated voters to actually vote blank, together with the probability of some highly educated voters to declare having voted blank rather than admitting to having stayed home. However, this would still be consistent with my interpretation of abstention. Indeed, my claim is that those who vote blank are sending a stronger signal. On the one hand, the fact that educated voters might not like to admit they abstain would only be further evidence that their lack of participation was not due to a conscious decision to protest, but more to contingency or laziness. On the other hand, the fact that some of them might decide to pick a blank vote as a cover would add to the evidence that they interpret that behavior as a more sophisticated political choice.

The different reasons for the unsystematic trends of over and under-reporting of blank and null voting are multiple. One technical explanation for part of the under-reporting is actually the fact that a portion of blank and null voting is constituted by mistakes, of which the voters are not aware. Instead, as mentioned before, a possible explanation for over-reporting is that blank and null voting may be, for politicized and educated voters, more socially desirable than admitting to having cast a vote for some specific party, or to having abstained.

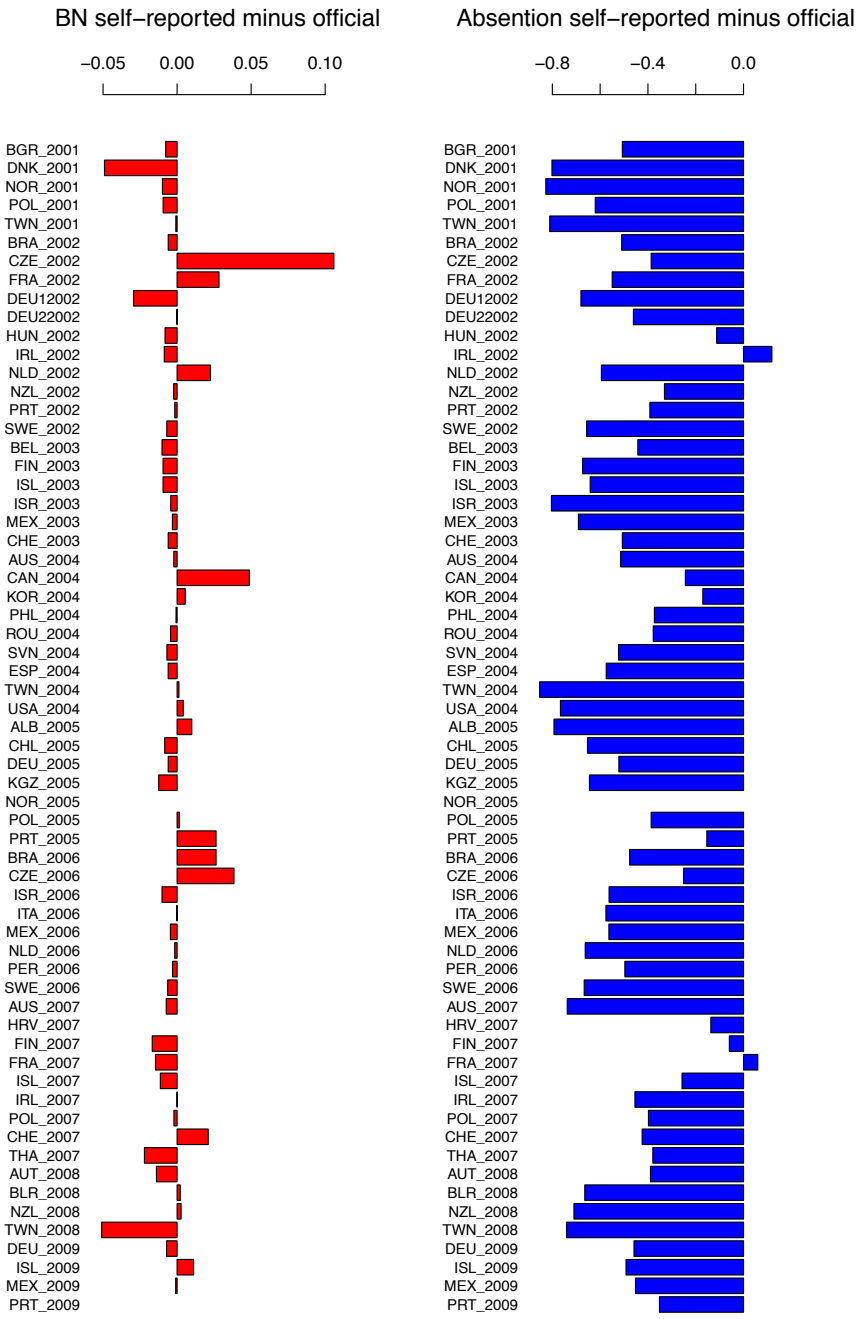


Figure 3.2: **Comparison of the rate of self-reported voting behavior in the survey *versus* the officially recorded data:** this figure shows the differences between the rate of blank and null voting (as a proportion of the eligible electorate) and abstention that is recorded in the official electoral data (Institute for Democracy and Electoral Assistance 2013), and the rate of the same, self-reported in CSES (2007, 2011), with original weights for voting behavior sampling bias (variable $C1010_3$).

3.2 Measuring Blank and Null Voting at the National Level

In the previous section I identified the distinctive features of blank and null voters. In this section, I verify if these characteristics translate into useful features at the aggregate level and if the rate of blank and null voting recorded at the national level can be used as a proxy for popular electoral approval. Is the disaffection with the electoral political offering, which this small group of educated and "angry" moderate voters express, shared by a larger section of the population? Are they interpreting a popularly felt discontent? If that is the case, then the aggregate version of this individual behavior could be a measure of a much larger discontent, and provide more key information on citizens' attitudes toward politics than the relatively small magnitude of blank voting would seem to suggest.

To test this claim I start by comparing the level of blank voting with other common sources of metric for popular electoral discontent: responses from the experts' surveys "Electoral Integrity Index" project (Norris, P. , Martínez i Coma, F., and Frank, R. W. 2014) and the citizens' surveys "World Value Survey" (The World Values Survey. 2014). Then, I test whether increases (or higher levels) of recorded blank and null voting anticipate other forms of political protest, like anti-government demonstrations.

Furthermore, as I did for the individual-level analysis, in this part of the paper I contrast invalid voting with abstention. By doing so, I add some further evidence, at the aggregate level in this case, of the different nature of these two behaviors.

At the national level, indeed, the features of absentionists that emerged at the individual level translate into an aggregate voting behavior not suitable as a proxy for electoral political discontent. Indeed, abstention is a steady phenomenon, less sensitive to short-term changes and often

driven by long-term socio-economic factors (see appendix).[13] As several authors have already recognized, abstention "should prove more attractive to the political sociologist interested in the study of long-term non-participation, the consequence of inadequate socialization and education, or permanent alienation" (Rosenthal and Sen 1973, p. 29). Compared to abstention, the blank and null vote, especially in non-compulsory systems, is a more short-term phenomenon (Rosenthal and Sen 1973), and represents a much more variable aggregate behavior. This is shown in figure 3.3, in which each observation represents one election, and the two voting behaviors are normalized. Each unit on the axes represents one standard deviation. The figure shows how blank and null voting has spread from two standard deviations below the mean to six above, while abstention is concentrated between (plus or minus) two standard deviations only. This means that abstention is a more steady and slow-moving phenomenon than blank and null voting, which, on the other hand, is more likely to be affected by sudden and momentary changes of the political environment.

3.2.1 Blank and Null Votes versus Other Measures of Perceived Electoral Quality

I use here two surveys which are considered, by many, the gold standard of election evaluations. On the one hand, these measures contribute to give an overall evaluation of the perceived quality of the electoral institutions, process, and political offering. On the other hand, though, to be created they require large investments of time, efforts, and funding.

[13] Even in the short term, turnout might be influenced by changes not related to the actual approval of the specific electoral offering such as weather, and sports events. Gomez et al. (2007) show how rainfall decreases the participation of 1% per inch. Fraga and Hersh (2010), instead, while confirming the impact of the weather also find that this happens less in competitive elections.

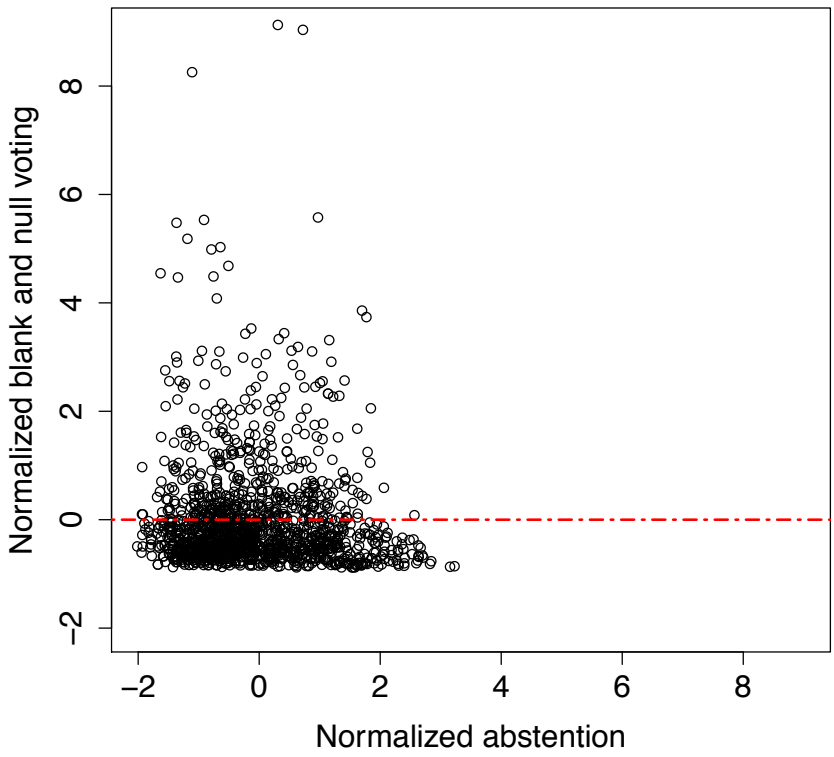


Figure 3.3: **Variability of blank and null voting and abstention:** this figure presents the different level of variability in blank and null voting and abstention. Each point represents one election. The two measures are both normalized. Data source: Institute for Democracy and Electoral Assistance (2013).

Perceived Electoral Integrity (PEI index)

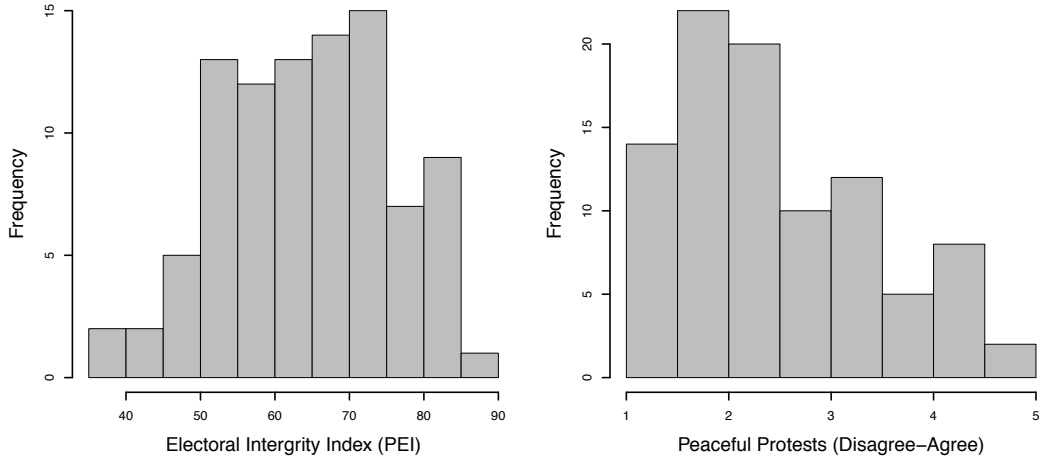
A recent outstanding example of a project that aims to evaluate elections, both technically and politically, is the Electoral Integrity Project (Norris, P. , Martínez i Coma, F., and Frank, R. W. 2014). This survey gathers answers from several experts for each election.[14] A total of 1,037 experts are asked a series of questions about 49 key indicators. These are then then summed up into an aggregate 100-point index, where higher scores represent better perceived quality (Norris et al. 2014). The survey includes all countries of more than 100,000 inhabitants that had elections between July 1st, 2012 to December 31st, 2013: 84 countries.

Among the indicators offered by this survey, there are two proxies of interest that I decided to use in this paper: the aggregate index (which also includes imputed values for missing data) and the perception of peaceful protest, as indicated by the responses to the following statement: "The election led to peaceful protests," where "Strongly Disagree" is coded as 1 and "Strongly Agree" as 5 (see distribution is figure 3.4).[15] The first measure is conceptually larger than my proposed measure based on blank and null voting. Indeed, the PEI consists of an umbrella index of 11 dimensions of the democratic process that go from election law, through campaign finance regulation, to vote count (Norris 2013). It mirrors a large definition of "electoral integrity" that includes procedural failures that might or might not have a strong relationship with people's attitudes. The second is a narrower – but more similar – conceptualization of popular electoral disapproval since it only captures a form of protest that is a response to a specific election, and is not a general attitude.

What is the relationship between these two "perception" measures and the proposed alternative

[14]Experts are chosen among political scientists (or from other social sciences), who have published on a specific country's electoral process (or demonstrated similar level knowledge).

[15]The findings are consistent if I use the violent protests instead of the peaceful ones.



(a) Electoral Integrity Distr (b) Peaceful Protest Distr

Figure 3.4: **Distribution of PEI index and perception of peaceful protests**

behavioral measure, blank and null voting? Both figure 3.5 and figure 3.6 address this question. The first one, figure 3.5, displays the predicted levels of PEI index for countries with either high levels of blank voting or very low. These predictions are based on a simple model that accounts for two variables influencing the "mistake" component of blank and null voting: difficulty of voting[16] and overall level of development of the country – a proxy for education and economic development (see table 5.12 in the appendix). As shown in this figure, in an "accessible" voting system (above the level 4 in a 1-5 scale), a difference of 1% in blank and null voting corresponds to a decrease of 7 points in the PEI scale, which represents the difference between Australia and Bhutan.

Moreover, from this analysis it arises that the easier the voting system and the less prone to mistakes it is, the more blank and null voting becomes correlated with both the proxies used and with the expected sign: negative for the PEI index and positive for the perception of peaceful protest

[16]For the first one I use the question posed to the experts on whether "[T]the process of voting was easy."

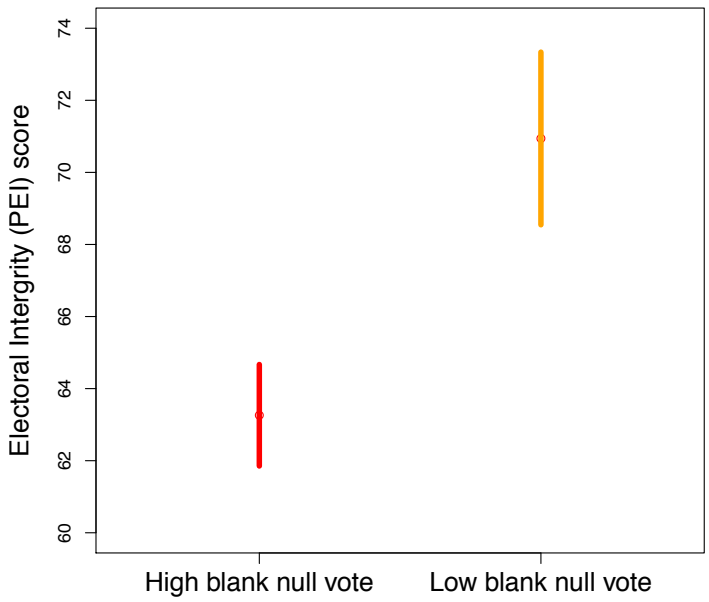
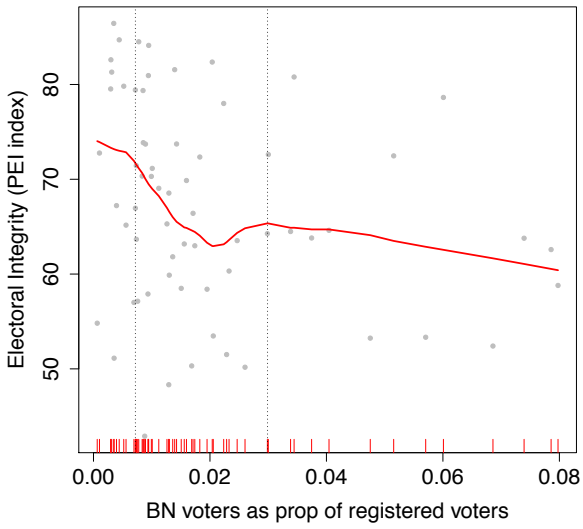


Figure 3.5: **Relationship between PEI index and blank and null voting in easy voting systems:** this figure shows the different mean prediction in terms of Electoral Integrity Index (PEI) for high and low levels (1st and 3rd quantile) of blank and null voting in "easy voting" systems. Data source: Norris, P. , Martínez i Coma, F., and Frank, R. W. (2014).

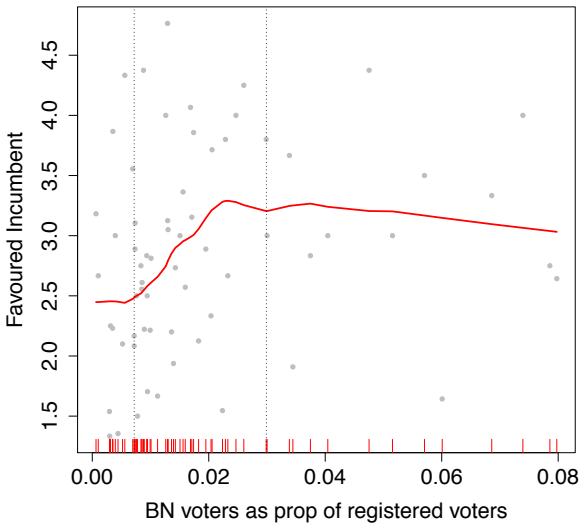
indicator. Finally, abstention is not significantly correlated with any of these perception measures.

The second figure, figure 3.6, enlarges the comparison by showing the non-parametric relationship between blank and null voting and various possible sources of discontent with the electoral process. Besides the already mentioned PEI index and protest-perception variable, I include two more variables: the perception that the system might favor the incumbent and the belief that the system hinders minorities' representation. All of these potential sources of political discontent show the expected patterns in their relationship with blank and null voting: the higher the perception of unfair favoritism towards the incumbent the higher the level of blank and null voting; the lower the obstacle to minorities the lower the use of blank votes.

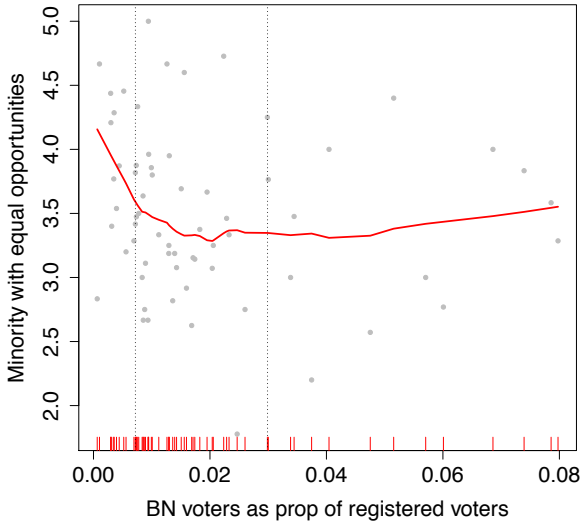
I also demonstrate that in simple analysis, blank and null voting, if taken as a proxy of popular political discontent, might deliver the same information as the more complex PEI. I show this by comparing the results of a simple univariate linear regression across three possible measures of perceived electoral quality: the PEI index (1-100), the turnout, and the blank and null vote, all normalized as $\frac{x-mean(x)}{sd(x)}$. Figure 3.7 shows that using blank and null votes and the PEI index, in contrast with turnout, suggests a similar relationship between economic development and electoral quality. One standard deviation change of both PEI and blank and null voting matches a change respectively of 0.6 or 0.3 in GDP per capita in countries with "easy voting"(see also table 5.13 in the appendix.) This is consistent with the idea that the purer the measure of intentional blank and null voting, the better it is as a proxy for discontent, and the more it corresponds to the other measures available.



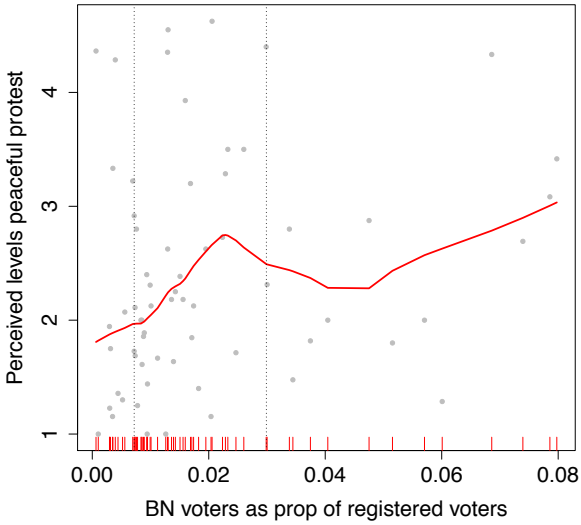
(a) Electoral Integrity (PEI Index)



(b) System Favoring the Incumbent

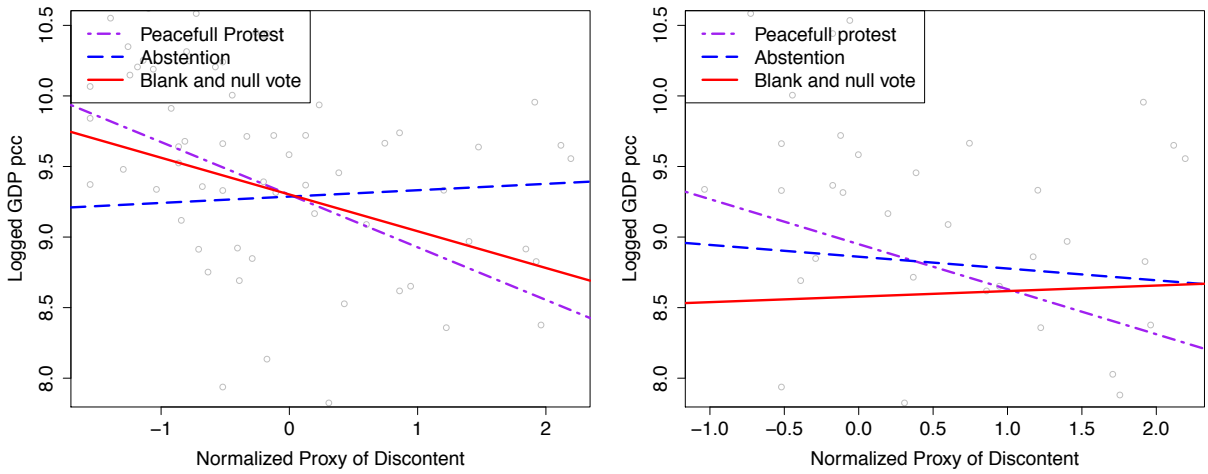


(c) Political Minority Treatment



(d) Level of Peaceful Protest

Figure 3.6: **Blank and null voting and different measures of perceived electoral quality:** these figures display the relationship between blank and null voting and different measures of perceived electoral quality. The sample used for these figure includes only countries with "easy voting," to minimize the amount of voters' mistakes. The short vertical bars above the x-axis represent the distribution of blank and null voting data. The vertical lines identify where the data is concentrated (within the 0.2 and the 0.8 quantiles).



(a) "Easy Voting" countries

(b) "Non-easy Voting" countries

Figure 3.7: **Relationship between perception of peaceful protests and GDP per capita:** this figure summarizes graphically the relationship between the three possible measures of popular electoral approval: abstention, perception of peaceful protest (from the Electoral Integrity project), and the blank and null vote. On the x axis 1 unit represents one standard deviation. In panel (a), countries where voting is perceived as "easy," higher protest perception corresponds to lower GDP while higher blank and null voting also corresponds to lower GDP. Panel (b), instead, shows that the same relationship does not hold in contexts with "difficult voting," in which the measure of blank and null voting is tainted by mistakes. In both panels, abstention does not have a strong relationship with the GDP (for detailed results see table 5.13 and 5.14 in the appendix).

World Value Survey

A second measure that I test is the mean response taken from the The World Values Survey Wave 6 (The World Values Survey. 2014). This wave includes 57 countries and around 85,000 respondents, who were interviewed between 2010 and 2014. The question of interest is: "In your view, how often do the following things occur in this country's election? Voters are offered a genuine choice in the elections." The responses could range from 1 ("Very often"), to 4 ("not at all often"). Given that the average[17] spans only from 1.3 to 2.5, I decided to operationalize this score as a categorical variable with four categories: "<1st Quantile," "1st Q. to Median," "Median to 3rd Q.," ">3rd Quantile."

In figure 3.8, I display the mean of blank and null voting for each level of the re-coded categorical variable. Countries where the average response to whether "Voters are offered a genuine choice in the elections" was quite positive (levels 1 and 2 my categorical variable) tend to have lower blank and null voting than countries whose average answer is quite negative (levels 3 and 4 of the categorical variable).

There seems to be an incrementally higher use of blank and null voting in those contexts where respondents are not satisfied with the political choices offered by the system. The only visible exception regards extremely positive answers (level 1 of the categorical re-coded variable). This seems to be due mainly to the Philippines, an outlier, which registered an incredibly high level of blank and null voting.

Interestingly, the same conclusion about the positive relationship between perceived genuine choice and measures of electoral approval cannot be reached by looking only at voter turnout. In figure 3.9, indeed, I plot the same relationship between mean survey responses and voting behavior, but using abstention. The graph shows a neutral relationship between the two variables.

[17]This mean is calculated by multiplying the response by the weights offered in the survey.

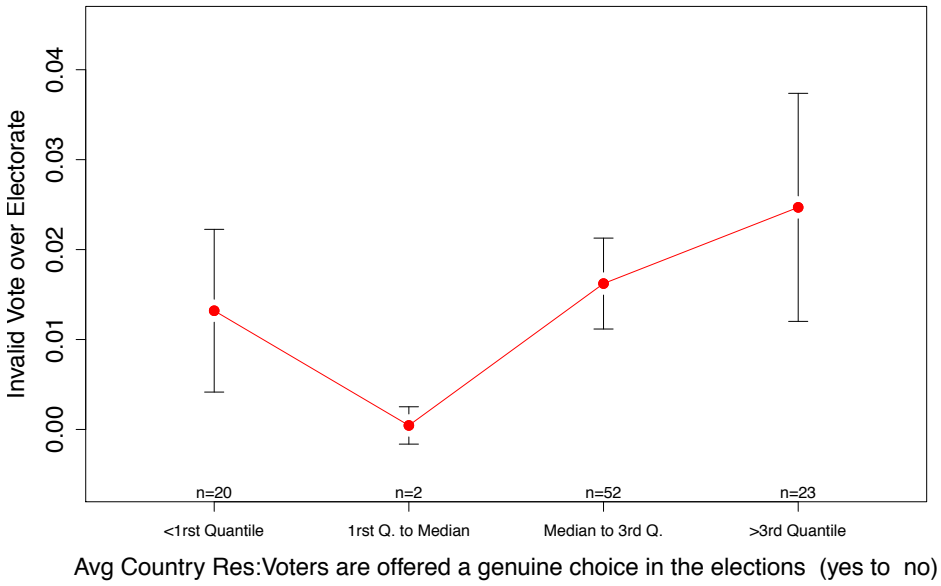


Figure 3.8: **Blank and null voting *versus* popularly perceived quality of political offering:** this figure displays the relationship between blank and null voting and the average answer to the question regarding whether or not "Voters are offered a genuine choice in the elections" from the The World Values Survey. (2014). Points represent the average blank and null voting rate in non-compulsory elections from the year 2000 (10 years prior to the survey). The x axis represents the average answer about political choice in one's country. For instance, if on average respondents from country x answer "not at all often," this country would fall into the category ">3rd Quantile."

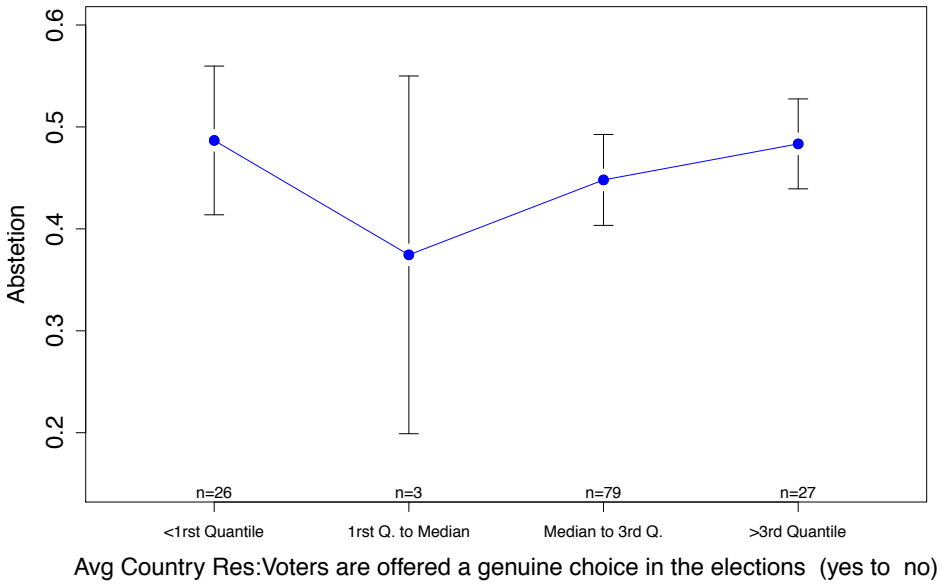


Figure 3.9: **Abstention voting *versus* popularly perceived quality of political offering:** this figure displays the relationship between abstention and the average answer to the question regarding whether or not "Voters are offered a genuine choice in the elections" from the The World Values Survey. (2014). The x axis represent the average answer about political choice in one's country. For instance, if, on average, respondents from country x answer "not at all often," this country would fall into the category ">3rd Quantile."

Abstention levels do not seem to tell much about average disaffection with the political offering. This, once again, confirm the idea that abstention is a much less politically sensitive phenomenon and a much less reliable proxy of popular discontent.

Alternative Measure?

In this section, I compared widely used measures of perceived electoral quality with my proposed behavioral measure of popular electoral approval. Obviously, the survey-based measures have many advantages, including the possibility of disentangling the dimensions of popular discontent and approval. Are people unhappy with the political offering or with the electoral systems? Are voters discontent with political corruption or electoral fraud? My proposed measure, instead, cannot capture such nuances but only a more general electoral discontent. However, blank and null voting is shown to deliver comparable substantive results and to be correlated with the relevant survey's responses. It has also greater potential for disaggregation since it can be recorded at any level in which voting happens and can be also collected for historical periods and countries not covered by these surveys. Lastly, data on blank and null voting is publicly available and free. In contrast, voting abstention, although equally cheap and accessible, does not display the same positive properties.

3.2.2 Predicting Political Protest with Blank and Null Voting

As explained in the introduction, blank and null voting is not only a proxy for larger discontent but also – and as a consequence of it – an efficient predictor of future large-scale protests. Indeed, the third and last task of this paper is to show that there is a systematic link between protest within the ballot and protest outside it. However, the evaluation of the predictive power of a political phenomenon is not a frequently attempted enterprise in political science. Political science often

focuses its attention on describing phenomena or explaining them. Relatively little attention has been given to predicting phenomena. As a field, we often have been criticized for being unable to predict important changes, from the collapse of the Soviet Union to the Arab Spring. There is a renewed interest in forecasting, which would broaden the impact of the field. Indeed, by "generating predictions makes the implications of our research more accessible to the the policy community and the general public." (Ward et al. 2013, p. 9). Thus far, forecasting has become relatively popular only in two areas of political science: conflict prediction (Ward et al. 2013) and elections forecasting (Sides 2014).

The fact that prediction is understudied in political science leads to the mis-use of explanatory models to attempt prediction. Variables that seem to explain an event efficiently are not necessarily equally useful to predict it. Ward et al. (2013) explain this with the example of the paper by Fearon and Laitin (2003). Their paper, among the most cited in political science, explains the onset of civil war. However, its model, if utilized as a prediction model, performs very poorly and, while it predicts peace fairly well, it fails to predict civil wars (Ward et al. 2013). The reason is that factors that can contribute to causing a phenomenon might be too general, noisy, and have little predictive power compared to variables that are not causes, but that we could consider "early symptoms" of the phenomenon. If we use a health metaphor, we might say that traveling on an airplane during flu season can expose you to the flu and explain the onset of the illness. However, the sense of tiredness and general malaise that precedes the flu by a few days will be much more predictive of the onset of the illness and will definitely add precision to the predictive model without adding any explanatory power to the model. Examples of this in political science are models that predict voting behavior using variables such as presidential approval rating at the aggregate level (Sides 2014) or previous surveys about political preferences (Hillygus and Jackman 2003) at the individual level. Neither of these are causes of people's voting choices, but they represent "early symptoms" of

future voting behaviors. Along this line, in this section, I show how increase and higher levels of blank and null voting function as an "early symptom" of future protest events.

Protest Data

For the analysis of the relationship between blank and null voting and future protests, I combined different cross-national data sources. For the electoral data, I used the data on voter turnout and blank and null votes available from Idea International (Institute for Democracy and Electoral Assistance 2013); for other electoral and institutional data I used the replication data from Bormann and Golder (2013); the economic data, on the other hand, comes from the The World Bank (2013). Finally, data on protest events are from Banks (2008).

I define "protest events" as three type of events in the dataset: anti-government demonstrations, riots, and revolutions. These events are defined in Banks's (2008) codebook in the following way: revolutions are "Any illegal or forced change in the top government elite, any attempt at such a change, or any successful or unsuccessful armed rebellion whose aim is independence from the central government"; anti-government demonstrations are "Any peaceful public gathering of at least 100 people for the primary purpose of displaying or voicing their opposition to government policies or authority, excluding demonstrations of a distinctly anti-foreign nature"; and riots are "Any violent demonstration or clash of more than 100 citizens involving the use of physical force." The data is collected from the reports of these events in *The New York Times* and, as such, probably suffers from some coverage bias (Banks 2008).[18] I do not expect this to create any serious issues for my specific analysis, since I believe it can realistically be assumed that the selection bias is orthogonal to the relationship within countries between blank and null voting and protests. However, to be conservative, I also ran my analysis on a sample that is expected to suffer from the mini-

[18]For a discussion of the possible biases in this type of dataset see Earl et al. (2004).

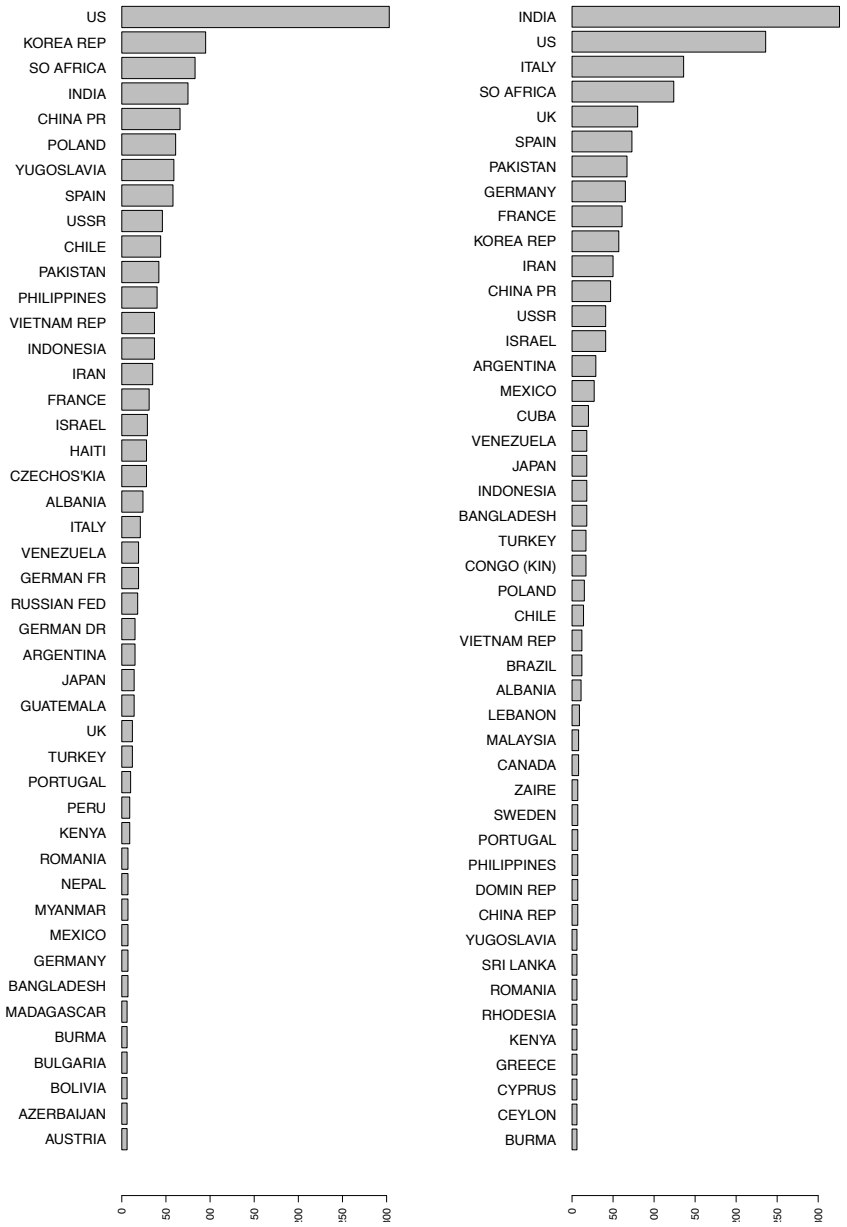
mum bias. First, I exclude countries with less than two millions inhabitants (the first quantile of the distribution), which are more likely to suffer of under-coverage. Second, I exclude the United States, on which issues of cultural and geographical biases of *The New York Times* could play a role. Finally, I also limit the sample to democratic countries with higher tertiary education and with relatively easy voting systems. By using this sample, the results remain consistent to what found in the rest of the paper (see table 5.11 in the appendix).

Figures 3.10 and 3.11 display the total number of "protest events" per country. There is significant variation across countries. Some countries, like India and France, witnessed hundreds of anti-government demonstrations and riots in the post-World War II period. Others instead have no events reported (199 countries). Almost half of these "zeros" correspond to very small countries with a population of less than 2 millions (for more details see appendix table 5.15).

I operationalized these "protest events" in two different ways. First, I created a dummy for "any revolution" happening in the four years after the elections.[19] Second, I produce a variable with the sum of all "protest events" in the years on which and after which the elections take place.

In this paper, I assume that demonstrations, riots, and revolutions lay on the same continuum of political protest, where peaceful political demonstrations represent a less extreme concretization of political discontent and revolutions a more serious and extreme one. I am aware that some of the revolutions in the dataset are actually driven by elites and are not always an expression of wider popular sentiments. However, since I am unable to distinguish between the different types of government overturns, for this paper I will assume any revolution in the dataset is the representation of some sort of widespread discontent.

[19]This includes also the year of the election.



(a) Total Riots (b) Total Demonstrations

Figure 3.10: **Distribution of riots and demonstrations per country since 1945:** the figure reports the total number of riots and demonstrations per country in the dataset used from Banks (2008). Only countries with more than five riots or demonstrations are reported.

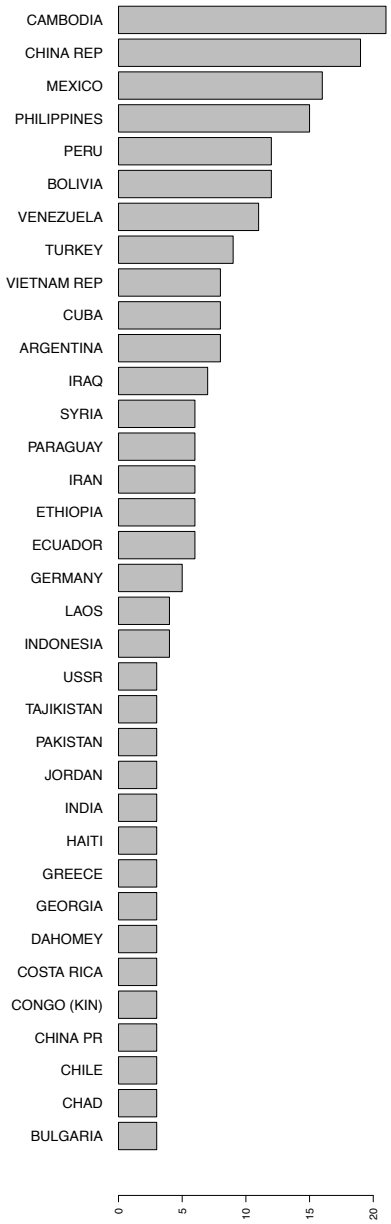


Figure 3.11: **Distribution of revolutions per country since 1945:** the figure reports the total number of revolutions per country in the dataset used from Banks (2008). Only countries with more than 2 revolutions are reported.

Blank and Null Voting's Predictive Power

In this section, I present different models that aim to predict political protest. All of them try to predict trouble by using the level of (and changes in) blank and null voting in the past. In some variations of them, I also account for the other key voting behavior: abstention. Indeed, I want to verify that levels of or changes in abstention are not more predictive than blank and null voting, nor do they exhaust the entire variation of future protests.

Furthermore, I include institutional features such as electoral rules and the number of parties running. The first institutional characteristic that matters in this context is whether the voting is compulsory (Uggla 2008). This feature deserves a longer discussion which, unfortunately, is outside of the scope of this specific paper. However, I should mention that I believe there are important empirical and theoretical differences between blank voting in compulsory voting systems and in non-compulsory ones. This theoretical difference has not been taken into consideration enough in the literature on blank voting, though it is discussed at length with regards to turnout (Lijphart 1997; Jackman and Miller 1995; Hirczy 1994). Indeed, many of the findings of the literature regarding the nature of blank and null voting are contradictory because of the different institutional contexts in which are drawn.[20] In voluntary voting systems the choice of walking all the way to the polling station and cast a blank vote on purpose is a much more meaningful (and costly) behavior than in compulsory voting systems, where voters have to face for some kind of punishment if they decide to stay home. For this reason, I claim that a blank vote under a non-compulsory system should be expected to signal a more resolute political message and as such carry more predictive power.

The electoral rules and the number of parties competing in a political system are also fundamentally important. Different types of electoral and party systems have different capacities for

[20]See for example Driscoll and Nelson (2014); McAllister and Makkai (1993); Power and Roberts (1995).

meeting the changing needs of a population. A proportional representation system (PR), in particular, both fosters higher number of parties (Bordignon et al. 2013) and allows for more sincere voting for smaller parties (Duverger 1963). Hence, PR systems are expected to offer more political options to the voters and, possibly, more ways to channel discontent. The literature has shown empirically that individuals in proportional systems are more satisfied with the political system (Aarts and Thomassen 2008). The decision to interact this institutional feature with the number of effective parties (ENEP)[21] is due to the idea that these two variables might reinforce each other.

I also add to some models a variable that identifies voting procedures that are more complex practically and might increase the likelihood of voters' mistakes, such as mixed member electoral systems (e.g., Germany) or Single Transferable Vote (e.g. Ireland).[22] A relationship between electoral institutions' complexity and blank and null voting has been found, for instance, in the case of the Australian Senate's elections, which uses a Single Transferable Vote system (STV) that seems to increase the probability of casting a blank ballot by mistake (McAllister and Makkai 1993).

Socioeconomic factors, such as the GDP per capita and rate of enrollment in tertiary education, are also included, to account for economic and cultural characteristics. Finally, I control for the level of democracy, identified by the Freedom House Score,[23] which goes from 1, the highest democratic score, to seven, the lowest. The variable used is the mean of the political rights' indicator and the civil liberties' indicator.

Using these variables I test the predictive power of blank and null voting through two different approaches. In the first one, I use a lagged variable – the value of blank and null voting from the previous election – to predict the number of protest events today and in the four years that follow.

[21] ENEP: $\frac{1}{v_i^2}$, and adjusted with the methods of bound as suggested by Taagepera (1997).

[22] Full list include: AV, Borda count, LV, MMM, MMP, STV, and BV.

[23] The Freedom house score is reported in the Institute for Democracy and Electoral Assistance (2013) data. The original can be found at: https://freedomhouse.org/.

I model the relationship with four different statistical models. I use a binomial model (logistic) to predict the onset of any revolution and then a *poisson* and negative binomial models for the count of demonstrations and riots. Furthermore, given the high number of zeros present in my data, partially due to the under-coverage of small countries, I run a zero-inflated count model, where I account for what might explain the inflated zeros.[24]

The results of all of these models, reported in full in table 5.16 in the appendix, are consistent and show that in non-compulsory voting systems higher levels of past blank and null voting correspond to higher numbers of protest events and to higher likelihood of witnessing a sudden overturn of government. In particular, an increase from the first quantile to the third quantile of blank and null voting in the previous election corresponds to a change from *circa* one demonstration to more than three demonstrations in the four years following the election.

In figure 3.12, I display the predicted probabilities for countries with high levels of blank voting and those with low levels of blank voting. Large countries with very high blank and null voting rates (>0.026, the third quantile of the distribution) in the previous elections have an almost 80% probability of witnessing a forced overturn of government. In figure 3.13, I show the same predicted probabilities, but as a function of the effective number of electoral parties (ENEP). In this case it is possible to notice the relationship between number of parties, protest voting, and public protest. On the one hand, it stands out that elections with high levels of blank and null voting all cluster between 1.5 and 2 electoral parties. On the other hand, higher number of parties seem to predict lower protest probabilities.

A second approach is to evaluate how changes in blank and null voting impact changes in the probability of observing protest events. To do this, I use a variable that corresponds to the change in *t-1* compared to previous years' elections. Even controlling for the current level of blank voting

[24]For the zero-inflated model I used a simpler model and an additive model with regard to compulsory voting. Results are reported in full in the appendix in table 5.18.

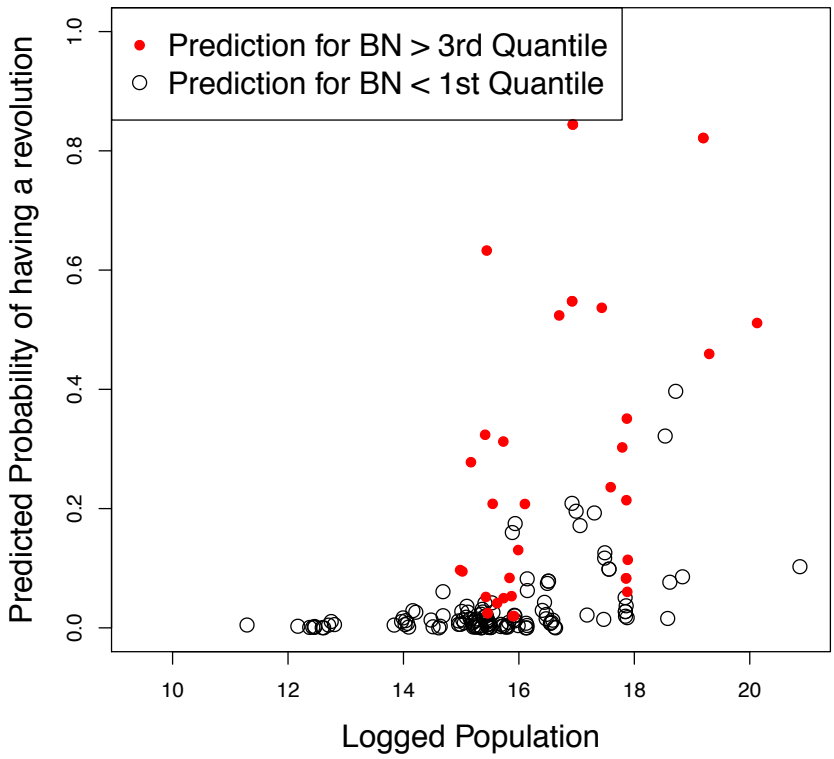


Figure 3.12: **Predicted probability of revolutions plotted against country's population:** this figure shows the predicted probabilities from the model in table 5.16 as a function of the country's population. The red (and full) points represent countries that in the previous election witnessed a very high level of blank and null voting ("BN"). The black (and empty) points represent, instead, those countries that registered a low "BN" vote rate in the previous election.

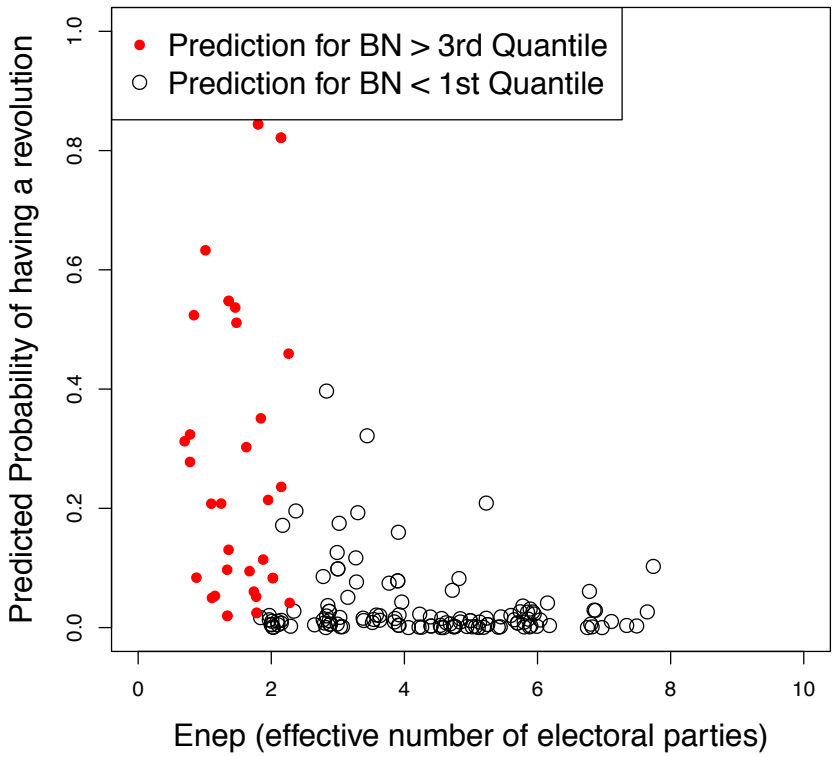


Figure 3.13: **Predicted probability of revolutions plotted against country's average ENEP(effective number of electoral parties):** this figure shows the predicted probabilities from the model in table 5.16 as a function of the country's average ENEP. The red (and full) points represent countries that in the previous election witnessed a very high level of blank and null voting ("BN"). The black (and empty) points represent, instead, those countries that registered a low "BN" vote rate in the previous election.

(reported in appendix in table 5.19), what seems to really matter is how anomalous the previous levels of blank and null voting were. This approach also confirms the positive relationship between an increase in blank and null voting in past elections and a higher number of protest events in the years following the current election. In other words, in line with the idea of the existence of a path of popular discontent from the ballot to the streets, increasing in blank and null voting tend to represent an early wave of discontent, a few years before the actual outbreak of larger protest. Abstention, once again, does not show the same characteristics. The coefficients of abstention in the various models deliver inconsistent evidence. Abstention seems to have either a non-significant relationship with future protests, or even a negative correlation. This is consistent with the claim that abstention is not an informative phenomenon even in its changes, which might be due to the very steady nature of the phenomenon.

Moreover, it is interesting to notice that in the specifications where I included the interaction between compulsory systems and lagged blank and null voting, the coefficient on this interaction has a negative sign and similar magnitude to the lower term of the blank and null voting variable. This seems to suggest that the predictive power of blank and null voting is only noticeable in non-compulsory systems. Finally, as expected, across all models, the change in GDP per capita growth appears to diminish significantly the likelihood of protest events. Similarly, the log of the population variable shows a systematically positive and significant correlation with protest events. This could be due to the fact that larger countries have more probability of political tension, but also to the possible under-coverage of smaller countries in *The New York Times*.

Cross-validation

As described by Ward et al. (2013), models used to forecast are rarely tested out-of-sample as they should be. Here I offer an example of that by using a simplified, cross-sectional version of the model. The dimensions of the dataset make it difficult to test a multi-level model with year and

country fixed effects, so I focus on a simpler model that includes a number of country covariates.[25]

$$
\begin{aligned}
y_{i,t1:4} &= \beta_0 + \beta_1 GDP_{it} + \beta_2 PR_{i,t} * ENEP_{i,t} + \beta_3 Edu_{i,t} + \\
&\quad \beta_4 ElType_{i,t} + \beta_5 pop_{i,t} + \beta_6 FH_{i,t} + \alpha_{5t} + \gamma_r && (3.1)\\
y_{i,t1:4} &= \kappa_1 BN_{i,t-1} + X_{i,t}\beta + \alpha_{5t} + \gamma_r && (3.2)\\
y_{i,t1:4} &= \kappa_2 Abs_{i,t-1} + X_{i,t}\beta + \alpha_{5t} + \gamma_r && (3.3)
\end{aligned}
$$

These models are similar to those used for the in-sample analysis. The dependent variable is either the count variable, the sum of all possible protest events, or the dummy variable for the onset of any revolution in those years. The models include the same type of variables, but with α_{5t}, a 5-year variable to capture time trend, instead of a year fixed effect. I also employ γ_r, region[26] fixed effects, instead of a country fixed effect. Furthermore, I subset the sample to only countries with non-compulsory systems. These models, when run on the entire sample, show a consistent and significant relationship between protests events and levels of blank and null voting (see appendix, table 5.20). Furthermore, I test these same specifications with a logit regression and using as dependent variable a dummy equal to one if any revolution in the 4 years after election had happened (see appendix table 5.20 for the results of these models on the entire sample).

To display the performance of the three different models, I used 27 different possible threshold of predicted probabilities (from 0.005 to 0.14) on 27 randomly selected training sets. In figure 3.14,each observation represents the performance of the model with a different thresholds.

[25]In equation 2 and 3, the set of variables $X_{i,t}$ are the same of equation 1: GDP_{it}, $PR_{i,t}$, $ENEP_{i,t}$,$Edu_{i,t}$,, $ElType_{i,t}$, $pop_{i,t}$, and $FH_{i,t}$.

[26]Geographical regions: Sub-Saharan Africa, South Asia, East Asia, South East Asia, Pacific Islands/Oceania, Middle East/North Africa, Latin America, Caribbean and non-Iberic America, Eastern Europe/post-Soviet states, and Western Europe.

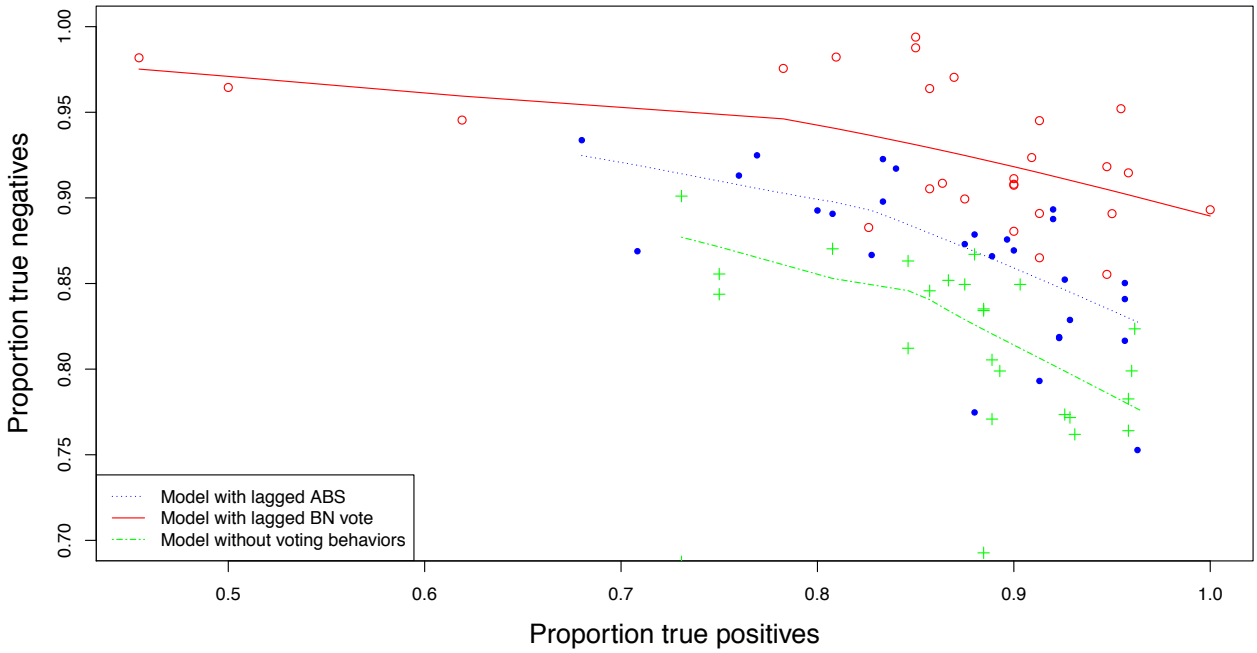


Figure 3.14: **Proportion of true positive predictions *versus* true negative ones:** each observation represents the performance of the model with a different thresholds. These thresholds consist of the values of predicted probabilities chosen to assign either a 1 or a zero to the revolution dummy variable. The lines are drawn with a non-parametric lowess smoothing (parameter=1). The red (and full) one refers to the model with only blank and null votes. This line is closer to the area where the ideal predictions would be located, which is the top-right corner.

These thresholds consist of the values of predicted probabilities chosen to assign either a 1 or a zero to the revolution dummy variable. In this figure the ideal prediction would fall in the top-right corner. The figure shows clearly that the model with only the lagged blank and null vote (in red) always performs better in predicting the maintenance of the status quo, and performs equally well in predicting revolutions (except in a few cases). The model with only blank and null voting tends to perform better in predicting revolutions (*true positive*) and equally or better in predicting no change (*true negative*). The model also systematically performs better with respect to *false negatives*, meaning that it misses fewer events than the other two models.

3.3 Conclusions

In this paper, I showed that blank and null voting correlates with more commonly used measures of perceived electoral quality and predicts larger political discontent. The blank and null voter phenomenon should, then, be seen as the tip of an iceberg: higher blank voting can be a sign of greater discontent among other groups of citizens and a predictor of future "trouble." I also showed that these findings are a logical consequence of the individual profile of blank and null voters as "moderate dissenters": educated, politically discontented, ideologically moderate, with the tendency to participate and protest.

What does this mean for our understanding of blank and null voting and other unconventional voting behaviors? Blank and null voting, as recorded in official electoral results, should be used as an additional measure of popular discontent; one that is cheaper and faster to collect than any expert opinions or population surveys. It is also a potentially more capillary measure, as it can be disaggregated all the way to the district level. In light of this, governments should consider including the option on the ballot in order to record it more cleanly, as is done in India, Colombia, and

Nevada; or at least allow the separate recognition of the blank vote, which is a less noisy measure of discontent, as in France and Italy.

What does this mean for our understanding of abstention? Media, politicians, and academics should focus less on abstention and also refrain from assigning too much value to the rate of voting abstention. The commonly accepted assumption that high levels of voting turnout are a seal of popular approval of the election, and that low levels would instead suggest high level of discontent, is challenged in this paper. There are a number of examples of high turnout that was due to political tension, from the 1933 German election to several elections in which minorities turn out to vote in mass because of some kind of perceived democratic threat, as in the case of Kashmir and the Muslim minority in the 2014 state elections. Similarly, the history of the United States and of Switzerland show that high abstention does not necessarily correspond to high discontent (Jackman 1987).

A systematic, empirical demonstration of the inconsistent message sent by levels of turnout, however, has been missing in the literature. This paper fills in this gap. I provide evidence not only that abstention is not a clear signal of discontent, confirming the idea that it is often driven by apathy and/or lack of information (Rosenthal and Sen 1973; Rosenstone and Hansen 1993; Uggla 2008), but that unconventional voting behaviors, such as blank and null voting, are much more informative.

Finally, what does this mean for our understanding of popular electoral discontent? This paper shows a new way to measure and track the expression of political discontent. I demonstrate the existence of an alternative path of protest that goes from the ballot to the street and that is more common that previously believe. Individuals who are involved in political protest have often participated in other forms of protest and this paper shows that blank and null voting is the early form of protest chosen by the moderate dissenters.

Chapter 4

Corruption and Trust in Institutions, Evidence from Israel

This chapter is a joint work with Noam Gidron (Government Department, Harvard University)

4.1 Introduction

High levels of trust in political institutions are associated with a bundle of positive outcomes such as high quality of government, increased social capital, effective democratic governance, civic and political participation, economic growth, and prosperity (Alvarez et al. 2008; Scholz and Lubell 1998; Nannestad 2008). While scholars mostly agree that trust is a vital pillar of a healthy democracy, its determinants and malleability remain disputed. The relationship between trust and democratic governance remains central to debates about democratic transition and consolidation. In addition, it has lately received renewed attention in response to recent waves of migration to Western societies and the consequent increased diversification of these societies (Dinesen 2012).

In studying this issue, scholars have struggled with disentangling the role played by the quality

of democratic institutions, on the one hand, and the cultural norms shaped by a legacy of corruption, on the other hand. Is political trust purely a function of the quality of local democratic institutions or is it determined by deeply-held cultural norms? In many cases these factors are intimately intertwined, as discussed below. Immigration provides one way to address this issue, since immigrants interact with institutions which often are not the same as those in which they have been politically socialized. Nonetheless, immigrants also pose a challenge for causal identification, since they tend to self-select into specific destinations based exactly on the quantity of interest, namely the trust in the economic and political institutions of the receiving country. Furthermore, the time lag between arrival and citizenship in the new country is often prolonged and is likely to influence interactions with local political institutions. The time spent as a “non-citizen" in the country may bias the perceptions of institutions, independently of the individuals’ political and cultural background.

In this paper we address the relationship between trust and political background, and overcome the identification challenge ingrained in the immigrant population by leveraging Israel’s unique immigration system, which grants Jewish immigrants citizenship upon arrival. As a result of Israel’s immigration regulation, Israeli citizenry is highly diverse compared to other OECD countries. Israeli immigrants come from a large variety of countries (i.e. Argentina, Ethiopia, Morocco, Poland, United States) with different levels of political corruption.[1] In 2010, 2,940,000 individuals who live in Israel were born in a different country. 94% of them are Jewish (Pew Research Center 2012) and, according to Israel Immigration Law, were granted citizenship almost immediately after their arrival.[2]

[1] According to the Pew Research Center (2012) the country with the highest shared of migrants to Israel are, in order of importance, Russia, Romania, Morocco, Ukraine, Poland, Iraq, United States, Ethiopia, Argentina, and Turkey.

[2] On the other end, until to 2012, only 330,000 Israelis born in the country left Israel, and of those only 69% were Jewish (Pew Research Center 2012). This shows that Israel tends to retain a large number of the Jewish population within its political community. The statistic about the outflow does not account for migrants that leave Israel, but it does account for any of the children of the first generation migrants who were born in Israel and left.

Israel is thus a unique case, in which individuals from diverse political backgrounds have direct access to citizenship based on their religious origins, and then interact with the same democratic institutions as full citizens almost immediately upon arrival.[3] These features of Israel's immigration system allow us to assume that Jewish migrants do not choose Israel as a destination primarily for its economic and political institutions, but to join a community that is religiously and culturally akin to them, or because *they can* achieve citizenship, which would be impossible anywhere else. In other words, while the choice to leave the country of origin might, in many cases, have political and economic causes, the specific choice of Israel is based on religious affiliation and opportunity and not on trust in institutions. Furthermore, due to Israel's continuous openness to (Jewish) immigration since the 1950s, there is a significant variation among foreign-born citizens in the time spent in Israel since naturalization, and in the age at which they arrived. Israel thus provides scholars with a unique laboratory for the study of political trust among citizens with diverse backgrounds.

Utilizing a variety of statistical models, we find that cultural legacies of corruption have a strong effect on initial levels of trust in political institutions among immigrants. This is especially so among immigrants who moved to Israel at an older age and have therefore been exposed to a corrupt environment for a longer period of time. However, foreign-born citizens adapt their attitudes and adopt higher level of trust the longer they are exposed to better quality institutions. We find that military service significantly correlates with higher levels of trust. We interpret this as evidence for the positive effect of inclusive political and social institutional experiences on political integration and trust. We thus conclude that time has an attenuating impact on initial low levels of trust and that institutions can actively facilitate higher levels of trust.

The paper proceeds as follows: section two locates our work in the existing academic debate

[3]For a similar design, see Fisman and Miguel (2007).

on this issue in political science, economics, and sociology. Section three provides contextual background regarding patterns of immigration to Israel. Sections four to seven describe the data and explain the research design. The empirical analysis in section eight analyzes variations in respondents' trust by country of origin. Section nine focuses on the role of institutional experiences (military service). The conclusions consider the scope conditions of our argument.

4.2 Theoretical Framework

This paper addresses two main questions: does a cultural legacy of corruption determine attitudes toward institutions, regardless of their quality? If trust in institutions is not completely stable over time, which factors may affect it? Scholarship in political science, sociology and economics provides mixed theoretical expectations and inconclusive empirical evidence with regard to whether and how individuals update their levels of trust and behavior. While some emphasize cultural factors, other scholars focus on the role of institutions (Dinesen 2012, 2013; Nannestad et al. 2014; Uslaner 2008).

The first approach stresses the long-term stickiness of cultural norms and the ways in which they are transmitted across generations. A foundational work in this regard is the classic "Making Democracy Work" by Putnam et al. (1993). Using a variety of factors that together form a social capital index, Putnam points to persistent differences between Southern and Northern Italy. This variation is explained by the long shadow of history: in those areas with free cities and a republican *ethos* during the middle ages, government performed significantly better in the late 20th century. However, Italian regions that were instead subjected to feudal, autocratic rule still suffered from lower social capital hundreds of years later.

More recent work has taken on the challenge of examining the causal effects and persistence of such cultural norms. Nunn and Wantchekon (2009) use geographic instrumental variables to argue

that the slave trade generated a culture of mistrust that persisted over a century after the slave trade ended. In the American context, Ludwig et al. (2008) use data from the Moving to Opportunity (MOT) housing program to show that moving from impoverished to more well-off neighborhoods has no direct effect on levels of generalized trust. Closely related, Fisman and Miguel (2007) show that even when stationed in the same city, "diplomats behave in a manner highly reminiscent of government officials in the home country" (p. 1045). Examining variations in policy preferences, Alesina and Fuchs-Schundeln (2008) use the reunification of Germany as a natural experiment and demonstrate the persistence of the Eastern socialist legacy in shaping support for redistribution. Luttmer and Singhal (2011) show strong correlations between immigrants' support for redistribution and the average support for redistribution in their country of origin. Furthermore, they argue that these legacies are transmitted across generations.

The inter-generational transmission of trust has received much attention as a key mechanism in explaining the persistence of cultural norms (Guiso et al. 2008; Algan and Cahuc 2010). Some scholars explain this mechanism by arguing that parents tend to transmit conservative priors of trust in order to protect their children from costly risks.[4] As summarized by Uslaner (2008): "where your grandparents came from shapes your values. Who you are seems to matter more than who your neighbors are" (p. 739).[5] This line of research points to the long shadow of the past in shaping – perhaps determining – patterns of political trust for a very long time and across generations.

The second perspective emphasizes how relatively short-term interactions with civic and governmental institutions may leave a deep imprint on trust levels. Arguments about the immediate effect of institutions on political trust are supported by research on the welfare state. Soss (1999), for instance, argues that experiences with welfare programs shape perceptions of trust in government: "as clients participate in welfare programs they learn lessons about how citizens and

[4]See also Tabellini (2008) and Guiso et al. (2006).

[5]For a similar point in the European context, see Guiso et al. (2000).

governments relate, and these lessons have political consequences beyond the domain of welfare agencies" (p. 363). In contrast, Rothstein and Uslaner (2005) argue that experiences with universal welfare programs can enhance political trust (p. 44). The literature on the determinants of political trust is, thus, caught within a constructive tension between arguments about long-term historical-cultural continuities, on the one hand, and more immediate responses to personal experiences with socio-political institutions, on the other hand. As noted by Algan and Cahuc (2010), scholars should combine "these different ideas by recognizing that a component of trust can be inherited, but that trust can also evolve over long periods" (p. 2062). In order to do so, we suggest a revised version of the lifetime learning model proposed by Mishler and Rose (2001). From this perspective, "an individual's current level of political trust is a weighted sum of the individual's lifetime political experiences" (p. 38).[6] First, we expect that the cultural legacy from the country of origin will be crucial in anchoring immigrants' trust in institutions, as claimed by the cultural approach. Otherwise put, immigrants from more corrupt countries characterized by lower levels of trust should also express lower levels of trust following immigration and vice versa. However, differently from the cultural perspective, we expect that differences between immigrants of different corruption backgrounds attenuate as the years pass. The longer immigrants are in their receiving country, the more they adapt their level of trust to the local norm. The tempo of this adaptation is expected to be shaped by a running tally of interactions with state institutions. Inclusive institutional experiences that promote integration with the local population and increase the sense of belonging to the receiving polity should hasten the process in which immigrants adapt their levels

[6]This model have been already used in the context of migration: Dinesen and colleagues shows that immigrants to Western Europe update their priors and adopt higher levels of trust following immigration (Nannestad et al. 2014; Dinesen 2013). However, these studies do not systematically account to variations in the country of origin, time passed since immigration and specific institutional experiences. For instance, Dinesen (2012) finds that Turkish immigrants in Western Europe express higher levels of generalized trust compared to the relatively low levels of trust found in Turkey. Comparing Jewish immigrants from Ukraine to Germany and Israel, Bagno (2006) also find that those who immigrated tended to have more democratic orientations compared to those who stayed in the Ukraine.

of trust in democratic institutions. Our formulation of the lifetime model produces the following hypotheses:

H1: Individuals from countries with more corrupt political institutions will express lower trust in democratic institutions following immigration.

H1a: The effect of the corruption in the country of origin would be stronger for those who immigrated at an older age, as they had more direct experience with corrupt political institutions.

H2: The more time spent in a destination country with higher quality of government, the more immigrants will adopt higher levels of trust.

H3: Interaction with inclusive institutions should facilitate increased levels of trust among immigrants.

4.3 Contextual Background

4.3.1 Immigration and Israeli Society

Our empirical analysis focuses on Israel, which is a well-suited laboratory for the study of trust among diverse citizens. Immigration has played a constitutive role in shaping Israel's national identity, demographic trajectory, cultural foundations, and political cleavages. Since its early days, Israel's doors were open to Jewish immigration from around the globe and its immigration balance is positive, meaning that it systematically receives more immigrants than it loses (DellaPergola

2013).

As codified in "The Law of Return" from 1950, the state confers upon every Jewish person and his or her spouse – as well as direct descendants of Jewish parents and grandparents – the right to immigrate and become an Israeli citizen. Newly naturalized citizens have played a crucial role in Israel's demographic growth. Throughout the years, Israeli governments have actively pursued pro-immigration policies, a principle forcefully expressed already in Israel's Declaration of Independence. From very early on, the "Ingathering of the Exiles" was defined as a keystone of the Zionist national project.

Immigration to Israel can be seen as a constant flow, in which one can observe specific waves distinguished by the historical context and immigrants' country of origins. Before the establishment of the state, since the first Zionist immigration wave of 1882 and until 1948, the Jewish population grew from 24,000 to 650,000 (Hacohen 2001, p. 178). The majority of the immigrants came from (mostly Eastern) European countries (Ashkenazi Jews). During 1948-1952, Israel's Jewish population more than doubled (Neuman 2005). In the first decade following Israel's foundation, around half of the Jewish immigration came from Muslim countries (Mizrahi-Sephardic Jews).[7] Following Israel's victory in the 1967 war, immigration increased once again from West European and Anglo-American countries and for a short time from the USSR, before the doors of the Soviet Republics were shut for Jews who wished to immigrate.

The late 1980s opened a new chapter in the history of immigration into Israel. Around 1988, members of the Ethiopian Jewish community began arriving in Israel. Around the same time, a new wave of immigrants from the former USSR was about to transform the Israeli demographic landscape. Following the *Glasnost* and the subsequent collapse of the Soviet Union, immigrants from the former USSR were suddenly able again to migrate into Israel. This development had an

[7] On tensions between Ashkenazi and Mizrahi Jews, see Mizrachi and Herzog (2012).

immense impact: "The arrival of about one million former Soviets between 1989 and 2000 was the single largest wave of immigration in Israel history and has redrawn the economic, social and political landscape of the country in multiple ways" (Remennick 2011, p. 1).

4.3.2 Immigration to Israel: What Drives It?

A key challenge in the study of attitudes among immigrants is that of self-selection. Without a clear understanding of who decides to immigrate and why, scholars are confounded in setting the scope-condition of their theories and findings. Two inter-related questions regarding self-selection are relevant for our study: self-selection into immigration (as opposed to non-immigration), and self-selection into immigration to Israel (as opposed to other countries).

Immigrants' coming to Israel from rich Western democracies are mostly motivated by deep ideological and religious sentiments. Immigration from Western Europe, North American and Australia was relatively low during the first 20 years after the establishment of Israel. Immigration of comparatively highly educated individuals from these countries increased after the 1967 war, for ideological, religious and economic reasons. It is worth noting that the educational component of self-selection into immigration among American Jews declined over time (Cohen 2009).

Immigration from the former USSR tends to follow more exogenous patterns, especially in historical moments of mass migration. The decision of the Russian authorities to suddenly allow Jewish immigration to Israel in 1989, after years in which it was strictly banned, opened a path for many to escape the bleak reality of the collapsing communist regime. Until this year, the few Jewish immigrants escaping from the USSR had two main destination countries: Israel, where they could naturalize through "The Law of Return," and the United States, where they were eligible for refugee status. Yet since 1989, the American government has no longer granted refugee status to this group, making Israel the main destination. This has severely decreased the chances of

self-selection into immigration to Israel, compared to other countries (Cohen and Haberfeld 2007; Cohen 2009).

4.3.3 Immigrants' Institutional Experience: Military Service

Among the various sites at which immigrants and the native population interact, military service holds a unique place in shaping processes of integration into Israeli society. Military service is mandatory in Israel for most Jewish men and women, usually at the age of 18.[8] While the period of time of the military service has changed over time, in recent decades it has mostly fluctuated around three years for men and two years for women.

Historically, facilitating social integration has been one of the key goals of the Israel Defense Forces (IDF). In the immediate post-independence years "the armed forces were based on universal conscription not because of any military merits of such a decision but because [...] the disadvantaged immigrant population had to be given a place in Israeli society" (Azarya and Kimmerling 1980, p. 459); in fact, some argue that the assimilation role of the military was given primacy over the social coherence and operational levels of fighting units (Azarya and Kimmerling 1980). Military service thus became a key site for assimilation and socialization of new, young mostly male immigrants, functioning "as an 'entrance ticket' into Israeli society" (Kislev 2014, p. 1460) and providing an opportunity for social mobility for disadvantaged groups (Levy 2003, p. 80). While this has changed over the years, military service has allowed for those who serve to accumulate social capital that could be later translated into social positions in other spheres (Levy 1998, p. 875). According to Azarya and Kimmerling (1980), the length of military service as a key variable in shaping patterns of integration: "the longer an immigrant serves, the more opportunities are opened to him" (p. 466).

[8] Arab citizens of Israel and Ultra-Orthodox Jews are exempt from military services , though some of them still choose to serve. See Levy (2003, 2008).

Qualitative research also suggests that military service provides younger immigrants with a sense of pride and belonging to Israeli society. As put by a 16 year old immigrant from Ethiopia, "As long as I live in this country, and the army defends us, I want to channel all my strength to the army [...] I want to be one of those people who help and contribute to my country. As long as I live here, I want to be equal, to serve in the army and then work and have a future with good options" (Goldblatt and Rosenblum 2007, pp. 600-601). These expectations are also reflected in accounts by immigrants-soldiers following their service. Based on 60 interviews with Israeli soldiers from a variety of backgrounds, Kachtan (2012) concludes that military service supplied immigrants with an "Israelification" experience, through which they "learned the prevailing norms, acquired representative symbols of "Israeliness," and encountered, sometimes for the first time, veteran Israelis" (153). In contrast, immigrants who did not serve in the military feel out of touch with social norms, as expressed in an interview conducted by Lomsky-Feder and Rapoport (2003): "We [Russian men] are different — I wasn't in the army so I don't know all that slang, all that military language" (p. 120).

In light of this evidence, we consider military service as an inclusive institutional experience, which should facilitate the integration of immigrants into Israel political community. A counter-argument may stress, instead, a material perspective: military service may serve as a channel for immigrants' economic mobility. Therefore, immigrants who serve in the military may have a better starting point in the labor market compared to non-serving immigrants. While we do not fully discard such an interpretation, we also point to its possible limitations. Scholars of Israeli society have shown before that military service contributes to economic stratification and consolidation of socioeconomic inequality, as new immigrants are often assigned to military units of lower prestige (Levy 2003, 2008). We therefore consider military service to be first and foremost the most intensive interaction with state institutions, rather than a jump-start for profitable career options.

4.4 Data

Our empirical analysis builds on two waves of the European Social Survey (ESS Round 5 2010; ESS Round 6 2012).[9] These are the only waves in which respondents who immigrated were asked about their country of origin[10] and precise year of migration. On average, in each wave there are around 750 respondents who were not born in Israel (table 5.22). The key dependent variable is trust in political institutions, captured by the following question: "please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust" (ESS1). The question was repeated in all the waves regarding several institutions. We focus on trust in the legal system since it is supposed to be the least biased by partisanship, discontent toward the ruling parties, or the general anti-party sentiment documented in these surveys. In some of the statistical analyses below, we use questions about generalized trust (trust in other people) in order to isolate the effect of our mechanisms on political trust and test whether our key independent variables also have a direct impact on generalized trust.[11]

Among the key explanatory variables is the level of corruption in the country of origin. For this, we use as a proxy the level of perceived corruption assigned by Transparency International to the country of arrival in 2011 (CPI 2011). We explain the validity of the assumptions underlying this choice in the section on corruption scores.

[9] However, the endogeneity test in the section of "what drives it?" includes all the available waves: (ESS Round 4 2008; ESS Round 3 2006; ESS Round 2 2004; ESS Round 4 2002).

[10] For the complete distribution of individuals by country of origin see appendix .

[11] For summary statistics see the appendix.

4.5 Corruption Index

Corruption in the country of origin is expected to be correlated with norms of trust: countries with high corruption usually also have low levels of generalized trust, and vice versa (Fisman and Miguel 2007). As a proxy for the level of corruption, we assigned to each individual the level of corruption perception that Transparency International attributes to the country of origin in 2011 (Trasparency International 2014).

One possible problem with our measurement of corruption is that respondents have migrated in very different historical periods and levels of corruption may have changed over time. Unfortunately, the earliest CPI score goes back only until 1995 and for a very limited sample of countries. Our analysis will be, hence, based on the assumption that levels of corruption are rather stable over the years. This means that we assume that highly corrupt countries in 2011 were also highly corrupt 20 or 50 years ago. On the other hand, the fact that some countries might have improved significantly should actually bias downward our results, since this country will be classified as "mid-low corruption" when, instead, it is highly corrupt at the moment of migration for the respondents.

We partially test our assumption by comparing 2011 corruption levels with the oldest scores available from 1995. The majority of countries witnessed only minor changes in levels of corruption. The correlation between the two is 0.93 and cases off the line tend to be countries whose score has increased (i.e. Brazil, Italy and Spain), with Argentina standing out as a clear outlier.[12]

In our analysis, we transform the corruption index to a binary variable of high and mid/low corruption level, based on whether they are above or below the median level of 2.9 (on a scale from 1 to 10).

[12]For a more detailed discussion see appendix.

4.6 Identification Strategies

Scholars often face difficulties in identifying the role played by political culture in shaping the expectations for, and relationship with, democratic institutions. Does lack of trust originate from deeply-held cultural norms or simply from the inefficiency of these institutions? In most cases, these two factors are endogenous to each other. Hence, it is usually very difficult to assess whether or not a culture of political corruption biases individual-level trust in democratic institutions.

Immigrants who move to a different country with different institutions offer a potential test of this. However, two issues make immigrants a problematic sample. First, migrants often self-select into a specific country based on the key variable of interest: their view of its economic and political institutions (see equation 4.1). Second, the interaction between migrants and the democratic institutions in the receiving country is often limited (or even negatively biased) due to lack of full citizenship among new-comers. Exclusive immigration policies may themselves erode political trust, regardless of quality of the democratic institutions (see equation 4.2).

$$(Immigr\,to\,Country_i \not\perp Trust_Country_i) \,|\, Migration\,decision \tag{4.1}$$

$$t_{arrival} \neq t_{citizenship} \tag{4.2}$$

The ideal experiment would consist of selecting of a random group of potential migrants from different countries and assigning them citizenship in one democratic country. In this paper, we claim and show that Israel's migratory experience mimics this experiment most closely.

In light of its unique naturalization laws, Israel provides a well-suited case that allows us to avoid the described pitfalls in research designs. Every Jewish individual - including their immediate relatives - can immigrate to Israel and gain citizenship. Under these conditions, self-selection into the receiving country (Israel) is based mostly on the opportunity offered by demographic fea-

tures (being Jewish) and/or the religiosity of the individual, and not on an economic or political evaluation of its institutions.

We note that there might be differences between migrants from high and low income countries. Individuals from richer countries may be more likely to immigrate to Israel purely for religious reasons. In this case, both the decision to leave the country of origin and the decision to choose Israel as a destination are based on religious and cultural factors. Instead, without belittling religious motivations among other immigrants, individuals from lower income countries might decide to abandon their home countries for economic or political reasons, but will choose Israel based on their Jewishness and their ability to naturalize immediately. Neither of the groups will, hence, choose Israel as the destination country because of features that are correlated to the perceived quality of Israel's political, legal and economic institutions.

In conclusion, we claim that, while the choice to migrate out of the home country may be related to the level of corruption and other political/economic factors in the country of origin, the choice to move *specifically* to Israel (instead of another country) is not, and is mainly due to religious and cultural reasons or opportunities. This second step in the immigration process can be seen as mostly exogenous to political and economic considerations. As a result, equation 4.1 becomes:

$$(Immigr\,to\,Israel \perp Trust\,Israel) \quad | \quad Jewish, Migration\,decision \tag{4.3}$$

We partially test this first assumption by pulling together all the waves (one to six) of the survey across the 37 countries available in the ESS survey and capturing the main determinants of the migrations to Israel across all migrants.

As can be noticed in table 4.1, the most important predictor of migration to Israel are Jewish heritage and the level of religiosity. The coefficients on education and occupation of the parents (at

age 14 of the respondent) are positive and significant but extremely small in magnitude. In other words, Israel tends to receive migrants whose parents are slightly more educated and with good employment conditions (in the country of origin)[13] compared to other countries. This once again is consistent with the idea that the migration to this country is less conditioned by economic factors and more by cultural choices.

[13]This refers to the majority of the respondent who migrate when they were older than 14. Unfortunately, since only in wave 5 and 6 the specific question of the age at migration was asked, it is not possible to completely limit my sample to only them.

Table 4.1: **Probability of moving to Israel for all immigrants in the sample (logit coefficients)**

	Dependent variable:
	Dummy: Migration to Israel
Religiosity	−0.007***
	(0.001)
Jewish	0.883***
	(0.011)
Jewish*Religiosity	0.010***
	(0.002)
Elderly Fam Com	0.010*
	(0.006)
Year Birth	−0.0001
	(0.0002)
Male	−0.008**
	(0.004)
Education Mother	−0.001
	(0.002)
Education Father	0.003*
	(0.002)
Mother Occupation	0.003*
	(0.002)
Father Occupation	0.005*
	(0.003)
Constant	0.189
	(0.316)
Corr Level Fixed Effect	Yes
Survey Round Fixed Effect	Yes
Design Weights	Yes
Observations	3,169
Note:	*p<0.1; **p<0.05; ***p<0.01

Another possible concern with the identification strategy is that, although independent to the perception of Israel's institutions, the choice of migrating to Israel among Jewish immigrants might be driven by economic and educational features of the individuals. These characteristics might influence the attitude toward the institutions. In other words, readers might worry that Jewish immigrants, especially when coming from lower income (and high corruption) countries, will select themselves into Israel only if they cannot access wealthier countries. This would mean that we would observe a systematic pattern of migration: Jewish immigrants from low income countries, with lower skills, and less education will go to Israel, while those with higher skills and higher education will go to other Western countries.

It is difficult to test this source of endogeneity fully, because of all the Jewish migrants in the survey, 97.5% moved to Israel, leaving only 71 respondents who chose a different destination as a comparison group. When conditioning on being Jewish and running a joint significance test of the parents occupations and education and individual's religiosity, we obtain a p-value of 0.4, too large to be able to reject the null hypothesis of no joint significance. Hence, among Jewish people there seems not to be a particularly strong self-selection to Israel of less skilled and educated individuals.

One last concern about our identification strategy might be the fact that the experience of belonging to the Jewish minority might be different in different countries. Indeed, countries with low quality of governance might also be countries with more discrimination. However, this does not represent an issue for our empirical approach but is simply part of the "treatment." It is out of the scope of this paper to identify exactly what is the mechanism that creates in a country the level of trust that the migrants then carry to the new country. We are interested in how this attitude changes after migration. Anyway, to ensure the reader we present analyses done within level of corruption and avoid any worry about this.

Lastly, the fact that Israel allows for immediate naturalization of Jewish immigrants and their

close relatives turns equation 4.2 into:

$$(t_{arrival} = t_{citizenship}) \mid Jewish, Immigr\ to\ Israel \tag{4.4}$$

This limits the period spent in the country as a non-citizen, with the potential socio-political discrimination that comes with that status.

A different challenge, instead, is examining interactions between individuals from different corruption backgrounds and institutions in the receiving country. We exploit the mandatory military service in Israel in order to avoid as much as possible problems of endogeneity. Before 2001, there existed a clear age cut-off (age of 22) after which newly-naturalized immigrants were automatically put on reserve. We combine this clear cut-off with the mass immigration wave from the USSR in 1989 and 1990. We assume that people coming from soviet countries in that historical moment were spurred by the newly acquired freedom of movement.

Unfortunately, the sample size around the cut-off does not allow for a pure regression discontinuity design, which would require us to estimate a local average treatment effect for those individuals migrating around the age of 22 during this immigration wave only. Instead, we try to mimic this approach by tackling the endogeneity from different directions. First, we check the impact around the threshold for everyone within the same level of corruption; then, we do the same for the "exogenous" wave and for individuals coming from the USSR, but we enlarge the sample to all individuals of all ages.

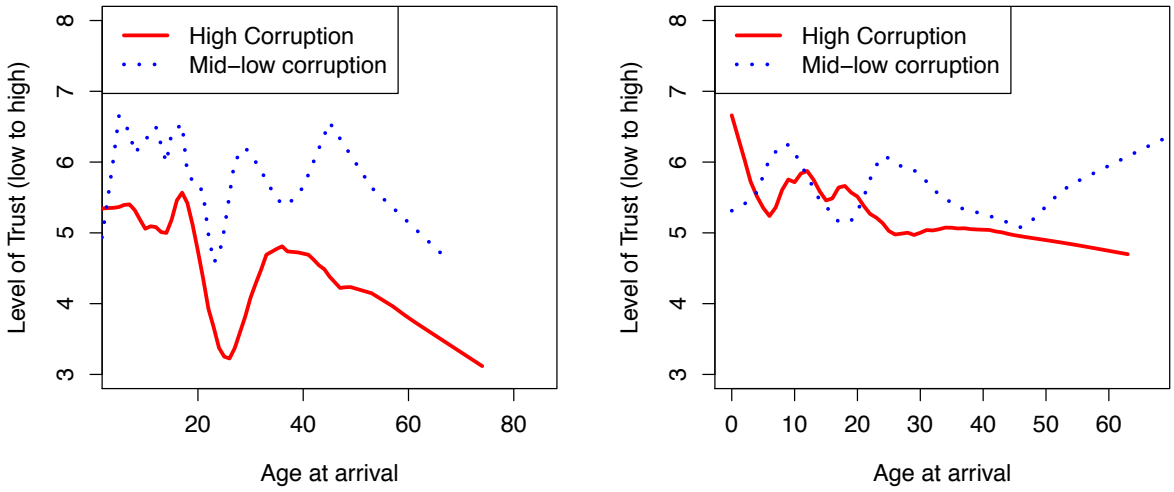
4.7 Corruption and Trust in Institutions: Analysis

4.7.1 Non-parametric Approach

We begin by exploring our hypotheses with a non-parametric (*lowess* with smoothing of .3) test. Figure 4.1, panel *a*, shows that among recent immigrants (10 years or less), those who came from high-corruption countries express lower levels of trust than those who came from countries with mid-low corruption. The difference between the two groups is larger for individuals that immigrated between the ages of 20 and 60 and minimal for those who were very young at migration. In contrast, degrees of trust among immigrants who have been living in Israel for a long time (more then 30 years) are very similar across all ages – very small or no difference – regardless of the country of origin (figure 4.1, panel *b*). This suggests that immigrants from different countries converge on a similar level of trust, as immigrants from high-corruption countries adopt higher levels trust (notice the upward shift of the red line in figure 4.1, panel *b*.

The plots in figure 4.2 offer a different perspective for investigating the same relationship. In these plots, the age of arrival is fixed to more than 10 years old in the first row, and to younger than 10 in the second row. They demonstrate that the level of trust changes with the years spent in Israel, conditional on not being a child at the time of migration. Yet this relationship exists only for individuals who migrate from highly corrupt countries. Individuals migrating from mid or low corruption political contexts appear to maintain a constant level of trust across time. Instead, as shown in plot figure 4.2 panel *b*, those who immigrated at a young age from corrupt countries do not seem to be distinguishable in their trust patterns from other migrants. These findings suggest that indeed mistrust is built on individuals' immediate experiences with corrupt institutions in the sending countries more than inter-generation transmission. To put it differently, there is no evidence of a systematic passing of the political bias from the parents to the children.

With these non-parametric comparisons we gather evidence to support the hypotheses of the initial impact of the country of origin (H1), the attenuation of its effect over time (H2) and the role played by age at migration (H1a). We further test these hypotheses with parametric models.[14]

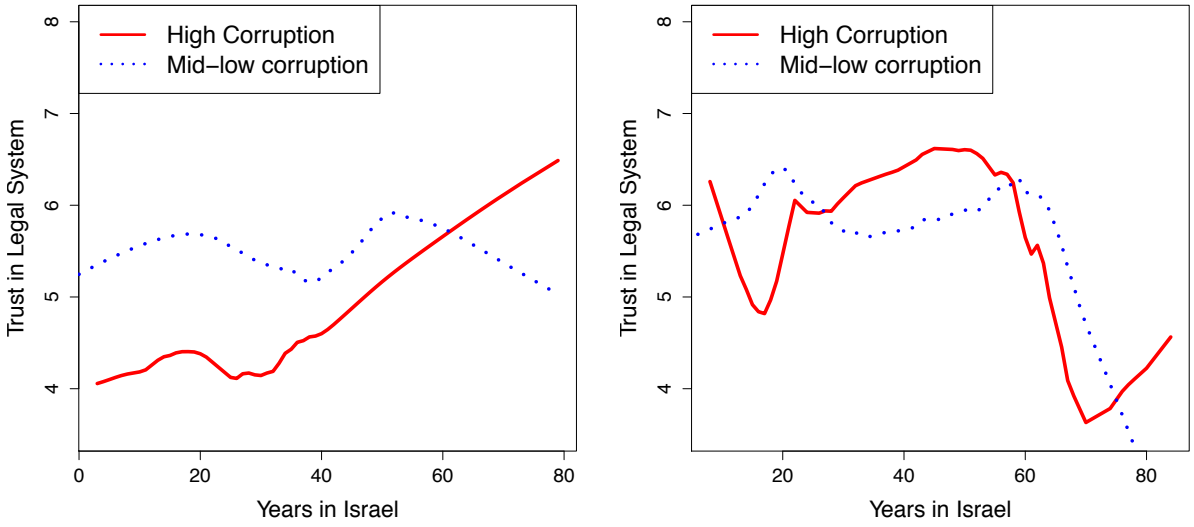


(a) Recent Arrival (< 10 years ago)

(b) Early Arrival (> 30 years ago)

Figure 4.1: **Arrival, age at migration, and change in trust (I):** panels *a* and *b* show that people coming from high corruption countries are identified with the red color, while people coming from mid-low corruption cultural backgrounds are identified with the blue. These figures test whether or not the age makes a difference. Note: Non-parametric lines from a lowess with smoothing factor of .3 and unweighted data.

[14]See appendix "Comparison with Israelis" for a comparison with natives' trust level.



(a) Trust for **Non-child at migr**

(b) Trust for **Children at migr**

Figure 4.2: **Arrival, age at migration, and change in trust (II):** In panel *a* and *b* we compare the trend of trust toward the legal system as a function of the time spent in the country for individuals older than 10 at the moment of migrations and for those who were children upon migration. Note: Non-parametric lines from a lowess with smoothing factor of .3 and non-weighted data.

4.7.2 Parametric Approach

Parametric approaches allow us to control for other important factors that might account for the decision to leave the country of origins: religiosity, gender, level of education of the father (as a proxy of family education), and ethnicity. They also permit us to account for the survey wave using fixed effects.

We begin by testing the relationship between years spent in Israel and trust in institutions for non-child migrants. The results are presented in the table 4.2, which show clearly that there is a strong positive relationship between trust in the legal system and years spent in Israel, but only for those individuals coming from corrupt political backgrounds. In addition, in this table we show that the increase in trust is about institutions (i.e., legal system and parliament) and not about a simple change of attitude toward human relations. By using "trust in people" as an alternative dependent variable, we show that there is no significant relationship between the time spent in Israel and levels of generalized trust.

Similarly to figure 4.1 and table 4.3 tests the non-linear relationship of trust and age upon arrival. We take those individuals who immigrated from high corruption countries and run the regressions separately on three different age groups. Individuals who were children at the moment of migration (column 1) do not seem to change their attitudes toward institutions as a function of the time spent in Israel . The entire relationship seems to be driven by the youngsters and adults (column 2). This analysis also suggests that migrants who were older than 45 at migration might be irreversibly influenced by the corruption of the sending country. However, this last claim is based on a very small sample and hence less reliable.

Finally, we subset the sample into high corruption and medium/low corruption countries of origins, looking only at Jewish individuals (almost 90% of the sample). We interact the years since arrival to Israel with a dichotomous variable that indicates whether the individual was older than

10 upon migration. We also add in this specification a few "pre-migration" controls that might partially account for variation in the choice to migrate to Israel and add a control for the "trust in people," which once again is a possible mediating factor that we want to exclude. The results are presented in table 4.4.

As a robustness check, we test whether the relationship between trust and years spent in Israel could be simply due to a "cohort" effect, due to the period of arrival. We found strong evidence that it is not, and that two additional years in Israel increase the trust in institutions for individuals who came to Israel at the same time. This analysis is reported in full in the appendix entitled "Assimilation, Not a Cohort Effect."

Table 4.2: **Simple relationship between trust and years spent in Israel for individuals older than 10 at the moment of migration**

	Dependent variable:					
	High Corruption			*Medium/low Corruption*		
	Trust Legal Syt	Trust Parl	Trust People	Trust Legal Syt	Trust Parl	Trust People
years in Israel	0.018***	0.028***	−0.003	0.002	0.013*	−0.015***
	(0.007)	(0.008)	(0.006)	(0.006)	(0.007)	(0.005)
Constant	3.155***	4.066***	5.292***	3.929***	5.025***	6.212***
	(0.203)	(0.234)	(0.196)	(0.274)	(0.300)	(0.241)
Observations	495	488	481	438	446	416
R^2	0.014	0.027	0.001	0.0002	0.008	0.019
Adjusted R^2	0.012	0.025	−0.002	−0.002	0.006	0.016
Design Weights	yes	yes	yes	yes	yes	yes
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 4.3: **Relationship between trust and years in Israel, based on the age of migration (only individuals from high corruption countries of origin)**

	Dependent variable:		
	Trust Legal System		
	(1)	(2)	(3)
years in Israel (for child at migr)	0.002		
	(0.009)		
years in Israel (for age 10-45)		0.030***	
		(0.008)	
years in Israel (for age >45)			−0.120**
			(0.053)
Constant	5.389***	4.024***	6.441***
	(0.389)	(0.268)	(0.913)
Design Weights	yes	yes	yes
Observations	218	394	87
R^2	0.0003	0.033	0.057
Adjusted R^2	−0.004	0.030	0.046
Note:		*p<0.1; **p<0.05; ***p<0.01	

Table 4.4: **Relationship between trust, age of migration, and years in Israel, models with or without country fixed effects**

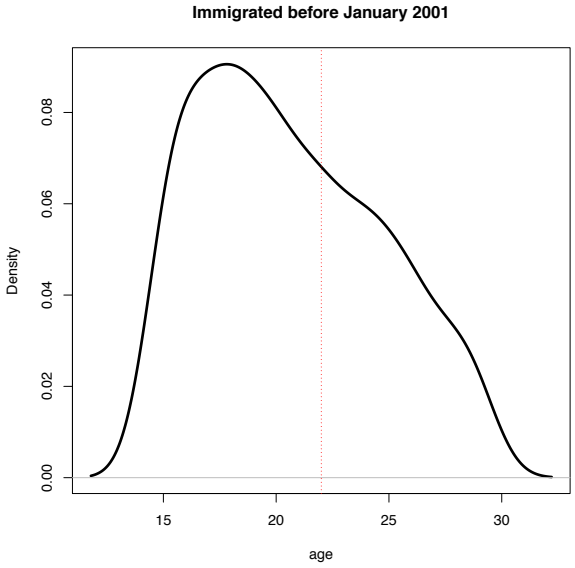
	Dependent variable:			
	Trust in Legal System			
	High Corr	Mid/low Corr	High Corr	Mid/low Corr
Older than 10 at migr	**−1.331****	−0.302	**−1.538*****	−0.677
	(0.536)	(0.742)	(0.562)	(0.802)
Years in Israel	0.006	0.004	−0.027*	−0.007
	(0.011)	(0.013)	(0.014)	(0.015)
> 10 at migr.*Years in Israel	**0.031****	0.005	**0.035****	0.013
	(0.013)	(0.015)	(0.014)	(0.016)
Trust in people	0.302***	0.237***	0.306***	0.249***
	(0.051)	(0.054)	(0.052)	(0.057)
Male	−0.626**	0.022	−0.558**	0.061
	(0.245)	(0.249)	(0.250)	(0.262)
Education Father	−0.031	−0.075	−0.053	−0.035
	(0.053)	(0.055)	(0.061)	(0.062)
Religiosity	−0.029	−0.094**	−0.059	−0.112**
	(0.041)	(0.037)	(0.045)	(0.044)
Constant	3.927***	4.840***	4.529***	9.240***
	(0.626)	(0.767)	(0.845)	(2.912)
Survey wave FE	Yes	Yes	Yes	Yes
Design weights	Yes	Yes	Yes	Yes
Jewish only	Yes	Yes	Yes	Yes
Country of origin FE	No	No	Yes	Yes
Observations	487	501	487	501
R^2	0.125	0.054	0.169	0.127
Adjusted R^2	0.111	0.038	0.114	0.026
Note:				*p<0.1; **p<0.05; ***p<0.01

4.8 Analyzing the Mechanism: the Military Service

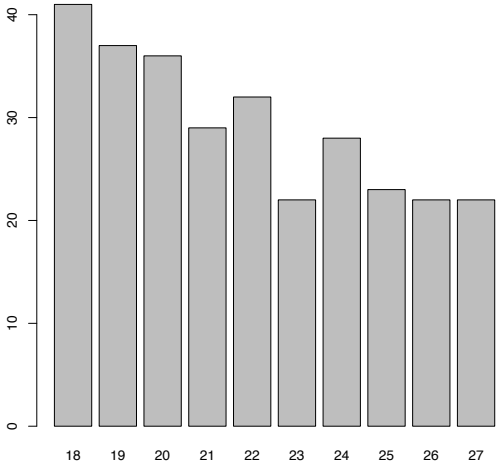
After examining the relationship between time spent in Israel, age of migration, and levels of corruption in the country of origin, we turn to investigate the mechanism at work. The literature leads us to expect that interactions with inclusive political institutions may facilitate the adoption of higher levels of trust. However, involvement with state institutions is often highly endogenous to individuals' particular background. For this reason we focus on military service, which is mandatory in Israel for both (Jewish) men and women.[15]

Until January 2001, migrants who moved to Israel at the ages of 22 or younger have most likely served in the IDF, while those who were older when immigrating were most likely exempt from active service. This poses an endogeneity problem of self-selection: families might decide to postpone moving to Israel until the children are exempt from the military service (or vice versa). As shown in figure 4.3, after 2001 there is a clear division between those who immigrated at the age of 18 (the age at which most Israelis go to the military service) and those who waited until they are 26 (the age after which they did not have to serve). This suggests that some self-selection by age was indeed at work. However, we do not find anything of that sort before then, as figure 4.3 panel *a* and *b* indicate.

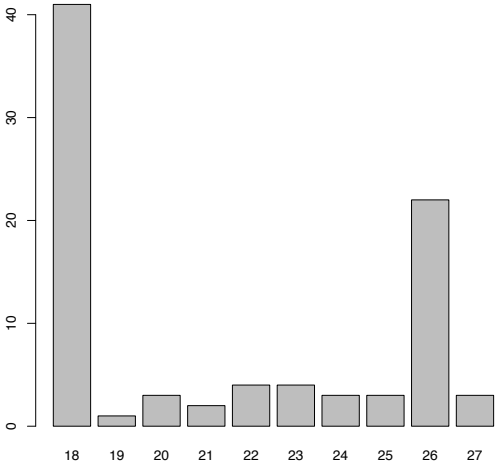
[15]For exceptions, see the previous section on the military service.



(a) Before January 2001



(b) Before January 2001 (in detail)



(c) After January 2001 (in detail)

Figure 4.3: **Distribution of age at migration around the military age cutoff year of 22:** Distribution around the 22 years old threshold for the entire dataset. There are no clear signs of self selection around the threshold.

The fact that we seem to observe much less selection bias in the earlier period is likely to be due to the unique character of much of the immigration from the former USSR and Ethiopia during the late 1980s and early 1990s, as immigrants took advantage of new opportunities to migrate, in some cases escaping countries with bleak standards of living. We therefore decided as a first step to limit the analysis to pre-2001 migration. Ideally we would only focus on immigration from the former USSR in 1989, where exogenous historical factors played a significant role, and on 19-24 year-old respondents. Unfortunately, only a minuscule sample fits both features. This forces us to apply separately the two approaches: fixing the age around the cut-off and using the "exogenous" wave.

As a first attempt we limit the sample to individuals around the threshold who migrated between the ages of 19 and 24 (see table 4.5). We control for individual-level features that may account for self-selection into (or out of) military service, such as the level of education in the family (father as proxy), gender, and religiosity. We include survey fixed effects to account for possible time trends in public opinion, already discussed in the previous section.

Table 4.5: **Analysis of impact of military service (fixing the age of arrival)**

	Dependent variable: Trust Legal Syst.		
Variables	Within Corruption Model	Before 2001	After 2001
cut-off (>=22)	**−0.804***	**−0.986***	1.0421
	(0.480)	(0.436)	(1.283)
Trust in people	0.267**		
	(0.109)		
Male	−0.267		
	(0.491)		
Education of the Father	−0.261**		
	(0.102)		
Religiosity	−0.034		
	(0.074)		
Medium Corruption	0.010		
	(0.616)		
Low Corruption Countries	0.235		
	(0.676)		
Survey wave 6 (2012)	0.369		
	(0.485)		
Constant	5.427***	5.859***	2.726*
	(0.986)	(0.297)	(0.938)
Design Weight	Yes	Yes	Yes
Observations	131	174	12
R^2	0.116	0.028	0.052
Adjusted R^2	0.058	0.023	-0.027
Note:	*p<0.1; **p<0.05; ***p<0.01		

Non-participation in military service appears to have a lasting negative effect on trust of almost one unit of the scale used in the survey (see table 4.5). The effect holds regardless of how long individuals have lived in Israel after migration. In other words, individuals who migrated around the age of 22 from countries with similar levels of corruption appear to be less trustful of legal institutions if they did not serve in the military. This empirical strategy allows us to make conservative claims about the difference between those who definitely did not join the military and those who were at the draft age. We assume that the majority of those who were younger than 22 upon migration served in the military; however, a few of them might have been placed on reserve because of personal conditions such as marriage status or health problems. Hence, our estimates probably underestimate the impact of military service on trust in institutions.

In order to devise an even more restrictive test, we limit the sample to the migration wave of 1989-1990, for which self-selection is expected to be minimal (as discussed above). The results reported in table 4.6 (column 1) are consistent with the argument that lack of military service has negative lasting implications for trust among immigrants from former Soviet Republics. The potential impact seems to be of around two units on the trust scale. The comparison with column 2 of the same table, which is a placebo test using a different yet substantively-meaningless cut-off, is also interesting. As expected, the same interaction with a placebo cut-off at the age of 35 displays no significant effect. Finally, looking at all individuals coming from high-corruption countries in column 4, the correlation becomes even stronger. This suggests the existence of a possible heterogeneous impact of military service on trust, based on levels of corruption of the sending country.[16]

[16]For a direct analysis of the self-selection mechanism see the appendix "Investigating the Self-selection."

Table 4.6: **Analysis of impact of military service (fixing the wave of migration)**

	Dependent variable:			
	Trust Legal Syst			Trust in People
	(1)	(2)	(3)	(4)
cut-off (>=22)	1.549			2.502*
	(1.613)			(1.377)
cut-off (>= 35)		−1.069		
		(3.774)		
Ex USSR	−0.090	−1.365		−0.106
	(0.983)	(0.835)		(0.854)
High Corr			0.782	
			(1.256)	
People Trust	0.307**	0.290**	0.322***	
	(0.120)	(0.120)	(0.120)	
Years in Israel	0.135	0.188	0.110	−0.112
	(0.242)	(0.258)	(0.244)	(0.208)
cut-off (>= 22)*Ex USSR	−3.049*			−1.742
	(1.706)			(1.469)
cut-off (>= 35)* Ex USSR		0.365		
		(3.831)		
cut-off (>= 22)*High Corr			−2.547	
			(1.606, p.v.:0.11)	
Constant	1.084	0.563	0.806	7.588*
	(5.177)	(5.536)	(5.285)	(4.386)
Observations	96	96	96	99
R^2	0.167	0.171	0.153	0.058
Adjusted R^2	0.121	0.125	0.106	0.018
Note:				*p<0.1; **p<0.05; ***p<0.01

4.9 Conclusions

This paper sheds new light on the important question of whether and how legacies of political culture affect individuals' perception of political institutions. We find that immigrants from highly corrupt countries express low levels of trust upon arrival, but also that this effect is attenuated with time spent in the receiving country. In addition, interactions with inclusive institutions can facilitate the adaptation to higher norms of trust. In contrast, we find no evidence for inter-generational transmission of cultural biases toward institutions. Furthermore, individuals who migrate as children seem to all hold similar attitudes, regardless of where they came from.

The most direct implication of these findings is that political culture can be less sticky than the existing work on the topic suggests. The country of origin sets the starting point for trust in government, but determines neither the end-point nor the pace at which immigrants update their levels of trust. Instead, governments can try to facilitate the integration of newly-naturalized citizens from countries with low quality of governance by encouraging experiences within inclusive institutions. Our results support the claim that public policy and institutional design can play a role in the integration of minorities, including disadvantaged immigrants from non-democratic countries.

For future research, there is a place to consider whether and how the eligibility of immigrants for immediate naturalization – a unique feature of Jewish immigration to Israel – affects levels of trust. Do similar variations in trust by age of migration, country of origin, and institutional experiences appear also when examining levels of trust among non-citizen migrants and asylum seekers? And how can different governmental institutions – such as welfare or education programs – have a similar integrative effect to that of compulsory military service? Examining these questions should be high on the agenda of scholars who are interested in the diversifying nature of Western societies.

5: Appendixes

5.1 List of Statistical Packages and Software

Statistical packages used in R Cran (http://cran.r-project.org/) for the analysis:

- Hlavac (2013)
- Imai et al. (2009)
- Jackman (2015)
- Dimmery (2013)
- Højsgaard et al. (2012)
- Dahl (2009)
- Croissant et al. (2008)

The other statistical software used for the analysis is STATA (http://www.stata.com/).

5.2 Appendix for Chapter 2

Data sources for Chapter 2:

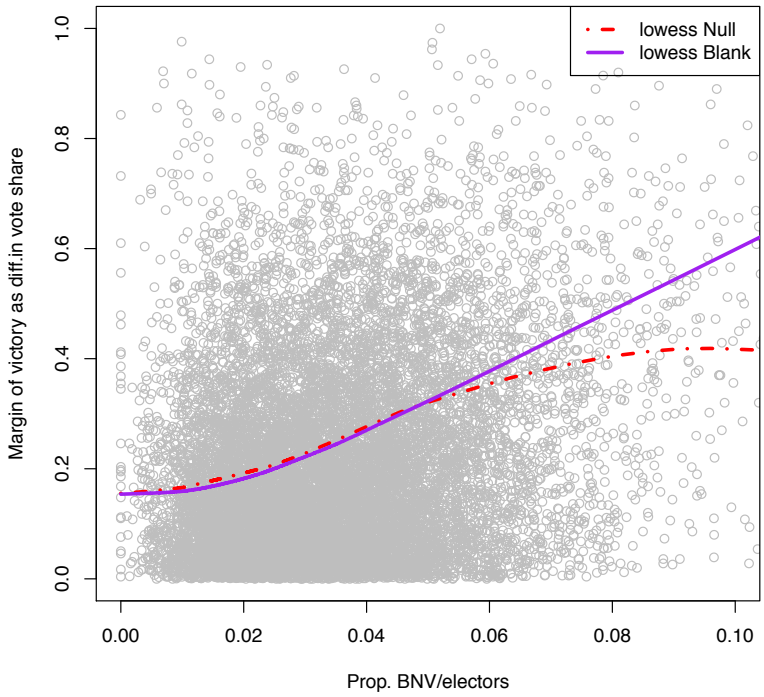
- Instituto Vasco de Estadística (EUSTAT) (2013)
- Bordignon et al. (2013)
- Website of Italian Ministry of Interior (2014)
- Website of Italian Ministry of Interior (2013)
- Ministerio del Interior España (2013)
- Italian Bureau of Statistics (2014)
- Website of Ministry of Education, University and Research (2014).

Appendix 1: Summary Statistics Basque Country Analysis

Table 5.1: **Summary Statistics of the variables used in the models (250 municipalities and 1000 elections)**

Variable Name	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
Dependent Variables							
Blank and Null Vote	0.00	0.01	0.02	0.05	0.04	0.76	167
Null vote	0.00	0.00	0.01	0.04	0.03	0.76	167
Blank Vote	0.00	0.01	0.01	0.01	0.01	0.05	167
Abstention	0.12	0.28	0.35	0.38	0.45	0.98	167
Control Variables							
Euskara Lit Prop	0.01	0.22	0.43	0.41	0.56	0.95	167
Mobilization*Euskara Lit Prop	0.00	0.00	0.10	0.23	0.48	0.89	167
Num Parties	1	7	9	9.97	13	21	167
Competition Level	0.00	0.18	0.26	0.26	0.34	0.55	167
High Edu Prop	0.00	0.05	0.07	0.07	0.09	0.28	167
Agr (GAV)	0.00	0.00	0.00	0.02	0.01	0.57	167
Unemployed Prop	0.00	0.02	0.03	0.03	0.04	0.09	170
Population	78	506	1,399	8,389	5,672	369,800	167

Appendix 2: Blank vote and Competitiveness

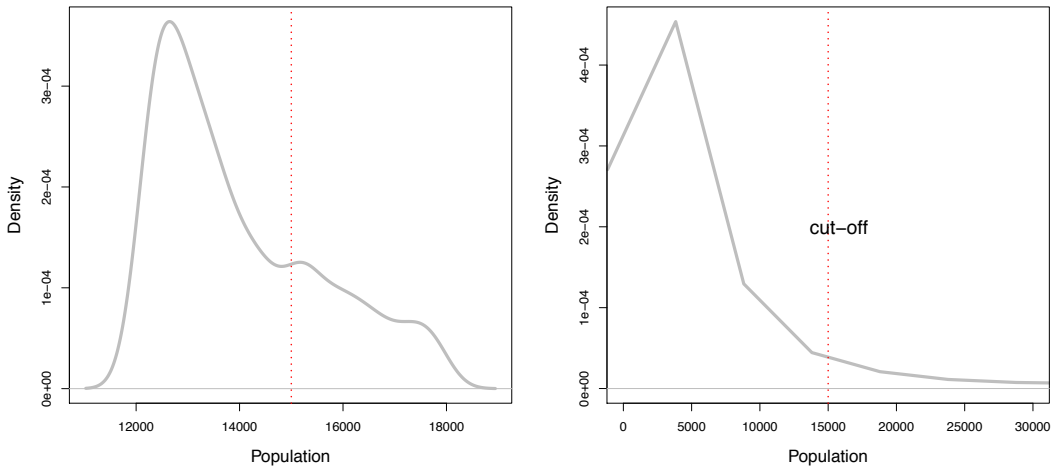


(a) Margin of Victory

Figure 5.1: **Competitiveness and blank and null voting**

Figure 5.1 displays the relationship between level of competitiveness in the mayoral race and blank and null voting. Competitiveness is defined as the margin of victory of the winner over the first loser.

Appendix 3: Robustness Check on Italian RDD Analysis



(a) (b)

Figure 5.2: **Distribution of the population around the cut-off of 15,000 and zooming in on the entire distribution**

Appendix 4: Mobilization and Euskara Speakers

Table 5.2 shows the interaction between mobilization and Euskara speaker. The null vote appears to increase after the ban as a function of the potential support of the Basque nationalistic cause.

How do we know that the discontent was mobilized? To tackle this question, I check for the impact of the mobilization – interacted with proportions of potential discontented voters – on abstention, another possible form of dissent. It can be noticed that in the case of abstention I do not observe a peak after the ban, but a decrease. The third column of table 5.2 shows clearly that abstention decreases after the ban as a function of the proportion of *Euskara* speakers. The finding of this unexpected trend in the case of abstention can be interpreted as evidence of a successful null vote mobilization. The discontent was fully channeled by the mobilization effort that might have stimulated also citizens who usually stay home and abstain from voting to, instead, go to the polls and cast a blank or null vote.

Table 5.2: **Ban, Null vote mobilization, and Euskara: results of three different models**

Dependent variable:	Null Vote	Blank Vote	Abs	Null Vote
Mobilization year	0.008	−0.003**	−0.097***	0.059***
	(0.011)	(0.001)	(0.017)	(0.013)
Lit Euskara prop	−0.044*	0.003	0.102***	
	(0.026)	(0.003)	(0.038)	
Illit Euskara prop	3.818**	−0.036	8.210***	
	(1.791)	(0.206)	(2.673)	
Vote for *Batasuna* 1999				68.578
				(199.152)
Num Candidates	0.006***	0.0004***	−0.007***	0.005***
	(0.001)	(0.0002)	(0.002)	(0.001)
Competition level	0.091**	−0.018***	−0.389***	0.013
	(0.038)	(0.004)	(0.057)	(0.031)
High Educ Prop	−0.155	−0.001	1.306***	−0.161
	(0.208)	(0.024)	(0.311)	(0.295)
Agriculture Prop	−0.0001	0.0002***	−0.006***	0.0004
	(0.001)	(0.0001)	(0.001)	(0.001)
Unemployed prop	−0.258	−0.029	−3.903***	
	(0.263)	(0.030)	(0.392)	
Population	0.00000	−0.00000**	0.00000	0.00000
	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Lit Euskara * Mobilization	0.237***	−0.003	−0.077***	
	(0.019)	(0.002)	(0.029)	
Illit Euskara * Mobilization	0.457	0.034	−0.258	
	(0.356)	(0.041)	(0.531)	
Vote Batasuna '99 * Mobilization				0.523***
				(0.053)
High Edu * Mobilization				−0.071
				(0.151)
High Edu *Vote Batasuna '99				−0.629
				(1.155)
High Edu * Vote B.'99 * Mobilization				−1.894**
				(0.749)
Municipality individual trends	Yes	Yes	Yes	Yes
Municipality dummies	Yes	Yes	Yes	Yes
Observations	859	859	859	863
Note:				*p<0.1; **p<0.05; ***p<0.01

Appendix 5: Education and the Basks' Voting Behavior

Table 5.3: **Abstention in the Basque Country 1996-2008, 2004 mobilization year**

	Dependent variable:			
	Abstention			
	1996	2000	2004	2008
High Edu prop	−0.586***	−1.820***	−0.899***	−0.902***
	(0.203)	(0.233)	(0.139)	(0.158)
Lit Euskara prop	0.069**	0.357***	0.292***	0.439***
	(0.027)	(0.040)	(0.031)	(0.043)
Illit Euskara prop	0.098	0.725	0.478	0.781
	(0.424)	(0.649)	(0.536)	(0.686)
Num Candidates	0.002	−0.010***	−0.007***	−0.010***
	(0.003)	(0.002)	(0.003)	(0.002)
Competition Lev	−0.00001	−0.00003**	−0.00003	0.00000
	(0.00001)	(0.00002)	(0.00002)	(0.00001)
Unemployed Prop	0.291	0.768	1.894***	2.635***
	(0.386)	(0.812)	(0.662)	(0.648)
Agriculture prop	0.001	−0.003***	−0.0001	−0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Population	0.00000	0.00001**	0.00001	0.00000
	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Constant	0.239***	0.479***	0.302***	0.352***
	(0.039)	(0.043)	(0.036)	(0.044)
Observations	186	213	215	216
Note:				*p<0.1; **p<0.05; ***p<0.01

Table 5.4: **Blank and null vote in the Basque Country 1996-2008, 2004 mobilization year**

	Dependent variable:							
	Null Vote				Blank Vote			
	1996	2001	2004	2008	1996	2001	2004	2008
High Educ	0.024	0.009	−0.393***	0.017*	0.025*	0.044***	0.016**	0.013
	(0.018)	(0.013)	(0.119)	(0.010)	(0.015)	(0.014)	(0.008)	(0.010)
Num Candidates	0.0002	0.0002	−0.011***	−0.0001	−0.0002	0.0005***	0.0001	0.00003
	(0.0003)	(0.0001)	(0.002)	(0.0001)	(0.0002)	(0.0001)	(0.0001)	(0.0001)
Unemployed Prop	−0.041	−0.050	1.009*	0.007	0.051*	−0.006	0.057	0.016
	(0.035)	(0.044)	(0.568)	(0.039)	(0.028)	(0.049)	(0.036)	(0.042)
Competition Lev.	0.00000	0.00000	−0.00002	0.00000	−0.00000	0.00000	−0.00000	0.00000
	(0.00000)	(0.00000)	(0.00001)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Agriculture prop	−0.00000	0.00001	−0.0004	−0.0001**	−0.0001***	0.00004	−0.00002	0.00002
	(0.00005)	(0.00004)	(0.001)	(0.0001)	(0.00004)	(0.00004)	(0.00004)	(0.0001)
Lit Euskara prop	−0.004	−0.010***	0.192***	−0.011***	0.004**	−0.006**	−0.002	0.001
	(0.002)	(0.002)	(0.027)	(0.003)	(0.002)	(0.002)	(0.002)	(0.003)
Illit Euskara prop	−0.004	−0.003	0.714	0.066	−0.038	0.033	0.011	−0.027
	(0.038)	(0.035)	(0.460)	(0.042)	(0.030)	(0.039)	(0.029)	(0.045)
Population	−0.00000	−0.00000	0.00001	−0.00000	0.00000	−0.00000	0.000	−0.00000
	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Constant	0.007**	0.011***	0.128***	0.011***	0.007***	0.006**	0.004**	0.009***
	(0.003)	(0.002)	(0.031)	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)
Observations	186	213	215	216	186	213	215	216

Appendix 6: Table with Manual RDD for Italian Municipalities

Table 5.5: **Manually estimated RDD with subset between 14000 and 16000 inhabitants**

	Dependent Variable: blank vote prop.				
Run-off	−0.003***	−0.003***	−0.004***	−0.001***	−0.004***
	(0.0002)	(0.0003)	(0.0004)	(0.0001)	(0.0002)
Population	0.00000***	0.00000	0.00001***	−0.00000*	−0.00000***
	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Population^2		−0.000	0.00000***		
		(0.000)	(0.000)		
Population^3			0.000***		
			(0.000)		
High Pol				0.007***	
				(0.0003)	
South	−0.003***	−0.003***	−0.003***	−0.003***	−0.004***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Run-off X pop	−0.00000	−0.00001***	−0.00000	−0.00000	0.00000***
	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Run-off X pop^2		0.000***	−0.00000***		
		(0.000)	(0.000)		
Run-off X pop^3			0.000*		
			(0.000)		
Run-off X High Pol				−0.009***	
				(0.0003)	
Population X High Pol				0.00001***	
				(0.00000)	
Run-off X pop X High Pol				−0.00000	
				(0.00000)	
Year dummies	Yes	Yes	Yes	Yes	Yes
Num cand dummies	No	No	No	No	Yes
Clustered SE	Yes	Yes	Yes	Yes	Yes
Note:				*p<0.1; **p<0.05; ***p<0.01	

5.3 Appendix for Chapter 3

Data sources for Chapter 3:

- CSES (2007)
- CSES (2011)
- Bormann and Golder (2013)
- The World Bank (2013)
- Banks (2008)
- Institute for Democracy and Electoral Assistance (2013)
- The World Values Survey. (2014)
- Norris, P. , Martínez i Coma, F., and Frank, R. W. (2014)

Appendix 1: Logit Models on Individual Survey Data

In the analysis reported in table 5.6 I used different types of weights. The first column uses the original weights provided by the investigators in each country which adjust for political features. The second and third columns, instead, apply dataset weights that adjust for country-level type of sampling biases: dataset weights have " been created so – that each election study in the dataset will contribute – equally to analyses of respondents, regardless of the number – of interviews in each election study." from the codebook of CSES (2011).

Table 5.6: **Blank and null voters' profile: logit models with country and year dummies**

	Dependent variable:				
	Being a Blank Null voter				
	(1)	(2)	(3)	(4)	(5)
Protest	0.318*	0.240	0.310*	0.223	0.336*
	(0.179)	(0.167)	(0.160)	(0.167)	(0.175)
Participation		0.243*			
		(0.145)			
Age	−0.001	−0.002	−0.002	−0.005	−0.001
	(0.001)	(0.002)	(0.002)	(0.003)	(0.001)
Gender	−0.175	−0.247**	−0.178	−0.254**	−0.184
	(0.125)	(0.108)	(0.118)	(0.119)	(0.122)
Left to rightˆ2	−0.049***		−0.049***	−0.049***	−0.051***
	(0.010)		(0.010)	(0.010)	(0.010)
Left to right	0.408***		0.409***	0.408***	0.433***
	(0.107)		(0.100)	(0.100)	(0.106)
Ideol extreme		−0.481***			
		(0.170)			
High Edu	0.218	0.310**	0.133	0.071	0.243*
	(0.140)	(0.121)	(0.129)	(0.134)	(0.136)
No close party	1.174***	1.054***	1.136***	1.145***	1.207***
	(0.132)	(0.114)	(0.123)	(0.125)	(0.129)
Constant	−23.523	−21.759	−23.489	−22.304	−27.631
	(1,271.384)	(744.322)	(1,251.782)	(759.998)	(9,387.405)
Country Dummies	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes
Weights	Original Pol	No	Dataset Pol	Dataset Dem	No
Observations	43,861	54,911	43,861	44,028	44,153

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

Table 5.7: **Comparison between blank and null voters and abstentionists: logit model on absentionists and blank and null voters**

	Dependent variable:				
	BN versus Asbtentionists?				
	(1)	(2)	(3)	(4)	(5)
Protest	0.657***	0.560***	0.647***	0.556***	0.657***
	(0.203)	(0.188)	(0.184)	(0.190)	(0.200)
Participation		0.483***			
		(0.153)			
Age	0.0004	0.0001	−0.0001	−0.0003	0.0004
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Gender	−0.032	−0.146	−0.015	−0.105	−0.041
	(0.135)	(0.112)	(0.128)	(0.129)	(0.133)
Left to right^2	−0.041***		−0.040***	−0.039***	−0.042***
	(0.010)		(0.010)	(0.010)	(0.010)
Left to right	0.363***		0.368***	0.353***	0.381***
	(0.108)		(0.102)	(0.102)	(0.107)
Ideol Extreme		−0.381**			
		(0.180)			
High Edu	0.540***	0.558***	0.471***	0.447***	0.553***
	(0.150)	(0.128)	(0.141)	(0.145)	(0.148)
No close party	0.524***	0.349***	0.498***	0.485***	0.537***
	(0.140)	(0.117)	(0.132)	(0.133)	(0.137)
Constant	−21.700	−24.849	−21.741	−21.626	−22.765
	(1,079.202)	(7,347.316)	(1,062.301)	(1,069.094)	(1,778.319)
Country dummies	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes
Weights	Original Pol	No	Dataset Pol	Dataset Dem	No
Observations	6,856	9,774	6,856	6,821	6,855
Note:					*p<0.1; **p<0.05; ***p<0.01

Appendix 2: Blank Null Voting as a Short-term Phenomenon

The following tables show the auto-correlation of abstention and blank and null vote variables.

Table 5.8: **Autocorrelation of abstention**

	Dependent variable:			
	abstention			
	(1)	(2)	(3)	(4)
abstention lag 1	0.653***			
	(0.018)			
abstention lag 2		0.643***		
		(0.019)		
abstention lag 3			0.539***	
			(0.021)	
abstention lag 4				0.525***
				(0.023)
compulsory syst	−0.067***	−0.061***	−0.078***	−0.071***
	(0.013)	(0.013)	(0.015)	(0.016)
abstention lag 1* compulsory syst	0.109***			
	(0.031)			
abstention lag 2* compulsory syst		0.062*		
		(0.032)		
abstention lag 3* compulsory syst			0.086**	
			(0.037)	
abstention lag 4* compulsory syst				0.035
				(0.039)
Constant	0.135***	0.141***	0.180***	0.188***
	(0.007)	(0.008)	(0.009)	(0.010)
Observations	2,301	2,108	1,895	1,697
R^2	0.501	0.485	0.372	0.339
Note:				*p<0.1; **p<0.05; ***p<0.01

Table 5.9: **Autocorrelation of blank and null votes**

	Dependent variable:			
	Blank and null vote			
	(1)	(2)	(3)	(4)
Blank and null vote lag 1	0.478***			
	(0.038)			
Blank and null vote lag 2		0.428***		
		(0.043)		
Blank and null vote lag 3			0.408***	
			(0.052)	
Blank and null vote lag 4				0.341***
				(0.059)
compulsory syst	0.010***	0.013***	0.016***	0.019***
	(0.002)	(0.002)	(0.002)	(0.002)
Blank and null vote lag 1 * compulsory syst	0.103**			
	(0.046)			
Blank and null vote lag 2 * compulsory syst		0.108**		
		(0.051)		
Blank and null vote lag 3 * compulsory syst			0.069	
			(0.061)	
Blank and null vote lag 4 * compulsory syst				0.057
				(0.068)
Constant	0.007***	0.007***	0.007***	0.008***
	(0.001)	(0.001)	(0.001)	(0.001)
Observations	1,580	1,460	1,284	1,161
R^2	0.418	0.391	0.331	0.300
Note:				*p<0.1; **p<0.05; ***p<0.01

Appendix 3: The World Values Survey's Average Answer

Table 5.10: **Genuine electoral choice? Average of country's answers from *The World Values Survey***

Country	Classification
Australia, Brazil, Estonia, Germany, Libya, Philippines, Romania, Taiwan	1 (yes, genuine choice)
Argentina, Ecuador, India, Mexico, Singapore, Thailand	2
Algeria, Azerbaijan, Ghana, Iraq, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Malaysia, Netherlands, Nigeria, Poland, Rwanda, South Africa, Uruguay, Yemen, Zimbabwe	3
Chile, Colombia, Egypt, Pakistan, Peru, Tunisia, Ukraine	4 (no, not at all)

Appendix 4: Measure of Blank Null Voting Discussion

The aggregate variable of blank and null voting is a not a pure measure of intentional blank and null voting. In this section of the appendix I discuss this issue. The variable "BN" (blank and null voting) for each country is:

$$BN_{c,t} = BN^{*}_{c,y} + \epsilon_{c,e} + \eta_{c,d} \tag{5.1}$$

Where $BN^{*}_{c,y}$ is the true value of blank and null voting, $\epsilon_{c,e}$ is the sum of the mistakes done by voters which I claim vary based on the countries changes in electoral systems; $\eta_{c,d}$ is the error due to the general tendency of under-reporting or over-reporting invalid voting. I claim that this one changes only based on changes in regime type and it is instead constant across time. Given the nature of the measure, I can claim that by controlling for democratic score, education level and electoral systems, the variation of BN left should be the one due to intentional political protest. Furthermore, the models that implement changes of BN by year (controlling for changing in electoral system or democratic score) should also be capturing changes in intentional protest voting.

Since I know the nature and direction of the possible error in the measure I test whether my results are robust to limiting my sample to non-compulsory systems (where there should be less voting due to indifference), dropping countries with very low level of tertiary education which could cause some mistakes due to lack of information/knowledge, keeping only democratic or partially democratic countries (where there should be less manipulation) and finally excluding electoral systems that I deemed as more prone to error ("difficult system"). The result seem to suggest that the direction of the possible bias in the estimators would be one of "attenuation."

Table 5.11: **Robustness check of measurement error bias in estimators (excluding small countries and the United States)**

D	V: Any revolution	
Variable	**Coefficient**	**(Std. Err.)**
Lagged blank and null vote	46.693	(15.217)
Lagged abstention	0.252	(2.573)
GDP change	-0.324	(0.269)
ENEP X PR	-0.663	(0.451)
PR	4.111	(2.439)
ENEP	0.643	(0.573)
log(population)	0.773	(0.536)
5-year dummies	yes	
Clustered SE at country level	yes	

Appendix 5: Blank and Null Vote Versus Aggregate Indexes

Table 5.12: **Relationship of blank and null voting with the aggregate index (PEI) and experts' perception of peaceful protest**

	Dependent variable:	
	PEI Index	Peaceful Protest
	Robust Linear Reg	Censored Linear Reg
Prop blank and null	858.731***	-53.884*
	(263.528)	(29.453)
Easy Voting	15.907***	-1.219***
	(2.636)	(0.294)
Higher than median GDP	4.777**	-0.077
	(2.210)	(0.247)
Turnout	−0.509	-0.652
	(6.362)	(0.711)
Prop blank and null X Easy Voting	−223.291***	14.038*
	(69.251)	(7.740)
Constant	0.616	7.830
	(11.650)	(1.302)
Observations	69	69
Note:		*p<0.1; **p<0.05; ***p<0.01

Due to the small number of countries in the dataset, in table 5.12 I include countries with compulsory voting systems. In this case there is no need to adjust the standard errors since we have only one observation per country.

Table 5.13: **Results univariate regressions mapping relationship between proxy of electoral approval and GDP (easy electoral systems)**

	Dependent variable:			
	GDP per capita			
	(1)	(2)	(3)	(4)
PEI index	0.630***			
	(0.110)			
Peaceful protests		−0.373***		
		(0.114)		
Abstention			0.045	
			(0.131)	
Blank null vote				−0.260*
				(0.133)
Constant	9.245***	9.300***	9.287***	9.302***
	(0.104)	(0.115)	(0.181)	(0.131)
Observations	81	81	79	64
R^2	0.295	0.119	0.002	0.058
Adjusted R^2	0.286	0.108	−0.011	0.043
Note:				*p<0.1; **p<0.05; ***p<0.01

In table 5.13, the explanatory variables used are normalized versions of the proxies of interests as $\frac{x-mean(x)}{sd(x)}$, in country with "easy" voting" (> 3). In this case there is no need to adjust the standard errors since we have only one observation per country.

Table 5.14: **Results univariate regressions mapping relationship between proxy of electoral approval and GDP (difficult voting systems)**

	Dependent variable:			
	GDP per capita			
	(1)	(2)	(3)	(4)
PEI index	0.495**			
	(0.207)			
Peaceful protest		−0.319*		
		(0.176)		
Abstention			−0.084	
			(0.170)	
Blank null voting				0.039
				(0.162)
Constant	9.102***	8.949***	8.861***	8.578***
	(0.201)	(0.180)	(0.244)	(0.210)
Observations	46	46	42	30
R^2	0.115	0.070	0.006	0.002
Adjusted R^2	0.095	0.048	−0.019	−0.034
Note:		*p<0.1; **p<0.05; ***p<0.01		

In table 5.14, the explanatory variables used are normalized versions of the proxies of interests as $\frac{x-mean(x)}{sd(x)}$, in country with "easy" voting" (> 3). In this case there is no need to adjust the standard errors since we have only one observation per country.

Appendix 6: Protest Data Description per Country

Table 5.15: **Summary of protest data**

Country	from	to	events	"C.V."	Country	from	to	events	"C"
Afghanistan	2004	2014	17	0	Lebanon	1992	2009	8	1
Albania	1991	2013	51	0	Lesotho	1965	2012	9	0
Algeria	1991	2014	41	0	Liberia	2005	2011	8	0
Andorra	1993	2011	0	0	Libya	2012	2014	0	0
Angola	1992	2012	8	0	Liechtenstein	1945	2013	0	1
Anguilla	1972	2010	0	0	Lithuania	1992	2014	1	0
Antigua and Barbuda	1951	2014	0	0	Luxembourg	1945	2014	0	1
Argentina	1946	2013	399	1	Macedonia	1994	2014	0	0
Armenia	1995	2013	12	0	Madagascar	1970	2013	24	0
Aruba	1993	2013	0	0	Malawi	1994	2014	0	0
Australia	1946	2013	35	1	Malaysia	1974	2013	16	0
Austria	1945	2014	32	0	Maldives	1989	2014	0	0
Azerbaijan	1993	2013	13	0	Mali	1992	2013	4	0
Bahamas	1972	2012	0	0	Malta	1947	2014	4	0
Bahrain	1973	2014	2	0	Marshall Islands	1995	2007	0	0
Bangladesh	1973	2014	98	0	Mauritania	1992	2014	7	0
Barbados	1951	2013	2	0	Mauritius	1976	2014	2	0
Belarus	1994	2012	14	0	Mexico	1946	2012	329	1
Belgium	1946	2014	73	1	Micronesia	1995	2013	0	0
Belize	1979	2012	5	0	Moldova	1994	2014	0	0
Benin	1991	2011	2	0	Monaco	1968	2013	0	0
Bermuda	1989	2012	0	0	Mongolia	1990	2013	10	0
Bhutan	2007	2013	0	0	Montenegro	2003	2013	0	0

Table 5.15 (Continued)

Country	from	to	events	"C.V."	Country	from	to	events	"C"
Bolivia	1956	2014	302	1	Montserrat	2001	2014	0	0
Bosnia and Herzegovina	1996	2014	0	0	Morocco	1970	2011	7	0
Botswana	1965	2014	3	0	Mozambique	1994	2014	6	0
Brazil	1945	2014	199	1	Myanmar	1956	2010	6	0
Bulgaria	1991	2014	22	0	Namibia	1989	2014	2	0
Burkina Faso	1970	2012	0	0	Nauru	1971	2013	4	1
Burundi	1993	2010	31	0	Nepal	1959	2008	47	0
Cambodia	1993	2013	24	0	Netherlands	1946	2014	24	0.24
Cameroon	1960	2013	14	0	Netherlands Antilles	2002	2010	0	0
Canada	1945	2011	39	0	New Zealand	1946	2014	16	0
Cape Verde	1991	2011	0	0	Nicaragua	1947	2011	102	0
Cayman Islands	2005	2013	0	0	Niger	1993	2011	12	0
Central African Rep	1993	2011	0	0	Nigeria	1959	2011	75	0
Chad	1996	2011	5	0	Norway	1945	2013	4	0
Chile	1945	2013	117	1	Oman	2007	2007	0	0
Colombia	1945	2014	155	0	Pakistan	1977	2013	118	0
Comoros	1978	2010	0	0	Palau	1980	2012	0	0
Congo, Democratic Rep.	1970	2011	0	1	Palestinian Terr.	1996	2006	0	0
Cook Islands	1999	2014	0	0	Panama	1948	2014	88	1
Costa Rica	1948	2014	46	1	Papua New Guinea	1964	2007	0	0
Cote d'Ivoire	1990	2011	0	0	Paraguay	1953	2013	88	1
Croatia	1992	2015	10	0	Peru	1945	2011	112	1
Cuba	1986	2013	5	0	Philippines	1967	2013	138	0.06
Cyprus	1970	2014	13	1	Poland	1947	2014	144	0
Czech Republic	1990	2014	0	0	Portugal	1975	2014	52	0
Denmark	1945	2014	28	0	Republic of The Congo	2002	2009	0	0
Djibouti	1992	2013	11	0	Romania	1992	2014	10	0
Dominica	1951	2014	13	0	Russian Federation	1991	2012	0	0
Dominican Republic	1947	2012	0	1	Rwanda	2003	2013	4	0
East Timor	2001	2012	0	0	Saint Kitts and Nevis	1952	2010	0	0

Table 5.15 (Continued)

Country	from	to	events	"C"	Country	from	to	events	"C"
Ecuador	1947	2013	222	1	Saint Lucia	1951	2011	3	0
Egypt	1976	2014	34	1	Saint Vincent The G.	1951	2010	0	0
El Salvador	1945	2014	126	0	Samoa	1991	2011	6	0
Equatorial Guinea	1999	2009	0	0	San Marino	1974	2012	0	0
Estonia	1990	2014	5	0	Sao Tome Principe	1991	2011	0	0
Ethiopia	1995	2010	0	0	Senegal	1963	2012	17	0
Faroe Islands	1998	2008	0	0	Serbia	2007	2014	0	0
Fiji	1992	2014	10	1	Seychelles	1993	2011	0	0
Finland	1945	2014	7	0	Sierra Leone	1968	2012	0	0
France	1945	2014	476	0	Singapore	1968	2011	3	1
Gabon	1986	2011	7	1	Slovakia	1990	2014	0	0
Gambia	1972	2012	3	0	Slovenia	1990	2014	0	0
Georgia	1992	2013	51	0	Solomon Islands	1980	2014	0	0
Germany	1949	2014	62	0	Somalia	1964	1986	16	0
Ghana	1956	2012	11	0	South Africa	1994	2014	0	0
Gibraltar	2011	2011	0	0	Spain	1977	2014	154	0
Greece	1946	2014	87	1	Sri Lanka	1947	2010	70	0
Grenada	1951	2013	6	0	Sudan	1968	2010	35	0
Guatemala	1950	2011	233	1	Suriname	1967	2010	11	0
Guinea	1993	2013	11	0	Sweden	1948	2014	13	0
Guinea-Bissau	1994	2014	0	0	Switzerland	1947	2011	3	0.41
Guyana	1964	2011	15	0	Syria	1994	2014	0	0
Haiti	1950	2011	141	0	Taiwan	1991	2012	42	0
Honduras	1948	2013	81	1	Tajikistan	1994	2013	10	0

Table 5.15 (Continued)

Country	from	to	events	"C"	Country	from	to	events	"C"
Hungary	1990	2014	14	0	Tanzania	1995	2010	0	0
Iceland	1946	2013	3	0	Thailand	1946	2014	50	1
India	1952	2014	546	0	Togo	1985	2013	34	0
Indonesia	1971	2014	139	0	Tonga	1987	2014	4	0
Iran, Islamic Republic of	1992	2013	0	0	Trinidad Tobago	1946	2010	0	0
Iraq	2005	2014	12	0	Tunisia	1981	2014	6	0
Ireland	1945	2014	29	0	Turkey	1950	2014	100	0.64
Israel	1949	2012	238	0	Turkmenistan	2004	2013	0	0
Italy	1946	2014	250	1	Tuvalu	1977	2010	0	0
Jamaica	1949	2011	39	0	Uganda	1962	2011	20	0
Japan	1946	2014	152	0	Ukraine	1994	2014	25	0
Jordan	1989	2013	5	0	United Kingdom	1945	2014	0	0
Kazakhstan	1994	2012	8	0	United States	1946	2014	0	0
Kenya	1992	2013	34	0	Uruguay	1946	2014	84	0.57
Kiribati	1974	2012	4	0	Uzbekistan	1991	2014	13	0
Korea, Republic of	1967	2012	0	0	Vanuatu	1983	2012	13	0
Kosovo	2004	2014	0	0	Venezuela	1947	2013	246	0.67
Kuwait	1975	2013	2	0	Viet Nam	1992	2011	0	0
Kyrgyzstan	1995	2011	25	0	Virgin Islands	1999	2007	0	0
Lao People's Dem	1972	2011	0	0	Yemen	1993	2012	0	0
Latvia	1990	2014	2	0	Serbia Montenegro	1993	2004	0	0

Appendix 7: Table of Protests' Predictions

Table 5.16: **Predicting "any revolution" with previous election's blank and null voting.**

Variable	Coefficient	(Std. Err.)
Lagged blank and null vote ($BN_t - 1$)	36.798	(12.569)
Lagged blank and null vote ($BN_t - 1$) X compulsory	-42.823	(15.278)
Lagged abstention ($Abs_t - 1$)	-0.736	(1.630)
Lagged abstention ($Abs_t - 1$) X compulsory	3.583	(2.657)
Compulsory voting	0.371	(1.060)
Change GDP pc	-0.729	(0.492)
Enroll tertiary	0.024	(0.019)
ENEP	0.048	(0.216)
PR	0.795	(1.128)
ENEP X PR	-0.085	(0.195)
log (population)	0.637	(0.240)
Freedom house score	0.492	(0.366)
Difficult system	-0.690	(0.960)

In table 5.16, I report a logit model with clustered SE at the country level and 5-year dummies. The dependent variable is "Any revolution" in the years following election in time *t*.

Table 5.17: **Predicting total protest events with previous election's blank and null voting (poisson model)**

Variable	Coefficient	(Std. Err.)
Lagged blank and null vote ($BN_t - 1$)	10.180	(5.976)
Lagged blank and null vote ($BN_t - 1$) X compulsory	-7.409	(6.134)
Lagged abstention ($Abs_t - 1$)	0.227	(0.904)
Lagged abstention ($Abs_t - 1$) X compulsory	-2.110	(1.044)
Compulsory voting	0.226	(0.586)
Change GDP pc	-0.479	(0.160)
Enroll tertiary	0.033	(0.009)
PR	0.167	(0.612)
ENEP	-0.008	(0.155)
ENEP X PR	-0.058	(0.141)
Log(population)	0.446	(0.105)
Freedom house	0.357	(0.179)
Difficult syst	-0.813	(0.361)

In table 5.17, I report a *poisson* model with clustered SE at the country level and 5-year dummies.

The dependent variable is"total events" in the years following election in time *t*.

Table 5.18: **Predicting total protest events with previous election's blank and null voting (zero inflated model)**

Variable	**Coefficient**	**(Std. Err.)**
Equation 1 : total_events		
Lagged lank and null (BN_{t-1})	3.314	(1.553)
Lagged abstention ($Abs_t - 1$)	-0.901	(0.524)
Blank and null (BN_t)	2.904	(2.244)
Abstention (Abs_t)	0.163	(0.593)
ENEP	0.097	(0.086)
ENEP X PR	-0.176	(0.102)
PR	0.286	(0.659)
GDP change	-0.305	(0.180)
Compulsory voting	-0.679	(0.338)
Intercept	2.160	(0.706)
Equation 2 : inflate		
Log(population)	-0.488	(0.110)
Freedom house	-0.053	(0.155)
GDP pc	0.000	(0.000)
Intercept	8.653	(1.801)
Region dummies	yes	

In table 5.18, I report a *zero inflated model* model with clustered SE at the country level. The dependent variable is"total events" in the years following election in time t. In this case, I chose an additive model for the institutional variable of compulsory system. I model the second equation as a function of population, democratic level, economic development, and geographic location.

Table 5.19: **Predicting protest with the changes in previous election's blank and null voting**

Variable	Coefficient	(Std. Err.)
BN_t	-3.898	(12.801)
Change in BN_{t-1} from the mean of previous elections	56.771	(19.050)
Change in BN_t from the mean of previous elections	-1.764	(1.439)
Freedom house score	0.060	(0.221)
PR electoral system	0.112	(0.635)
Change in GDP pc	-0.678	(0.253)

I report in table 5.19 a logit model with clustered SE at country level, 5-year dummies, regional dummies, and election type dummies. This estimation is run used the statistical software STATA. The dependent variable is"Any revolution" in the years following election in time t. The sample uses only non-compulsory voting countries.

Appendix 8: Prediction Models on Entire Sample

Table 5.20: **Results from the prediction models used in cross-validation**

Variable	Coefficient	(Std. Err.)
BN_{t-1}	87.089	(25.756)
Enroll tertiary	0.159	(0.053)
Freedom house	0.007	(0.947)
PR electoral system	20.289	(4.352)
ENEP	-0.800	(1.102)
ENEP X PR	0.369	(1.084)
GDP pc	-0.001	(0.000)
Log population	3.078	(1.009)
Observations	237	

Variable	Coefficient	(Std. Err.)
$Abstention_{t-1}$	-2.018	(2.216)
Enroll tertiary	0.094	(0.056)
Freedom house	0.424	(0.576)
PR electoral system	-0.091	(3.549)
ENEP	-0.591	(0.519)
ENEP X PR	0.598	(0.574)
GDP pc	-0.000	(0.000)
log(population)	1.586	(0.393)
Observations	276	

Variable	Coefficient	(Std. Err.)
Enroll tertiary	0.080	(0.052)
Freedom house	0.325	(0.566)
PR electoral system	0.620	(3.865)
ENEP	-0.438	(0.453)
ENEP X PR	0.438	(0.534)
GDP pc	-0.000	(0.000)
log(population)	1.616	(0.406)
Observations	286	

In table 5.20 the sample consists of non-compulsory voting systems only. This model includes 5-year dummies, regional dummies, and election type dummies. It also clustered the standard errors

at the country level. The dependent variable is “Any revolution” in the years following election in time *t*.The sample uses only non-compulsory voting countries.

5.4 Appendix for Chapter 4

Data sources for Chapter 4:

- Euroepan Social Survey round 5: ESS Round 5 (2010)
- Euroepan Social Survey round 6: ESS Round 6 (2012)
- Euroepan Social Survey round 4: ESS Round 4 (2008)
- Euroepan Social Survey round 3: ESS Round 3 (2006)
- Euroepan Social Survey round 2: ESS Round 2 (2004)
- Euroepan Social Survey round 1: ESS Round 4 (2002)
- Trasparency International (2014).

Appendix 1: Data description

Table 5.21: **Number of immigrants per survey wave**

Survey Waves:	1	4	**5**	**6**
Born in Israel	1626	1588	**1529**	**1725**
Born Outside	840	896	**761**	**783**

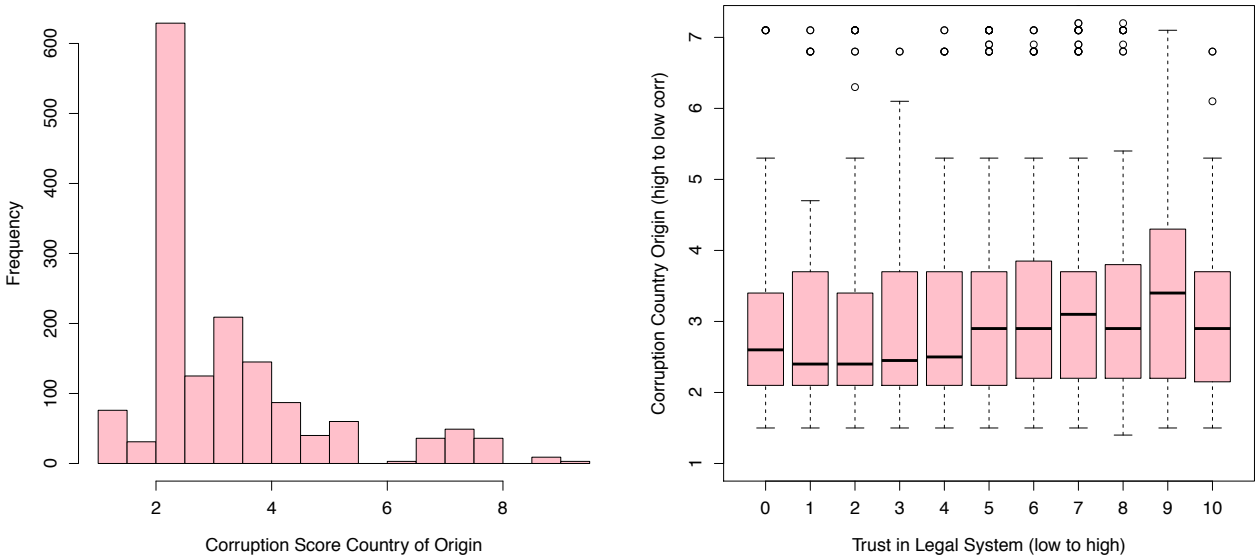
Table 5.22: **Immigrants' citizenship status by ethnicity, at the time of the survey**

Citizenship:	Non-Jewish	Jewish
Yes	83	1394
No	7	32

Table 5.23: **Table of summary statistics of the variables used in the analysis**

Variable	Mean	Max	Min	Missing
trust legal system	5.25	0	10	66
religiosity	4.43	0	10	24
left right scale	6.41	0	10	178
TV hours	4.34	0	7	222
years of immigration	1974.08	1928	2011	15
years of edu	12.93	0	30	35
voted previous el?	0.2	0	1	90
discrimination group?	0.92	0	1	24
work for organization?	0.98	0	1	6
Gender	0.41	0	1	0
Work for party	0.98	0	1	4
Income	4.7	1	10	389
Jewish	0.94	0	1	26
education father	3.04	0	7	300
trust parliament	3.79	0	9	67
Arabic	0.02	0	1	0
Satisfied with dem	2.99	0	10	92
year of birth	1954.62	1913	1997	20
supported of strong party	0.38	0	1	0
elderly fam component	0.32	0	1	866
health perceived	3.62	1	5	3
never married	0.36	0	1	988
Eastern Europe Lang	0.27	0	1	0
Easter Europe	0.36	0	1	6
Yiddish	0.01	0	1	0
Hebrew	0.62	0	1	0
age at migr	19.59	0	82	42
Corruption score	3.28	1.4	9.4	6
Category corruption	2.04	1	3	6
high corruption	0.51	0	1	6
rounded income	4.7	1	10	389
social capital	0.03	0	1	6
years from migr	36.94	0	82	15

Appendix 2: Distribution of Trust Across levels of Corruption



(a) Distr. Respondents across Corr. lev.

(b) Distr. Corr. across Lev. of Trust

Figure 5.3: **Distribution respondents across levels of corruption and accross level of trust**

Appendix 3: Countries of Origin

Table 5.24: **Countries of origin of the respondents in the sample**

Country Orig	tot	Citizen?	Voted?	Country Orig	tot	Citizen?	Voted?
USSR	81	80	65	Jamaica	1	1	1
Czechoslovakia	1	1	1	Jordan	4	3	0
Yugoslavia	2	2	2	Kenya	1	1	1
Afghanistan	2	2	1	Kyrgyzstan	1	1	1
Armenia	2	2	1	Korea, Republic of	1	0	0
Argentina	21	21	19	Kazakhstan	11	11	6
Austria	3	3	3	Lebanon	7	6	4
Australia	1	1	1	Lithuania	13	12	12
Azerbaijan	11	11	6	Latvia	4	4	4
Belgium	5	3	2	Libyan Arab J.	16	16	16
Bulgaria	10	9	7	Morocco	154	153	129
Brazil	5	5	3	Moldova	16	16	15
Belarus	28	26	21	Mexico	3	2	2
Canada	5	4	2	Netherlands	1	1	0
Congo	1	1	1	Panama	1	1	1
Switzerland	2	2	2	Peru	1	1	1
Chile	3	3	1	Poland	59	58	51
Colombia	2	2	1	Paraguay	1	1	1
Cyprus	1	1	1	Romania	95	95	77

Table 5.24 (Continued)

Country Orig	tot	Citizen?	Voted?	Country Orig	tot	Citizen?	Voted?
Czech Republic	6	6	5	Russian Fed.	205	198	142
Germany	18	18	14	Sweden	2	2	2
Denmark	1	1	1	Slovakia	1	1	0
Algeria	15	15	14	El Salvador	1	1	1
Ecuador	1	1	1	Syrian Arab Rep.	24	22	15
Egypt	27	27	24	Tajikistan	4	4	3
Eritrea	1	1	0	Turkmenistan	2	2	0
Spain	2	2	2	Tunisia	38	37	33
Ethiopia	53	52	29	Turkey	38	33	32
France	30	29	22	Ukraine	148	145	98
United Kingdom	15	14	10	United States	40	38	23
Georgia	32	30	22	Uruguay	6	6	2
Greece	1	1	1	Uzbekistan	26	25	23
Guatemala	1	1	1	Yemen	48	48	42
Hungary	17	17	15	South Africa	6	6	3
Ireland	1	1	0	Moldova, Rep.	6	6	3
India	17	17	12	Libya	10	10	8
Iraq	74	72	59	Venezuela	1	1	1
Iran, Islamic Republic of	42	41	37				
Italy	2	2	1				

Appendix 4: Investigating the Self-selection

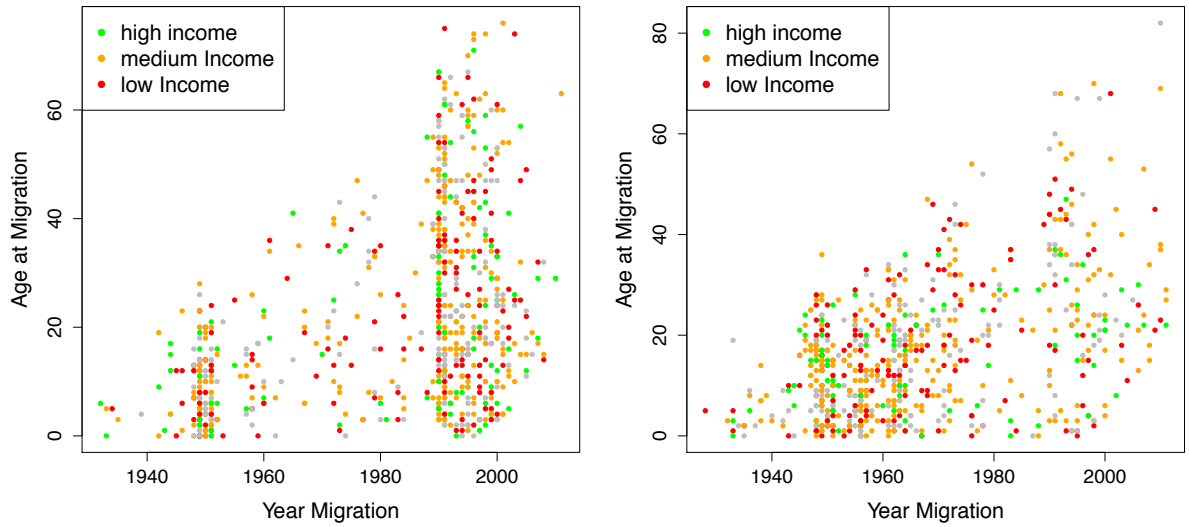
To further investigate the robustness of our findings we try to analyze the direction of the potential self-selection. If individuals had the complete freedom to choose when to migrate, what would be the observable relationship between having served the military and trust in institutions? As suggested by the clear peak, in the wave of 2001 reform, in the individuals either moving at 18, the perfect age to enter the military, or immediately after the age of 26, when automatically excluded from the service, we are witnessing two different types of selection. One is the selection into the military, probably driven by the desire to support and defend the state of Israel. The second is the selection out of service, which could be driven by various combinations of fear, moral rejection of the army and religiosity.

We try to investigate what happens at the cut-off of 26 for the people moving after the reform of 2001. This group of individuals are expected to have decided quite autonomously when to migrate and seem to reflect a strong selection into (or out of) the military. In this highly endogenous case, people that are older and probably decided to wait are much more trustful of institutions. The sign on the coefficient reported in table 5.25 has the opposite direction than what we observed for the exogenous wave.

Table 5.25: **Testing the sign of the relationship under self-selection into the military**

	Dependent variable:
	Trust Legal System
Cut-off (>= 26)	2.286***
	(0.798)
Years in Israel	0.015
	(0.119)
Trust in People	0.077
	(0.164)
Male	−1.030
	(0.868)
Education of Father	−0.092
	(0.151)
Constant	4.086***
	(1.390)
Observations	53
R^2	0.222
Adjusted R^2	0.139
Residual Std. Error	2.700 (df = 47)
F Statistic	2.684** (df = 5; 47)
Note:	*p<0.1; **p<0.05; ***p<0.01

Appendix 5: Corruption Index and Other Variables



(a) High Corruption Countries

(b) Low Corruption Countries

Figure 5.4: **Distribution of income reported as a function of the year of immigration, age at migration, and corruption level.**

Appendix 6: More about the Corruption Index

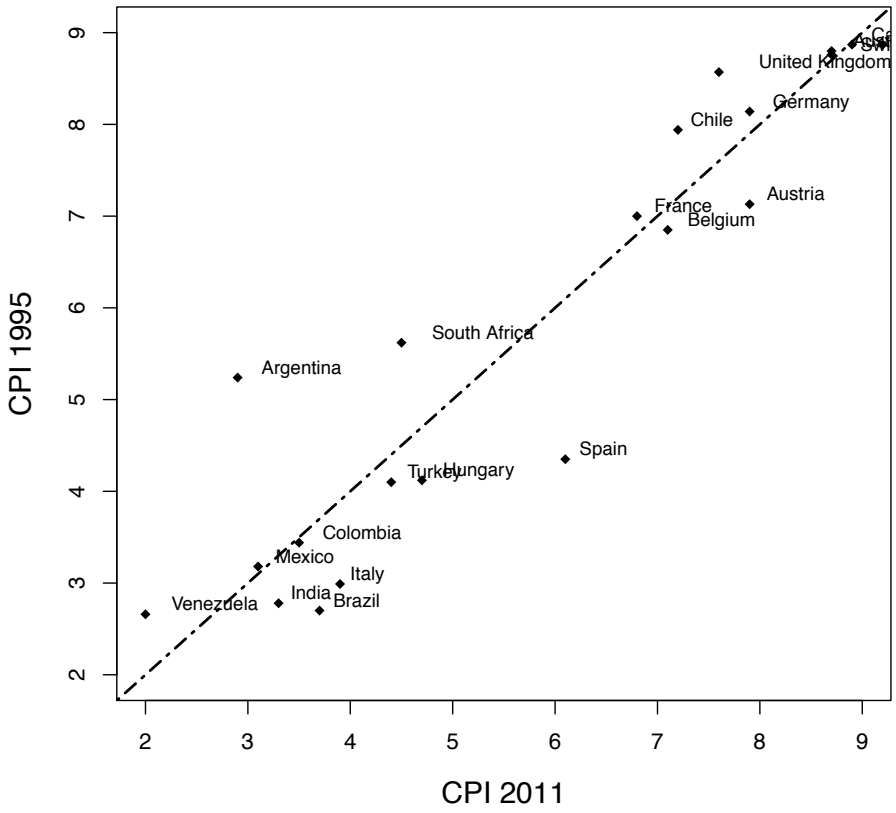
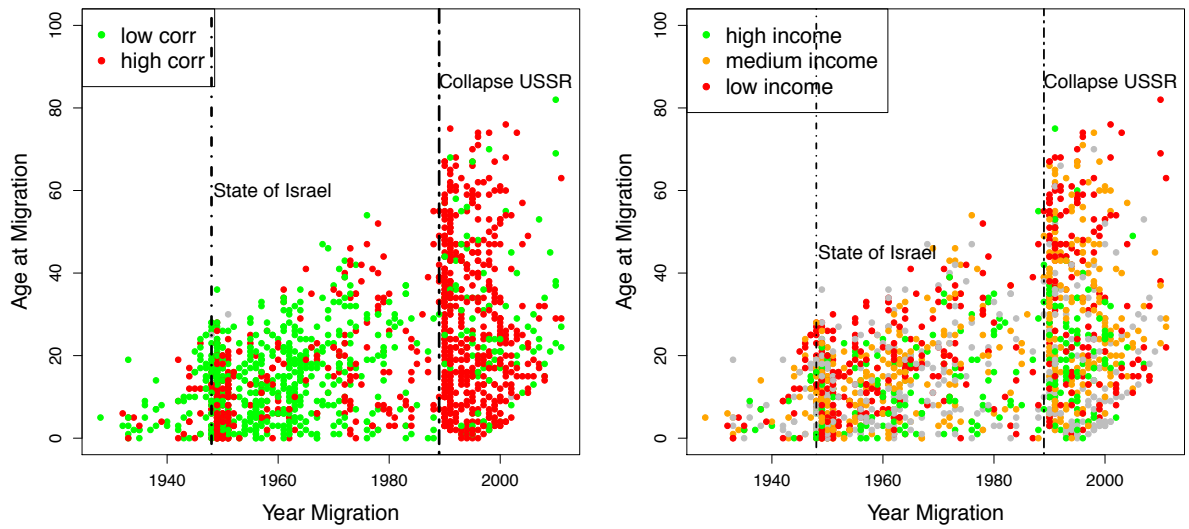


Figure 5.5: **Comparison of corruption score from Transparency International 1995 and 2011:** Comparing corruption score across time. This graph shows the relationship between the 1995 score and the 2011, only countries present in the 1995 score included in the graph.

The countries listed as **high corruption** (below the median score): Russian Federation, Yemen, Iran, Libya, Iraq, Ethiopia, Syria, Afghanistan, Ukraine, Uzbekistan, Belarus, Turkmenistan, Tajikistan, Lebanon, Ecuador, Kenya, Azerbaijan, Kyrgyzstan, USSR (score extrapolated), Czechoslovakia (score extrapolated), Chad, Armenia, Venezuela, Paraguay, Congo, Eritrea and Guatemala.

The countries classified as **medium-low corruption**: Yugoslavia (score of Serbia), Argentina, Austria, Australia, Belgium, Bulgaria , Brazil, Canada, Switzerland, Chile, China, Colombia , Cyprus, Czech Republic, Germany, Denmark, Algeria, Egypt, Spain, France, United Kingdom , Georgia, Hungary, Ireland, India, Italy , Jamaica, Jordan, Korea, Kazakhstan, Lithuania, Latvia, Morocco, Moldova, Mexico, Netherlands , Panama, Peru, Poland, Romania, Sweden, Slovakia, El Salvador, Tunisia , Turkey, United States, Uruguay, and South Africa.

Figure 5.6 shows the variation on the key independent variables: age, years of immigration, income and corruption scores of the country of origin. Those who immigrated following the collapse of the USSR tend to come from more corrupt political contexts, but there is enough variation to allow a comparison even within this group.



(a) Age, year arrival, and corruption

(b) Age, year arrival, and income (today)

Figure 5.6: **Distribution of age and year of arrival of the respondents:** in the figure the different colors represent the level of corruption. The two vertical lines represent: the creation of the state of Israel (1948) and the opening of the USSR (1989).

Appendix 7: Assimilation, Not a Cohort Effect

We want to distinguish the assimilation effect that is claimed in our theory from a pure cohort effect. Were Jews arriving early in Israel's history simply different from those coming from the same areas now? We want to show that this is not the case and that there is an incremental improvement in the trust toward the legal system for each extra year spent in the country. Similarly to what was proposed in Borjas and Friedberg (2009), we do this by controlling for year of arrival fixed effects and exploiting the years in which the two survey waves were conducted.

ESS wave 5 was conducted in 2010 while wave six was conducted two years later. We investigate the differential change of average level of trust for people who arrived in the same period.

In table 5.26 we reject the alternative explanation of a cohort effect. Obviously due to the fact that we only have two waves of the survey to exploit it is impossible to verify that two years were particularly different and that people from high corruption background were on average exposed to some type of event in 2011 that stimulate their trust more than other groups. We can only speculate that in 2011 and 2012 the only large scale political event is was the "Operation Pillar of Defense" in 2012 that consists of 8-day military campaign against *Hamas*. It is difficult to envision a reason why this event would increase systematically the trust in the legal system.

Table 5.26: **Analysis of cohort effect for Jewish migrants.**

	Dependent variable:	
	Trust Legal System	
	(1)	(2)
Extra two years	0.515**	0.746*
	(0.262)	(0.435)
Age group 10-59	0.032	
	(0.305)	
Age group >59	−0.613	
	(0.758)	
Education Father	−0.007	
	(0.055)	
Gender	−0.783***	
	(0.260)	
Religiosity	−0.045	
	(0.043)	
Constant	3.223	4.688***
	(4.881)	(1.043)
Older than 10	No	Yes
New Arrival	No	Yes
Country orig FE	No	Yes
High Corruption	Yes	No
Year Arrival FE	Yes	Yes
Design Weights	Yes	Yes
Observations	519	203
Note:	*p<0.1; **p<0.05; ***p<0.01	

Appendix 8: Comparison With Israelis

Figure 5.7 demonstrates that there is a convergence also toward the level of trust among native Israelis of a comparable cohort. Indeed, it shows that the difference between Israelis and foreign-born individuals tend to increase for the group of migrants that arrived recently (the last two columns on the left of the figure) while it is large for those that just arrived (less than 20 years before survey). Also, the difference between the red (1st and 3rd) and blue columns (2nd and 4th) confirm that immigrants from highly corrupt countries have a significantly lower level of trust immediately following naturalization.

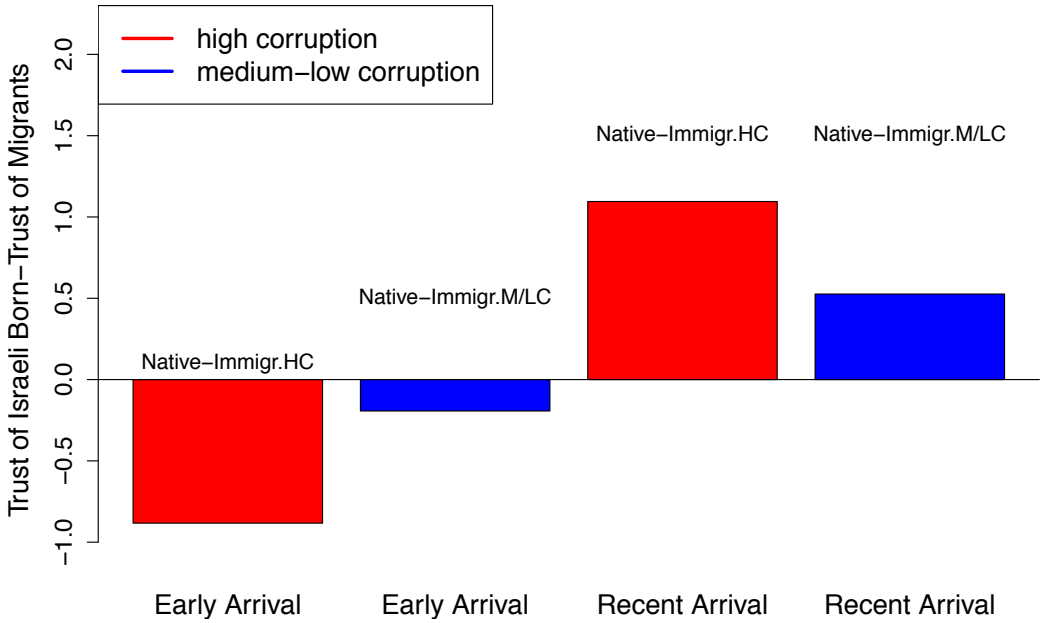


Figure 5.7: **Difference of Trust with Native Israelis:** Comparing the level of trust of Israelis with foreign born individuals, depending on the period of arrival. We compare each group with a similar cohort of Israelis: for those that migrated 40 years before the survey we use Israelis born before the 1950s and for those that migrate in the last 20 years with those Israelis born after 1980. Note: mean calculated using the design weights.

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