

Saliency and Accountability: School Infrastructure and Last-Minute Electoral Punishmentⁱ

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Abstract

Can seemingly unimportant factors influence voting decisions by making certain issues salient? We study this question in the context of Argentina's 2015 presidential elections by examining how the quality of the infrastructure of the school where citizens were assigned to vote influenced their voting choice. Exploiting the quasi-random assignment of voters to ballot stations located in different public schools in the City of Buenos Aires, we find that individuals assigned to schools with poorer infrastructure were significantly less likely to vote for Mauricio Macri, the incumbent mayor then running for president. The effect is larger in low-income areas - where fewer people can afford private substitutes to public education - and in places where more households have children in school age. The effect is unlikely to be driven by information scarcity, since information on public school infrastructure was readily available to parents before elections. Rather, direct exposure to poor school infrastructure at the time of voting is likely to make public education - and the poor performance of the incumbent - more salient.

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1 Introduction

Being informed about government actions is crucial for voters to correctly evaluate politicians and punish or reward them come election time. Yet, though information about government performance is widely available, evidence suggests that voters do not always translate it into useful knowledge. For example, they can mistakenly infer politicians' quality from their performance (e.g., attributing the effect of luck to effort (Healy et al., 2010)), or can be swayed by seemingly irrelevant factors such as the order of the names on the ballot (Blom-Hansen et al., 2016).

Whether these lapses are due to the frictional costs associated with information processing or to the existence of mental gaps (Handel and Schwartzstein, 2018), the form and context in which information is presented to voters is also likely to matter. Indeed, prior evidence suggests that information provided in a more visible way and at the appropriate time may have a large effect on individuals' decision-making process (Robinson and Torvik, 2005; Mani and Mukand, 2007; DellaVigna, 2009; Harding and Stasavage, 2013).

In this paper we investigate to what extent exposure to information about government performance at the time of voting affects voters' electoral choices by making certain issues more salient. Focusing on the issue of public education and school infrastructure quality, we study whether voters assigned to vote in schools with poorer infrastructure are less likely to support the incumbent. Specifically, we test the hypothesis that being directly exposed to the poor state of public schools at the time of voting, makes the issue of public education more salient and voters more likely to punish the incumbent government for its inadequate performance in the provision of this key public good.

Our analysis focuses on the presidential elections held in Argentina in 2015 which, for various reasons, represent a particularly suitable context to study this question. First, one of the main candidates running for president was Mauricio Macri, who was the mayor of Buenos Aires prior to the election. As mayor, Macri had been in charge of the city's public school system during the eight years preceding the election, and could therefore be considered responsible for the state of local public schools. Indeed, the issue of public education, and the promise of more investments in public schools, had been a cornerstone of Macri's campaign for mayor and then for president.¹ Furthermore, the improvement of Buenos Aires' public education system during his tenure was regularly praised throughout his presidential campaign.²

¹For example, Macri's commitment to improve the quality of Argentina's early education system and to build 3,000 new kindergartens once elected president, received extensive media coverage during the 2015 campaign. See for example: [this link](#).

²See, for instance: [this link](#).

The second aspect, which is key to our identification strategy, concerns the way Argentinian voters are assigned to vote in particular ballot stations that are located, without exception, in schools. Indeed, within each of the narrow electoral circuits that compose an electoral district, voters are assigned to ballot stations in alphabetical order by their last name. Exploiting the quasi-random nature of this procedure, we try to gauge the causal impact of exposure to school infrastructure by comparing the electoral behavior of voters assigned to schools in good vs. bad infrastructural conditions within the same electoral district. What is key for our identification strategy is that the distribution of last names is not systematically correlated with the quality of school infrastructure within circuits. Indeed, even if the frequency of certain last names was correlated with some observable or unobservable voters' characteristics (e.g., if last names starting with the letter "A" were more common among rich than among poor people), we would still identify a causal effect as long as these characteristics are not systematically correlated with school quality within circuit (e.g., if voters with last names starting with an "A" are not assigned to schools with better infrastructure). To corroborate this assumption, using data on voters' age and gender at the ballot station level, we document that, at least along these dimensions, voters assigned to schools with good infrastructure are similar to those assigned to schools with poorer infrastructure.

Following this approach, and using comprehensive ballot-station level data for the entire city of Buenos Aires, we find that voters assigned to "poor-infrastructure" schools are significantly less likely to support Macri than those voting in "good-infrastructure" ones. On average, exposure to poor school infrastructure is associated with a decrease in Macri's vote share of 0.22 percentage points.³ The effect is mainly concentrated in areas populated by voters who value or benefit disproportionately from public schools. These include low-income circuits, where fewer people can afford private substitutes to public education (effect between 0.49-0.53 p.p.), and areas with a higher share of households with school-age children (0.52-0.60 p.p.). The effect reaches its peak - 0.58-0.67 p.p. - in places that present both of these characteristics. This pattern suggests that the increased salience of public school infrastructure is especially effective at shaping the voting choice of those individuals that have a higher stake in the provision of this public good. This result is also informative with respect to the possible mechanism(s) through which the effect may operate. Indeed, since the groups that are most affected by the experience at the polling booth are also more likely to be aware of the quality of public schools in their community even before the election, it seems unlikely that the effect may be solely due to the availability of new information.

³To provide some context to interpret this figure, the last polls before the different election rounds estimated between 11% and 20% of undecided voters. See, for example [Elypsis](#), [Perfil](#) and [La Nacion](#). Moreover, the results ended up being very tight: Macri won by less than 2 pp.

Rather, experiencing poor school infrastructure so vividly minutes before casting their ballot is likely to make the issue salient to voters at an extremely crucial moment. Consistent with this hypothesis, we also show that the effect is identical whether people live relatively closer to the schools where they vote (and thus, are more likely to have already passed by them) or farther away.

We find no effect of school infrastructure quality on both voter turnout and on the proportion of invalid votes. The null-effect on turnout provides additional confidence that the effect is indeed driven by exposure to school infrastructure and not by other confounds, since voters could witness the quality of the school premises only once they turned up at the voting booth. To the extent that invalid ballots are considered as a form of protest vote ([Power and Garand \(2007\)](#)), this null effect indicates, instead, that voters directed their disappointment with the quality of public schools specifically towards the former mayor and not to the political establishment in general.

All the above-mentioned results are robust to different specifications and to the inclusion of a range of controls both at the school and at the polling booth level. Taken together, these findings support the view that making information about public policy salient can have a significant impact on the way voters evaluate government performance and, ultimately, on their ability to keep elected officials accountable.

Our paper relates to several strands of literature. First, it is related to previous work on the impact of contextual factors on voting decisions (see among others [Miller and Krosnick \(1998\)](#), [Koppell and Steen \(2004\)](#), [Berger et al. \(2008\)](#), [Shue and Luttmer \(2009\)](#), [Marcinkiewicz \(2014\)](#)). Unlike these contributions, however, we ascribe the documented effect not to confusion or unconscious factors. Rather, we attribute this to the increased salience of the issue of public education which is triggered by the infrastructure quality of the school where individuals vote.

In this regard, our findings also relate to the literature on the effect of limited attention and salience on consumer and investor behavior (surveyed in [DellaVigna \(2009\)](#)). These contributions document that, when individual attention is scarce, even a small amount of information presented at the appropriate time can have a disproportionate effect on individual decisions.⁴ Our paper documents that inattention and salience also impact voting decisions.

Second, our paper relates to previous work on the effect of the visibility of public spending on voting. This literature has shown that democratic governments tend to over-invest

⁴For example, [DellaVigna and Pollet \(2009\)](#) show that stock prices react more strongly to information published at times when people are less distracted by other events. [Chetty et al. \(2009\)](#) show that the demand for a certain product is lower when the sales tax becomes salient. [Hossain and Morgan \(2006\)](#) document that the average sale price of two equivalent auctions on eBay differs depending on how salient the shipping cost is from the consumer's point of view.

in more visible policies that voters weigh disproportionately more when assessing incumbent performance (Robinson and Torvik (2005), Mani and Mukand (2007), Harding and Stasavage (2013)). Our findings confirm that, when exposed to visible policy outcomes such as school infrastructure, voters tend to punish the incumbent, and that investing in visible yet inexpensive actions prior to elections, may have significant electoral return.

Finally, our paper relates to the literature on electoral accountability and retrospective voting (Besley (2007), Banerjee et al. (2011), Casaburi and Troiano (2015), Duggan and Martinelli (2017), Casas et al. (2017)). This body of work has documented that informing voters about government performance can have a considerable impact on electoral decisions (Ferraz and Finan (2008), Chong et al. (2014), Drago et al. (2014), Larreguy et al. (2015), Dias and Ferraz (2017)). Our results qualify these findings by showing that information on incumbent performance is especially effective when provided at the time voters make their decision.

The remainder of the paper is structured as follows: Section 2 explains the institutional background, Section 3 describes the data, Section 4 discusses the empirical strategy, Section 5 presents the main results and interpretation, and concluding remarks follow in Section 6.

2 Institutional Background

2.1 Presidential Elections

Argentina is a presidential democracy in which the president is directly elected by popular vote. To become president a candidate must obtain a qualified majority of 45% or obtain at least 40% of the votes with a difference of 10% or more over the runner-up. If none of these conditions is met, a runoff election is held between the top two candidates and the one obtaining more votes is elected president. An important feature of the Argentinian system is that voting is compulsory for anyone aged 18 to 69. Therefore, turnout for presidential elections is typically high.

In 2011, a new system to elect candidates running in the general elections was introduced. The new system, called PASO (Spanish acronym for Simultaneous and Mandatory Open Primaries), requires parties to select candidates through open primaries. Primaries for all parties are held simultaneously. The setting is identical to that of a general election, with the only difference being that parties can present more than one candidate (though many do not). The candidate that obtains the simple majority within each party is selected to represent the party in the general election. Only parties that obtain more than 1.5% of the votes in the PASO are eligible to participate in the general election. Since participation in

the PASO is compulsory and turnout is generally high, these elections are considered, by parties and the media alike, almost as important as the general election which typically takes place a few months later.

2.2 The 2015 presidential election

The PASO elections were held in Argentina in August of 2015, while the first and second round of the general elections took place in October and November of the same year. Eleven parties ran in the PASO; of these six obtained enough votes to run in the the general election. The main competing parties are described in Section 7.1, while Figure A1 reports the results of both elections at the national level (both in the Appendix).

One of the main candidates was Daniel Scioli, running for the Frente para la Victoria (FpV), the party that controlled the federal government since 2003. The main opposition candidate was Mauricio Macri, mayor of the City of Buenos Aires since 2007, who ran for the moderate center-right party Cambiemos. Hence, the citizens of the City of Buenos Aires could choose to punish or reward Macri through their vote in the 2015 elections.

Both elections were close: in the PASO, FPV obtained 38% of the votes against 30% for Cambiemos. In the first round of the general election, FPV obtained 37% of the votes against 34% for Cambiemos. In the runoff, Cambiemos won the election with 51.3% of the votes against FPV's 48.7%.

2.3 The role of mayors

Argentina is a federal democracy with three levels of government: federal, provincial and municipal. There are 23 provinces which are ruled by governors who are directly elected. In addition, the City of Buenos Aires is an autonomous jurisdiction which is identical in every aspect to a province and it is governed by an elected mayor.⁵

Following a series of reforms carried out in the early 1990's, the provision of key public goods and services was largely decentralized from the federal government to the local governments. In the domain of education, 44% of high schools were managed by the federal government prior to the reform, while virtually all schools fell under the jurisdiction of provincial governments and of the City of Buenos Aires in 1994.⁶

As a consequence, spending in education has become one of the most significant items in provinces' budgets. It represents about one third of total public spending in provinces

⁵The City of Buenos Aires is distinct and independent from the Province of Buenos Aires. We will henceforth use Buenos Aires to refer to the City of Buenos Aires.

⁶See <http://www.bnm.me.gov.ar/giga1/documentos/EL004000.pdf>.

([Rivas and Dborkin \(2018\)](#)). In Buenos Aires, in particular, education represents the largest spending item (larger than health care).

The poor quality of school infrastructure has traditionally been a source of concern for the people of Buenos Aires, and public education has generally been a key issue in the local political debate and in the campaign promises of mayoral candidates. For example, in 2007, one month before taking office as mayor, Mauricio Macri conducted a survey on school infrastructure in Buenos Aires. It concluded that two thirds of the schools in the city were in critical conditions. The results of the survey attracted extensive media coverage,⁷ which pressured the city council to declare a state of “infrastructural emergency”, which was approved in the first week of Macri’s government.

Although conditions in the schools of Buenos Aires have improved over the past decade, the issue is still very relevant for most of the citizens. Indeed, almost every year since 2007, massive teacher strikes and student demonstrations have taken place in Buenos Aires demanding better infrastructure.⁸

2.4 The voting process

Argentina is divided into 24 electoral districts (23 provinces plus the City of Buenos Aires). Districts are divided into sections, which in turn are divided into circuits. Within each circuit, citizens are assigned to vote in a specific polling booth, which is a classrooms within a school.⁹

Buenos Aires (2.5 million of voters) is divided into 167 electoral circuits. These comprise over 7,300 polling booths located in about 800 schools (or “precincts”).¹⁰

Each polling station within a circuit and a school hosts a fixed number of registered electors. Within each electoral circuit, voters are assigned to a given ballot station according to the alphabetical order of their last names. For example in circuit #1, once electors are ordered by alphabetical order, the first X voters are assigned to polling station #1, voters from X+1 to Y to polling station 2, and so on (see [Casas et al. \(2017\)](#)). Hence, conditional on the electoral circuit, allocation of voters to schools is quasi-random. Within a given election year, the allocation of voters to polling stations does not change between the PASO and the general election, and between the first and second round of the latter.

⁷See for instance this [link](#).

⁸These demonstrations attracted much attention from local and national media alike. For example: [Article 2015](#), [Article 2010](#), [Article 2011](#).

⁹See this [webpage](#) for a description of the process.

¹⁰Figure [A2](#) in the Appendix shows both the boundaries of the circuits (lines) and the location of the schools (dots).

3 Data and Sample

Our analysis focuses on the 2015 Argentinian presidential elections and uses information from both the PASO and the two rounds of the general election. Due to data availability, we restrict our focus to Buenos Aires which, nonetheless, represents a suitable context of analysis since we can examine how voters rewarded (or punished) the presidential candidate who was, until right before the election, the city’s mayor. Electoral data is produced by the Cámara Nacional Electoral (CNE) which is the federal agency responsible for the organization of the electoral process. The data include information on: i) the total number of registered voters, ii) the number of voters by polling station, iii) the number of valid votes cast, iv) the number of votes cast for each party and each candidate in each election and round.

Our main dependent variable is the share of votes cast for Mauricio Macri over total valid votes. We focus on polling stations located in public schools since these are the only ones for which systematic information regarding the quality of school infrastructure is available. Panel (A) of Table 1 reports the descriptive statistics at the school level separately for the PASO and for each round of the general election.¹¹

Our main regressor of interest is the quality of school infrastructure. We use data gathered by the Directorate General for School Infrastructure in the second half of 2015 (i.e., around election time), which cover a sample of 456 public schools distributed in 158 electoral circuits. The data include information on the name of the school, the address, and a score for the quality of the school’s infrastructure on a 4-point scale (i.e., Very bad, Bad, Good, Very good). Unfortunately, no information is available regarding the specific infrastructural problems present in each school, namely on how visible they might have been to a casual observer.

Table 1 reports the descriptive statistics of the electoral results by quality of school infrastructure (Panel (B)). In the main analysis we collapse the school quality data to two categories, defining school quality as “Good” (“Very Good” or “Good”) or “Bad” (“Very bad” or “Bad”) schools, two categories of schools that are evenly scattered along the map in most of the areas of the city (see Figure A3 in the Appendix). For robustness, we also present the results using the four different levels of quality. We proceed to this aggregation because the proportion of schools defined as “Very good” or “Very bad” is rather small (11% and 14%) and, thus, these types of schools are not present in most of the circuits (see Figure A4 in the Appendix).

¹¹The original electoral data contained a few extreme values most likely due to entry errors. To address this issue, we exclude data from polling stations in which Macri’s vote share was two standard deviations or more above or below the average of the other polling stations in the same school, which amount to approximately 2% of the sample (1% for each tail). The results, available upon request, remain identical when using the complete data set, which suggests that potential errors are randomly distributed with respect to the treatment.

In our analysis we also employ individual-level data for all voters registered in Buenos Aires including information on the polling station they were assigned to, their gender, and, only for male voters, their age. We use this information - which comes from the official registry of voters eligible for the 2015 Buenos Aires local elections - to confirm that gender and age are balanced with respect to the quality of the infrastructure of the schools where voters are assigned to vote.¹²

Hence, our final data set results from the combination of electoral data at the polling-station level and data on infrastructure at the school level. We also include a series of controls at the school level to enrich the analysis and perform robustness checks. First, to proxy for the average wealth of the area in which the school is located, we compute the average selling price of dwellings in the block around the school based on data from early 2016 available from one of the largest online real estate online marketplaces in Argentina (www.properati.com). In the absence of information regarding each voter’s address, we proxy for the distance between voters and the school to which they were assigned to vote by computing the average distance from each school to the centroid of the circuit. This variable captures the idea that a randomly drawn individual will be farther away from schools located away from the circuit’s center.

Finally, we use data from the latest Argentinian Census (2010) to measure household characteristics at the electoral circuit level. In particular, we compute the proportion of children in school age per household, a relevant variable that can potentially mediate the effect of school infrastructure on voting decisions.

4 Empirical Strategy

To identify the causal effect of the exposure to poor school infrastructure quality on voting, we exploit the random assignment of voters to schools within electoral circuits. This natural experiment allows us to compare the behavior of voters with similar characteristics that were assigned to vote in schools with different infrastructure quality. The following equation summarizes our econometric strategy:

$$Macri_{psct} = \alpha BadQuality_s + \lambda X_s + \Lambda X_p + \eta_c + \gamma_t + \epsilon_{psct} \quad (1)$$

¹²Though useful, these data have two limitations. First, they do not include the age of female voters. Second, though the registry for Buenos Aires’ 2015 local elections - and the corresponding allocation of voters to ballot stations - should be almost identical to that for the national elections held two months later, some small discrepancies exist, as voters who turned 18 between one election and the other would be registered for the presidential elections but not for the local ones.

The variable $Macri_{psct}$ represents the share of valid votes cast for candidate and former mayor Mauricio Macri in polling station p located in school s in circuit c in election/round t . $BadQuality_s$ is a dummy variable for whether the school s where the polling station p is located has poor infrastructure. X_s is a set of school-level controls including dwelling value in the block where the school is located and the distance from the circuit's centroid. X_p is a set of polling station-level controls including the number of registered voters, the share of male voters, and their average age. η_c and γ_t are circuit and election/round fixed effects, respectively. In all regressions, standard errors are clustered at the school level.

Controlling for the the average dwelling value in the vicinity of a school allows to account for the possible impact on voters of passing by a wealthy (poor) or safe (unsafe) street on their way to the ballot station. Controlling for how far the school is relative to the center of the circuit, should capture the potential effect of a longer vs. shorter ride to the polling station. Accounting for the number of individuals assigned to vote in a given polling station is important to rule out any effect on voting of facing long queues and waiting times, which is not uncommon in Argentina. Controlling for the share of male voters and their average age should instead capture plausible idiosyncratic differences in the distribution of voters by gender and age between schools with better vs. worse infrastructure. Finally, circuit fixed effects account for all observable and unobservable factors common to all polling stations in the same electoral circuit, while election/round fixed effects capture any aggregate shock in candidates' popularity in the PASO and in each round of the general election.

We are also interested in exploring what segments of the voting population may be more likely to be affected by being exposed to poor school infrastructure. To this end, we estimate the following version of equation 1:

$$Macri_{psct} = \alpha BadQuality_s + \beta BadQuality_s * Z_c + \lambda X_s + \Lambda X_p + \eta_c + \gamma_t + \epsilon_{psct} \quad (2)$$

where Z_c represents some relevant observable characteristics of circuit c that can mediate the effect of school infrastructure quality on voting, such as income or having school-aged children. Hence, β , the coefficient of the interaction term, would capture whether the effect of poor school infrastructure is more pronounced in areas that are poorer and/or where there are more school-aged children. This is particularly important to test our hypothesis that individuals in such areas may value public school quality disproportionately and may drive the effect of school infrastructure on voting for Macri.

Our identification strategy relies on the assumption that, within the same electoral circuit, the alphabetical order of voters' last names is orthogonal to the infrastructure quality of the

school they are assigned to. Even if last names were correlated with voter characteristics (e.g., if last names starting with an “A” were over-represented among wealthier or more educated families), our strategy would still allow to identify a causal effect as long as these characteristics are not systematically related to school quality within circuit (e.g., if wealthier and more educated voters are not more likely to vote in schools with better infrastructure).

We can partially test for this assumption using data on the distribution of voters by gender and age in schools with good vs. poor infrastructure. In addition, we can explore whether schools with different infrastructure quality differ with regard to the average number of voters assigned to each polling station, and to the average value of dwellings in the surrounding area. The results of this test, reported in Table A1 (Appendix), indicate that voters assigned to schools with poor infrastructure quality are not significantly different from voters assigned to schools with better quality. Furthermore, low infrastructure quality schools are not characterized by a higher number of voters per polling station, and do not tend to be located in poorer areas. Though limited to a small set of variables, this evidence is reassuring of the fact that school infrastructure quality is unrelated to voter and location characteristics that may also influence voting decisions.

5 Results and Interpretation

Figure 1 (A) shows the kernel density of Macri’s vote share separately for polling stations located in schools with good and poor infrastructure quality, while 1 (B), shows the kernel density for each of the four categories in the infrastructure quality classification which suggests that the relationship is monotonic. To further test for the relationship between school quality and voting, in Table 2 we estimate equations 1 and 2.¹³

In the first five columns the dependent variable is the share of total valid votes cast for Macri in the PASO election. As a robustness check, in the following five columns the dependent variable is the share of total valid votes cast for his coalition, *Cambiamos*. All regressions include electoral district fixed effects, round fixed effects, and school and polling stations controls.

The results in columns 1 and 5 confirm that electors voting in schools with low infrastructure quality are significantly less likely to support Macri. The average effect of voting in a bad-quality school as opposed to a good-quality one is about 0.2%. In the following columns we examine how the effect varies depending on voters’ characteristics at the electoral circuit level.

First we examine whether poor infrastructure quality had a different impact in areas

¹³For robustness, Table A2 in the Appendix shows the estimations with different sets of controls.

with lower vs. higher income. The relationship between income and the demand for public education - and hence the electoral punishment of the incumbent's poor performance in this domain - is *a priori* unclear. On the one hand, households with higher education - and higher income - may put a higher value on education and on the quality of public schools. On the other hand, wealthier families who are more likely to send their children to private schools may have less of a stake in the quality of public education.¹⁴ In fact, richer taxpayers who do not use public schools may prefer *lower* spending in public education as opposed to other public goods and services they may benefit from.¹⁵ Results in columns 2 and 7 support the second hypothesis, i.e., that the reaction to poor school quality is stronger among poorer individuals that have less access to private schools. Indeed, the effect is concentrated in circuits with below-median income, where voting in a poor-quality school decreases Macri's vote share between 0.49% and 0.53%, while it is virtually zero in richer ones. We find consistent results when comparing electoral circuits with different levels of education (columns 3 and 8), which is not surprising given the strong correlation between income and education at the circuit level (0.79 in our sample). To test this, we define the dummy "Low Education" that takes value one if the average number of years of education of a circuit is below the median of the sample.

We then examine how the effect varies with the number of school-age children per household. The results, reported in columns 4 and 9, indicate that poor school quality only affects voting in circuits where families have an above-median number of school-age children. In these areas, voting in a poor quality school reduces Macri's vote share by between 0.52% and 0.60%.¹⁶

In Table 3, we further explore the heterogeneity of the effect by comparing electoral circuits across *both* the income dimension and the density of school-age children in the circuit. The results confirm that the effect of school quality on voting is concentrated and stronger in schools located in circuits with lower income and more school-age children. For these schools, the effect is even more significant and larger in magnitude, i.e., between 0.58 and 0.67 percentage points depending on what dependent variable is used. These magnitudes are

¹⁴In the context of Argentina, access to private education varies drastically with income. According to official figures, 50% of all school-age children attend private schools; this percentage is 30 points higher for households in the top quartile of the income distribution (versus the bottom quartile), even within the same neighborhood.

¹⁵See [Epple and Romano \(1996\)](#) and [Stiglitz \(1974\)](#) for a discussion about voting and the demand for public services when private alternatives are available.

¹⁶In Tables A3 and A4 in the Appendix, we show the results using the four categories of infrastructure quality which confirm that the punishment increases as the quality of school worsens (the dummy for "Very Good Quality" is the dropped one). These results should be taken with some caution since within-circuit variation of school infrastructure quality is limited. Indeed, only few circuits have schools in all four categories of infrastructure quality.

quite sizable especially considering the rather mild nature of the treatment which did not involve any direct information sharing or priming.

Finally, in Table 4 we test whether school quality affects turnout, a measure of political participation, as well as the share of invalid votes, a proxy for voters' attitudes towards the political establishment. With regard to the first outcome, we do not expect school quality to influence citizens' decision to turn out since one could only be exposed to the quality of school infrastructure once present at the ballot station. In line with this hypothesis, we find no significant effect of school quality on turnout. Similarly, we find no tangible effect of school quality on the share of invalid votes cast. This result suggests that voters' disappointment with the poor quality of the school premises specifically translates into lower support for the incumbent mayor - directly responsible for local public education - and not into general disenchantment towards the political system.

Taken together our results indicate that: i) exposure to visible manifestations of poor public good provision can have a tangible impact on voting decisions, ii) this effect is stronger for individuals that are more likely to use public goods and have limited access to private substitutes, and iii) voters blame the poor public good provision specifically on the relevant incumbent politicians rather than on the entire political class.

These findings also shed light on the potential mechanism(s) through which the documented effect operates. In particular, the fact that the effect is stronger for voters that are more likely to use public schools suggests that it is not driven by pure informational update. Indeed, these individuals are also more likely to be exposed to and informed about school infrastructure before the election. To further test this hypothesis, in Column 5 of Table 2, we examine whether the effect is weaker in circuits where citizens vote in schools that are located, on average, closer to where they live. Indeed, to the extent that people are more likely to know and send their children to schools located closer to their homes, exposure to school quality on election day should provide less new information than for schools located farther away. We find no evidence that the effect varies with average distance to the schools which further confutes the information channel.

Our findings are in line with existing theories of information frictions and mental gaps (Handel and Schwartzstein (2018)) according to which even readily available information may not translate into usable knowledge. The fact that school infrastructure quality becomes salient at the polling station right before votes are cast, ensures that voters pay attention and take this information into account when evaluating the incumbent's performance. Our findings highlight that the form and the context in which information is presented is crucial, and that salient information provided at the right time may have a large impact on decision-making (DellaVigna (2009)). They also support the view that intervening on more visible

policy items may be more effective at boosting government popularity than equally important but less noticeable policies (Mani and Mukand (2007), Harding and Stasavage (2013), Robinson and Torvik (2005)).

6 Conclusions

We examine whether and how voting choices are influenced by contextual factors that make certain issues more salient. Specifically, we investigate to what extent citizens extract new information about the quality of public good provision from the physical settings of the polling station they attend, and whether they use this to punish incumbent politicians. We study whether individuals assigned to vote in schools with poorer infrastructure quality were less likely to support the former mayor of Buenos Aires who ran for the presidential mandate and who had instructed public education policy in the city over the eight years preceding the election.

We find that individuals assigned to vote in schools with relatively poorer infrastructure are 0.18 percentage points less likely to vote for the outgoing mayor. The effect is much larger (up to 0.6 p.p.) in areas with lower income and a higher number school-age children, where families value public education and have less access to private schools. The magnitude of the effect is quite large considering the mild nature of the treatment, and is in line with previous findings on the electoral impact of more “intense” treatments involving explicit information-sharing and priming campaigns Chong et al. (2014); Dias and Ferraz (2017).

Our results indicate that voters can extract valuable information from seemingly unimportant elements which can in turn influence their evaluation of politicians’ performance. They also highlight the power of contextual factors in making certain issues salient, and the importance of the timing and form in which information is presented to individuals for decision-making.

References

- Abhijit Banerjee, Selvan Kumar, Rohini Pande, and Felix Su. Do informed voters make better choices? experimental evidence from urban india. *Unpublished manuscript*, 2011.
- Jonah Berger, Marc Meredith, and S Christian Wheeler. Contextual priming: Where people vote affects how they vote. *Proceedings of the National Academy of Sciences*, 105(26): 8846–8849, 2008.
- Besley. *Principled agents*. 2007.
- Jens Blom-Hansen, Jørgen Elklit, Søren Serritzlew, and Louise Riis Villadsen. Ballot position and election results: Evidence from a natural experiment. *Electoral Studies*, 44:172–183, 2016.
- Lorenzo Casaburi and Ugo Troiano. Ghost-house busters: The electoral response to a large anti-tax evasion program. *The Quarterly Journal of Economics*, 131(1):273–314, 2015.
- Agustín Casas, Guillermo Díaz, and Andre Trindade. Who monitors the monitor? effect of party observers on electoral outcomes. *Journal of Public Economics*, 145:136–149, 2017.
- Raj Chetty, Adam Looney, and Kory Kroft. Salience and taxation: Theory and evidence. *American Economic Review*, 99(4):1145–77, 2009.
- Alberto Chong, Ana L De La O, Dean Karlan, and Leonard Wantchekon. Does corruption information inspire the fight or quash the hope? a field experiment in mexico on voter turnout, choice, and party identification. *The Journal of Politics*, 77(1):55–71, 2014.
- Stefano DellaVigna. Psychology and economics: Evidence from the field. *Journal of Economic literature*, 47(2):315–72, 2009.
- Stefano DellaVigna and Joshua M Pollet. Investor inattention and friday earnings announcements. *The Journal of Finance*, 64(2):709–749, 2009.
- Marina Dias and Claudio Ferraz. Voting for quality? the impact of school quality information on electoral outcomes. *manuscript*, 2017.
- Francesco Drago, Tommaso Nannicini, and Francesco Sobbrío. Meet the press: How voters and politicians respond to newspaper entry and exit. *American Economic Journal: Applied Economics*, 6(3):159–88, 2014.

- John Duggan and César Martinelli. The political economy of dynamic elections: Accountability, commitment, and responsiveness. *Journal of Economic Literature*, 55(3):916–84, 2017.
- Dennis Epple and Richard E Romano. Ends against the middle: Determining public service provision when there are private alternatives. *Journal of Public Economics*, 62(3):297–325, 1996.
- Claudio Ferraz and Frederico Finan. Exposing corrupt politicians: the effects of brazil’s publicly released audits on electoral outcomes. *The Quarterly Journal of Economics*, 123(2):703–745, 2008.
- Benjamin Handel and Joshua Schwartzstein. Frictions or mental gaps: What’s behind the information we (don’t) use and when do we care? *Journal of Economic Perspectives*, 32(1):155–78, 2018.
- Robin Harding and David Stasavage. What democracy does (and doesn’t do) for basic services: School fees, school inputs, and african elections. *The Journal of Politics*, 76(1):229–245, 2013.
- Andrew Healy, Neil Malhotra, et al. Random events, economic losses, and retrospective voting: Implications for democratic competence. *Quarterly Journal of Political Science*, 5(2):193–208, 2010.
- Tanjim Hossain and John Morgan. ... plus shipping and handling: Revenue (non) equivalence in field experiments on ebay. *Advances in Economic Analysis & Policy*, 5(2), 2006.
- Jonathan GS Koppell and Jennifer A Steen. The effects of ballot position on election outcomes. *The Journal of Politics*, 66(1):267–281, 2004.
- Horacio A Larreguy, John Marshall, and James M Snyder Jr. Publicizing malfeasance: When media facilitates electoral accountability in mexico. *Cambridge, Harvard University, manuscript*, 2015.
- Anandi Mani and Sharun Mukand. Democracy, visibility and public good provision. *Journal of Development Economics*, 83(2):506–529, 2007.
- Kamil Marcinkiewicz. Electoral contexts that assist voter coordination: Ballot position effects in poland. *Electoral Studies*, 33:322–334, 2014.
- Joanne M Miller and Jon A Krosnick. The impact of candidate name order on election outcomes. *Public Opinion Quarterly*, pages 291–330, 1998.

Timothy J Power and James C Garand. Determinants of invalid voting in latin america. *Electoral Studies*, 26(2):432–444, 2007.

Axel Rivas and Daniela Dborkin. ¿ qué cambió en el financiamiento educativo en argentina? *CIPPEC*, 2018.

James A Robinson and Ragnar Torvik. White elephants. *Journal of Public Economics*, 89 (2-3):197–210, 2005.

Kelly Shue and Erzo FP Luttmer. Who misvotes? the effect of differential cognition costs on election outcomes. *American Economic Journal: Economic Policy*, 1(1):229–57, 2009.

Joseph E Stiglitz. The demand for education in public and private school systems. *Journal of Public Economics*, 3(4):349–385, 1974.

7 Tables and Figures

Table 1: Electoral Descriptive Statistics

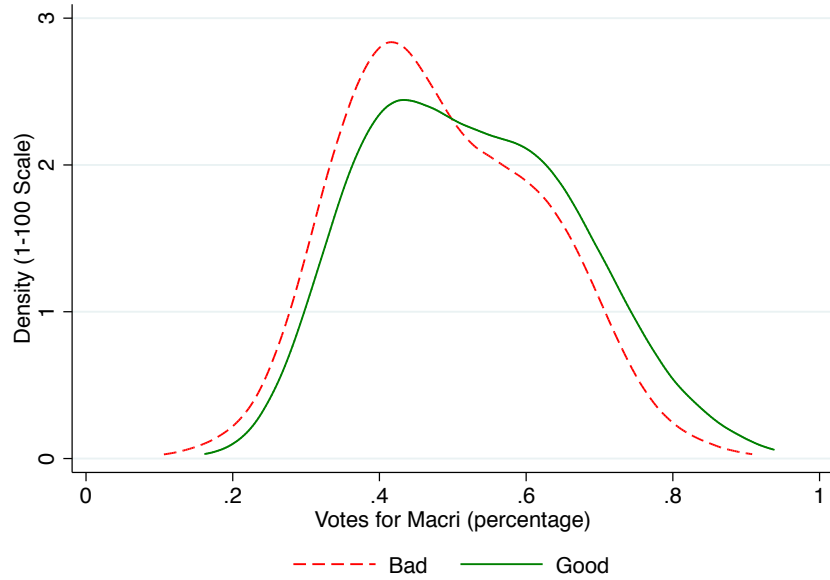
PANEL (A) - by round	Turnout (perc.)	Positive votes ratio (perc.)	Votes for Macri (perc.)	No. of Poll. Booths
PASO	73.1 (2.95)	98.1 (6.1)	40 (1.6)	4,331
1 st Round	78.2 (2.99)	98.8 (4.7)	48.5 (1.7)	4,331
2 nd Round	77.8 (2.99)	97.8 (4.2)	63.1 (1.9)	4,331
Pooled Elections	76.4 (2.99)	98.2 (5.5)	50.5 (1.8)	4,331

PANEL (B) - by type of school	Very Bad	Bad	Good	Very Good
No. of "precincts" (schools)	53	180	166	63
Turnout (percentage)	76.8 (7.3)	77 (6.2)	76.8 (7.1)	75 (6.9)
Positive votes ratio (percentage)	98.2 (3)	98.1 (2.0)	98.2 (1.4)	98.2 (1.2)
Votes for Macri (percentage)	45.7 (12.9)	49.2 (13.5)	51.6 (14.8)	53.7 (13.8)
Number of voters per polling station	346.4 (3.1)	346.5 (3.0)	346.9 (3.0)	346.8 (2.8)

Definitions Panel (A): Electors: total number of registered voters. Turnout: total number of votes for any candidate plus blank votes divided by the total number of registered voters. Positive votes ratio: total number of votes for any valid candidate divided by the total number of votes. Votes for Macri: number of votes cast for the candidate Mauricio Macri divided by the total number of valid votes. No. of Polling Booths: sum of all the polling booths in the sample. PASO: primary elections, 1st Round: first round of the general election, 2nd Round: runoff round of the general election. Mean values at the "precinct" (school) level in first rows, standard deviations in parentheses.

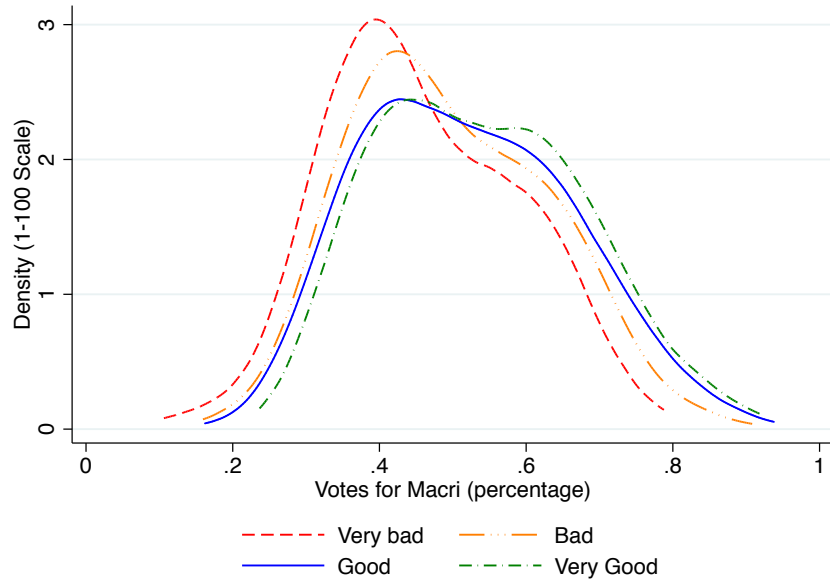
Definitions Panel (B): Turnout: total number of votes for any candidate plus blank votes divided by the total number of registered voters. Positive votes ratio: total number of votes for any valid candidate divided by the total number of votes. Votes for Macri: total number of votes cast for the candidate Mauricio Macri divided by the total number of valid votes. "Very Bad", "Bad", "Good", "Very Good" are the four different categories used to measure the infrastructure quality of schools.

Figure 1: (A) Votes for Macri by School Quality Level (aggregated)



Note: Bandwidth: 0.05. Votes are measured at the polling booth level, and the three rounds of elections are pooled.

(B) Votes for Macri by School Quality Level



Note: Bandwidth: 0.05. Votes are measured at the polling booth level, and the three rounds of elections are pooled.

Table 2: Effect of School Quality on Voting for Macri - Main effect and heterogeneity by income or density of school-age children (percentage)

	(A)					(B)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Bad Quality	-0.23 (0.12)	-0.03 (0.15)	-0.04 (0.15)	-0.014 (0.14)	-0.23 (0.12)	-0.27 (0.13)	0.00 (0.16)	-0.03 (0.15)	-0.016 (0.15)	-0.27 (0.13)
Bad Quality * Poor		-0.55 (0.22)					-0.57 (0.22)			
Total Effect (Poor)		-0.52 (0.18)					-0.56 (0.19)			
Bad Quality * Low Ed.			-0.33 (0.21)					-0.34 (0.22)		
Total Effect (Low Ed.)			-0.37 (0.17)					-0.37 (0.18)		
Bad Quality * HDC				-0.57 (0.21)					-0.66 (0.23)	
Total Effect (HDC)				-0.56 (0.18)					-0.65 (0.19)	
Bad Quality * Distance					0.00 (0.003)					0.00 (0.004)
Obs.	12,626	12,626	12,626	12,626	12,626	12,626	12,626	12,626	12,626	12,626
R-Squared	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92

Standard Errors clustered at the school level in parentheses.

Regressions include electoral circuit fixed effects, election round fixed effect, school and polling station controls as described in Section 3.

(A): Definition of the dependent variable: total number of votes for Macri divided by the total number of valid votes (PASO election, first round of the general election and runoff of the general election).

(B): Definition of the dependent variable: total number of votes for Macri or any other candidate in the Cambiemos Alliance divided by the total number of valid votes (PASO election). Total number of votes for Macri divided by the total number of valid votes (first round of the general election and runoff of the general election).

“Poor”: 1 if the average housing price in the circuit is below the median of the city, 0 otherwise.

“Low Ed.”: 1 if the proportion of individuals living in the circuit with less than a higher education degree is below the median of the city.

“HDC” means “High Density of Children”: 1 if the average proportion of households in the circuit with children between 0 and 15 is above the median of the city, 0 otherwise.

Table 3: Effect of School Quality on Voting for Macri - Main effect and double interaction with income and density of school-age children (percentage)

	(A)			(B)		
	(1)	(2)	(3)	(4)	(5)	(6)
Bad Quality (BQ)	-0.23 (0.12)	0.10 (0.52)	0.00 (0.15)	-0.27 (0.33)	0.12 (0.17)	0.01 (0.16)
BQ * Poor		-0.38 (0.33)			-0.32 (0.34)	
BQ * Low Ed.			0.05 (0.34)			-0.11 (0.35)
BQ * HDC		-0.46 (0.39)	-0.73 (0.44)		-0.48 (0.43)	-0.72 (0.53)
BQ * Poor * HDC		0.12 (0.52)			0.06 (0.56)	
BQ * Low Ed. * HDC			0.14 (0.52)			0.04 (0.66)
Effect on Poor + HDC		-0.61			-0.56	
Effect on Poor + LDC		-0.27			-0.21	
Effect on Not Poor + LDC		-0.35			-0.36	
Effect on Not Poor + HDC		0.10			0.12	
Effect on Low. Ed + HDC			-0.54			-0.62
Effect on Low Ed. + LDC			0.05			0.12
Effect on High Ed. + LDC			0.00			0.01
Effect on High Ed. + HDC			-0.73			-0.70
Obs.	12,626	12,626	12,626	12,626	12,626	12,626
R-Squared	0.83	0.83	0.83	0.83	0.86	0.86

Standard Errors clustered at the school level in parentheses.

All regressions include electoral circuit fixed effects, round fixed effect and the time-varying school controls described in Section 3.

(A): Definition of the dependent variable: total number of votes for Macri divided by the total number of valid votes (PASO election, first round of the general election and runoff of the general election).

(B): Definition of the dependent variable: total number of votes for Macri or any other candidate in the Cambiemos Alliance divided by the total number of valid votes (PASO election). Total number of votes for Macri divided by the total number of valid votes (first round of the general election and runoff of the general election).

“Poor”: 1 if the average housing price in the circuit is below the median of the city, 0 otherwise.

“Low Ed.”: 1 if the proportion of individuals living in the circuit, with less than a higher education degree is below the median of the city.

“HDC” means “High Density of Children”: 1 if the average proportion of households in the circuit with children between 0 and 15 is above the median of the city, 0 otherwise.

“LDC” means “Low Density of Children”: 1 if the average proportion of households in the circuit with children between 0 and 15 is below the median of the city, 0 otherwise.

Table 4: Effect of School Quality on Turnout and Valid Votes (percentage)

	Full Controls		School Controls		Round and Circuit FE	
	Turnout	Valid	Turnout	Valid	Turnout	Valid
Bad Quality	-0.007 (0.09)	0.005 (0.02)	-0.009 (0.09)	0.004 (0.03)	0.02 (0.09)	0.02 (0.03)
Obs.	12,652	12,652	12,652	12,652	12,652	12,652
R-Squared	0.83	0.83	0.83	0.83	0.86	0.86

Standard Errors clustered at the school level in parentheses.

Set of controls per column: “Full controls” includes electoral circuit fixed effects, election round fixed effects, school and polling station controls as described in Section 3.

“School Controls” includes electoral circuit fixed effects, election round fixed effects, and school controls as described in Section 3.

“Round and Circuit FE” includes electoral circuit fixed effects and election round fixed effects.

Definition of the dependent variables: “Turnout” is the number of votes (valid or not) divided by the number of voters in a polling station.

“Valid” is the number of valid votes divided by the number of votes in a polling station.

Appendix

7.1 Main Parties

Formally, eleven parties competed in the PASO (compulsory primary elections), although only six obtained at least 1.5% of the votes and therefore could compete in the general election:

Frente para la Victoria (FPV): Led by the incumbent President Cristina Fernandez de Kirchner. The party was in charge of the federal government from 2003 to 2015. It is the most recent faction of the Peronist party. The party had only one candidate in the PASO elections: Daniel Scioli.

Cambiamos: A coalition led by Mauricio Macri, who was the Mayor of the City of Buenos Aires from 2007 to 2015. The party is typically associated with the modern, center-right political trend. It had three candidates running against each other in the PASO elections: Mauricio Macri – who obtained the vast majority of the votes within the coalition – Ernesto Sanz and Elisa Carrió.

Unidos por una Nueva Alternativa (UNA): A coalition formed by the largest dissident Peronist, i.e. which is not aligned with the FPV. It is typically associated with a conservative center-right ideology. Two candidates ran for this party's nomination in the PASO elections: Sergio Massa and José de la Sota.

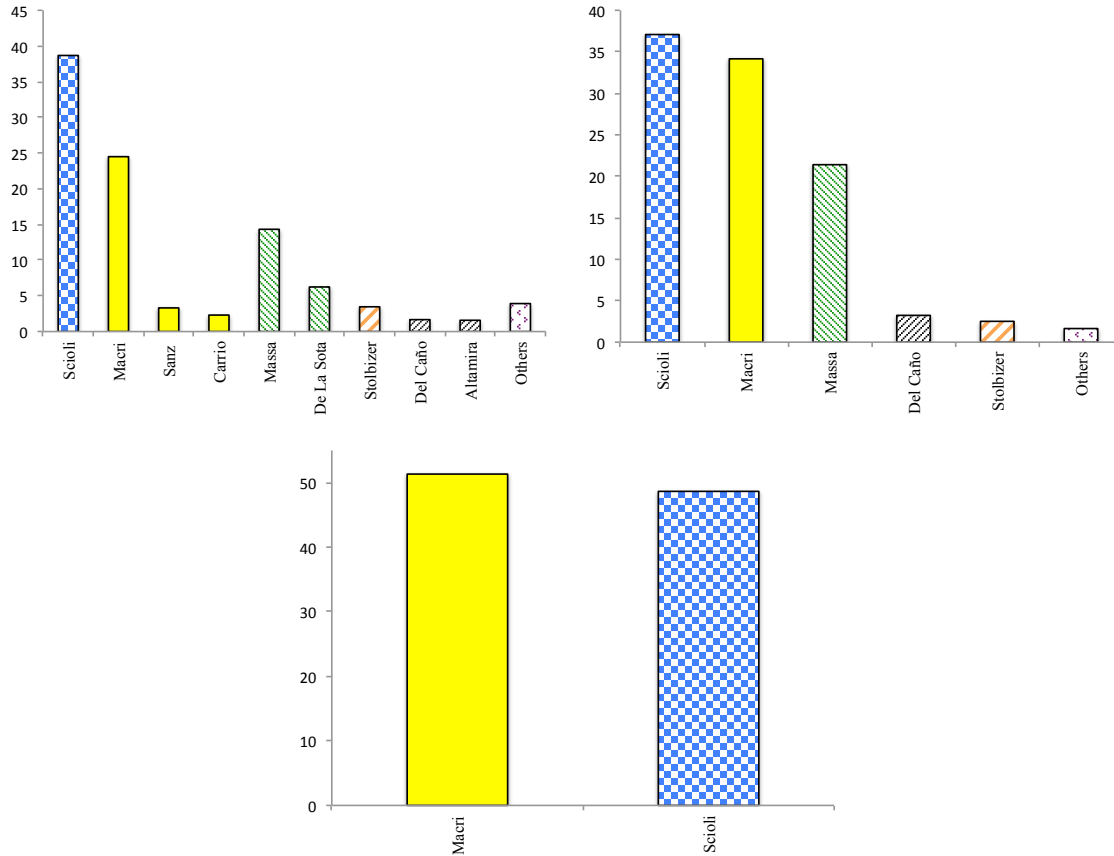
Progresistas: A progressive coalition, associated with the center-left. The party had only one candidate for the PASO elections: Margarita Stolbizer.

Compromiso Federal: A conservative/centrist faction of the Peronist party, but with a very specific regional origin in the province of San Luis, where the party has continuously governed since 1983. Alberto Rodriguez Saa was the party's only candidate in the PASO elections.

Frente de Izquierda y de los Trabajadores (FIT): A left wing coalition. The party presented two candidates for the PASO elections: Nicolas del Caño and Jorge Altamira.

7.2 Additional Figures

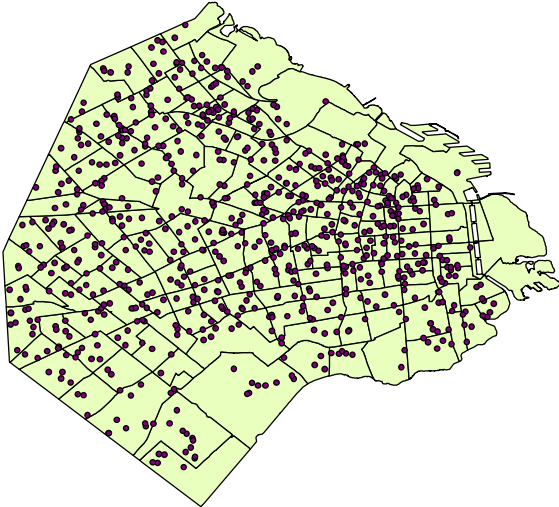
Figure A1: Electoral Results at the National Level



Source: Camara Nacional Electoral

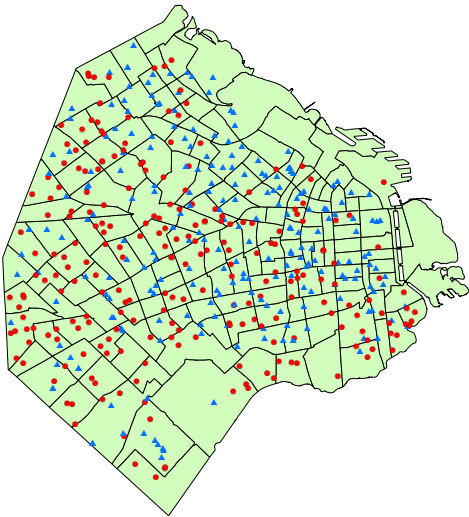
Note: The 1st figure corresponds to the results of the PASO election; the 2nd and 3rd figures correspond to the 1st and 2nd rounds of the general election. Bars are grouped by party: Scioli (FPV), Macri, Sanz, Carrio (Cambiemos), Massa and De la Sota (UNA), Stolbizer (Progresistas), Altamira and Del Caño (FIT). The description for each party/coalition can be found in the Appendix.

Figure A2: Electoral Circuits and Schools in the City of Buenos Aires



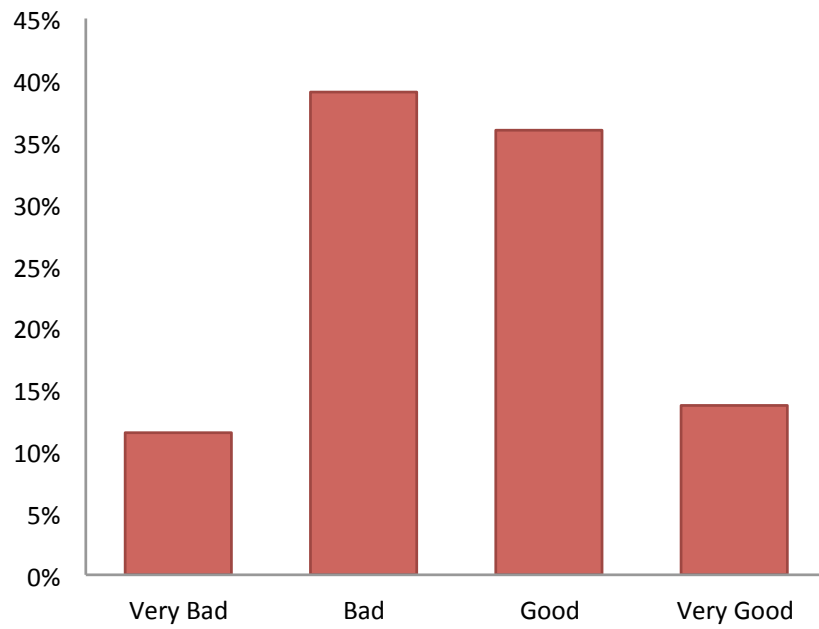
Source: Buenos Aires Data and La Nacion

Figure A3: Location of “Good” and “Bad” schools in the City of Buenos Aires



Note: Circles represent “bad” schools, triangles represent “good” schools.

Figure A4: **Distribution of School Infrastructure Quality**



Source: Ministry of Education, City of Buenos Aires

7.3 Additional Tables

Table A1: Balance Test

	No. Voters
Bad Quality	-0.09 (0.07) [-0.03 σ]
Observations	12.958
R-Squared	0.03

Standard Errors clustered at the school level in parentheses

Regressions include electoral circuit fixed effects.

(A): Age is defined in years and is defined only for male voters.

(B): Male is a dummy that equals 1 if the voter is a male and 0 otherwise.

Table A2: Robustness (I): Effect of School Quality on Voting for Macri (percentage) with no controls

	Full Controls			School Controls			Round and Circuit FE		
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)
Bad Qual. (BQ)	-0.23 (0.12)	0.03 (0.15)	0.014 (0.14)	-0.23 (0.12)	0.027 (0.15)	0.018 (0.14)	-0.16 (0.11)	0.046 (0.15)	0.035 (0.14)
BQ * Poor		-0.55 (0.22)			-0.54 (0.22)			-0.43 (0.21)	
Tot. Effect (Poor)		-0.52 (0.18)			-0.52 (0.17)			-0.39 (0.16)	
BQ * HDC			-0.57 (0.21)			-0.59 (0.21)			-0.46 (0.21)
Tot. Effect (HDC)			-0.56 (0.18)			-0.57 (0.18)			-0.43 (0.17)
Obs.	12,652	12,652	12,652	12,652	12,652	12,652	12,652	12,652	12,652
R-Squared	0.83	0.83	0.83	0.83	0.86	0.86	0.83	0.83	0.83

Standard Errors clustered at the school level in parentheses.

Regressions include electoral circuit fixed effects, election round fixed effects, school and polling station controls as described in Section 3.

Definition of the dependent variable: total number of votes for Macri divided by the total number of valid votes (PASO election, first round of the general election and runoff of the general election).

“Poor”: 1 if the average housing price in the circuit is below the median of the city, 0 otherwise.

“Low Ed.”: 1 if the proportion of individuals living in the circuit, with less than a higher education degree is below the median of the city.

“HDC” means “High Density of Children”: 1 if the average proportion of households in the circuit with children between 0 and 15 is above the median of the city, 0 otherwise.

Set of controls per column: “Full controls” includes electoral circuit fixed effects, election round fixed effects, school and polling station controls as described in Section 3.

“School Controls” includes electoral circuit fixed effects, election round fixed effects, and school controls as described in Section 3.

“Round and Circuit FE” includes electoral circuit fixed effects and election round fixed effects.

Definition of the dependent variables: “Turnout” is the number of votes (valid or not) divided by the number of voters in a polling station.

“Valid” is the number of valid votes divided by the number of votes in a polling station.

Table A3: Effect of School Quality on Voting for Macri by four quality levels of school infrastructure (percentage)

	(A)		(B)	
	(1)	(2)	(3)	(4)
Very Bad Quality	-0.50 (0.25)	-0.12 (0.36)	0.00 (0.33)	-0.17 (0.38)
Very Bad Quality * Poor		-0.80 (0.50)		0.91 (0.52)
Very Bad Quality Total Effect (Poor)		-1.1 (0.37)		-1.08 (0.37)
Bad Quality	-0.35 (0.18)	-0.04 (0.23)	-0.37 (0.20)	0.00 (0.25)
Bad Quality * Poor		0.72 (0.30)		0.83 (0.39)
Bad Quality Total Effect (Poor)		-0.83 (0.30)		-0.83 (0.30)
Good Quality	-0.18 (0.17)	-0.09 (0.21)	-0.19 (0.18)	-0.06 (0.23)
Good Quality * Poor		-0.21 (0.36)		-0.34 (0.38)
Good Quality Total Effect (Poor)		-0.31 (0.28)		-0.40 (0.29)
Obs.	12,626	12,626	12,626	12,626
R-Squared	0.92	0.92	0.92	0.92

Standard Errors clustered at the school level in parentheses.

Regressions include electoral circuit fixed effects, election round fixed effects, school and polling station controls as described in Section 3.

(A): Definition of the dependent variable: total number of votes for Macri divided by the total number of valid votes (PASO election, first round of the general election and runoff of the general election).

(B): Definition of the dependent variable: total number of votes for Macri or any other candidate in the Cambiemos Alliance divided by the total number of valid votes (PASO election). Total number of votes for Macri divided by the total number of valid votes (first round of the general election and runoff of the general election).

“Poor”: 1 if the average housing price in the circuit is below the median of the city, 0 otherwise.

“Low Ed.”: 1 if the proportion of individuals living in the circuit, with less than a higher education degree is below the median of the city.

Table A4: Effect of School Quality on Voting for Macri by four quality levels of school infrastructure (percentage)

	(A)		(B)	
	(1)	(2)	(3)	(4)
Very Bad Quality	-0.50 (0.25)	0.00 (0.33)	0.00 (0.33)	-0.028 (0.35)
Very Bad Quality * Poor		-1.1 (0.48)		-1.24 (0.50)
Very Bad Quality Total Effect (Poor)		-1.1 (0.37)		-1.27 (0.37)
Bad Quality	-0.35 (0.18)	-0.06 (0.22)	-0.37 (0.20)	-0.05 (0.24)
Bad Quality * Poor		-0.78 (0.30)		-0.86 (0.39)
Bad Quality Total Effect (Poor)		-0.84 (0.31)		-0.92 (0.31)
Good Quality	-0.18 (0.17)	-0.07 (0.20)	-0.19 (0.18)	-0.09 (0.22)
Good Quality * Poor		-0.36 (0.36)		-0.35 (0.37)
Good Quality Total Effect (Poor)		-0.43 (0.29)		-0.45 (0.30)
Obs.	12,626	12,626	12,626	12,626
R-Squared	0.92	0.92	0.92	0.92

Standard Errors clustered at the school level in parentheses.

Regressions include electoral circuit fixed effects, election round fixed effects, school and polling station controls as described in Section 3.

(A): Definition of the dependent variable: total number of votes for Macri divided by the total number of valid votes (PASO election, first round of the general election and runoff of the general election).

(B): Definition of the dependent variable: total number of votes for Macri or any other candidate in the Cambiemos Alliance divided by the total number of valid votes (PASO election). Total number of votes for Macri divided by the total number of valid votes (first round of the general election and runoff of the general election).

“Poor”: 1 if the average housing price in the circuit is below the median of the city, 0 otherwise.

“Low Ed.”: 1 if the proportion of individuals living in the circuit, with less than a higher education degree is below the median of the city.