Economic and Political Inequality *

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Abstract

This paper analyzes the relationship between economic and political inequality as measured by turnout differentials across income groups. Moving beyond the standard view that inequality reduces turnout we document a non-linear relationship between economic and political inequality. Low income voters tend to participate more in politics (and as a result turnout inequality tends to be lower) when inequality is either very low or very high. By contrast, political (turnout) inequality is higher at intermediate levels of economic inequality.To account for these patterns we develop a theory that links different levels of inequality and development to parties' strategies to target and mobilize low income voters. Subsequently, the empirical predictions derived from the theoretical argument build on two tenets. First, we carry out a cross-national multilevel analysis of the relationship between inequality, strategies for political mobilization, and electoral turnout. Second, the paper identifies the relationship between political mobilization strategies, inequality and turnout by exploiting an experimental design facilitated by the randomized allocation of monitoring of corruption across Brazilian municipalities in the early 2000s. The findings lend considerable support to the argument that political mobilization strategies mediate the connection between income inequality and turnout, thus accounting for the non-linear relationship between economic and political inequality across different levels of development.

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Introduction

The nexus between economic and political inequality lies at the heart of democratic theory and political economy (Przeworski, 2010). Dahl defined democracy as a set of procedures guided by the principle of *"equal consideration"*, that is the notion that " In cases of binding collective decision, to be considered as an equal is to have one's interests taken equally into consideration by the process of decision-making" (Dahl, 1991, p.87). In other words, the ability to participate in politics, influence policy, and government's responsiveness are what determines whether citizens truly are *political equals* under democracy. A pre-requisite for this conception of democracy to work effectively is that citizens' *positive freedoms* (Berlin, 1958) are not undermined by a reduction in their capability set due to material deprivation (Sen, 1992). The undermining of positive freedoms may take various forms, from the capture of the vote choice in exchange for material benefits to the induced self-exclusion of the electoral body altogether. Who choses to vote, how, and why, has in turn major implications for distributive politics and economic outcomes, feeding back into the linkage between economic and political inequality. This paper analyzes the relationship between economic and political inequality as measured by turnout differentials across income groups.

The negative impact of inequality on political engagement and electoral turnout is a recurrent theme in comparative politics. Inequality and poverty limit access to the necessary resources individuals need to engage in politics, whether material or informational (Verba et al., 1995; Solt, 2008; Gallego, 2010; Mahler, 2008); alter the structure of informational networks under which individuals operate politically (Bond et al., 2012; Abrams, Iversen and Soskice, 2011); shape the levels of political polarization (Pontusson and Rueda, 2010), or alter the incentives of political parties to target different types of voters in different electoral systems (Anderson and Beramendi, 2012). Jointly, these findings help understand an important empirical regularity from the standpoint of the linkages between economic and political inequalities: poorer citizens are less likely to vote than rich ones, and even more so in more unequal societies. The lack of engagement of the poor reduces the strength of pro-redistributive coalitions at the same time that increasing inequality feeds back into the political participation of low-income citizens (Franzese and Hays, 2008). Yet interestingly, younger and less developed democracies call into question the generalizability of this well established result by previous literature. In less developed and very unequal democracies poor

voters often seem more willing to engage in politics than their counterparts in rich democracies (Krishna, 2008; Stokes et al., 2013). As a matter of fact, the relationship between inequality and electoral turnout in the developing world reverses the patterns observed in wealthier democracies: higher levels of inequality lead to more electoral participation, rather than less. Tracing these patterns, and moving beyond the standard view that inequality reduces turnout, we document a non-linear relationship between economic and political inequality. Low income voters tend to participate more in politics (and as a result turnout inequality tends to be lower) when inequality is either very low or very high. By contrast, political (turnout) inequality is higher at intermediate levels of economic inequality.

Our explanation for these patterns rests on a new theory that links different levels of inequality and development to parties' strategies to target and mobilize low income voters.Under very high levels of inequality parties have incentives to prioritize clientelism as a way to lure voters in the lower half of the income distribution to support them. As countries develop and inequality declines politics becomes a conflict about the provision of public goods, a conflict articulated around middle and upper income voters. When clientelism becomes the dominant mobilization strategy, turnout inequality declines. When programmatism dominates,turnout inequality increases, especially at intermediate levels of inequality. In the few cases in which electoral politics leads parties to propose large and encompassing welfare states as a way to forge electoral coalitions, a substantial share of low income citizens become the target of political mobilization efforts and turnout inequality declines again.

By placing the focus on parties' mobilization strategies as the linking mechanism between economic and political inequality, this paper makes a number of contributions towards a better understanding of the link between political economy and political behavior. First, by placing at centerstage alternative strategies of party competition, this paper helps understand better the conditions under which elites resort to turnout buying (Nichter, 2008; Hidalgo and Nichter, 2012) versus other forms of organizing political influence, and with what consequences. Second, a better understanding of the connection between economic inequality, party strategies and political inequality helps illuminate the political conditions under which bad equilibria (high inequality, clientelistic democracies, low state capacity) are likely to emerge and persist (Robinson and Verdier, 2013). We offer a genuinely political mechanism behind the persistence of bad development equilibria and the self-reproduction of inequality, both economic and political. In doing so, our analysis expands the array of mechanism linking affluence and influence (Gilens, 2012). Finally, by exploiting a natural ex-

periment facilitated by the Brazilian federal government, this paper contributes to the causal identification of mobilization strategies as the mechanism mediating economic inequality and electoral turnout.

The rest of the paper is organized as follows.We begin with an exploration of the relationship between economic and political inequality, thus substantiating the puzzle leading the paper. Thereafter, section II develops our theoretical model. Section III (cross-national) and IV (experimental) present the empirical evaluation of the core empirical implications of the argument. Finally, section V concludes and outlines some avenues for further research endeavors.

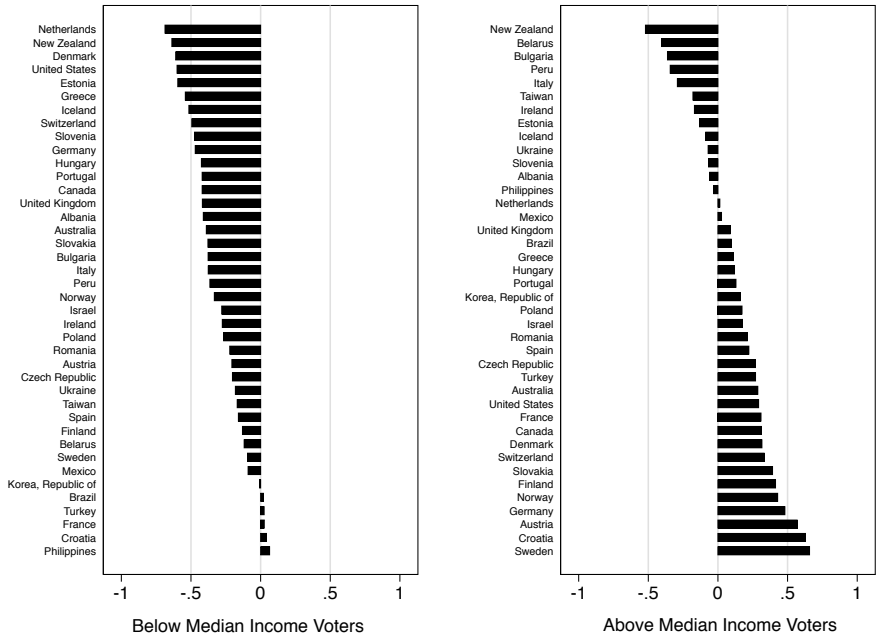
1 Patterns and Puzzles

Figure 1 analyzes the relationship between income and turnout in the rage of developed and developing democracies for which we have information. On the basis of the *Comparative Study of Electoral Systems Database* (CSES), the left panel in figure 1 analyzes the correlation between being below the national median income and whether the respondent turned out to vote in the last election. The right panel in the same figure performs a similar analysis for voters above their national median income.[1] A number of interesting patterns emerge. There are countries, such as New Zealand, where the middle income citizens seem more likely to vote than either low or high income ones. There are places like Sweden, where the low and middle income citizens show very similar patterns of behavior but high income citizens seem relatively more engaged in elections. There are countries, like the United States, where the income polarization of turnout is at its maximum: voters in the bottom half of the income distribution are less likely to vote than the median while at the same time voters in the top two quintiles are much more likely to do so. And finally there are countries such as Brazil or Mexico where everyone is nearly as likely to vote: low income voters do not show a different pattern of behavior relative to either middle or high income

[1]The magnitudes displayed in figures 1 are logit coefficients after including controls for education, age, age squared, gender, and a dummy variable capturing whether the individual lives in an urban or a rural setting. The CSES data measures income in five quintiles. The regression takes the third quintile (median) as the reference category for the impact of the two variables of interest on turnout. Low income quintiles are the bottom two (bottom 40 % of the distribution) whereas upper income quintiles include the 4th and the 5th (top 40 % of the distribution).Finally, magnitudes reflect averages within countries for all the years for which there is information available in the data.

voters.[2] The range of variation in the extent to which either low or high income voters differ in their propensity to turn up at the ballot box is quite striking.

Figure 1: The Income-Turnout Link across countries

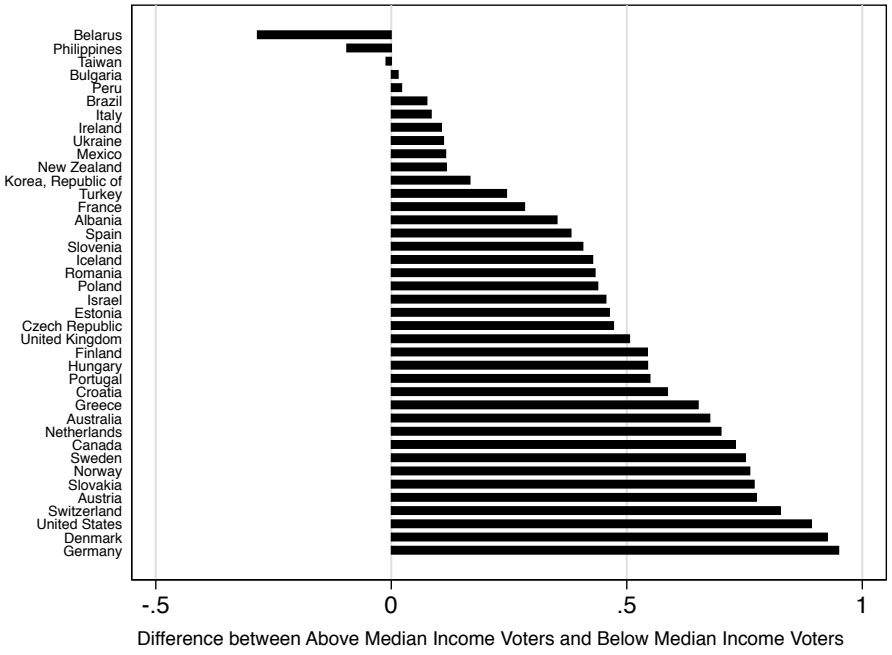


Building on the information provided in figure 1, figure 2 presents a summary measure of the levels of political (turnout) inequality. The measure is defined as the difference between the slope of income on turnout for voters in the top two quintiles minus the slope of income on turnout for those in the bottom two quintiles (as presented in figure 1). Positive values reflect high levels of turnout differentials among voters stratified along income lines. In other words, the negative voting gap for citizens below the median and the positive voting gap for citizens above the media are both significant (though not necessarily symmetric). By contrast, values around 0 imply that no significant differences between the rich and the poor are apparent as far as turnout is concerned. Finally, negative values imply that low income citizens show a higher propensity to vote than high income citizens (as both are compared to the same reference group, the middle income strata).

Figure 2 brings out a number of interesting patterns. First, turnout inequality

[2]Interestingly, these differences are not a mere reflection of compulsory voting laws.For instance, while Brazil is known to have effectively enforced compulsory voting laws for literate citizens above 18 and below 70, Mexico, Portugal, and France do not. Obviously, we control for this and other institutional features in our multivariate analysis below.

Figure 2: Cross-national Patterns of Political (Turnout) Inequality



tends to be higher among advanced industrial than among the middle income countries in our sample. The former are disproportionately more represented in the upper range of the measure of turnout inequality. Second, by considering the relationship between turnout and the overall distribution of income, figure 2 provides a new perspective on the existing understanding about the relationship between economic and political inequality. The USA show very high levels of turnout inequality, [3] but so do Germany, Denmark, or Switzerland relative to the rest of the sample. By contrast, France, Portugal, Spain or Italy have significantly lower levels than any of these countries. What explains these puzzling patterns in the relationship between income and turnout across nations?

Largely occupied with the turnout gap by low income citizens in rich countries, especially the USA, comparative politics has largely neglected the variation in levels of turnout inequality in the broader range of democracies. While several possible explanations exist to account for the differences in turnout inequality and turnout decline in rich democracies (e.g. Blais and Rubenson 2013), the reasons why turnout inequality is low in places like Mexico,

[3]These levels deviate even more with respect to the rest of the sample when one defines turnout inequality as the ratio between the bottom and the top quintiles of the income distribution (see Kasara and Suryanarayan (2014))

Argentina, Brazil or India and high in societies such as the United States or Germany beg for additional theoretical and empirical efforts. In two recent and important exceptions to this claim, Gallego (2014) puts the focus on institutional contextual variables, whereas Kasara and Suryanarayan (2014) stress the importance of the bureaucratic capacity to extract from the rich and the salience of redistributive conflicts as a political *cleavage* in societies. In their account, the rich are more likely to vote than the poor (and therefore turnout inequality is high) when the threat of extraction is credible (as determined by the level of bureaucratic capacity) and redistribution (as opposed to alternative second or third dimensions) articulates the contrast between contending political platforms.

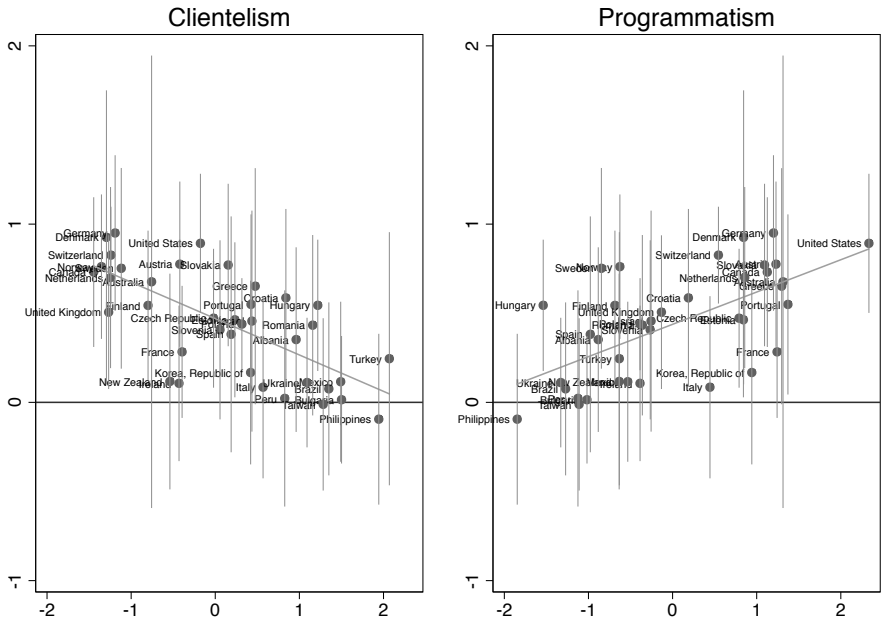
In this paper we pay attention to a different set of mechanisms: parties' choice of mobilization strategies to target different groups of voters. We reason from the premise that turnout levels reflect primarily parties' efforts to mobilize voters, especially those situated in the lower half of the income distribution. That the case, the explanation of turnout inequality requires not only an account of the incentives of high income voters to engage in elections but also of parties' choices about (1)*whom to target* and (2) *how to target them*. We see these two choices as interlinked. We explore the conditions under which parties choose to pursue one of two strategies: mobilization through programmatic party-voter linkages, built around competitive offerings of sets of public policies (public goods), and mobilization through clientelistic linkages, which we broadly consider as targeted efforts towards a self-contained group of voters based on a "particular mode of exchange between electoral constituencies as principals and politicians as agents [...] focused on particular classes of goods, [...] direct, contingent" (Kitschelt and Wilkinson, 2007, p.7-8).[4]

Figure 3 presents a first exploration of the relationship between different forms of political mobilization and turnout inequality.[5] The type of political mobilization at work in

[4]For a more detailed analysis of different forms of non-programmatic politics consistent with the approach in this paper see Stokes et al. (2013)

[5]Clientelism is an aggregate and continuous measure of clientelistic efforts by parties at the country level, codes as b15n in Kitschelt's dataset (Kitschelt, 2013). The aggregate indicator of clientelism (the variable *b15n* in Kitschelt 2013 DALP dataset) reflects the sum (weighted by party size) of experts' judgment of the extent to which party candidates promise voters (1) consumables (2) benefits or marketable goods (3) access to services or employment (4) government contracts and regulations or any other form of material inducements in exchange for their vote. Each of these items get a score from 1=negligible effort to 4=major effort. It ranges between 21.4 and 68.6; Programmatism is the ratio between a similar measure of programmatic efforts (*cosal4*) and clientelistic efforts by parties at the country level. It ranges between 0 and 10. The aggregate indicator of programmatic effort or general programmatic structuration in a given country (the variable cosal4 in the DALP dataset) reflects experts' judgments on the extent to which party policy positions are based on several fundamental dimensions of political competition (social spending on the disad-

Figure 3: Political(Turnout) Inequality and Party Competition



different countries seems highly consequential for the observable levels of turnout inequality. There is a strong negative relationship between clientelism and turnout inequality, and a strong positive relationship between the resort of programmatic competition and turnout inequality. Clientelism bolster the political participation of citizens located in the lower half of the income distribution, thus reducing turnout inequality. Programmatism bolsters the participation of citizens in the upper half, as conflicts over public goods affect them more directly, thus increasing turnout inequality. The next hurdle is to establish the conditions under which parties resort to either strategy. In what follows, we argue that the strategic choice by parties between different mobilization tools is primarily a function of the level of economic inequality. To develop the logic underpinning this argument the next section studies formally the choice between targeted goods/transfers versus programatic competition and explore the conditions under which parties resort to one or the other.

vantaged, state role in governing the economy, public spending, national identity and traditional authority). Specifically, it measures the cohesion of parties' appeals on every issue position and the salience of the issue positions. Both measures are centered at their mean in the x axis of figure 3. Data points reflect within country averages for all the observation in our data. Bars reflect the standard deviations.

2 Model: Inequality, Development, and Mobilization

2.1 Premises and Set-up

We model the choice between two policy tools for the purpose of mobilization of low income voters: targeted goods (that can range from ad hoc transfers (bribes) to small local club goods) and tax financed public goods (programmatic politics) and study how inequality shapes the choice of strategy by political elites. The model builds on the following set of assumptions:

- Parties have limited resources to mobilize voters. They can devote them to mobilize via targeted good or transfers or programmatic competition. Parties must choose how much they devote to targeted goods to low income voters (b_P), how much to high income voters (b_R), and how much to public goods (g).
- Politics is an activity initiated by elites at all ends of the ideological spectrum. Therefore mobilization is a choice by different groups of rich citizens. We rely on citizen-candidate models: there may be several, with different ideological profiles depending on the distribution of world views among the rich. Any subgroup of rich citizens (elite party) chooses the policy set that maximizes their utility.
- The fundamental problem for any party is to maximize the utility of their base such that they attract the support of low income voters. That is the rich will optimize their policy selection in such a way that they (1) meet their budget constraint and (2) at least leave the poor indifferent between their policy offering and the offering that the poor would consider optimal.
- Critically, we assume that the poor will vote if their utility threshold is satisfied by the offerings made by the party of the rich.
- Therefore, we model the problem as a strategic interaction in which low income voters decide whether to vote (or not), and the elite parties choose which policy tool to concentrate their efforts on.
- Therefore, solving the model requires to take three steps, sequentially:

1. Identify the optimal values of taxes (t^*), private goods (b^*), and public goods (g^*) for the poor, given the budget constraint. These values define the indifference threshold for the poor to turnout to vote.
2. Identify the optimal values of taxes (t^*), private goods (b^*), and public goods (g^*) for the rich, given the budget constraint and the need to render the poor at least indifferent between the party's policy offering and their utility threshold (so that they vote)
3. Study how inequality shapes the choice of strategy and establish the equilibria resulting from the strategic interaction between rich and poor citizens.

- To incorporate inequality into the analysis, define δ and $(1-\delta)$ the share of, respectively, rich and poor in any given society. Similarly, define ϕ and $(1-\phi)$ and the *share of income* of, respectively, the rich and the poor. Using these simple definitions we can express the income of the rich (w_R) and the poor (w_P) as a function of inequality:

$$w_R = \frac{\phi \overline{w}}{\delta}$$

$$w_P = \frac{(1-\phi)\overline{w}}{1-\delta}$$

- Finally, elites (rulers) face a standard budget constraint defined by $t\overline{w} = b_P + b_R + g = (1-\delta)w_P + \delta w_R$. To capture the variety of experiences in terms of state/fiscal capacity, we impose the assumption that a share, λ, of the income of the rich is non-taxable by low income voters. Accordingly, the budget constraint is defined as:

$$t\overline{w} = b_P + b_R + g = (1-\delta)w_P + \delta w_R(1-\lambda)$$

which simplifies to

$$t\overline{w}(1-\lambda\phi) = b_P + b_R + g \quad \text{for the share of citizens } (1-\delta)$$

and

$$t\overline{w} = b_P + b_R + g \quad \text{for the share of citizens } \delta$$

2.2 Analysis

2.2.1 The Problem for Low Income Voters

Low income voters face the following maximization problem:

$$\begin{aligned} \underset{t,b,g}{\text{maximize}} \quad & U_i(t,b,g) = (1-t)w_P + \alpha ln(b_P) + g \\ \text{subject to} \quad & t\overline{w}(1-\lambda\phi) = b_P + b_R + g \end{aligned} \tag{1}$$

where α capture the sensitivity of low income voters to targeted goods. Which yields the following results:

1. $b_P^* = \alpha$
2. $b_R^* = 0$
3. $t^* = t^{max} \leq 1$ since utility is linear in t
4. $g^* = t\overline{w}(1-\lambda\phi) - \alpha$

which in turn allow us to define the poor voter's utility threshold for voting. Poor voters will vote under any combination of t, b, and g that generates levels of utility *at least* similar to those defined by:

$$\overline{U_P} = (1-t^{max})w_P + \alpha ln(\alpha) + t\overline{w}(1-\lambda\phi) - \alpha \tag{2}$$

Expression (2) defines the level of utility of the poor that the elites must meet with their policy offerings so that the latter turn out to vote. As such, it places a constraint on the policy offerings by parties, which we analyze in turn.

2.2.2 The Elites' Choice

The elites, irrespective of their ideological leanings, needs to choose a portfolio of targeted goods, public goods, and taxes that meets two constraint: (1) a budget constraint (recall that the poor had limited ability to tax the elite, but the elite has full capacity to tax itself); and (2) a political constraint driven by the need to meet the mobilization threshold of low income voters defined in (2). Accordingly, its maximization problem can be defined as:

$$\begin{aligned} \underset{t,b,g}{\text{maximize}} \quad & U_i(t,b,g) = (1-t)w_R + \beta ln(b_R) + g \\ \text{subject to} \quad & t\overline{w} = b_P + b_R + g \\ \text{and to} \quad & (1-t)w_P + \alpha ln(b_P) + g \geq \overline{U_P} \end{aligned} \tag{3}$$

where β captures the sensitivity of high income voters to targeted goods and $\overline{U_P}$ defines the low income voters' utility threshold as defined in (2). Solving the model (full details provided in the Appendix) allows to define the optimal levels of different policy tools for high income voters.

1. $t_R^* = t^{max} \leq 1$ since, as with low income voters, utility is also linear in t
2. ${b_p}^* = e^m$, where $m = ln(\alpha) - \frac{\tau^{max}\bar{w}\lambda}{\alpha}\big(1 - \frac{w_p(1-\delta)}{\bar{w}}\big)$
3. ${b_r}^* = -b_p\frac{\beta}{\alpha} + \beta$. If high and income voters have the same sensitivity to targeted goods, this simplifies to ${b_r}^* = -b_p + \beta$
4. $g^* = t^{max}[(1-\delta)w_P + \delta w_R] + (\frac{\beta}{\alpha} - 1)e^m - \beta$

2.2.3 Inequality, Development, and Political Mobilization

These results allow us to study how inequality shapes the elite's choice between targeted goods for low income citizens and (programmatic) public goods. Recall from our premises above that we proxy inequality from two angles: the proportion of low income citizens in society $(1-\delta)$ and the share of income owned by high income citizens (ϕ). Exploiting the results above allows to approach the relationship between inequality and the

choice of mobilization strategy to mobilize low versus middle-high income voters. Indirectly, the analysis also sheds light on the role played by development in the process.

1. *Inequality and the elite's choice for targeted goods towards the poor:*

   Consider first the income share of high income voters. Replacing the results above int the Complementary Slackness Condition produces the following result (see full details in Appendix):

$$\frac{\partial ln({b_p}^*)}{\partial(\phi)} = \frac{-\tau^{max}\overline{w}\lambda}{\alpha} \leq 0 \tag{4}$$

   From which it follows that :

$$\frac{\partial b_p^*}{\partial \phi} < 0$$

   Two important insights follow from [4]:

   (a) As high income citizens retain a larger share of their income, the optimal size of bribes declines. Rather intuitively, it is cheaper of elites to target voters in the lower half of the income distribution.

   (b) The higher the average income in society ($\bar{w}$), the larger the reduction in optimal bribing to low income people by the elites in response to increases in inequality. This implies that as development increases, elites reduce more their efforts in targeted goods towards low income citizens.

   In turn, the preference for targeted goods towards low income voters responds to a increase in the share of low income citizens according to (again, full details in Appendix):

$$\frac{\partial ln({b_p}^*)}{\partial(1-\delta)} = \frac{\tau^{max} w_P \lambda}{\alpha} \geq 0 \tag{5}$$

   From which it follows up that:

$$\frac{b_p^*}{\partial(1-\delta)} > 0$$

   Three important insights follow from [5]:

   (a) The optimal size of targeted goods towards low income citizens increases in the share of potential low income voters.

(b) The higher the income of the lower half, the higher the size of the optimal bribe. In other words, as development increase the income in the lower half, it becomes more expensive to target them directly.

(c) The lower the share of their income high income citizens can protect from taxation (i.e. the closer λ goes to 0), the lower the elasticity in terms of bribes towards low income citizens associated with a in the share of potential low income voters. In other words, and consistent with the intuition developed in Kasara and Suryanarayan (2014), as the tax capacity to target high income voters increases, the use of bribes as a political response to inequality increases *less*.

2. *Inequality and the elite's choice for public goods:*

Similarly, we can study the elite's response to changes in inequality in terms of their preferences for (programmatic) public goods. The relationship between changes in the optimal provision of public goods and changes in the share of potential voters in the lower half is given by:

$$\frac{\partial g^*}{\partial(1-\delta)} = t^{max} w_P - t^{max} w_P \big(1 - \frac{\beta}{\alpha}\big) b_P^* \frac{\lambda}{\alpha} \tag{6}$$

Two important implications follow from [6]:

(a) Note that $\frac{\partial g^*}{\partial(1-\delta)} < 0$ insofar as $\beta < \alpha$, $\lambda > 0$, and b_P^* in equilibrium is high enough, which suggests that insofar as the poor are more responsive to bribes than the rich, an increase in the number of poor voters implies a reduction in the optimal level of provision of public goods.

(b) By contrast, when high income voters lack the ability to put away a share of their income (i.e. λ=0), the comparative statics reverses. In high capacity, developed states, a higher share of the poor does lead to more public goods and not more bribes (incidentally, this is consistent with [4] above, where if λ=0, the overall elasticity is also 0).

In turn, elites' responsiveness in terms of public goods to an increase in their share of income is given by:

$$\frac{\partial g^*}{\partial \phi} = -t^{max} \bar{w} + t^{max} \bar{w} \big(1 - \frac{\beta}{\alpha}\big) \frac{b_P^*}{\alpha} \lambda \tag{7}$$

From [7] it follows that a higher concentration of income in the upper half drives elites to reduce the provision of public goods under two conditions:

(a) when they are able to protect a share of their income from the taxation by the rest ($\lambda > 0$) but they value targeted goods towards them more that the poor value theirs ($\beta > \alpha$)

(b) when the are unable to protect their income from the taxation by the rest ($\lambda = 0$) and any increase in the level of g is funded by an attendant increase in tax revenues.

3. *Policy Offerings and Targeting Low Income Voters*

So far we have established how elites respond to increases in inequality *provided that they want to meet the poor' threshold and get them to vote*. Our results suggest that increasing (decreasing) development and equality leads elite parties to reduce (increase) the optimal level of targeted goods to the poor (see [4]) and increase (reduce) their supply of public goods ([6] and [7]).

From the perspective of analyzing the link between economic and political inequality, the next hurdle involves investigating what happens to the choice of policy offerings when the elite does not meet the utility threshold that ensures the participation of the poor. In other words, what happens to policy strategies when the elites rationally assumes that a significant share of low income voters will not respond positively to their policy offerings. To this end, we solve the elite's problem with and without the political constraint ($\bar{U}$) and evaluate the difference between the two. This analysis yields the following results (full details in Appendix):

$$
\begin{aligned}
& g^* \lesseqgtr g^*_{\bar{U}} \\
& t^{max}\bar{w} - \beta \lesseqgtr t^{max}\bar{w} + (\frac{\beta}{\alpha} - 1)bp^* - \beta \\
& \text{And therefore,} \quad g^* > g^*_{\bar{U}} \quad \text{if} \quad \beta < \alpha \quad \text{and} \quad bp^* > 0
\end{aligned}
\tag{8}
$$

The comparison outlined in [8] suggests two important implications for our analysis: when elites are not constrained (required) to lure the poor to vote, they strengthen their programatic offerings via public goods. Interestingly, for this to occur it must hold that high income citizens derive less marginal utility from their private rents than the low income citizens do ($\beta < \alpha$). Under this condition and in the absence of the

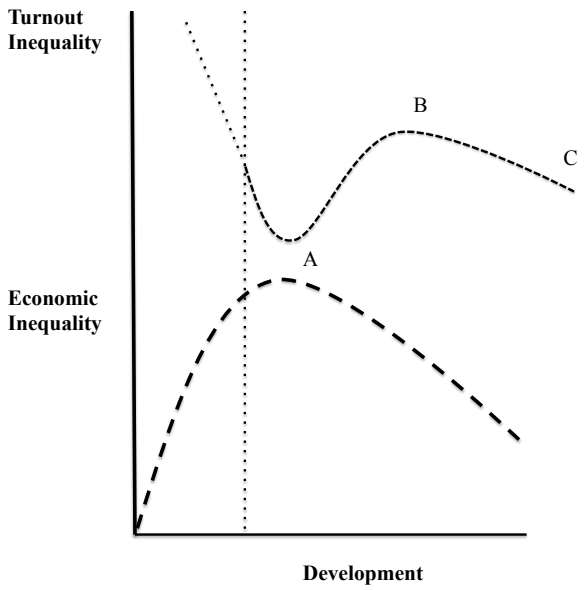
political constraint, elites compete by offering more public goods. Conversely, it also follows that if elites must ensure the political participation (and endorsement) of the poor, they must sacrifice a share of the public goods they would provide as part of their programmatic strategy if they did not have to secure low income voters' support. This result is important as we explore the trade-off between different forms of political mobilization at different levels of development and inequality.

2.3 Implications and and Empirical Strategy

The analytical results in (4)-(5), (6)-(7), and (8) provide the micro-foundations to analyze the the connection between economic and political inequality. To this end, let us consider the model's predictions at different points of the Kuznet's curve, which famously mapped the relationship over time between inequality and development (Kuznets, 1955). Figure 4 displays graphically the three points (A,B,C) for which the model yields relevant implications and summarizes the predicted relationship between economic and political (turnout) inequality. Before discussing each of these points in detail, consider first the area to the left of the dashed vertical line in figure 4. Technically, the Kuznets curve actually begins with a stage combining economic underdevelopment and equality. Following Przeworski (2000) and Acemoglu and Robinson (2006) we assume that democratic politics is stalled under circumstances in which everyone is extremely poor. In such a case, turnout inequality is enormous in that democratic politics is at best restricted to a very small elites. Put differently, the scope conditions of our argument begin to the right of the dashed line, well after agrarian societies have completed their transition to the industrial world.

Consider first A, a situation in which countries have just undertaken an early transition to the industrial world and, as a result, are characterized by very high levels of inequality and medium to low levels of development and state capacity. Under these circumstances, our model predicts parties will prioritize targeted goods towards voters in the lower half of the income distribution (bp), and reduce the effort in terms of programmatic public goods (g). As a result, clientelism becomes the dominant form of political competition. Low income voters are poor in both relative and absolute terms, and parties have no institutional capacity to pursue programmatic politics. The focus is on the monitoring of the exchange (Larreguy, Marshall and Querubin, forthcoming). As a result, the poor in these societies are mobilized as much as the rich, and the levels of turnout inequality are low. This equilibrium

Figure 4: Economic and Political (Turnout) Inequality: Expected Relationship



is self-enforcing until development triggers two changes: the cost of bribes becomes too high relative to public goods (see [5] above) and the capacity to generate revenues and compete over programmatic offerings increases.[6]

Once democracies transition to B, the situation changes. In developed industrial and postindustrial societies, the level of inequality is relatively lower (that the share of low income voters is smaller over time) and the degree of capacity by the state to enforce programmatic offerings much higher In terms of our model, λ tends to 0). Under these circumstances, parties shy away from targeted goods towards voters in the lower half and the dominant form of party-voter linkage and mobilization is programmatic, policy based, competition. The key

[6]Stokes et al. (2013, p.242) account of the demise of clientelism in the USA and the UK is illustrative of this process. "Vote buying focused on the poor; when the poor and vulnerable among the electorate shrank and the middle class grew, relatively fewer votes could be purchased with cash or minor consumption goods. The equivalent resources could attract more voters through persuasive discourse and publicity. Vote buying required close contact between brokers and voters, given its fine grained functions of monitoring voters and delivering good and services to them; when the electorate as a whole became more populous, the political machine became a more costly organization through which to obtain votes. The premium that machine politics places on local knowledge of constituents creates rent-seeking opportunities for brokers; when party leaders could shift to direct appeals to voters without risking their own seats and their party prospects, they happily sloughed off their machines."

intuition behind the parties' shift is that middle class voters suffer from clientelism both for procedural and substantive reasons. In substantive terms, clientelism implies lesser resources for the policies they care for. Procedurally, the cost of clientelism for middle class voters stem also from normative reasons. For middle income voters, "clientelism undermines democratic values by preventing clients from enjoying autonomy over their choices at the ballot box" (Weitz-Shapiro, 2012, p.571). Unlike the case of poor voters, for middle income voters distributive and normative concerns reinforce each other, thus making clientelism a increasingly costly mobilization strategy when the share of middle income voters outgrows that of poor voters. Given a lower λ, more resources, and the cost of clientelism, the transition from A to B drives the choice of party-voter linkage mechanism: underdevelopment leads to a larger share of the population being potentially sensitive and responsive to clientelistic, patronage based benefits. By contrast, development breeds a large share of middle income groups that, by virtue of having their basic material needs covered, do not approach politics as mere exchange of favors and/or targeted benefits. In B politics becomes fundamentally an ideological, programmatic conflict of interests over public goods where, building on standard models in political economy (Stigler, 1970; Dixit and Londregan, 1996; Austen-Smith, 2000), the pivotal voter is always going to be a middle income group. In this context, the old clientelistic elite gives way to new competing groups (Lizzeri and Persico, 2004) and parties shy away from resorting to clientelistic strategies (bp) and put all their efforts in programmatic competition(g).[7] As a result, they sacrifice the potential support of low income voters (as in [8] above) and taylor their strategy towards voters in the upper half of the distribution. Accordingly, the levels of turnout inequality increase.

It is interesting to think of what the implications of an increase in the levels of inequality are under these circumstances. When λ tends to 0, our analysis suggests that an increase in the share of the poor does not lead to an increase in clientelistic targeting efforts. At the same time, a higher concentration of income in the upper half leads to a reduction in the preferred level of public goods. As a result, we see further demobilization at the lower half and enhanced contestation in the upper half of the income distribution, thus bolstering the levels of turnout inequality. By contrast consider a situation in which the level of inequality falls (C). As labor becomes a prominent political actor and electoral

[7]Our core mechanism in the transition from A to B is different from the one in Lizzeri and Persico (2004). In their account the need for public goods expansion leads to a conflict between old and new elites which in turn modifies the nature of politics from clientelistic to programmatic while extending franchise. In our logic,increasing development and decreasing inequality alter the nature of political incentives first, and leads subsequently to an expansion in public goods.

coalitions forge around large and encompassing welfare states, economic inequality declines and large organized groups of low income citizens become vested in the size and design of public goods provision [8] As a result, a marginal reduction in the level of economic inequality translates into lower levels or turnout inequality.

The following empirical implications follow from this analysis:

1. H1:There is a negative quadratic relationship between economic and political inequality
2. H2: In equilibrium, the nature of political competition mediates the relationship between economic and political inequality: given high levels of inequality, clientelism (programmatism) reduces (increases) the levels of turnout inequality.

To assess these hypotheses, we combine two empirical approaches: a large n multilevel cross-national analysis of the determinants of turnout inequality as defined in figure 2 and an experimental approach exploiting random audits of corruption in Brazilian municipalities. The former allows to establish whether the relationship between economic and political inequality follows the patterns suggested by our theory. Yet to the extent that the equilibria identified above are self-enforced, observational data are a limited tool to identify the role of mobilization strategies as the mechanism mediating the relationship between economic and political inequality.

Several recent contributions highlight various feedback channels, further enhancing the challenge of causally identifying the mechanism posited in this paper. Fergusson, Larreguy and Riano (2014) show how parties with a strategic advantage in clientelistic politics will oppose investments in state capacity, thus limiting pro-equality politics. Debs, Helmke et al. (2010) show that the left fares better under equality because voters are more likely to cling to pro-redistributive coalitions that in turn help contain inequality. Bursztyn (2013) focuses in turn on voter's demand: it is the voters themselves who may not want more public goods under conditions of high inequality and high turnout, thus reinforcing the vicious circle. Finally, incorporating several of these mechanisms into a common framework, Robinson

[8]To be sure, there are institutional mechanisms that ameliorate this negative relationship. For instance, Anderson and Beramendi (2012) show that PR systems mute these incentives because of the potential risks of low income voters being mobilized by a third party, but the general pattern of association between inequality and turnout in advanced, programmatic, democracies remains a negative one. Moreover, PR systems among rich democracies also tend to be associated with lower levels of pre and post-tax income inequality (Iversen and Soskice 2006).

and Verdier (2013) show how clientelism becomes self-enforcing under conditions of high inequality and low productivity. If clientelism feeds back into inequality (and viceversa), it is hard to imagine a situation in which mobilization strategies change for exogenous reasons, thus allowing to identify its mediating role between economic and political inequality. This is precisely what the random audits by the Brazilian government on its municipalities provides.

3 Comparative Evidence

We approach both H1 and H2 through a mixed model approach on the basis of up to 75 country-year surveys from the Comparative Study of Electoral systems (waves 1, 2, & 3). The first stage analysis produces the measure of turnout inequality presented in figure 2[9] , which we then use as the dependent variable in the second stage. In the second stage we implement a FGLS estimator to account for heterokedasticity since the dependent variable in the first stage is not estimated with the same precision in all the available country-surveys from the CSES data. Accordingly, the second stage models recover the standard error from the first stage and implements the Borjas correction in the second stage (see Lewis and Linzer 2005), weighting the second stage models by the standard errors of the individual level. In addition, the second stage models are clustered at the country-level since we have multiple CSES waves for various countries. The key independent variable of interest is the level of economic inequality, either by itself (H1) or in interaction with the type of political mobilization adopted by parties (H2). We use the Gini coefficient after taxes and transfers (we also report results for pre-tax pre-transfers Gini).[10]

The second stage analyses introduce a number of additional controls. A first set of controls include potential confounders associated with structural socio-economic variables (some of which could potentially shape electoral behavior via economic voting). These include: Population size, GDP per capita (*both logged*), GDP growth, and the economic globalization index. A second set of controls targets the institutional determinants of turnout among low income people: a first, and obvious one, concerns whether the country has compulsory voting legislation. In addition, the degree of institutionalization of democracy, as

[9]Recall that the first stage includes controls for age, age squared, education, gender, and a dummy variable capturing urban-rural divides.

[10]The data are from Solt's standarized income inequality database (Solt, 2009).We restrict our sample to the high quality database, that is to estimates with a standard error below 1.5 standard deviations.

captured by Polity, captures socialization effects; the electoral system (PR vs. SMD) holds constant institutional features that constrain the role of parties as mediators between the executive and the voters. In addition, the amount of redistribution in place in any given country/year, controls for the opportunity cost of not voting for low income citizens. Finally, we also control for a number of societal features that may shape the capacity and/or incentives of low income voters to engage in politics such as the degree of ethnic fractionalization (included as a proxy for second dimensions in the political space) and the scope of infant mortality rate (included as a proxy of the specific incidence of low levels of development on the very poor). All controls are mean centered and standardized so that they take values between 0 and 1. [11]

3.1 H1: On the non-linearity between Economic and Turnout Inequality

Figure 5: Economic and Political (Turnout) Inequality

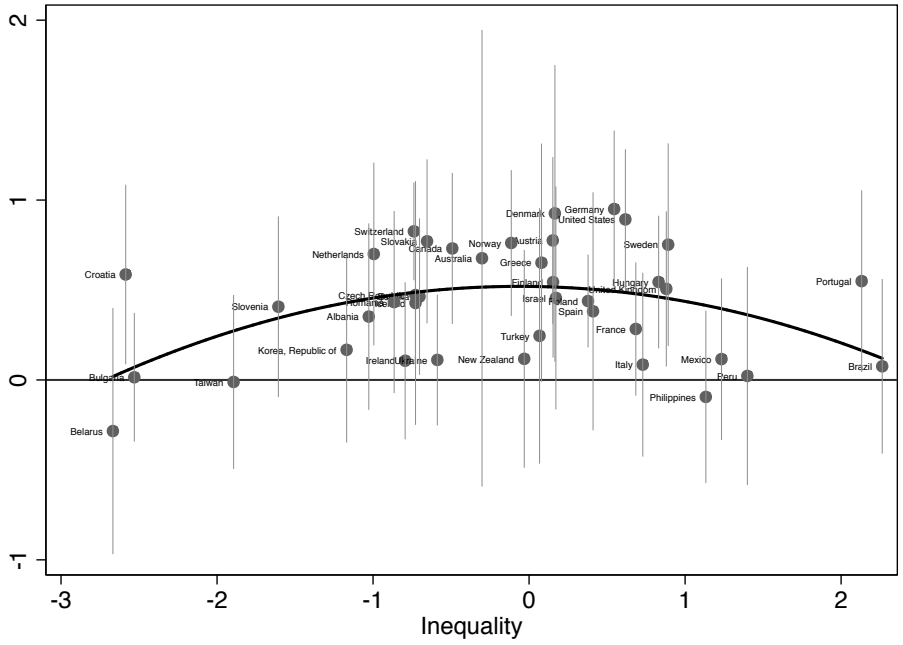


Figure 5 displays a first exploration of H1. The x axis ranks countries according

[11] Sources: Quality of Government Institute Dataset (time series cross-sectional data v. 2013) (Teorell et al., 2011), Penn World Tables

to the (mean-centered) definition of economic inequality, whereas the y axis measures the level of political inequality as defined above. The bi-variate relationship is clearly suggestive of a quadratic relationship. Consistent with H1, turnout inequality is at its highest at intermediate levels of economic inequality. Making use of the two-stage approach outlined above, Table 1 submits H1 to harder scrutiny. The key parameters of interest are those for economic inequality (Gini) and its squared value. In addition to these and to the battery of controls outlined above, table 1 holds constant the overall level of electoral turnout, either below (1.2, 1.5) or above (1.3., 1.6) the median income. These controls are introduced sequentially to assess whether the levels of turnout inequality reflect primarily the mobilization behavior of a particular share of the distribution (as Kasara and Suryanarayan (2014) seem to suggest with their analysis of the rich) or, as our model implies, of the sum of mobilization effects across the entire distribution. We also control for the level of redistribution at election time[12]. The intuition behind this control is to isolate the political implications of economic inequality from the direct effects of policy tools under the control of incumbents (taxes and transfers). An alternative approach is to control directly for market (i.e pre taxes and transfers) rather than for final inequality (these results are reported in columns 1.4-1.6). The results are robust to either approach.

Table 1: Economic Inequality and Political (Turnout) Inequality

	Gini Net			Gini Market		
	1.1	1.2	1.3	1.4	1.5	1.6
Gini	0.502*	0.365	0.485**	1.151**	1.009*	0.821*
	(0.256)	(0.293)	(0.230)	(0.549)	(0.544)	(0.421)
Gini Squared	-0.642**	-0.482*	-0.604**	-1.063**	-0.927*	-0.766*
	(0.240)	(0.274)	(0.236)	(0.490)	(0.485)	(0.381)
Redistribution	0.262***	0.244***	0.198**			
	(0.081)	(0.079)	(0.072)			
Below Median Income Voters' Turnout		-0.305***			-0.347***	
		(0.089)			(0.096)	
Above Median Income Voters' Turnout			0.317**			0.443***
			(0.115)			(0.113)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.178	0.137	0.163	0.290*	0.230*	0.237
	(0.152)	(0.118)	(0.146)	(0.151)	(0.120)	(0.139)
Borjas Weighting and CSE	Yes	Yes	Yes	Yes	Yes	Yes
High Quality Gini Dataset	Yes	Yes	Yes	Yes	Yes	Yes
CSES Waves 1st Stage	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3
Countries	30	30	30	30	30	30
Observations	75	75	75	75	75	75
R-squared	0.636	0.690	0.695	0.488	0.559	0.624

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

[12]Redistribution is measured as the proportional reduction in the market inequalities due to the incidence of taxes and transfers.

Table 1 conveys three major findings. First, the larger the level of redistribution, the larger the levels of turnout inequality, which is consistent with the premise outlined above that fiscal redistribution in advanced societies consists primarily of insurance programs that serve the interests of middle and upper income voters ((Stigler, 1970)). Second, the overall levels of turnout inequality do not depend exclusively on the behavior of citizens in the upper half of the income distribution. Rather they reflect processes occurring on both sides of the median income. Consistent with Kasara and Suryanarayan (2014), the higher the turnout of citizens above the median, the higher the levels of turnout inequality. Consistent with our theoretical argument, the higher the turnout of voters below the median, the lower the levels of overall turnout inequality. Finally, even in the presence of these and other controls, economic inequality shows a significant impact on turnout inequality. This implies that when the behavior of low income citizens is held constant, economic inequality matters for political inequality via the behavior of upper income groups. And, critically, vice-versa. Holding the participation of the upper classes constant, economic inequality drives political(turnout) inequality through the behavior of the poor. Interestingly, the latter effect seems to be larger and statistically more robust than the former when focusing on final inequalities and of similar size when focusing on pre-tax, pre-transfer inequality. Third, the direction of the effect of economic inequality on turnout inequality is consistent with H1: economic inequality bolsters turnout inequality until a certain level after which it reverses it sign. Overall, the expected negative quadratic relationship between economic and political inequality (H1) receives considerable empirical support.

3.2 H2: Mobilization Strategies and the Income-Turnout Link

We turn now to test the implication that, in equilibrium, the nature of political competition mediates the relationship between economic and political inequality, that is to say, the idea that given high levels of inequality, clientelism (programmatism) reduces (increases) the levels of turnout inequality.

To assess H2 we take the following steps in the implementation of second-stage models of turnout inequality: first, we introduce an interaction between economic inequality and various indicators of the mobilization strategy chosen by parties; second, we keep the controls for the levels of turnout below and above median income; third, we add a time trend correction that controls for experts' assessments whether the country is today more

clientelistic than ten years ago. The evaluation of H2 proceeds in two steps: first, table 2 and figure 6 present results on the conditional effect of economic inequality and mobilization strategies on the overall levels of turnout inequality, as defined in figure 2. Second, table 3 and figure 7 present results on the analysis of the same conditional relationship on the electoral behavior of voters in the lower half of the income distribution. We present these findings sequentially.

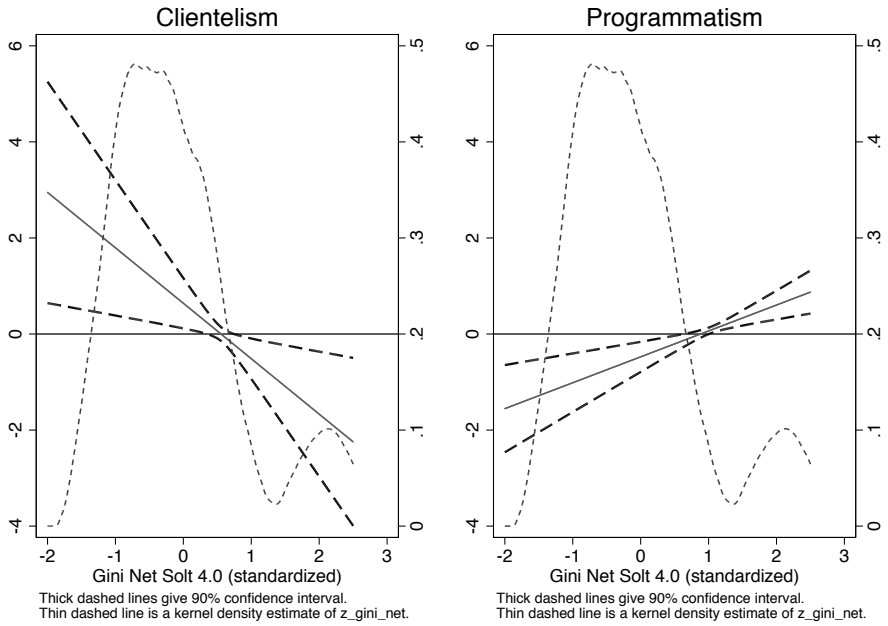
Table 2: Economic Inequality, Political Mobilization and Turnout Inequality

	2.1	2.2	2.3	2.4	2.5	2.6
Gini Disposable Income	-0.332***	-0.278***	-0.302***	-0.407***	-0.355***	-0.382***
	(0.085)	(0.070)	(0.084)	(0.129)	(0.118)	(0.123)
Programmatism Index	-0.590***	-0.476***	-0.557***	-0.747***	-0.695***	-0.619**
	(0.152)	(0.124)	(0.169)	(0.178)	(0.156)	(0.231)
Gini Disposable Income X Programmatism Index	0.653***	0.529***	0.614***	0.850***	0.780***	0.725***
	(0.142)	(0.121)	(0.151)	(0.170)	(0.158)	(0.207)
Below Median Income Voters' Turnout		-0.238***			-0.164	
		(0.070)			(0.100)	
Above Median Income Voters' Turnout			0.295**			0.298**
			(0.109)			(0.131)
GDP per Capita (ln)	0.090	0.101*	0.049	0.042	0.069	-0.018
	(0.056)	(0.050)	(0.052)	(0.096)	(0.095)	(0.065)
Redistribution	0.231***	0.223***	0.174**	0.289***	0.288***	0.205**
	(0.071)	(0.067)	(0.067)	(0.078)	(0.073)	(0.095)
Dummy Compulsory Voting	0.150	0.132	0.127	-0.007	-0.016	0.012
	(0.114)	(0.100)	(0.107)	(0.165)	(0.168)	(0.126)
PR	0.411***	0.354***	0.361***	0.421**	0.407**	0.321**
	(0.098)	(0.088)	(0.094)	(0.163)	(0.158)	(0.147)
ln Populatin	0.104**	0.102**	0.077*	0.048	0.049	0.032
	(0.042)	(0.038)	(0.040)	(0.060)	(0.061)	(0.048)
Polity2	0.083	0.050	0.100	0.040	0.000	0.099
	(0.077)	(0.063)	(0.077)	(0.096)	(0.098)	(0.071)
Ethnic Fractionalization	0.110***	0.102***	0.088***	0.090**	0.081*	0.078**
	(0.027)	(0.025)	(0.028)	(0.041)	(0.040)	(0.036)
Mortality Rate	0.114**	0.096**	0.102**	0.321*	0.305*	0.254*
	(0.042)	(0.037)	(0.042)	(0.158)	(0.159)	(0.142)
GDP Growth	-0.051**	-0.037*	-0.053**	-0.047	-0.036	-0.052**
	(0.022)	(0.019)	(0.023)	(0.028)	(0.029)	(0.024)
Economic Globalization Index	-0.029	-0.038	-0.009	-0.084	-0.072	-0.081
	(0.056)	(0.052)	(0.048)	(0.101)	(0.106)	(0.069)
Constant	0.053	0.045	0.047	0.176	0.135	0.197
	(0.101)	(0.085)	(0.099)	(0.157)	(0.150)	(0.141)
Borjas Weighting and CSE	Yes	Yes	Yes	Yes	Yes	Yes
High Quality Gini Dataset	Yes	Yes	Yes	Yes	Yes	Yes
Clientelism Data Time Trend Correction	No	No	No	Yes	Yes	Yes
CSES Waves 1st Stage	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3
Countries	30	30	30	25	25	25
Observations	75	75	75	49	49	49
R-squared	0.698	0.728	0.749	0.683	0.699	0.748

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 2 proxies parties' mobilization strategies though the the same ratio between programmatic efforts and clientelistic efforts at the country level reported in figure 3. Recall that the indicator ranges between 1.54 and 12.20, and captures the extent to which party competition in a given country is predominantly programmatic (high values) or instead is

Figure 6: Marginal Effect of Party Strategies on Voters Turnout Inequality conditional on Economic Inequality



mainly clientelisitic (lower values). [13] The controls for the level of participation below and above median income yield similar insights as before: turnout inequality declines in the former and increases in the latter, which renders it a phenomenon dependent on the political behavior of citizens throughout the entire distribution of income. More importantly, our core findings, presented graphically in figure 6 in the form of marginal effects, bear out H2: as inequality increases, clientelism reduces the level of turnout inequality. The effect shifts from negative and significant for countries will levels of inequality significantly below average to positive and significant for countries with higher than average levels. The density function indicates that the number of nations in which clientelism significantly works to reduce turnout inequality are primarily those with extreme levels. In turn, the ratio of programmatism to clientelism shows a positive and significant effect on turnout inequality for the whole range of intermediate and high levels of inequality: as economic inequality increases, the resort to programmatic political strategies increases the levels of turnout inequality. [14]

[13] Appendix II.1 reports replication results using the separate components of the index as proxies for party strategies. Our findings are robust to the choice of specific indicators of parties' mobilization efforts.

[14] The results are robust to the inclusion of region and year fixed effects, as reported in Appendix II.1 as well.

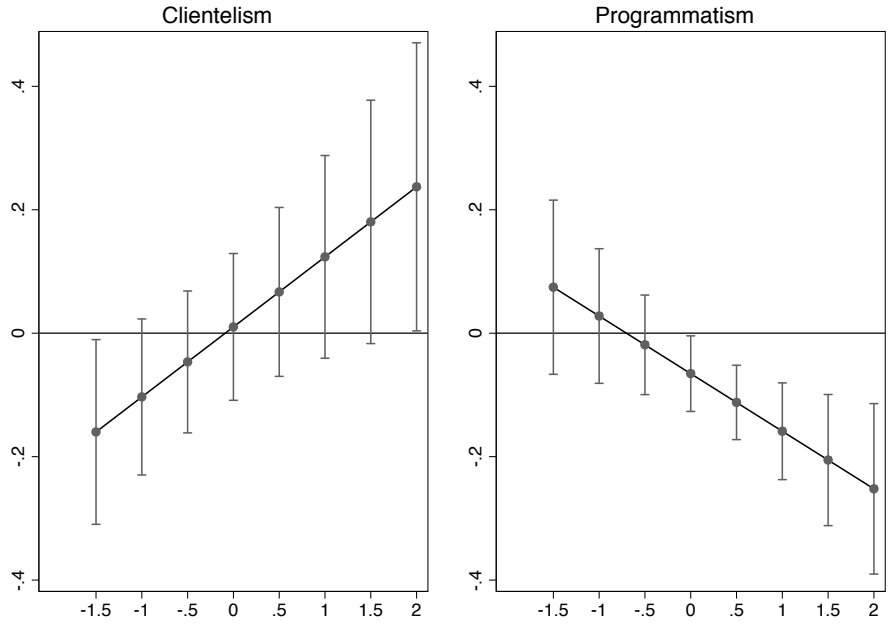
Table 3: Economic Inequality, Mobilization, and Low Income People Turnout

	Clientelism			Programmatism		
	3.1	3.2	3.3	3.4	3.5	3.6
Gini Disposable Income	-0.526**	-0.441***	-0.590***	0.305***	0.344***	0.301*
	(0.217)	(0.151)	(0.199)	(0.110)	(0.086)	(0.149)
Party Competition Type	-0.648***	-0.548***	-0.645**	0.346*	0.310**	0.163
	(0.217)	(0.158)	(0.273)	(0.170)	(0.119)	(0.157)
Gini Disposable Income X Party Competition Type	1.091***	0.982***	1.287***	-0.420**	-0.397***	-0.293
	(0.394)	(0.279)	(0.404)	(0.156)	(0.113)	(0.173)
Above Median Income Voters' Turnout		0.569***	0.551***		0.600***	0.547***
		(0.090)	(0.079)		(0.079)	(0.086)
GDP per Capita (ln)	-0.130*	-0.177**	-0.077	0.027	-0.064*	-0.022
	(0.073)	(0.082)	(0.154)	(0.030)	(0.038)	(0.065)
Redistribution	-0.122**	-0.197***	-0.234**	-0.028	-0.121**	-0.153*
	(0.054)	(0.058)	(0.091)	(0.056)	(0.059)	(0.075)
Dummy Compulsory Voting	-0.069	-0.062	-0.070	0.012	-0.015	-0.021
	(0.110)	(0.097)	(0.122)	(0.136)	(0.109)	(0.090)
PR	-0.244*	-0.307**	-0.322	-0.222**	-0.312***	-0.274
	(0.136)	(0.147)	(0.191)	(0.106)	(0.111)	(0.196)
ln Populatin	-0.026	-0.079	-0.037	-0.036	-0.093**	-0.066*
	(0.047)	(0.053)	(0.054)	(0.039)	(0.034)	(0.034)
Polity2	-0.074	-0.063	-0.044	-0.132	-0.138*	-0.230***
	(0.109)	(0.098)	(0.086)	(0.102)	(0.079)	(0.071)
Ethnic Fractionalization	-0.079**	-0.107***	-0.074*	-0.075**	-0.111***	-0.116**
	(0.032)	(0.035)	(0.037)	(0.028)	(0.029)	(0.043)
Mortality Rate	-0.080	-0.093*	-0.188	-0.054	-0.090**	-0.091
	(0.059)	(0.049)	(0.183)	(0.062)	(0.044)	(0.098)
GDP Growth	0.066*	0.070**	0.089***	0.049	0.051*	0.044*
	(0.035)	(0.030)	(0.028)	(0.033)	(0.026)	(0.025)
Economic Globalization Index	0.021	0.049	0.076*	-0.037	-0.004	0.099
	(0.045)	(0.044)	(0.044)	(0.048)	(0.044)	(0.069)
Constant	-0.009	-0.068	-0.103	-0.041	-0.074	-0.137
	(0.135)	(0.142)	(0.171)	(0.110)	(0.113)	(0.182)
Borjas Weighting and CSE	Yes	Yes	Yes	Yes	Yes	Yes
High Quality Gini Dataset	Yes	Yes	Yes	Yes	Yes	Yes
Clientelism Data Time Trend Correction	No	No	Yes	No	No	Yes
CSES Waves 1st Stage	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3
Countries	30	30	25	30	30	25
Observations	75	75	49	75	75	49
R-squared	0.314	0.556	0.537	0.342	0.614	0.610

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

To isolate the behavioral process that lies beneath these patterns better, Table 3 and figure 7 perform a similar exercise focusing only on low income citizens and the interaction between economic inequality and either clientelism (left panel) or programmatism (right panel). Again, the findings are fully consistent with the expectations derived from the model (H2): clientelism increases low income voters turnout at high levels of inequality, whereas programmatism works to reduce it. In equilibrium, the mobilization strategy chosen by parties does mediate the impact of economic inequality on (turnout) inequality.

Figure 7: Marginal Effect of Party Strategies on Low Income Voters Turnout



4 Experimental Evidence

While the patterns reported in the previous section suggest that the cross-national evidence is consistent with and supportive of H2, the approach falls short of fully identifying the causal mechanism mediating economic and political inequality, as posited by the theory. This section overcomes this limitation by exploiting the random-audits of Brazilian municipalities by the federal government from 2003 onwards. This anti-corruption initiative, launched by the Lula government in the early 2000s, provides a rare opportunity to identify the effects of exogenous changes in the strategies of politicians on the link between economic and political inequalities. We proceed in two steps: first, we describe the institutional background of the case study and outline our research design; second, we present the econometric specifications to best exploit the experimental nature of the data and discuss the findings.

4.1 Random Audits in Brazilian Municipalities: Institutional Background and Research Design

The ability to identify the impact of an exogenous change in party strategies derives from two major institutional institutional innovations introduced by Brazilian authorities since the late 1990s (Ferraz and Finan, 2008, 2011). The first consists in a constitutional change to allow the possibility of re-election at the local level in 1997, implemented from the 2000 elections onwards; the second, in the launch of a major anticorruption initiative in 2003, led by the *Controladoria General da União* (CGU), scrutinizing the use of federal funds by local authorities. The audit analyzes the use of federal funds by localities during the period 2001-2004. These data allow us to to do three things:

1. make use of various measures of the extent to which local authorities resort to clientelistic strategies in the run-up to the election (or re-election). To measure party strategies we resort to the variable that Ferraz and Finan (2011) defined as *local mismanagement* and that is defined as "the number of violations divided by the number of service items audited" (Ferraz and Finan, 2011, p. 1284). These violations include the performance of uncompetitive bidding for local contracts, the misuse of resources for earmarked for other purposes (i.e. using resources intended for health to boost teachers salaries) or other forms of turning public goods into club goods.This proxy matches quite closely the conceptualization of clientelistic strategies as a "material inducement" geared towards the modification of electoral behavior that defines clientelism(Kitschelt and Wilkinson, 2007). [15]

2. match these measures to census-based socio-demographic, and economic information at the local level, as well as to detailed political information obtained from the Tribunal Superior Electoral (TSE), including the level of turnout in local elections. While in Brazil there are compulsory voting laws in place for individuals between 18 and 70 in all elections, there remains considerable variation in the average levels of turnout across localities. For the localities in our sample, the range was between 65% and 96% in 2000 and 2004. In both instances the distribution was approximately normal.[16]

[15]Results below are robust to replacing this indicator by proxies capturing acts of corruption more directly oriented towards targeted personal gains, such as frauds in procurement, diversions of public funds to private individuals or entities, or over-invoicing of goods and services.

[16]If anything, the reduced variation due to institutional constraint makes Brazil a harder case to test H2.

3. evaluate whether truly exogenous changes in the type of political strategy adopted by local elites matter for changes in the level of turnout *at different levels of inequality.*

The leverage for our identification strategy emerges from several features of the design and implementation the anti-corruption program by the Brazilian federal authority. These features are as follows (see (Ferraz and Finan, 2011, 2008) for additional details on the program):

1. Through a sequence of lotteries, the CGU chose randomly about 8% of a total of 5500 Brazilian municipalities, including state capitals and coastal cities (N of audited municipalities=366)

2. Once a municipality is chosen , the CGU gathers information on all federal funds received and sends a team of auditors to examine the use of these funds (particularly in the areas of public works and public services)

3. Auditors get information from the community and the local council members about any form of malfeasance or misuse of funds, as well as from the local documentation available

4. Immediately, fter the inspection (about a week long visit), a detailed report is sent back to the CGU, which in turn forwards it to the federal accounting auditor (*Tribunal de Contas da União*), the judiciary, and all members of the local council. A summary with the key findings for each audited municipality is made available online and disclosed to local media.

5. Critically, we have information on the date in which the reports were released to parties and voters. As a result we can exploit the contrast between those municipalities in which the audit results were released before the 2004 election and those in which they were not. Since the sequence selection-inspection-release is standard across all the audits and takes a similar amount of time once the municipality is randomly chosen, we can rule out the possibility of strategic releases by the federal government in the run-up to the 2004 election. Given the short time span between selection, visit, and release randomization determines both which particular municipality is selected and when the information is released.

The combination of the random selection of municipalities and the discontinuity around the 2004 election define both the nature of the treatment and the composition of the treatment and control groups. Since all the municipalities included in our sample have been investigated, the *treatment* is whether the results of the audit have been made public to local citizens and competing parties or not. It is therefore a purely informational treatment in which the *treatment group* includes all municipalities that have been audited and in which the results of the investigation have been released and the *control group* includes all the municipalities where the investigation took place and was released after the 2004 election. The key premise to connect this exercise to the identification of the mechanisms driving H2 above is to assume that the publication of the audit reports undermines the feasibility of clientelism as a mobilization strategy. Accordingly, we should observe that, given high levels of inequality, in those municipalities where the publication of the audit induces a switch towards more programmatic political competition, clientelism ceases to be a viable mobilization strategy and higher levels of inequality are associated with a reduction in the levels of turnout in the next election.

4.2 Specification and Findings

To establish wether these expectations are borne out by the data, we model the determinants of the *change in the levels of turnout between 2000 and 2004* [17] as a function of the interaction between three variables: the degree of inequality within the municipality, as measured by Brazil's census bureau, the type of political strategy adopted (more *local mismanagement* implies more clientelism, and viceversa), and a dummy capturing whether the municipality belongs to the treatment or the control group (before vs after 2004).

To keep the comparison as sharp as possible we restrict the sample to those majors who just finished their first mandate and are seeking re-election for the first time.[18]. In addition, merging and expanding the databases in Ferraz and Finan (2011) and Ferraz and Finan (2008) to include all relevant potential confounders, we introduce controls concerning

[17] Specifically, the change in turnout is defined as $T_{change} = \frac{T_{2004} - T_{2000}}{T_{2000}}$.

[18] In the appendix (table 9) we provide evidence that the higher the number of terms a major has been in office, the more he/she tends to resort to clientelistic practices. Therefore, this restriction is in order to avoid the confounding effect of the length of term in office.

municipal level characteristics[19], specific political and judicial institutions [20] , the level of federal transfers received and the level of unemployment within the municipality, mayor specific characteristics[21], and electoral competition[22]. Finally the last three columns in table 4 restrict the analysis even further to those municipalities with functioning local media. Given the informational nature of our treatment, the effects should be particularly strong in this subset of observations.[23] The results are robust to the inclusion to controls for all these potential confounders, as well as to the inclusion of lottery fixed effects and state level fixed effects.

Table 4: Change in Turnout in Brazilian Local Council Elections

	4.1	4.2	4.3	4.4	4.5	4.6
Gini Municipality	-0.241	-0.288*	-0.224	-0.264	-0.297*	-0.166
	-0.158	-0.166	-0.183	-0.168	-0.175	-0.197
Local Mismanagement	-0.071*	-0.070*	-0.049	-0.109**	-0.113**	-0.057
	-0.037	-0.039	-0.043	-0.043	-0.046	-0.052
Gini Municipality X Local Mismanagement	0.119*	0.121*	0.075	0.182**	0.190**	0.094
	-0.064	-0.066	-0.075	-0.077	-0.082	-0.09
Exposed to Random Audit Before the 2004 Elections	-0.215**	-0.232**	-0.213*	-0.290***	-0.302***	-0.275**
	-0.097	-0.104	-0.111	-0.11	-0.115	-0.122
Exposed to Random Audit X Gini Municipality	0.392**	0.401**	0.376**	0.488**	0.475**	0.464**
	-0.17	-0.181	-0.19	-0.192	-0.204	-0.213
Exposed to Random Audi X Local Mismanagement	0.127***	0.121**	0.113**	0.171***	0.171***	0.141**
	-0.046	-0.049	-0.051	-0.052	-0.055	-0.061
Exposed to Random Audit X Gini Municipality X Mismanagement	-0.230***	-0.229***	-0.206**	-0.301***	-0.306***	-0.259**
	-0.082	-0.087	-0.09	-0.093	-0.099	-0.107
Constant	0.371**	0.416**	0.185	0.265	0.325*	0.13
	-0.183	-0.177	-0.178	-0.189	-0.187	-0.19
Municipality Characteristics? Controls	Yes	Yes	Yes	Yes	Yes	Yes
Political and Judicial Institutions Controls	Yes	Yes	Yes	Yes	Yes	Yes
Federal Transfers and Employment Controls	Yes	Yes	Yes	Yes	Yes	Yes
Electoral Competition Controls	Yes	Yes	Yes	Yes	Yes	Yes
Mayor's Characteristics Controls	Yes	Yes	Yes	Yes	Yes	Yes
Lottery Fixed Effects	No	Yes	Yes	No	Yes	Yes
Brazilian State Fixed Effects	No	No	Yes	No	No	Yes
Observations	203	203	203	163	163	163
R-squared	0.543	0.571	0.712	0.626	0.646	0.776

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

[19]Gathered from either the CGU or the Instituto de Pesquisa Econômica placed (IPEA), these include: the area, the log of population, the share of urban population within the municipality, the local gdp per capita, the change in the level of population between censuses, the share of population over 18 with at least secondary education, whether the municipality is new, the number of active public employees.

[20]These include whether the municipality has a judicial district, whether the municipality used participatory budgeting during the period 2001-2004, and the seats (*vereadores*) to voters ratio within each municipality

[21]Including age, gender, level of education, and past non-consecutive experience as a mayor or council member.

[22]Gathered primarily from the TSE these include the share of council members from the same party as the major, whether the major was from the same party as the governor, the effective number of parties in the 2000 election, and the margin of victory.

[23]See Ferraz and Finan (2011) for the coding of the variable distinguishing whether localities had autonomous media.

Figure 8: Marginal Effect of Local Mismanagement on Change in Turnout

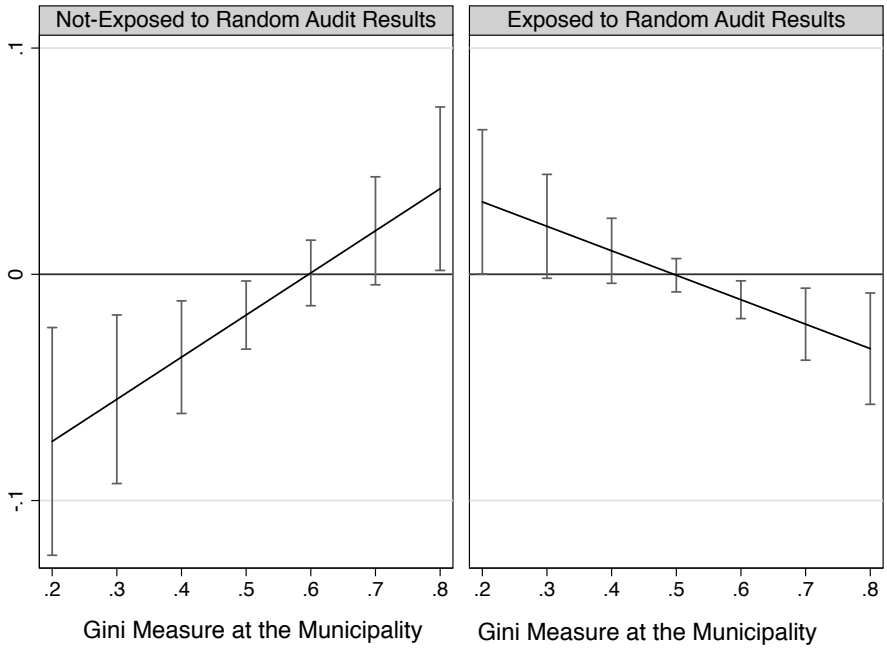
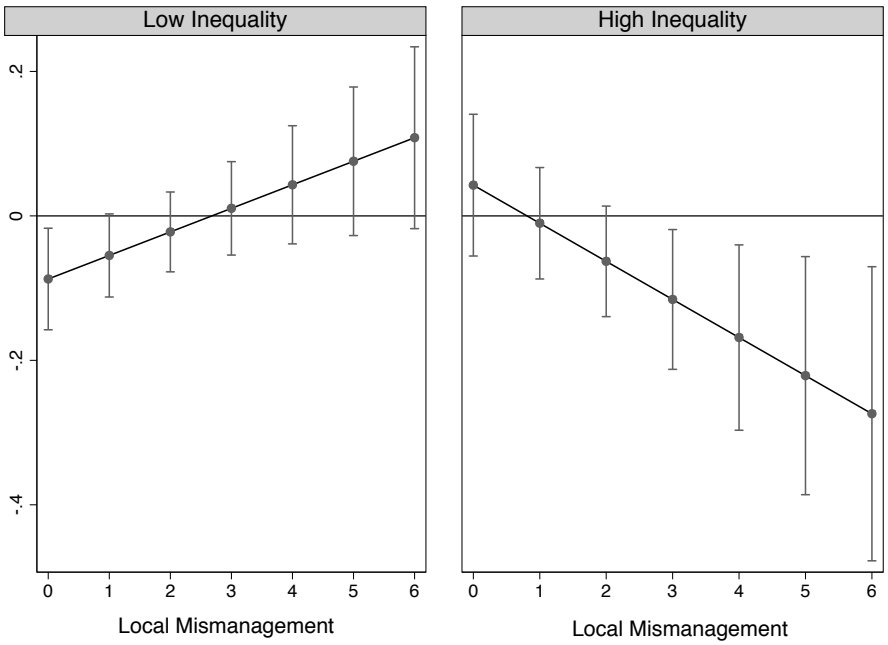


Table 4 displays the full battery of specifications. Figure 8 and figure 9 in turn focus on the core findings regarding the relationship between inequality and turnout in the control and the treatment groups. Figure 8 compares the marginal effect of party strategies (local mismanagement) on changes in municipal levels of turnout in the control (left panel) and treatment (right) groups at various levels of inequality. The results suggest that, given high levels of inequality, in those municipalities where the external audits were not released, the more incumbents misuse federal funds for clientelistic purposes, the higher the levels of turnout (by about 4-7%) with respect to the previous election. By contrast, in those municipalities where the audit took place and was released before the 2004 election, the same strategy triggers a reduction in electoral participation of a similar magnitude. We take this to be evidence that when a political shift towards programmatism is exogenously induced, clientelism ceases to be an effective mobilization strategy (again) *under high levels of inequality*. The similarities with the cross-national findings for low income voters (Figure 7 above) is striking.[24] Figure 9 digs deeper by displaying the heterogenous effects of the treatment, namely an actual exposure to random audits. Under a status quo of low inequality and relative programmatism (i.e. low levels of mismanagement of federal funds), exposure of the

[24]As incidentally is the replication of the interaction between inequality and party strategies in the context of Brazilian municipalities. See Appendix II.2 for details.

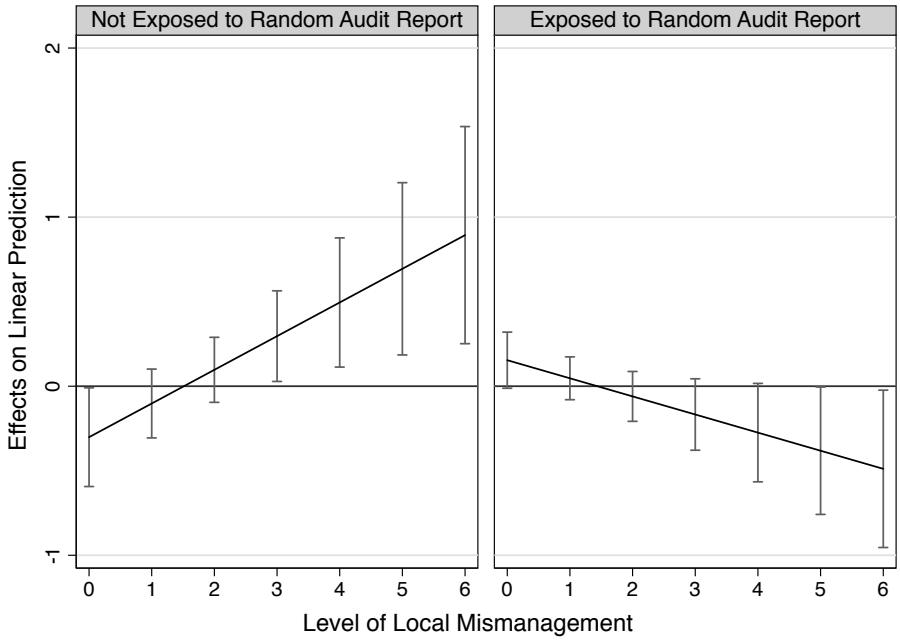
Figure 9: How Random Audits Change Turnout



remaining levels of clientelism demobilizes voters, thus reducing the level of turnout. Interestingly, under conditions of high inequality and rampant clientelism, exposure of political actors to random audits has an even stronger demobilization effect.

These results help causally identify the mechanism behind the expectations stated in H2: an external manipulation alters the effectiveness of clientelism as a mobilization strategy, and by implication, alter the nature of the relationship between economic and political inequality. The latter implication is better captured by exploring the marginal effect of inequality, given varying levels of clientelism, in the treatment and the control group (Figure 10). Showing a remarkable consistency with the cross-national evidence reported above, the experimental results on the basis of random audits of Brazilian municipalities lend strong a robust support to the idea that party strategies mediate the relationship between economic inequality and electoral turnout. The control group of figure 10 shows remarkable consistency with the cross-national evidence reported above: under clientelism (proxied by high levels of local mismanagement) more inequality is associated with higher levels of turnout (and by implication less turnout inequality). By contrast, the exogenous reduction in the effectiveness of clientelism enforced by randomly the federal audits, switches the nature of the relationship between inequality and turnout: once clientelism is no longer

Figure 10: The Marginal Effect of Inequality on Change in Turnout



effective, higher levels of inequality lead to lower levels of turnout, and by implication to higher levels of turnout inequality. We see these findings as robust evidence in support of H2.

5 Conclusion

This paper has developed an explanation of turnout inequality based on the interaction between economic inequality parties' mobilization strategies to target voters. We have shown formally that under high inequality levels parties have incentives to prioritize clientelistic strategies that boost low income voters' turnout and, as a result, reduce turnout inequality. We have also shown how these incentives disappear once inequality declines: parties adjust their strategies to programmatic competition over public goods oriented towards upper income voters, and turnout inequality increases.

Our account for the relationship between economic and political (turnout) inequality builds on two types of evidence: a large n, multi-level analysis that exposes the mediating role of political mobilization strategies using available observational data, and a rather

unusual experimental comparison facilitated by the randomized anti-corruption audits conducted by the Brazilian government from 2003 onwards. The former confirm both the nature and the scope of the conditional relationship between economic inequality, political mobilization, and political inequality. The latter confirms the working of the key mechanisms posited by the theory in a setting in which the key political mechanism at work, i.e. the type of political mobilization strategy, is manipulated exogenously and cases are allocated randomly into the manipulation.

In these two empirical approaches, we have treated the divide between clientelism and programatism as either long-run equilibria across nations or as a mechanism that can be manipulated externally in an experimental set-up, therefore altering its role as mediating mechanism in the relationship between economic and political inequality. Yet the theoretical model also sheds lights on the endogeneity between party strategies on the one hand and the levels of development and inequality (see also (Kitschelt and Kselman, 2013)). Looking forward, the obvious next step in this line of work is to examine empirically the long-term origins of various mobilization strategies as a joint function of inequality and development.

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Appendix I: Theory

Building on the premises laid out in the main document, define poor voters will vote under any combination of t, b, and g that generates levels of utility *at least* similar to those defined by:

$$\overline{U_P} = (1 - t^{max})w_P + \alpha ln(\alpha) + t\overline{w}(1 - \lambda\phi) - \alpha \tag{1}$$

This expression defines the level of utility of the poor that the elites must meet with their policy offerings so that the latter turn out to vote. As such, it places a constraint on the policy offerings by parties, which we analyze in turn. The elites, irrespective of their ideological leanings, needs to choose a portfolio of targeted goods, public goods, and taxes that meets two constraint: (1) a budget constraint (recall that the poor had limited ability to tax the elite, but the elite has full capacity to tax itself); and (2) a political constraint driven by the need to meet the mobilization threshold of low income voters defined in (2). Accordingly, its maximization problem can be defined as:

$$\begin{aligned} \underset{t,b,g}{\text{maximize}} \quad & U_i(t, b, g) = (1 - t)w_R + \beta ln(b_R) + g \\ \text{subject to} \quad & t\overline{w} = b_P + b_R + g \\ \text{and to} \quad & (1 - t)w_P + \alpha ln(b_P) + g \geq \overline{U_P} \end{aligned} \tag{2}$$

where β captures the sensitivity of high income voters to targeted goods and $\overline{U_P}$ defines the low income voters' utility threshold as defined above.

The Lagrangian is defined as:

$$\begin{aligned} \mathcal{L} = (1 - t)w_R + \beta ln(b_R) + t\bar{w}(1 - \lambda\phi) - b_P - b_R + \\ +\mu[(1 - t)w_P + \alpha ln(b_P) + t\bar{w}(1 - \lambda\phi) - b_P - b_R - \bar{U}] \end{aligned} \tag{3}$$

From here it follows that:

$$t_R^* = t^{max} \leq 1 \quad \text{since utility is linear in } t \tag{4}$$

$$\frac{\partial \mathcal{L}}{\partial b_P} = -1 + \mu\alpha\frac{1}{b_P} - \mu = 0 \tag{5}$$

$$\frac{\partial \mathcal{L}}{\partial b_R} = \beta \frac{1}{b_R} - 1 - \mu = 0 \tag{6}$$

$$\mu[(1-t)w_P + \alpha ln(b_P) + t\bar{w} - b_P - b_R - \bar{U}] = 0 \tag{7}$$

From [4] - [6] it follows that:

$$b_P^* = \frac{\alpha\mu}{1+\mu} \tag{8}$$

$$\mu = \frac{b_P}{\alpha - b_P} \tag{9}$$

$$b_R^* = \frac{\beta}{1+\mu} = \frac{(\alpha - b_P)\beta}{\alpha} \tag{10}$$

Substituting (10) int the CSC (7), which must be binding given that $\mu > 0$, we obtain:

$$\alpha ln(b_P) + bp(\frac{\beta}{\alpha} - 1) + t^{max}\bar{w} - \beta + (1 - t^{max})w_P = \bar{U} \tag{11}$$

On the basis of this expression we can begin exploring the relevant comparative statics.

Inequality and the Elite Choice of targeted goods towards the poor

From [11] it follows that

$$\alpha ln b_P^* = \beta - \alpha + \alpha ln\alpha - t^{max}\bar{w}\lambda.\phi \tag{12}$$

which yields

$$ln b_P^* = \frac{\beta}{\alpha} - 1 + ln\alpha - \frac{t^{max}\bar{w}\lambda.\phi}{\alpha} \tag{13}$$

from which it follows that

$$b_p{}^* = e^m, \quad \text{where } m = \frac{\beta}{\alpha} - 1 + ln(\alpha) - \frac{\tau^{max}\bar{w}\lambda\phi}{\alpha} \tag{14}$$

Allowing us to establish the following comparative statics on the impact of inequality on the level of targeted goods towards citizens in the lower half of the distribution:

1. With respect to the share of income of those above the mean (ϕ), it follows:

$$\frac{\partial ln(b_p{}^*)}{\partial(\phi)} = \frac{-\tau^{max}\overline{w}\lambda}{\alpha} \leq 0 \tag{15}$$

Note as well that:

$$\underbrace{\frac{\partial ln(b_p{}^*)}{\partial\phi}}_{\leq 0} = \underbrace{\frac{\partial ln(b_p{}^*)}{\partial b_p}}_{>0} \frac{b_p^*}{\partial\phi}$$

From which it follows that :

$$\frac{\partial b_p^*}{\partial\phi} < 0$$

2. With respect to the share of voters below median income $(1-\delta)$:

Substituting $\phi = -\frac{w_P(1-\delta)}{\bar{w}}$ into [13] and differentiating with respect to $(1-\delta)$ produces:

$$\frac{\partial ln(b_p{}^*)}{\partial(1-\delta)} = \frac{\tau^{max}w_P\lambda}{\alpha} \geq 0 \tag{16}$$

Note as well that:

$$\underbrace{\frac{\partial ln(b_p{}^*)}{\partial(1-\delta)}}_{\geq 0} = \underbrace{\frac{\partial ln(b_p{}^*)}{\partial b_p}}_{>0} \frac{b_p^*}{\partial(1-\delta)}$$

From which it follows up that:

$$\frac{b_p^*}{\partial(1-\delta)} > 0$$

Inequality and the Elite Choice of PPGG(g)

PPGG and the share of low income voters ($(1-\delta)$

Without imposing the constraint that $\alpha = \beta$, and given the budget constraint and previous results on bp*, br* and tmax we have:

$$b_R^* = \frac{(\alpha - b_P)\beta}{\alpha}$$

$$b_P^* = e^m; with \quad m = \frac{\beta}{\alpha} - 1 + ln(\alpha) - \frac{\tau^{max}\bar{w}\lambda\phi}{\alpha}$$

which yields the following budget constraint

$$t^{max}[(1-\delta)w_P + \delta w_R] = e^m + \frac{(\alpha - b_P)\beta}{\alpha} + g^*$$

Rearranging on the basis of previous results, we obtain

$$g^* = t^{max}[(1-\delta)w_P + \delta w_R] - e^m - \frac{(\alpha - b_P^*)\beta}{\alpha}$$

Or developing:

$$g^* = t^{max}[(1-\delta)w_P + \delta w_R] + (\frac{\beta}{\alpha} - 1)e^m - \beta \tag{17}$$

Recall that

$$\phi = 1 - \frac{w_P(1-\delta)}{\bar{w}}$$

Substituting m and subsequently ϕ into [17] allows us to take the derivative of g^* with respect to $(1-\delta)$, which yields the following result:

$$\frac{\partial g^*}{\partial(1-\delta)} = t^{max}w_P + t^{max}w_P\big(\frac{\beta}{\alpha} - 1\big)e^m\frac{\lambda}{\alpha} \tag{18}$$

Rearranging we obtain:

$$\frac{\partial g^*}{\partial(1-\delta)} = t^{max} w_P - t^{max} w_P \big(1 - \frac{\beta}{\alpha}\big) b_P^* \frac{\lambda}{\alpha} \tag{19}$$

Note that $\frac{\partial g^*}{\partial(1-\delta)} < 0$ insofar as $\beta < \alpha$, and b_P^* in equilibrium is high enough, which suggests that insofar as the poor are more responsive to bribes than the rich, a perfectly reasonable theoretical assumption, an increase in the number of poor voters implies a reduction in the optimal level of provision of public goods.

PPGG and the Concentration of Wealth by the Rich (ϕ)

Using a similar approach we can obtain results that relate the optimal level of PPGG and the share of income in the hands of high income voters.

Recall that

$$1 - \delta = (1 - \phi)\frac{\bar{w}}{w_p} \tag{20}$$

Substituting this expression and m into [17] above gives:

$$g^* = t^{max}[(1-\phi)\frac{\bar{w}}{w_p} w_P + \delta w_R] + (\frac{\beta}{\alpha} - 1) e^{\frac{\beta}{\alpha} - 1 + ln(\alpha) - \frac{\tau^{max} \bar{w} \lambda \phi}{\alpha}} - \beta \tag{21}$$

We can now take the derivative of (2) with respect to ϕ, yielding:

$$\frac{\partial g^*}{\partial \phi} = -t^{max} \bar{w} - t^{max} \bar{w} \big(\frac{\beta}{\alpha} - 1\big) \frac{e^m \lambda}{\alpha}$$

Rearranging we obtain:

$$\frac{\partial g^*}{\partial \phi} = -t^{max} \bar{w} + t^{max} \bar{w} \big(1 - \frac{\beta}{\alpha}\big) \frac{b_P^*}{\alpha} \lambda \tag{22}$$

The Elite Choice of PPGG (g*) with and without the political constraint

The results for the elite choice in the presence of the political constraint ($\bar{U}$) are the same as above. In what follows, we solve the maximization problem in the absence of the political constraint, and compare the optimal levels of PPGG (g^*) under both circumstances ($g^* vs. g^*_{\bar{U}}$). The maximization problem without the political constraint becomes:

$$\begin{aligned} \underset{t,b,g}{\text{maximize}} \quad & U_i(t,b,g) = (1-t)w_R + \beta ln(b_R) + g \\ \text{subject to} \quad & t\overline{w} = b_P + b_R + g \end{aligned} \tag{23}$$

$$\underset{t*,b_R*,g*}{\text{maximize}} \quad U_i(t*,b*,g*) = (1-t)w_R + \beta ln(b_R) + t\overline{w} - b_P - b_R + g \tag{24}$$

Solving the problem yields:

- $t^*_R = t^{max} \leq 1$
- $b^*_P = 0$
- $b^*_R = \beta$ since $\frac{\partial U_i}{\partial b_R} = \beta \frac{1}{b_R} - 1 = 0$
- finally, substituting into the budget constraint and rearranging we obtain $g^* = t^{max}[(1-\delta)w_P + \delta w_R] - \beta$

Recall that, by contrast, the level of PPGG with the political constraint ($g^*_{\bar{U}}$) is given by $g^*_{\bar{U}} = t^{max}[(1-\delta)w_P + \delta w_R] + (\frac{\beta}{\alpha} - 1)bp^* - \beta$. Comparing the optimal level of PPGG provisions with and without the political constraint leads to the following result:

$$\begin{aligned} & g^* \lesseqgtr g^*_{\bar{U}} \\ & t^{max}\bar{w} - \beta \lesseqgtr t^{max}\bar{w} + (\frac{\beta}{\alpha} - 1)bp^* - \beta \\ & 0 \lesseqgtr \underbrace{(\frac{\beta}{\alpha} - 1)}_{<0 if \beta < \alpha} \underbrace{bp^*}_{\geq 0} \end{aligned} \tag{25}$$

This result implies that $g^* > g^*_{\bar{U}}$ if $\beta < \alpha$ and $bp^* > 0$.

Appendix II: Empirical Extensions

II.1.-Crossnational Robustness Checks

Table 5: Using Clientelism as Indicator of Party Strategies

	5.1	5.2	5.3	5.4	5.5	5.6
Gini Disposable Income	0.364*	0.257	0.363**	0.791**	0.715*	0.645**
	(0.205)	(0.208)	(0.175)	(0.314)	(0.363)	(0.234)
Clientelism	0.503***	0.348*	0.509***	0.843**	0.708*	0.756**
	(0.178)	(0.180)	(0.162)	(0.340)	(0.391)	(0.281)
Gini Disposable Income X Clientelism	-0.933***	-0.677*	-0.910***	-1.688***	-1.449**	-1.474***
	(0.335)	(0.335)	(0.299)	(0.565)	(0.667)	(0.459)
Below Median Income Voters' Turnout		-0.296***			-0.239**	
		(0.088)			(0.111)	
Above Median Income Voters' Turnout			0.322**			0.312**
			(0.118)			(0.126)
GDP per Capita (ln)	0.222**	0.190**	0.184**	0.182	0.177	0.132
	(0.087)	(0.080)	(0.080)	(0.165)	(0.162)	(0.146)
Redistribution	0.279***	0.254***	0.216***	0.385***	0.367***	0.288**
	(0.085)	(0.084)	(0.070)	(0.113)	(0.114)	(0.108)
Dummy Compulsory Voting	0.116	0.090	0.106	0.063	0.047	0.064
	(0.128)	(0.114)	(0.113)	(0.190)	(0.179)	(0.164)
PR	0.354**	0.290**	0.309**	0.441**	0.406**	0.348*
	(0.157)	(0.130)	(0.149)	(0.210)	(0.195)	(0.201)
ln Populatin	0.146**	0.131**	0.116*	0.076	0.067	0.064
	(0.060)	(0.051)	(0.057)	(0.069)	(0.065)	(0.059)
Polity2	0.079	0.035	0.102	-0.031	-0.080	0.043
	(0.101)	(0.081)	(0.097)	(0.121)	(0.126)	(0.090)
Ethnic Fractionalization	0.145***	0.124***	0.121***	0.098*	0.084*	0.086*
	(0.039)	(0.034)	(0.036)	(0.050)	(0.048)	(0.044)
Mortality Rate	0.121**	0.092**	0.113**	0.387	0.330	0.341
	(0.048)	(0.043)	(0.047)	(0.241)	(0.259)	(0.209)
GDP Growth	-0.065**	-0.045*	-0.066**	-0.084**	-0.061*	-0.088***
	(0.030)	(0.024)	(0.030)	(0.034)	(0.034)	(0.030)
Economic Globalization Index	-0.069	-0.071	-0.044	-0.077	-0.072	-0.060
	(0.054)	(0.050)	(0.045)	(0.080)	(0.085)	(0.057)
Constant	0.089	0.078	0.073	0.099	0.059	0.120
	(0.156)	(0.126)	(0.146)	(0.186)	(0.165)	(0.175)
Borjas Weighting and Clustered Standard Errors	Yes	Yes	Yes	Yes	Yes	Yes
High Quality Gini Dataset	Yes	Yes	Yes	Yes	Yes	Yes
Clientelism Data Time Trend Correction	No	No	No	Yes	Yes	Yes
CSES Waves 1st Stage	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3
Countries	30	30	30	25	25	25
Observations	75	75	75	49	49	49
R-squared	0.644	0.693	0.704	0.617	0.655	0.688

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 6: Using Programmatism as Indicator for Party Strategies

	6.1	6.2	6.3	6.4	6.5	6.6
Gini Disposable Income	-0.363***	-0.292***	-0.339***	-0.291	-0.235	-0.292*
	(0.106)	(0.097)	(0.095)	(0.181)	(0.172)	(0.161)
Programmatism	-0.298**	-0.227*	-0.295**	-0.195	-0.183	-0.150
	(0.121)	(0.114)	(0.120)	(0.167)	(0.164)	(0.162)
Gini Disposable Income X Programmatism	0.397***	0.305**	0.389***	0.329*	0.294*	0.280
	(0.118)	(0.111)	(0.115)	(0.178)	(0.170)	(0.176)
Below Median Income Voters' Turnout		-0.247***			-0.190	
		(0.079)			(0.112)	
Above Median Income Voters' Turnout			0.308**			0.328**
			(0.118)			(0.150)
GDP per Capita (ln)	0.110**	0.120**	0.063	0.110	0.126	0.047
	(0.047)	(0.044)	(0.041)	(0.097)	(0.098)	(0.063)
Redistribution	0.214***	0.209***	0.154**	0.267***	0.267***	0.180*
	(0.067)	(0.063)	(0.065)	(0.073)	(0.068)	(0.090)
Dummy Compulsory Voting	0.060	0.054	0.048	-0.042	-0.048	-0.017
	(0.130)	(0.111)	(0.125)	(0.175)	(0.174)	(0.143)
PR	0.361***	0.309***	0.314**	0.369	0.350	0.281
	(0.130)	(0.112)	(0.124)	(0.240)	(0.218)	(0.222)
ln Populatin	0.136***	0.127***	0.104***	0.107*	0.101*	0.083*
	(0.035)	(0.033)	(0.036)	(0.055)	(0.055)	(0.042)
Polity2	0.150*	0.103	0.162*	0.159	0.097	0.215**
	(0.080)	(0.064)	(0.082)	(0.109)	(0.111)	(0.081)
Ethnic Fractionalization	0.141***	0.126***	0.116***	0.128**	0.114**	0.110**
	(0.033)	(0.032)	(0.032)	(0.052)	(0.052)	(0.045)
Mortality Rate	0.116***	0.096**	0.104**	0.207	0.185	0.176
	(0.042)	(0.036)	(0.042)	(0.138)	(0.146)	(0.104)
GDP Growth	-0.047*	-0.034	-0.050*	-0.041	-0.029	-0.048*
	(0.025)	(0.020)	(0.025)	(0.031)	(0.030)	(0.027)
Economic Globalization Index	-0.009	-0.024	0.012	-0.062	-0.051	-0.060
	(0.053)	(0.050)	(0.045)	(0.110)	(0.115)	(0.077)
Constant	0.096	0.082	0.085	0.151	0.112	0.168
	(0.131)	(0.107)	(0.125)	(0.223)	(0.198)	(0.205)
Borjas Weighting and Clustered Standard Errors	Yes	Yes	Yes	Yes	Yes	Yes
High Quality Gini Dataset	Yes	Yes	Yes	Yes	Yes	Yes
Clientelism Data Time Trend Correction	No	No	No	Yes	Yes	Yes
CSES Waves 1st Stage	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3
Countries	30	30	30	25	25	25
Observations	75	75	75	49	49	49
R-squared	0.684	0.717	0.740	0.641	0.663	0.720

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 7: Models with Region and Year Fixed Effects

	7.1	7.2	7.3	7.4	7.5	7.6
Gini Disposable Income	-0.383**	-0.410**	-0.246	-0.440	-0.596**	-0.173
	(0.181)	(0.164)	(0.200)	(0.291)	(0.252)	(0.326)
Programmatism Index	-0.574*	-0.582**	-0.409	-0.688*	-0.868**	-0.329
	(0.299)	(0.262)	(0.316)	(0.392)	(0.322)	(0.461)
Gini Disposable Income X Programmatism Index	0.617**	0.601**	0.469*	0.732**	0.865***	0.405
	(0.262)	(0.231)	(0.275)	(0.345)	(0.284)	(0.404)
Below Median Income Voters' Turnout		-0.223***			-0.302***	
		(0.078)			(0.088)	
Above Median Income Voters' Turnout			0.269			0.279
			(0.166)			(0.212)
GDP per Capita (ln)	0.130	0.096	0.136	0.157	0.097	0.168
	(0.083)	(0.076)	(0.082)	(0.116)	(0.103)	(0.105)
Redistribution	0.260***	0.250***	0.202***	0.245***	0.221***	0.199***
	(0.045)	(0.044)	(0.062)	(0.052)	(0.050)	(0.069)
Dummy Compulsory Voting	0.172*	0.173*	0.124	0.138	0.108	0.128
	(0.087)	(0.085)	(0.090)	(0.105)	(0.109)	(0.088)
PR	0.363***	0.331***	0.303***	0.446***	0.458***	0.310**
	(0.064)	(0.064)	(0.070)	(0.097)	(0.094)	(0.132)
ln Populatin	0.126***	0.131***	0.086*	0.128***	0.134***	0.087
	(0.040)	(0.038)	(0.046)	(0.044)	(0.040)	(0.053)
Polity2	0.180	0.127	0.195*	0.069	-0.072	0.181
	(0.120)	(0.124)	(0.104)	(0.118)	(0.093)	(0.170)
Ethnic Fractionalization	0.132***	0.131***	0.097*	0.107**	0.091*	0.092*
	(0.038)	(0.035)	(0.050)	(0.050)	(0.050)	(0.048)
Mortality Rate	0.238***	0.208***	0.210***	0.290**	0.357***	0.147
	(0.066)	(0.061)	(0.067)	(0.131)	(0.102)	(0.157)
GDP Growth	0.011	0.024	-0.009	0.022	0.042	-0.003
	(0.051)	(0.057)	(0.052)	(0.050)	(0.050)	(0.053)
Economic Globalization Index	0.113	0.105	0.093	0.142**	0.134**	0.110
	(0.080)	(0.084)	(0.066)	(0.069)	(0.065)	(0.073)
Constant	0.828***	0.761***	0.408	0.553*	-0.006	0.463
	(0.177)	(0.169)	(0.290)	(0.321)	(0.306)	(0.300)
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Borjas Weighting and Clustered Standard Errors	Yes	Yes	Yes	Yes	Yes	Yes
High Quality Gini Dataset	Yes	Yes	Yes	Yes	Yes	Yes
Clientelism Data Time Trend Correction	No	No	No	Yes	Yes	Yes
CSES Waves 1st Stage	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3	1,2&3
Countries	30	30	30	29	29	29
Observations	75	75	75	71	71	71
R-squared	0.792	0.813	0.824	0.791	0.824	0.819

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

II.2.- Brazil

Table 8: Replicating Crossnational Patterns in the context of Brazil

	8.1	8.2	8.3	8.4	8.5	8.6
Gini Municipality	-0.205**	-0.207**	-0.193**	-0.196**	-0.208**	-0.209**
	-0.082	-0.084	-0.08	-0.081	-0.081	-0.082
Local Mismanagement Audited	-0.028	-0.026	-0.029	-0.028	-0.033*	-0.03
	-0.02	-0.02	-0.02	-0.02	-0.019	-0.02
Gini Municipality X Local Mismanagement	0.060*	0.059*	0.063*	0.061*	0.068**	0.065*
	-0.034	-0.035	-0.035	-0.035	-0.034	-0.034
Constant	0.929***	0.926***	0.818***	0.827***	0.805***	0.806***
	-0.071	-0.073	-0.121	-0.121	-0.121	-0.122
Municipality Characteristics Controls	Yes	Yes	Yes	Yes	Yes	Yes
Political and Judicial Institutions Controls	No	No	Yes	Yes	Yes	Yes
Federal Transfers and Employment Controls	No	No	Yes	Yes	Yes	Yes
Electoral Competition Controls	No	No	No	No	Yes	Yes
Lottery Fixed Effects	No	Yes	No	Yes	No	Yes
Brazilian State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	366	366	366	366	366	366
R-squared	0.527	0.541	0.55	0.562	0.565	0.576

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 9: Motivating the exclusion of Second Term Majors

	9.1	9.2	9.3	9.4	9.5	9.6
Gini Municipality	1.956	1.879	1.881	1.806	1.854	1.862
	-1.342	-1.345	-1.359	-1.333	-1.313	-1.439
Mayor in First Term	3.190***	3.190***	3.192***	3.124***	2.918***	2.903***
	-1.042	-1.039	-1.045	-1.042	-1.028	-1.065
Gini Municipality X Mayor in First Term	-5.388***	-5.389***	-5.393***	-5.339***	-5.036***	-5.048***
	-1.816	-1.809	-1.816	-1.811	-1.79	-1.854
Constant	0.109	0.737	0.731	0.551	0.531	1.651
	-1.044	-1.339	-2.634	-2.736	-2.759	-2.896
Municipality Characteristics? Controls	Yes	Yes	Yes	Yes	Yes	Yes
Political and Judicial Institutions Controls	No	Yes	Yes	Yes	Yes	Yes
Federal Transfers and Employment Controls	No	No	Yes	Yes	Yes	Yes
Electoral Competition Controls	No	No	No	Yes	Yes	Yes
Mayor's Characteristics Controls	No	No	No	No	Yes	Yes
Lottery Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Brazilian State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Party Affiliation Fixed Effects	No	No	No	No	No	Yes
Observations	366	366	366	366	366	366
R-squared	0.423	0.424	0.424	0.428	0.435	0.456

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1