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**HOW SOCIAL POLICY UNDERCUTS THE APPEAL OF CLIENTELISM:  
BOLSA FAMÍLIA, POLICY FEEDBACK AND COLLECTIVE  
CONFIDENCE**

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# How Social Policy Undercuts the Appeal of Clientelism: Bolsa Família, Policy Feedback and Collective Confidence

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## Abstract

This paper provides some of the first evidence of the strength and contingency of policy feedback effects in developing democracies. In contexts where clientelist practices are common, convincing vulnerable voters to reject clientelist candidates depends on creating 'collective confidence' that enough other voters will also reject those candidates. A targeted household survey in Northeast Brazil provide evidence that programmatic social policy can help coordinate voting behaviour expectations among voters, reducing collective vulnerability and suppressing the demand for clientelism. Leveraging plausibly exogenous variation between Bolsa Família recipients and those who have been approved for the same benefits but remain on the waiting list, the evidence suggests recipients are markedly more likely to reject hypothetical vote-buying offers. To confirm the mechanism, a novel application of a conjoint survey experiment suggests that social policy receipt raises confidence in *other* recipients' willingness to reject clientelism, helping resolve an important collective action problem. Consistent with the theory, these effects and mechanisms are strongest in states where clientelism is most widespread, and absent in states where local programmatic reform has been deepest.

**Keywords:** Policy Feedback, Clientelism, Social Policy, Collective Action

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# 1 Introduction

It has long been recognized that when governments distribute benefits to citizens they also restructure political competition, creating and empowering some groups over others and attracting the support of some voters while repelling others. Yet, these changes are almost always analysed as shifts *within* a particular political equilibrium, where the types of political mobilization, the content of political relationships and the decision criteria used by voters are all stable. Studies of the effects of policy therefore tell us that, for example, in developing democracies, clientelist handouts do change voter choices and create dependency [Stokes \(2005\)](#) and that, in institutionalized democracies, well-implemented, well-targeted policies can lock-in the support of beneficiaries for decades [Campbell \(2005\)](#). Yet, can policy also influence the *transition* between political equilibria?

This study suggests that social policy can accelerate the transition away from a clientelist equilibrium where voters are offered contingent exchanges by politicians and voters are dependent on politicians for access to resources, to a programmatic equilibrium where voters possess the independence and autonomy to select among candidates and politicians develop reputations for their policies and competence without resorting to selective rewards and threats. While there has long been debate on whether social policy can undercut clientelism by providing economic security to voters ([Stahlberg 2010](#); [Bobonis et al. 2016](#)), there are also strong theoretical reasons why this effect is likely to be muted: voters continue to be exposed to clientelist threats that restrict their access to other essential public services, and there remains no incentive to vote against clientelist candidates if other voters continue to support them in large numbers so their victory is assured.

The implication that collective action among voters is required to escape clientelist pressures motivates this study ([Medina 2010](#); [Lyne 2007](#)). I present a novel mechanism of policy feedback that is expected to operate in clientelist contexts called 'collective confidence'. Citizens that receive social policy benefits that improve their economic security are likely to feel less vulnerable to politicians' pressures, but wary that other voters do not share their new-found autonomy. However, they recognize that other social policy beneficiaries are in the same position as themselves. Accordingly, each recipient will develop new expectations about the willingness of *other* recipients to reject clientelist offers. While each additional recipient may move the expectations of others only at the margin, the collective experience of social policy among a significant proportion of the population can accumulate to radically alter expectations of how recipients are likely to use their vote. In turn, each recipient will be more willing to take the risk of rejecting the clientelist candidate and expressing their true policy-based voting preference.

To test this hypothesis, I take advantage of the contrast between effective programmatic national social policy ([Hunter 2014](#)) and the continuation of local practices of clientelism ([Nichter and Peress 2016](#)) in Brazil's Northeast. A targeted household survey facilitated two empirical tests of the proposed theory and mechanism. First, by contrasting beneficiaries of the Bolsa Família conditional cash transfer program with households who meet the same eligibility criteria but are on the program's waiting list we can establish more plausible counterfactuals to estimate the impact of the policy on political attitudes, and specifically on beneficiaries' willingness to reject hypothet-

ical vote-buying offers. Second, I use a novel conjoint survey experiment to measure changes in respondents' expectations about *other* voters' willingness to reject clientelist candidates.

The results provide promising but qualified support for the hypothesis. Recipients of Bolsa Família are 58.7% more likely to reject a hypothetical vote-buying offer than those on the waiting list. This effect is stronger the more the local political equilibrium tends towards clientelist practices, with the strongest effect in Alagoas and the weakest effect in Ceará. In Alagoas, the conjoint survey experiment also demonstrated a meaningful shift in voters' expectations such that respondents expected hypothetical Bolsa Família recipients to be more likely to reject clientelist candidates. However, the same expectations mechanism was not evident in Bahia, despite the data suggesting the policy feedback effect was in operation.

## 2 Policy Feedback in Developing Democracies

While existing evidence for policy feedback effects on political behaviour is strong, it is sourced almost exclusively from developed economies where the threat of clientelism is weak and the institutions regulating political competition are strong (Mettler and Soss 2004; Skocpol 1992; Pierson 1993). The most cited mechanisms of policy feedback - the redistribution of resources for political action, changes to the status quo and the dissemination of information about policies - are likely to operate differently where the object of political competition is not policy performance or ideological position, but individual reputations, contingent exchanges and promises of access to resources.

Numerous studies have already demonstrated that programmatic policy can have political consequences in developing contexts, but the focus has been limited to the short-term retrospective rewards that voters give to incumbents that provide them with benefits. For example, De La O (2013) examines how conditional cash transfers in Mexico affect the national incumbent's vote share while Zucco (2013) and Hunter and Power (2008) assess Bolsa Família in Brazil.<sup>1</sup>

Beyond these immediate retrospective reactions to policy benefits, however, is a more fundamental set of policy feedback effects that affect voters' autonomy, capacity and motivation to even exercise a retrospective voting assessment. In developing contexts where clientelism is strong, voters may not respond to policy because they remain vulnerable to clientelist exchanges and vote-buying. Yet, policy itself may *intensify or diminish that vulnerability*. As Bobonis et al. (2016) demonstrate, events such as droughts which raise vulnerability increase participation in clientelist practices, and interventions (water cisterns in their case) that reduce vulnerability reduce participation in clientelism. In other words, policy may not influence the choices of voters simply based on evaluation of the benefits it delivers but through shifting the terms of engagement between voters and the political system.

One of the few studies of policy feedback in developing contexts illustrates this possibility -

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<sup>1</sup>There is also the argument that programmatic policy should be politically inconsequential. As well as revisiting the data in De La O (2013), Imai, King and Velasco Rivera (2016) have questioned the theory behind retrospective voting rewards: "Why would voters reward a party for actions over which the party has no control?"

Larreguy, Marshall and Trucco (2015) demonstrate how policy can reduce the supply and capacity of clientelist networks, providing evidence of how federally-initiated land titling reform in Mexico weakened the clientelist operations and vote share of local incumbents. This study argues that similar structural effects can arise on the demand side, changing the willingness of voters to reject clientelist candidates. It extends the study of Bobonis et al. (2016) from material interventions such as water cisterns to focus on systematic social policy, and from extra-electoral to electoral behaviour.

## 2.1 Policy Feedback from Bolsa Família

The ability of social programs such as Bolsa Família to produce a deeper shift in voters' political attitudes and empowerment has been recognized in a number of studies. Hunter (2014) discusses how Bolsa Família is able to produce "feelings of social inclusion and agency" because it is based on objective measures of income and need rather than political loyalty. Rego and Pinzani (2014) provide qualitative evidence of how reliable resource access can expand capabilities and autonomous decision-making, particularly of female beneficiaries. The programme has generated optimism about the potential to reshape political relationships, with Hall (2012) stressing how it can create "a new form of leverage through which [voters] can collectively put pressure on politicians to deliver the goods rather than just empty promises" and (Melo, Njuguna and Manor 2012) arguing it can produce 'a new political market'. Yet, these studies either fail to make specific predictions about how these liberating consequences might affect political behaviour, or fail to provide empirical assessments of their claims.

In fact, there are very high barriers to policy affecting political behaviour and reasons to be skeptical about the empowering effects of Bolsa Família. First, the voter remains vulnerable to clientelist threats on other dimensions of public service access, for example in access to health-care or housing, which is likely to instill considerable caution in voting against clientelist candidates. Local politicians will adapt to find new margins on which to implement clientelism, switching away from policies subject to national rules and focusing on alternative policies they can effectively control (Trucco (2015), Nichter (2014), Kaufmann, Ferrara and Brollo (2013)). Critics contend that social policy can also perpetuate a form of clientelism - a demobilizing 'assistencialismo' - that does nothing to change the contours of political power. For example, Hall (2008) suggests how Bolsa Família may become a tool of populism due to its strong personal association with President Lula. Hite-Rubin (2015) concludes the impact of access to formal finance in the Philippines has not been to change voting behaviour but to permit voters to withdraw from politics.

Second, *other* voters who have not received the social policy continue to be deeply vulnerable to clientelist threats, making the success of a clientelist candidate highly likely. In this case, even a very confident and independent voter gains little from rejecting a clientelist candidate. While the citizens in Bobonis et al. (2016) may have less need to make active demands on clientelist brokers, it is a separate question whether they will convert their autonomy into a change in voting behaviour, since at the ballot box such shifts represent a collective action problem that voters must

jointly overcome.

## 2.2 A Theory of Collective Confidence

I therefore propose an alternative mechanism by which social policy has deep feedback effects - rather than simply reducing *individual* vulnerability, social policy can create 'collective confidence' and encourage the rejection of clientelist candidates. What changes when a voter receives social policy is not just their personal income security, but an understanding of how *other* recipients are liberated by programmatic social policy. Where a sizable proportion of the electorate is a beneficiary, each beneficiary knows that this group are all now in a similar position, being less vulnerable to clientelism. Similarly, they know that other voters are aware of their own newly-found autonomy. These voters can use this information to implicitly coordinate on rejecting clientelist candidates. 'Collective confidence' therefore changes the cost-benefit calculus of supporting reformist candidates against clientelist competitors by reducing the risk that a citizen who votes for reform will not be abandoned by other voters who remain vulnerable to clientelism. This mechanism runs deeper than simple retrospective rewards, since its effect reaches beyond a single policy or recipient, alters expectations more broadly, and can shift the voting equilibrium as long as that confidence is maintained.<sup>2</sup>

A more detailed formal model of this mechanism is provided in Appendix A building on work by [Medina and Stokes \(2002\)](#); [Lyne \(2007\)](#); [Phillips \(2017\)](#), but the logic of the collective confidence model can be summarized as follows. Each individual voter's choice between supporting a clientelist and a programmatic candidate depends crucially on expectations about other voters' behaviour, because voting for a programmatic candidate is attractive only if there is a small enough risk of the clientelist competitor winning and subsequently denying the voter access to public services. But the size of that risk depends on voters' *collective* behaviour. Only if I expect others to abandon clientelism will it be rational for me to do so myself. This generates multiple equilibria in voting behaviour: Either most voters support the clientelist candidate or most support the programmatic candidate. Which political outcome prevails will depend on where societal expectations become anchored. Programmatic policy itself can shift those expectations by providing a *public* signal of the incumbent's competence and creating sufficient mutual confidence among voters to shift politics towards a programmatic voting equilibrium. If this mechanism is operational, it should be observable in the expectations of voters, and not just in their behaviour.

## 2.3 Heterogeneous Local Effects of National Policy

In practice, whether these policy feedback effects operate will depend on the local political context. Shifts in expectations are likely to be most feasible where clientelism remains widespread. Where local politics is already programmatic, there is limited scope for a change in expectations.

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<sup>2</sup>The mechanism of collective confidence to overcome the clientelist trap provides an example of the 'cognitive' and 'interpretive' feedback effects highlighted by [Pierson \(1993\)](#).

Moreover, social policy has less of a liberating effect where local clientelist pressures are already weak.

Brazil's Northeast exhibits considerable diversity in the local political equilibrium. In parts of the Northeast, Brazilians are able to pick from a roster of proven reformers, engage directly with responsive and neutral bureaucracies, and even participate directly in budgeting and other procedures. In other locations, Brazilians still fear voting against their local political boss, know that the bureaucracy will not listen to them unless they use their political connections, and see the budgeting process as distant. The marginal effect of national inclusive policy is likely to be different in these polarized circumstances.

Evidence from the survey (described below) suggests that when asked directly about their experiences of politics, differences in responses between the three surveyed states were minimal. However, there is compelling evidence that this reflects social desirability bias and not a genuine convergence in political experiences. When measured using indirect measures there is strong evidence of variation consistent with the qualitative and anecdotal literature.<sup>3</sup> First, a list experiment focused on experiences with clientelist offers such as vote-buying where the sensitive item was having “Been offered a gift, some food or money in exchange for your vote” (Blair and Imai 2012).<sup>4</sup> Differential responses by those receiving the three and four-item lists then provide an estimate of the rate of exposure to vote-buying offers that can be compared between states. Consistent with expectations, Table 1 demonstrates that Alagoas exhibits the highest incidence of experiences with vote-buying (26%), followed by Bahia (21%) and Ceará (18%).

Table 1: List Experiment on Vote-Buying Estimates by State

	state	list_effect
1	Alagoas	0.26
2	Bahia	0.21
3	Ceara	0.18

In addition, the rate of non-response and refusal provides an indication of reluctance and social desirability bias, as shown on Table 2. These follow the same pattern.

Finally, survey enumerators reported that 87.8% of respondents were comfortable or very comfortable during the interview in Ceará while this was true of only 76% in Alagoas (and 86.6% in Bahia).<sup>5</sup> In aggregate, these findings indicate that politics operates with significantly greater fear and threat of clientelist retaliation in Alagoas.

<sup>3</sup>Ceará state is a flagship of locally-led inclusive reform (Tendler 1998). By contrast, Alagoas state continues to be dominated by a select group of traditional political families, and has taken very limited steps to tackle clientelism in local public services. Bahia state represents perhaps the median governance experience of the Northeast.

<sup>4</sup>The three non-sensitive items were: “Voted”, “Attended a town hall meeting” and “Travelled to the state capital”.

<sup>5</sup>Qualitative reports from the fieldwork also indicated a much greater reluctance to respond in Alagoas, primarily based on the fear that responses may be used to limit access to public benefits.



Table 2: Non-Response and Refusal Rates

	Alagoas	Bahia	Cear
Somebody asked for your vote (%)	1.80	0.60	0.60
Accepted the vote-buying offer (%)	4.20	1.80	0.80
Asked to vote for which candidate (%)	8.90	6.90	6.20
Political connections required for municipal jobs (%)	15.90	12.50	9.90
Refused to say who voted for in 2016 municipal election (%)	16.70	12.50	5.90
Refused to say who most clientelist candidate is (%)	31.70	17.20	12.10
Refused to say who most inclusive candidate is (%)	21.00	10.90	5.40

### 3 Measuring Feedback Effects of National Social Policy

#### 3.1 Data Sources

A household survey of the Northeast region of Brazil was implemented in February - May 2017. A total of 1,881 surveys were collected in 27 municipalities in three states.<sup>6</sup> Rather than aim for perfect representativeness, the survey was designed to maximize inferential leverage on the key hypotheses. The three states were sampled from across the spectrum of local governance practices, from the most to least programmatic: Ceará, Bahia and Alagoas.

Within each state, one municipality was selected from each of three equal-sized strata classified on two dimensions; by the proportion of Bolsa Família beneficiaries, and by the degree of rule-conformity in Bolsa Família programme implementation, as measured by the IGD-M index (Ministerio Desenvolvimento Social 2017).<sup>7</sup> This ensured representative variation in local socio-economic and political conditions. Within each municipality, 80 respondent households were selected randomly, with clustering at the census sector level.

One additional screening indicator was used to target the survey to households that were most comparable in their experiences of social policy; only households that were registered in the national government's Cadastro Único - a register of low income families - were eligible to respond. This truncates the distribution of income of the respondents, so that the survey is not fully representative, but greatly facilitates comparisons between recipients and non-recipients, which is the inferential objective.

To measure respondents' political attitudes towards clientelist practices, they were asked "If someone had offered you something, for example bricks, to vote for a specific candidate, would you have accepted?", with the options 'Accept', 'Accept but vote for another candidate', 'Reject' and 'Don't Know'. Respondents who rejected the hypothetical offer, or accepted but insisted they would vote for another candidate, were coded as rejecting clientelism. Given this option of getting the 'best of both worlds' by accepting the benefit but voting for another candidate, those opting

<sup>6</sup>The trade-off between the number of municipalities and the number of respondents per municipality was optimized using multi-level power calculations in MLPowSim in R, (Browne, Golalizadeh Lahi and Parker 2009).

<sup>7</sup>The probability of inclusion was weighted according to municipal population.



simply to 'accept' the hypothetical offer can be confidently identified as those who remain closely tied to clientelist practices.

### 3.2 Identifying Appropriate Counterfactuals

In the absence of experimental variation and the difficulty of intertemporal comparisons where the dependent variable has not been consistently measured, the survey was designed to exploit an opportunistic observational methodology: comparing recipients of Bolsa Família to households on the waiting list to receive the program. In identifying a suitable counterfactual for beneficiaries, the primary concern is that there is an unobserved selection process determining who receives Bolsa Família. However, the recent implementation of the programme created a gap between passing the eligibility criteria and actually receiving the grant, because there is a waiting list for receipt. This reflects the fact that the programme is not an entitlement but is constrained by available budgetary resources. Brazil's recent economic recession has both pushed more families below the programme threshold and reduced available financing resources ([Contas Abertas 2017](#)), so this group is large and constitutes about 20% of the survey sample. Nationally, at least 2 million eligible citizens were on the waiting list in 2017.<sup>8</sup> Since both beneficiaries and those on the waiting list have passed through the selection process - however it operates - the selection mechanism should not confound the results. The difference in treatment should be attributable primarily to timing and exogenous budget pressures. Accordingly, these comparisons should be more resilient to selection on unobservables and provide robust results.

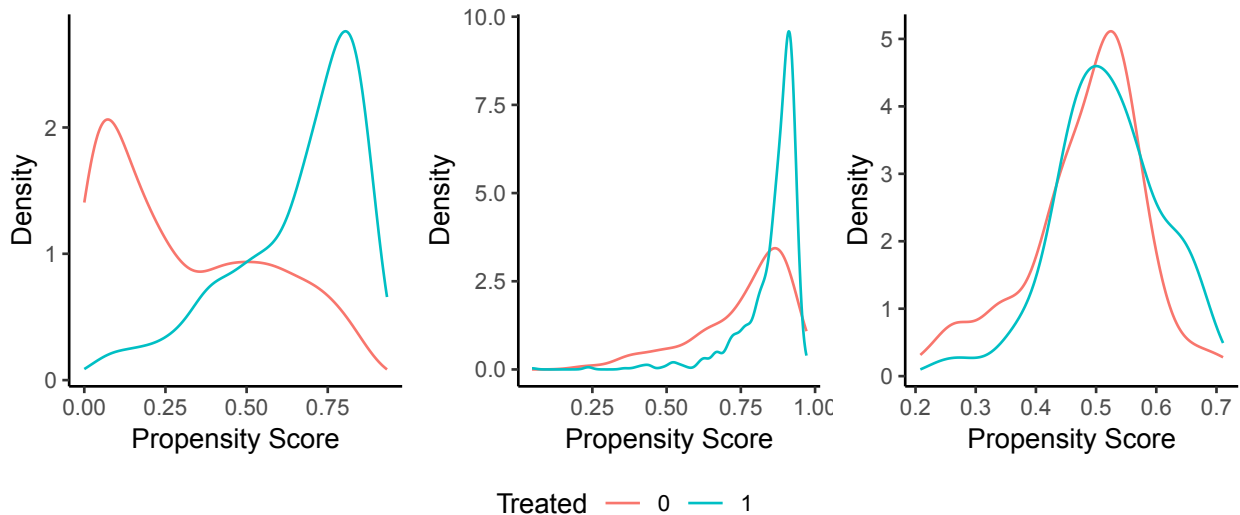
Figure 1 predicts the probability of receiving Bolsa Família based on key socioeconomic variables (monthly income, gender, asset index, number of rooms in the house, piped water, bathroom, household member employed by government, age, education, number of children and state of residence). In the first panel, there are clear and unsurprising differences in the likelihood of treatment between actual recipients and non-recipients of Bolsa Família. The second panel focuses on a different comparison - between recipients of Bolsa Família and those on the waiting list - and illustrates that the probability of treatment between those two groups is much more similar.

However, there remain small differences in the distribution of the propensity score between recipients and those on the waiting list. Accordingly, I supplement the waiting-list methodology with a matching procedure that incorporates exact matching on gender, education, an index of assets and whether the household has children, and nearest neighbour matching on age, monthly income per person, whether any household member is in public employment, and the number of rooms in the house, with a caliper of 0.05 of a standard deviation to ensure close matches. The resulting pruning of the dataset produces almost identical distributions of the propensity score between treated and control groups, as illustrated in the third panel of Figure 1. Given the sharp peak of both distributions around a propensity score of 0.5, we are effectively comparing a group of people

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<sup>8</sup><http://mds.gov.br/area-de-imprensa/noticias/2017/marco/governo-federal-zera-lista-de-espera-do-bolsa-Familia-pelo-segundo-mes-consecutivo>

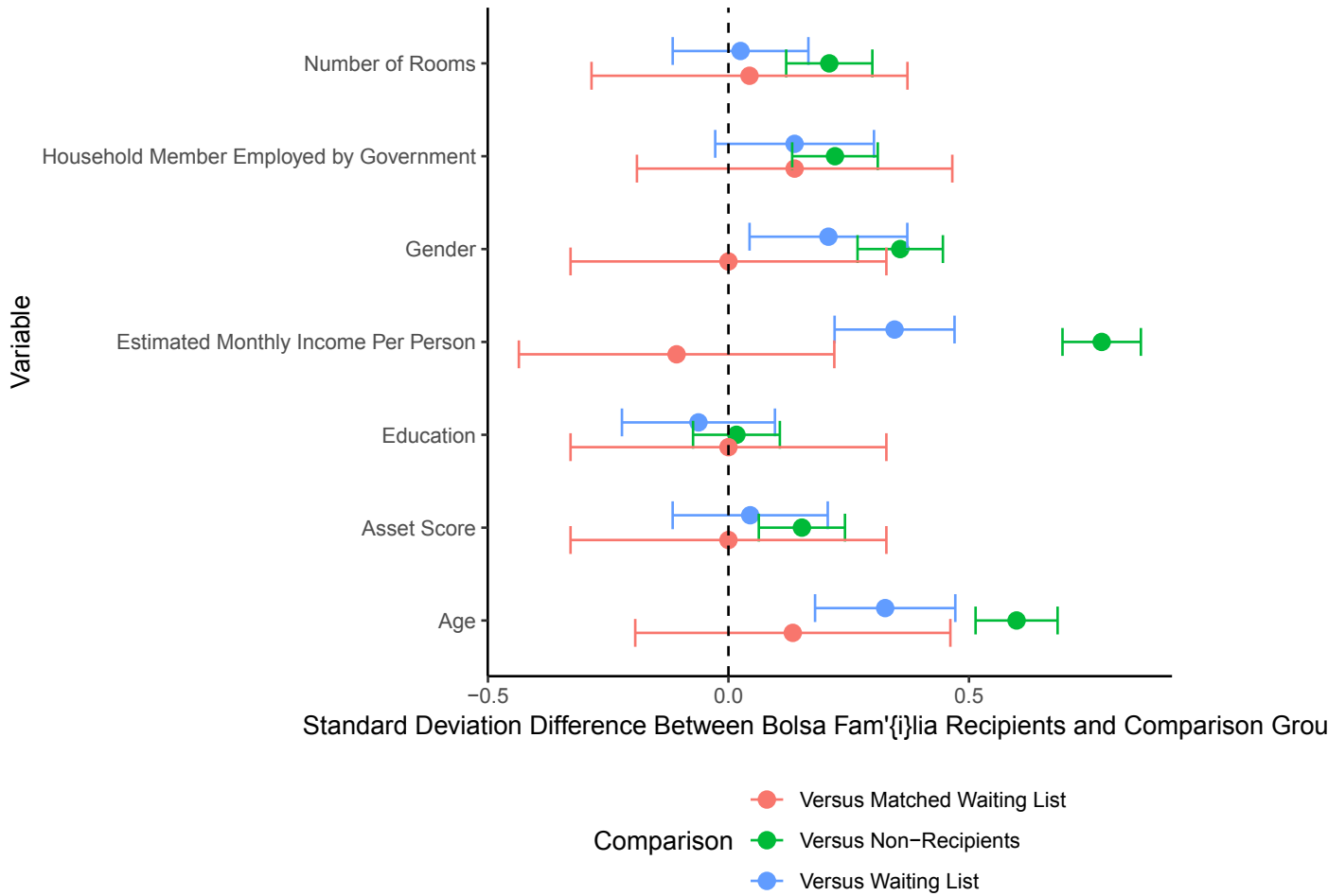
Figure 1: Distribution by Actual Recipient Status of Predicted Propensity Scores for Receiving Bolsa Família (BF) versus (a) Not Receiving BF Currently, (b) Being on the Waiting List for BF, (c) Matched Dataset Being on the Waiting List for BF



who had a 50:50 chance of receiving Bolsa Família based on their socioeconomic circumstances, and in reality half of that group already receive the grant while the remainder are on the waiting list.

To confirm that there is balance on potential confounders we can also compare individual variables between recipients and households on the waiting list (Figure 2). The waiting list methodology eliminates at least half of the imbalance in the basic comparison between recipients and non-recipients. However, those on the waiting list continue to have slightly higher incomes and be slightly older than recipients. It is possible this reflects prioritisation processes in local grant allocation or that the elderly were the most vulnerable to the recent recession, so they are more likely to be on the current waiting list. Once the matching methodology has been applied there is balance on all covariates between recipients and those on the waiting list.

Figure 2: Balance on Individual Variables for Alternative Methodologies



## 4 Results

Using the matched dataset comparing Bolsa Família recipients with those on the waiting list and a simple logit regression of willingness to reject a hypothetical vote-buying offer on recipient status, controlling for potential confounders, we can estimate the impact of the social program on these attitudes. Table 3 details the regression results, which indicate that receiving Bolsa Família increases the log-odds of the willingness to reject vote-buying by 0.35, equivalent to an increase in the probability of rejection of 58.7%. This estimate remains significant and stable with the inclusion of state and municipal fixed effects.

Table 3: Average Effect of Bolsa Familia on Willingness to Reject Hypothetical Vote-Buying Offer

	Base Model	State Fixed Effects	Municipal Fixed Effects
(Intercept)	−0.27 (0.57)	−0.58 (0.58)	−0.89 (0.68)
exp_bf_current_vs_waiting	0.35* (0.18)	0.38* (0.18)	0.47* (0.19)
est_income_month_pp	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
gendermale	−0.29* (0.15)	−0.25 (0.15)	−0.33* (0.16)
asset_index	0.03 (0.06)	−0.01 (0.07)	0.04 (0.07)
num_rooms	0.10* (0.05)	0.11* (0.05)	0.10* (0.05)
room_piped_water1	0.09 (0.27)	0.01 (0.27)	−0.04 (0.29)
bathroom1	0.25 (0.47)	0.17 (0.47)	0.00 (0.50)
household_slg_employed1	0.03 (0.26)	−0.03 (0.26)	−0.06 (0.28)
age	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)
children1	−0.09 (0.18)	−0.01 (0.18)	−0.02 (0.19)
<i>N</i>	1066	1066	1066
AIC	1408.27	1387.80	1384.38
BIC	1627.02	1646.33	2120.19
log <i>L</i>	−660.13	−641.90	−544.19

Standard errors in parentheses

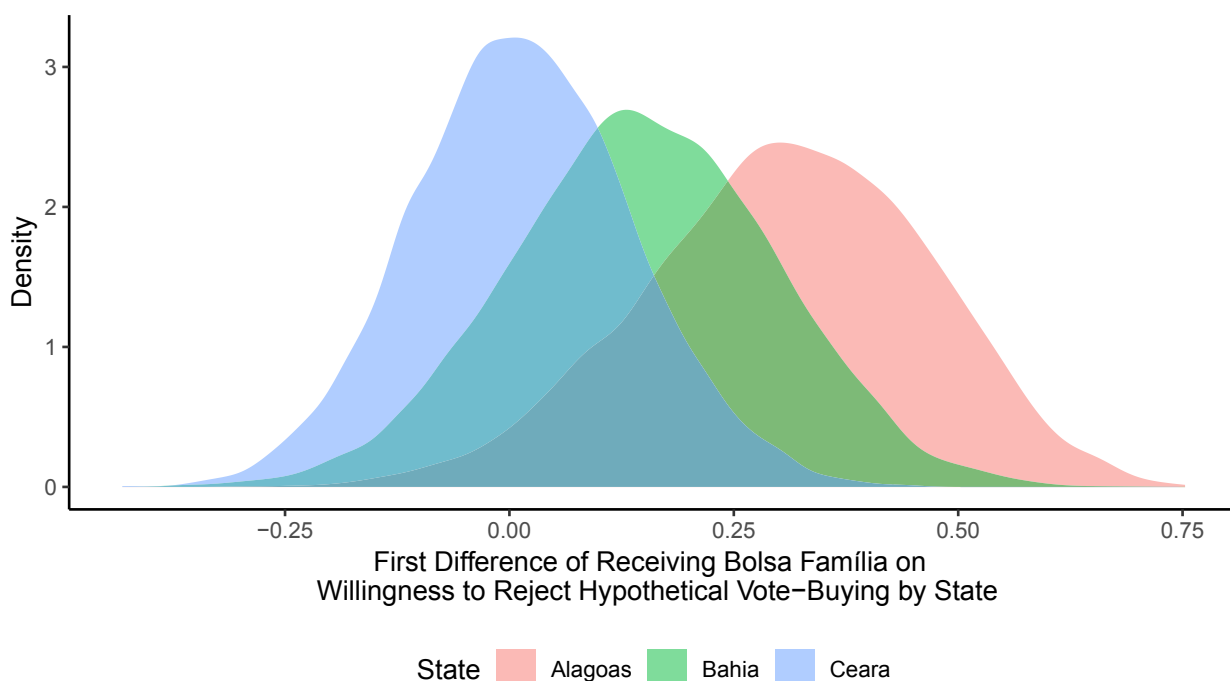
\* indicates significance at  $p < 0.05$

Just as important for the expected heterogeneous effects, the predicted effect of receiving Bolsa Família on attitudes to vote-buying is markedly different by state, as illustrated by the simulated first differences in Figure 3. The effect is very small in Ceará, encouraging on average just an additional 1.4% of respondents to reject vote-buying. By contrast, in Alagoas 30.8% of respondents became more willing to reject vote-buying as a result of accessing Bolsa Família. As expected, Bahia exhibits an intermediate response, with 14.8% of respondents changing their attitudes.

## 5 The Mechanism: Expectations of Other Voters Behaviour

The central hypothesis of the theory of collective confidence is that voters' changing susceptibility to clientelism are due to a change in expectations of how *others* are likely to vote. To investigate this expectations effect the survey incorporated a survey experiment that asked respondents to consider how they think *other* voters will choose between clientelist and inclusive

Figure 3: Effect of Receiving Bolsa Familia on Willingness to Reject Clientelist Offers by State



candidates. By manipulating the described characteristics of the hypothetical ‘other’ voter we can estimate how their exposure to social policy alters expectations of their political behaviour. To avoid framing effects, reduce social desirability bias and provide benchmarks against which to measure the scale of any effect I adapt the conjoint survey experiment design. Typically, conjoint surveys ask the respondent to make a choice between two individuals that vary on multiple attributes. This adaptation instead presented the respondent with a single individual - a hypothetical voter - whose characteristics varied randomly on three dimensions; gender, education and receipt of Bolsa Família. Respondents were then asked to report which of two hypothetical candidates’ promises - one clientelist, one inclusive - they expect the hypothetical voter to vote for.<sup>9</sup> Since each voter attribute could take on two values, this produced 8 possible types of voter which respondents could be prompted to evaluate, as shown in Figure 4. In order to minimize the confounding of the characteristics with income, interviewers also explicitly stated that all hypothetical voters had an income of half a minimum salary (the Bolsa Família cutoff) in every case.

The design can be analyzed with a simple regression and enables us to integrate two sources of variation - the characteristics of the hypothetical voter and the characteristics of the respondent. This enables us to test using a triple interaction for effects implied by the theory. First, whether expectations of inclusive voting are most likely to be produced when the hypothetical voter re-

<sup>9</sup>The inclusive candidate description was: “I will guarantee that all families that are below the poverty line receive a monthly food allowance for free. You only need to visit the CRAS [Reference Centre for Social Assistance] to complete the evaluation form.” The clientelist candidate description was: “I know the people in our city which are in need. Anyone who comes to my office will get their food for free without filling out long forms or talking to bureaucrats”.

Figure 4: Conjoint Hypothetical Voter Profiles



ceives Bolsa Família. Second, whether the change in expectations is greater in inclusive Ceará or clientelist Alagoas. Third, whether this effect is amplified when *both* the respondent and the hypothetical voter receive Bolsa Família.

Drawing on the adapted conjoint experiment, Table 4 reports the regression estimates of the factors explaining respondents' belief that other voters will support the non-clientelist candidate.<sup>10</sup> The findings provide mixed support to the hypotheses, and are easier to interpret using the predicted first differences between hypothetical voters that do and do not receive Bolsa Família shown in Figure 5. This illustrates that in Alagoas, where we anticipated most scope for expectations to change, respondents believe hypothetical voters who receive Bolsa Família are substantially more likely to support inclusive candidates by 70.9% points (converted from log odds-ratios in the Table). The  $p$ -value on this estimate is not quite significant from zero ( $p=0.17$ ) but is significantly different from the predictions for Bahia and Ceará, where receipt of Bolsa Família has a neutral or even negative effect on willingness to reject the clientelist candidate. For Ceará, this is consistent with the expectation that where local politics is more programmatic there is less scope for expectations to change - voters are already less vulnerable to clientelist threats.

The implication is that the increased willingness of social policy recipients in Alagoas to reject clientelist candidates is consistent with their having stronger expectations that other recipients will enact the same fortitude and autonomy. Nonetheless, the data reveal complex patterns that do not fit perfectly with the theory. There is no evidence that the expectations mechanism is in operation in Bahia, even though the main results demonstrated that recipients there are more likely to reject

<sup>10</sup>This analysis uses the contrast between respondents receiving Bolsa Família and those on the waiting list, but the findings are similar for the contrast between current-recipients and those who have never received the programme.

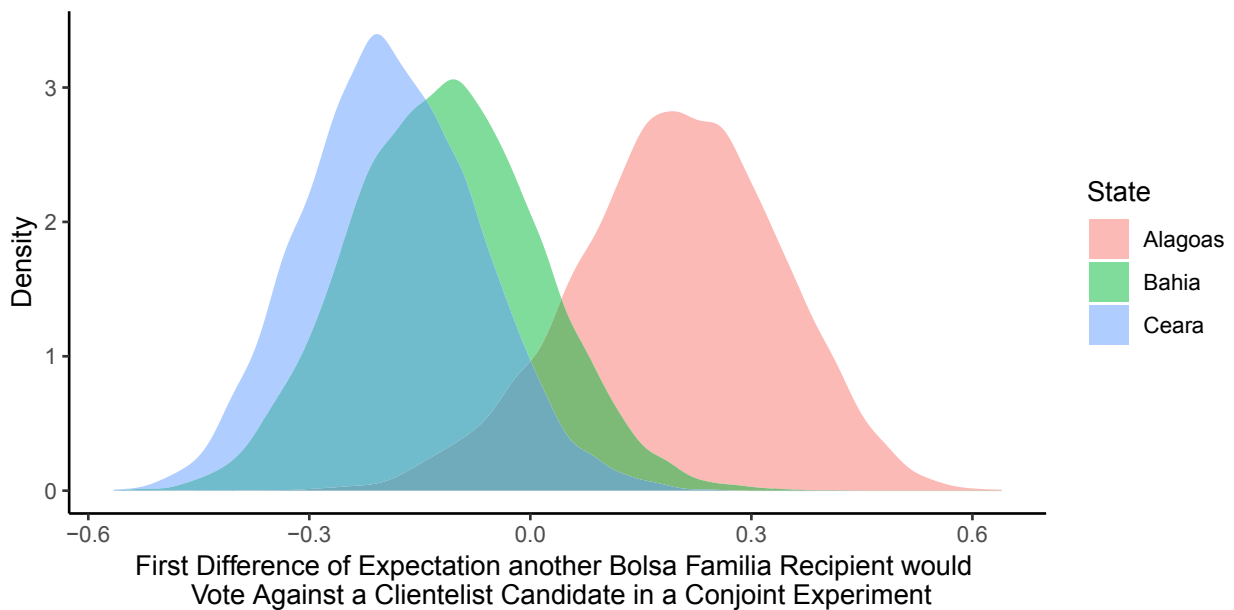
clientelist offers. Surprisingly, as the final row of the regression table suggests, the expectations of respondents in Ceará seem highly contingent on whether they are current recipients of Bolsa Família themselves. While the collective action logic is consistent with a stronger response among actual beneficiaries, it is unclear why this difference would be most marked in the most programmatic of local contexts, where we might expect expectations to have most uniformly converged.

Table 4: Conjoint Experiment Regression Results: Beliefs about How Likely Other Voters are to Select the Non-Clientelist Candidate

	Coefficient	P-Value
Intercept	0.07	0.863
Hypothetical Voter Female	0.01	0.944
Hypothetical Voter Educated	0.42	0.006**
Hypothetical Voter Receives Bolsa Familia	0.89	0.170
Respondent Receives Bolsa Familia	0.02	0.966
Respondent in Bahia	0.05	0.920
Respondent in Ceara	0.60	0.262
Hypothetical Voter Receives Bolsa Familia *	-1.07	0.123
Respondent Receives Bolsa Familia		
Hypothetical Voter Receives Bolsa Familia *	-1.38	0.103
Respondent in Bahia		
Hypothetical Voter Receives Bolsa Familia *	-1.69	0.040*
Respondent in Ceara		
Respondent Receives Bolsa Familia *	0.29	0.615
Respondent in Bahia		
Respondent Receives Bolsa Familia *	-0.58	0.320
Respondent in Ceara		
Hypothetical Voter Receives Bolsa Familia *		
Respondent Receives Bolsa Familia *	0.99	0.279
Respondent in Bahia		
Hypothetical Voter Receives Bolsa Familia *		
Respondent Receives Bolsa Familia *	2.06	0.020*
Respondent in Ceara		



Figure 5: Conjoint Experiment Predictions on the Expectation Other Voters' Receiving Bolsa Família will Reject Clientelist Candidates



## 6 Conclusion

For the long-run trajectory of political development, more important than whether social policies like Bolsa Família generate electoral rewards for incumbents is whether those policies increase the proportion of voters with the autonomy and confidence to make these kind of policy-focused retrospective judgments. In developing democracies where clientelist threats and short-term contingent inducements are common, a major mechanism of policy feedback is therefore the degree to which social policy can insulate voters from these clientelist pressures. The most transformative political consequence of Bolsa Família may lie in its ability to create new political demands and norms focused on programmatic politics, encouraging gradual transitions away from clientelism.

The evidence presented here confirms that social policy can have meaningful and substantial effects on the willingness to reject clientelist offers. It does so not simply through reducing individual vulnerability, but by changing voters' expectations of how other beneficiaries will behave, a vital step in generating the 'collective confidence' required to make voting against clientelist threats a calculated risk rather than a costly indulgence. The findings highlights two aspects of policy feedback effects that should receive particular attention in developing contexts. First, the centrality of cognitive, interpretive and collective action mechanisms rather than simple resource or information based feedback effects. Second, the local contingency of these effects, which depend on the scope provided by local political circumstances for attitudes to change. In Northeastern Brazil, the differential effects of social policy exposure in Alagoas and Ceará suggest that social policy may be a particularly effective tool for countering clientelist practices in the places where they are most deeply entrenched.

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## 7 Appendix A: A Model of Collective Con dence

To understand how social policy exposure might alter the clientelist trap and in turn affect voters' political choices, we require a theoretical model of voter behaviour. While many studies focus on atomized voters and their 'sincere' voting choice, that approach ignores the most powerful mechanism of the clientelist trap, namely that voters face the risk of material loss if they back a *losing* programmatic candidate. Unlike in more institutionalized contexts, voters therefore care deeply about how other citizens are likely to vote, since this shapes the payoffs and risks to backing different types of candidates. In short, it is vital to recognize the strategic nature of voting if we are to understand the scope for voters to escape the clientelist trap (Lyne 2007; Medina and Stokes 2002).

Modeling strategic voting requires a microfounded understanding of the choices voters face. A more complete and formal presentation of the model is provided in Phillips (2017). Consider the payoffs to a voter  $i$  in a simplified electoral model between candidates offering a clientelist and a programmatic strategy. Personal income that is shielded from political interference is  $B$ . In line with the definition above, clientelist candidates by definition provide selective rewards or punishments for voter support; programmatic candidates do not. If the programmatic candidate wins, all voters will receive the same benefits  $G$  regardless of who they voted for. If the clientelist candidate wins, only those who voted for them receive benefit  $F \geq 0$ . The voter has a utility function  $u_i(\cdot)$ , and if  $u'(\cdot) > 0$  and  $u''(\cdot) < 0$  the voter is risk-averse.

Table 5: The Clientelist Trap

	Winner of Election:	Clientelist	Programmatic
Vote for:	Clientelist	$u(B + F)$	$u(B + G)$
	Programmatic	$u(B)$	$u(B + G)$

There are  $N$  voters whose strategy space is defined by  $\phi_i \in \{0, 1\}$ , where  $\phi_i = 1$  represents a vote for the programmatic candidate and  $\phi_i = 0$  represents a vote for the clientelist candidate. The election is by simple majority and we assume  $N$  is odd for simplicity. The notation  $\pi(\phi_i, \phi_{-i})$  denotes the probability that the programmatic candidate wins when voter  $i$  supports the programmatic candidate with probability  $\phi_i$  given the vector of other voters' choices  $\phi_{-i}$ . The voter will rationally support the programmatic candidate where:

$$\pi(1, \phi_{-i})u(B + G) + (1 - \pi(1, \phi_{-i}))u(B) > \pi(0, \phi_{-i})u(B + G) + (1 - \pi(0, \phi_{-i}))u(B + F) \quad (1)$$

$$u(B) + \pi(1, \phi_{-i})(u(B + G) - u(B)) > u(B + F) + \pi(0, \phi_{-i})(u(B + G) - u(B + F)) \quad (2)$$

The power of the clientelist trap is that each voter perceives they can access the benefits of the programmatic offer even if they do not vote for that candidate, alongside the risk of being punished if they fail to support a victorious clientelist candidate. The combination of a selective clientelist

punishment and a at programmatic reward strongly stacks the deck in favour of the clientelist choice. When we abstract from the individual voter's ability to influence the electoral outcome, so that  $\pi(1, \phi_{-i}) = \pi(0, \phi_{-i}) = \pi$ , voting clientelist becomes a weakly dominant strategy, providing no positive reason to ever vote for the programmatic option.

Nonetheless, while the selective incentive to vote programmatic may be absent, an indirect incentive remains, namely to increase the *probability* of programmatic victory by leveraging the gap between  $\pi(1, \phi_{-i})$  and  $\pi(0, \phi_{-i})$ , which is desirable wherever  $G > F$ . Using the binomial expression to calculate the probabilities of victory and setting  $p = Pr(\phi_{-i} = 1)$  to represent the symmetric strategy of all other voters, any individual voter will support the programmatic candidate where:

$$\left(\frac{N-1}{2}\right) p^{\frac{N-1}{2}} (1-p)^{\frac{N-1}{2}} [u(B+G) - u(B)] > \left(1 - \sum_{i=0}^{\frac{N-3}{2}} \binom{N-1}{N-1-i} p^{N-1-i} (1-p)^i\right) [u(B+F) - u(B)] \quad (3)$$

Notably, this game exhibits strategic complementarities because a higher  $p$  - the expected rate of programmatic voting among other voters - increases the relative returns for each to voting programmatic. Therefore when  $p$  is low, increasing  $p$  encourages higher programmatic voting. It does so because clientelism imposes a confidence trap - unless voters are confident that others will vote programmatic and provide a reasonable chance of victory, they will be reluctant to do so themselves to avoid exposing themselves to the risk of loss if the clientelist candidate wins. In politics with a long history and culture of clientelism, shifting expectations sufficiently to overcome this confidence trap is extremely challenging.

Two factors therefore dominate a citizen's voting decision: the relative value of  $G$  compared to  $F$  and expectations about which way other citizens will vote,  $p$ . Phillips (2017) provides a full signaling model to endogenize beliefs about future  $G$  and voter expectations, but for simplicity assume that the programmatic benefits  $G$  that voters experience today are their best signal of future benefits from this incumbent candidate, and that voters have correlated experiences of programmatic benefits. These assumptions mean that a voter that has a positive experience of programmatic benefits will expect similar benefits if this candidate is re-elected - they will expect a higher  $G$  - and will believe that other voters had a similar experience and so are also likely to expect a higher programmatic benefit. More importantly, they will believe that other voters are likely to make the same inference about them, increasing their confidence that others will vote for the programmatic candidate, raising  $p$ . In turn, this means that each individual voter is more willing to vote programmatic, because the risk of backing a losing programmatic candidate is lower. In clientelist-dominated contexts the effect of a local incumbent introducing programmatic policy is therefore to stimulate voter *collective action* that can weaken and, ultimately, overcome the clientelist trap.

The scope for such an effect is considerable. In politics where clientelism is deeply embedded in history and culture, an unexpected and unprecedented experience of programmatic policy is likely to be among the most salient political facts that voters perceive. Moreover, the nature of programmatic policy produces an inherently public signal. When a voter seeking to receive a

policy benefit is *not* screened for their political affiliation, they can be confident that others are likely to have the same experience, precisely because of the neutrality and impersonality of the transaction. Since overcoming the clientelist trap is a collective action problem, that shared public experience provides the informational basis for voter coordination. Such a transformation in political consciousness and voting motivation would matter not just for who got elected, but for the very nature of the social contract between politicians and citizens and for the prospects of electoral accountability.