WHY THE LEFT FRONT LOST WEST BENGAL:

Poor Governance or Enhanced Accountability Standards?[1]

Pranab Bardhan[2], Sandip Mitra[3], Dilip Mookherjee[4] and Anusha Nath[5]

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Abstract

This paper relies on two waves of a panel household survey for rural West Bengal corresponding to 2004 and 2011 to examine factors underlying the loss of the Left Front coalition in the 2011 state legislature elections for the first time since 1977. We find this cannot be accounted by a decline in clientelistic distribution of private (recurring) benefits by Left-dominated local governments. The effectiveness of such clientelistic practices declined in terms of generating votes for the Left, but this accounts for a negligible fraction of the observed decline in the Left's vote share. Neither is it likely to be explained by increased media exposure. Hence the reversal of the Left's political fortunes did not result from enhanced accountability mechanisms. Instead anti-Left votes in 2011 mainly reflected dissatisfaction with local leaders with regard to government health and education services and corruption problems.

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[2]University of California, Berkeley; bardhan@econ.berkeley.edu

[3]Indian Statistical Institute, Kolkata;sandipisi@gmail.com

[4]Boston University; dilipm@bu.edu

[5]Boston University; anushan@bu.edu

1 Introduction

The importance of accountability mechanisms for governments is widely acknowledged to have important implications for economic development prospects in low and middle income countries. Problems of corruption, poor leadership and policies, mistargeting and waste in government programs result in loss of precious resources, low scale and quality of state sponsored development programs. Recent years have witnessed the emergence of a large literature modeling and estimating the nature of these problems, their underlying causes and implications for suitable interventions. Sources of lack of accountability in functioning democracies include problems with information and preferences of voters (e.g. whether based on development performance rather than ethnic affiliation or candidate characteristics), quality of political candidates (in terms of competence, motivation or corruptibility), capture by elites and other special interest groups, and clientelistic mechanisms (vote buying, pork barrel politics etc.). By now there is considerable evidence of each of these problems in the context of many developing countries.[6]

Less is known about the dynamics of accountability mechanisms — how do they change in the process of economic development? One might expect rising education and aspirations to translate into higher standards that voters expect from their elected representatives. Improved access to information owing to superior communication technology, enhanced mobility of citizens, and the development of judicial institutions and the media can have the same effect. Reduced poverty and vulnerability of citizens may reduce their willingness to sell their votes in return for discretionary private favors from politicians. And their preferences for public goods relative to private transfers may rise, resulting in a weakening of effectiveness of clientelistic machine politics. All of these may generate enhanced accountability.

On the other hand, there are many other channels by which accountability can decline along the development process. Growth can generate greater corruption opportunities and returns to corrupt activities of elected officials (e.g., owing to rising tax revenues, growth in public sector scale, rising real estate values, mining or industrial development opportunities which politicians can control). Rising incomes and returns to talent in the private sector may result in adverse selection into the public sector. Inequality may rise, accentuating prospects for elite capture.

Accordingly the net result is far from clear — whether the pressures for enhanced accountability will run ahead or fall behind the greater opportunities and temptations for corruption. One expects both increased accountability pressures from voters and civil society, and greater revelations of corruption. Increased political turnover is quite likely, with incumbent governments thrown out more frequently in successive elections. In

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[6]For an overview of studies in the Indian context, see Mookherjee (2012).

some contexts, politicians may eventually learn that 'good governance is good politics', in which case some degree of political stability and good governance may eventually come about, with resulting increases in economic development. In others, the prospect of increased turnover may make elected politicians more short-sighted and prone to 'make hay', generating increased instability and poor governance, stalling development. One might expect as a result an inverted-U Kuznets curve relationship between governance and development (e.g., see Laffont (2006) for similar arguments and some cross-country evidence).

In this light it is interesting to study the political dynamics of various Indian states. Anti-incumbency and high political turnover has become common in the past three decades, with a few notable exceptions such as West Bengal where the Left Front retained an absolute majority across thirty five years. Yet even in West Bengal, the Left succumbed to an anti-incumbency wave in the 2011 elections to the state legislature. In contrast the Nitish Kumar government in neighboring Bihar managed to get re-elected in 2010, based on a reputation for good governance. What does the experience of these states reveal about changes in underlying accountability mechanisms? Is there any evidence that voters are becoming more aware and demanding of their elected representatives? Are clientelistic mechanisms weakening?

In this paper we focus on the case of West Bengal and try to understand why the Left Front lost so dramatically in 2011 after having won the previous six elections since 1977. Earlier work (Bardhan et al (2009, 2011)) has sought to explain the sources of the continued political success of the Left until 2004, as a result of combination of good governance in rural areas with the use of clientelistic mechanisms, both of which had generated a secure support base for the Left among poorer and low caste groups. How did this suddenly get eroded in 2011? Was it the result of enhanced accountability mechanisms, such as greater awareness of voters, or weakening of clientelist mechanisms? Or was this a result of a decline in governance — increased corruption, poor public service performance or other policy mistakes (such as the land acquisition policy)?[7]

Our study is based on a political attitude survey of the same 2400 household heads that we surveyed earlier in 2004-05. These were selected randomly from 89 villages in 55 gram panchayats (GPs) located across 17 major agricultural districts of the state. The survey included a range of questions concerning household socio-economic characteristics, changes in economic circumstances since 2004, receipt of benefits from various government programs administered by GPs, their political activities and attitudes. It concluded with a straw secret ballot where the respondents cast votes across major political parties. The data shows a wider swing against the Left compared with the actual

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[7]For an account of the land acquisition policy and its implications, see Bandyopadhyay (2008), Ghatak et al (2012) and Nussbaum (2008).

vote share of the Left in the 2011 elections, particularly amongst traditional supporters of the Left such as landless or scheduled caste/tribe (SC/ST) households. This provides us an opportunity to study the reasons underlying voting behavior in 2011 in contrast to those prevailing in 2004. Further details of the survey are provided in Section 2.

Section 3 of the paper examines the extent to which changes in clientelistic practices can help explain the difference in voting behavior between the two years. In Bardhan et al (2009, 2011) the importance of clientelism was indicated by the importance of receipt of recurring benefits (such as employment, credit and subsidized agricultural inputs) rather than one-time benefits (ration cards, government provided housing and toilets, drinking water access) from Left-dominated GPs in predicting the likelihood of voting in favor of the Left. Using the 2011 survey we examine whether the scale of these recurring benefit programs shrank in Left-dominated GP areas, compared to their pre-2004 levels. We find this was not the case (owing partly to the introduction of a large employment program (NREGA) in 2005 which was administered by GPs). Neither was there any deterioration in the extent of pro-poor targeting of these programs in Left-dominated GPs.

We subsequently enquire whether the effectiveness of clientelistic practices declined between the pre-2004 and post-2004 periods. We find evidence for this: the regression coefficient in a linear probability model for the likelihood of voting Left on receipt of an additional recurring benefit from a Left-dominated GP more than halved (and shrank by more than three times in a corresponding logit), after controlling for household characteristics and village dummies. Yet this fails to account for a quantitatively significant portion of the decline in vote share of the Left: a Oaxaca decomposition shows only 2% of the observed 24% change in vote shares of the Left could be accounted by the reduced effectiveness of clientelism.

Section 4 then uses reported measures of dissatisfaction of voters with local and non-local political leaders on a range of different dimensions. With regard to local leaders, these included public services (health, education and other public works), corruption, work motivation, relations and attitudes towards citizens and the poor, dispute resolution and attitudes towards women. For non-local leaders they included the nature of policies, party organization, as well as the attitudes (towards women and the poor) and image of leaders and party workers. We find that these dissatisfaction scores substantially predict voting behavior in a robust manner, and dominate the effect of benefit distribution or household characteristics.

We thereafter examine the importance of various dimensions of voter dissatisfaction. We find that dissatisfaction with local leaders and local problems were more significantly (negatively) correlated with the likelihood of voting Left, compared with dissatisfaction with non-local leaders. The most important dimensions of local dissatisfaction were in public services (especially government health centers and government schools) and with

regard to corruption. Left-dominated areas registered lower dissatisfaction with regard to socio-economic justice and pro-poor attitudes, compared with those dominated by the Trinamul Congress. This suggests that concerns for local public goods and corruption were the dominant factors underlying the negative vote against the Left, rather than a perceived anti-poor attitude.

Yet some indirect evidence exists concerning the role of the Left Front's land acquisition policies which culminated in the events of Singur and Nandigram between 2006-2008. Examining locational variations in dissatisfaction, we find that both local and non-local dissatisfaction peaked at these two locations, over a range of at least 200 km. The slope was steeper around Nandigram (where there was more violence following the government's efforts to acquire land) and in Left-dominated areas.

On the other hand, it seems unlikely that increased exposure to the media was responsible for the anti-Left wave in 2011. Readership of newspapers in general, and non-Left leaning newspapers in particular, did not increase between 2004 and 2011. While there was a 27% increase in TV viewership, those watching TV were less likely to be dissatisfied with the Left, after controlling for household characteristics. Moreover, the effects of proximity to Nandigram or Singur did not vary significantly with media exposure.

Overall, therefore, we find little evidence that the political turnaround in West Bengal resulted from enhancements in accountability. There was some reduction in the effectiveness of clientelism as a vote generating device for the Left, but this accounted for a quantitatively insignificant proportion of the decline in the Left's vote share. Increased exposure to the media also seems unlikely to account for the decline in the Left's popularity. The most important problems appear to reside in governance failures —- dissatisfaction with government health and education services, local corruption and perhaps the land acquisition policy.

2   Data and Descriptive Statistics

The household survey revisited nearly 2400 households surveyed earlier in 2004-05. Details of the earlier survey are provided in Bardhan et al (2009). Approximately 25 households were chosen in a random sample stratified by landholdings, from 89 villages spread throughout rural districts of West Bengal. Appendix 1 lists the GPs and districts in which these villages were located, and the corresponding shares of the Left at the GP and district panchayat levels respectively during the 2004-11 period.[8] Households were

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[8]These villages formed a sub-sample of an original stratified random sample of villages selected from all districts (excluding only Kolkata and Darjeeling) by the Socio-Economic Evaluation Branch of the

asked to describe changes in their demographics, land, economic status and benefits received from various development programs administered by GPs since the 1970s. They answered questions regarding their political awareness, participation in local politics and community events. They also cast votes for different political parties active in the local area in a straw secret ballot.

The same households were surveyed between August and December 2011, following the state legislature election in April-May 2011. Only 15 of the original households could not be traced, owing to the entire household having moved. They were administered a survey asking about changes in their demographic, land and economic status since 2004, and benefits received from GP administered programs during this time. Additional questions regarding their opinions concerning social, economic and political changes in the village, grievances concerning public schools, health clinics and public health initiatives, and exposure to various media sources were administered. Finally they cast votes from a set of major political parties in a secret ballot similar to the one in 2004-05.

Table 1 describes average household characteristics in the 2004-05 survey. Approximately half of the households owned no agricultural land. 90% of the heads interviewed were male. Average years of education rose with landholdings from 6 years of schooling for the landless to 14 years for big landowners. 35% of the sample consisted of scheduled castes and tribes (SC/STs), with these groups appearing more frequently among the landless and marginal landowners. The principal occupation of heads of approximately two-thirds of landowning households was agriculture. In contrast, only a quarter of the heads of landless households were engaged in agriculture.

Table 2 describes main changes in household demographics and economic status between 2004 and 2011. Average household size fell by 0.25 members, owing to exit of 1 member per household and entry of 0.75 members. However only a small portion of this movement of people out of households was associated with migration to towns: less than 5% of the households had some member leaving for a town. Hence the movement represented a combination of effects of marriage, deaths and births, rural migration and household division (the latter arising in about one-tenth of the sample). Over the period 1967-2004 approximately two-thirds of all households had experienced exits of individual members and/or household division (Bardhan et al (2011)). Hence the demographic changes since 2004 have been roughly at the same rate as in the previous three decades.

Household incomes rose by 39% in real terms, while assets owned fell 16%. Average

Department of Agriculture, Government of West Bengal, for the purpose of calculating cost of cultivation of major crops in the state between 1981 and 1996. They chose a random sample of blocks in each district, and within each block one village was selected randomly, followed by random selection of another village within a 8 Km radius.

landholdings remained unchanged. There was a slight increase in the proportion of land-less households, from 50 to 54%, with a corresponding drop in the proportion of medium and big landowners from 18 to 14%. Hence the land distribution changed slightly in the same direction as in the previous three decades (Bardhan et al (2011)). Three quarters of all households continued to be either landless or marginal landowners (owing less than 1.25 acres of cultivable land).

Table 3 describes the change in vote shares for major political parties across the 2004 and 2011 straw polls. The Left Front share fell from 58% to 34%, while the share of TNC rose from 11% to 45%. These changes are much larger than in actual vote shares between the 2006 and 2011 state legislature elections in the corresponding election constituencies, in which the Left share dropped from 50 to 41% while the TNC share rose from 24 to 35%. The difference may be accounted partly by the difference in time period of the initial election (2004 rather than 2006), a period over which the Left had begin to lose popularity at the expense of the TNC. Another possible reason is that the 2011 featured fewer electoral irregularities than 2006, as reported by a large majority of the households surveyed in 2011.[9]

Table 4 shows most of the movement of support out of the Left in the straw polls benefited the TNC. This accounted for almost the entire decline in the Left vote share. There was very little movement of voters in the opposite direction. The vote share of the INC and other parties remained unchanged.

Table 5 breaks down the shift in vote shares across land and caste categories. The loss of the Left's popularity was especially pronounced amongst its traditional support groups. The shift in their share among the landless (down from 58 to 32%) slightly exceeded that in the general population. The decline was sharper among marginal (from 64 to 35%), SC (65 to 73%) and ST (73 to 42%) groups. It was equally pronounced among Hindus and Muslims.

Earlier work has shown the role of benefits distributed by GPs as a clientelistic mechanism which helped the Left secure high vote shares until 2004. So one possible

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[9]Approximately 15% of the landless surveyed in 2004 either reported being unable to cast their vote owing to disturbances at the polling booth, or refused to answer questions regarding this issue. The corresponding proportion for the rest of the population ranged from 6 to 9%. Since the landless used to be more supportive of the Left than the rest of the population in previous periods, this meant that electoral disturbances caused vote shares of the Left in actual elections to be downward biased compared with their actual popularity. We shall see below that the landless support the Left at the same rate as the general population, so this source of bias did not operate in 2011. This would imply that the decline in the vote share of the Left in the actual election was less steep compared with the actual decline (as measured by our poll).

explanation for the decline in Left vote share since 2004 could be a decline in the flow of such benefits to local residents. Table 6 provides data on average flow of formal benefits distributed by GPs to households for the eight year period before and after 2003. There was no change in the proportion of households receiving at least one benefit, which remained at 62%. This was despite the introduction of NREGA, a new program since 2004 which benefitted almost one third of the population, thus becoming the largest single program administered by the GPs. This must reflect the fact that NREGA benefits accrued to the same households already covered by other GP programs.

While the range of households receiving some kind of benefit from a formal GP program remained the same, Table 7 shows that the average number of benefits distributed per household fell from 0.19 to 0.15. This occurred evenly across Left-majority and Left-minority GPs. The drop was sharper for the landless, presumably owing to faster growth in the number of landless households. Per household benefits flowing to landowning households remained the same in Left-dominated GPs, while they fell in Left minority GPs. Hence changes in the flow of formal benefits are unlikely to explain the decline in vote shares of the Left.

Earlier work has indicated, however, that recurring benefits (employment, credit, minikits) are more closely correlated with votes rather than one-time benefits (Bardhan et al (2009, 2011)). Table 8 examines the flow of such benefits before and after 2003. Note that these benefits form a small fraction of all benefits, but their relative importance grew (partly as a result of NREGA). We see a three-fold increase in per household recurring benefits, evenly distributed between Left-majority and Left-minority GPs. The flow of benefits to every single group increased. Intra-village shares of the landless and marginal landowners rose in Left majority GPs; this was true only for the landless in Left-minority GPs. Hence changes in the distribution of recurring benefits are also unlikely to explain the decline in support for the Left for the landless and marginal landowners. For SCs we see a sharper increase in their intra-village share in Left minority GPs, with the opposite being true for STs.

Table 9 shows corresponding changes in flows of other kinds of informal benefits provided by GPs — support to households in times of personal emergency, and help with occupation (e.g., providing permits, or easing problems faced with other law enforcement agencies). Here too we see a growth in these flows for each land size group in Left majority GPs, sharper for landowning households compared with the landless. The pattern is similar for Left minority GPs, with the growth in benefits for landowning households being slightly less pronounced. The intra-village share of the landless falls, but in a similar manner across both Left majority and minority GPs. Hence changes in the flow of such informal benefits provided by GPs are also unlikely to explain the decline in the popularity of the Left.

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3 Shifting Voting Patterns and Effectiveness of Clientelism

We now examine the possible role of clientelism in explaining the voter shift against the Left Front. As explained above, the overall flow of recurring benefits to landless, marginal landowners and SC/STs in Left dominated GPs did not decline. It is possible, however, that clientelism itself became a less effective instrument of garnering votes, owing to a combination of rising incomes among poor voters, greater concern for public goods and services relative to private benefits, greater awareness of capture or of anti-poor policies of the contesting parties elsewhere in the state. To the extent that the Left had been able in the past to use clientelistic delivery of recurring benefit programs in GPs that it controlled to cement its support base, a decline in the effectiveness of such clientelistic practices could have led to a decline in votes for the Left. If true, it means we cannot use a household panel regression approach to estimate the role of various factors in explaining the swing against the Left.

Table 10 presents cross-sectional linear probability and logit regressions for the likelihood of a specific household head voting Left in the 2004 and 2011 straw polls respectively, on household characteristics, one-time and recurring benefits interacted with Left share of the GP in the previous eight years, and village fixed effects. This specification is essentially the same as in the previous analysis of role of clientelistic practices in voting patterns based on the 2004 survey (Bardhan et al (2009, 2011)). Similar to the previous results, we see that only recurring benefits (interacted with Left share) mattered in predicting votes in 2004, while one-time benefits did not. Muslims, SCs and STs were also significantly more likely to vote for the Left in 2004, but these differences shrank and ceased to be significant in 2011. Nevertheless, they still remained at least as likely as other groups to vote for the Left. Those owning more land were less likely to vote Left in both 2004 and 2011.

Our main interest is in examining how the association with recurring benefits changed between 2004 and 2011. In 2011, recurring benefits by Left-dominated GPs continued to be associated with a significantly higher likelihood of a vote in favor of the Left. But the effect had become much smaller: it halved in the linear probability regression, and the logit coefficient shrank to less than one-third of its 2004 magnitude. Hence we do see evidence that clientelistic practices became less effective. At the same time, one-time benefits distributed by Left-dominated GPs gained in significance.

To explore the robustness of this result, Table 11 examines related specifications of the logit regression. It adds in one-time and recurring benefits interacted with the TNC/INC share as a regressor, as suggested by the theoretical model of voting in a clientelist context of Bardhan and Mookherjee (2011). In that model, the 'instrumental' motive for a voter in group i is increasing in $\theta_L \mu_L v_i^L - \theta_C \mu_C v_i^C$ where $v_i^p \equiv \sum_k q_{ik}^p v_{ik}$ denotes the utility expected by a voter of type i from clientelistic distribution probability

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q_{ik}^p by party $p = L, C$ of benefit program k valued at v_{ik} by the voter. Here θ_p denotes the probability assigned by the voter that party p will win the next election, and μ_p the probability that party p activists will be able to learn *ex post* how the voter voted, and withhold the benefits if he voted against the party in question. Assuming that both parties offer the same clientelist package, i.e., $v_i^L = v_i^C = v_i$, have the same monitoring probability $\mu_L = \mu_C = \mu$, and θ_L is increasing in the current Left share L in the GP with $\theta_L = \alpha + \beta L$, we get the instrumental component of the voters propensity to vote for the Left party equal to $(2\theta_L - 1) * L * \mu = (2\alpha - 1)\mu * v_i + 2\beta\mu * v_i * L$. If α is different from $\frac{1}{2}$, the appropriate regression specification ought to include a term in benefits received by a voter of type i, besides an interaction of these benefits with the Left share. With the sum of the vote shares of the two parties equal to one, this is equivalent to the specification in the first column of Table 11.

In the first column of Table 11 we see that the only variable related to the benefit distribution which is significant in either year is the recurring benefit interacted with the Left share. The magnitude of this coefficient is halved between 2004 and 2011. All other results concerning effects of land, caste and religion continue to hold. Hence we have sharper evidence of the role of clientelistic practices in voting, and that these became less pronounced between 2004 and 2011. The second column of Table 11 shows that similar results obtain in a related specification in which the interactions with Left share are replaced by interactions with a dummy whether the GP had a Left majority or minority. This specification is somewhat easier to interpret than the one in the first column, so we focus on it from now on.

Having obtained evidence of weakening role of clientelism, we next examine the quantitative significance of this in explaining the shift of voters against the Left. Table 12 provides results of a Oaxaca decomposition of changes in the probability of voting Left into the effect of changes in regressors (the 'endowment effect'), changes in regression coefficients, and interactions between these. The first set of decompositions in panel A are based on the linear probability model estimates shown in Table 10. Of a total reduction of 26 percentage points in the average likelihood of voting for the Left, the change in the regression coefficient accounts for only a 2 percentage point decline (which is statistically significant). Changes in the flow of benefits themselves accounted for a 2 percentage point increase in the likelihood of voting Left, and the interaction effect accounted for another percentage point increase. Together, these nullified the effects of declining effectiveness of clientelism. As a result most of the reduction in the Left vote share remains unexplained, reflected by the role of the changes in the estimated constant term, which declined by 23 percentage points.

The bottom panel of Table 12 checks the robustness of this result with respect to the regression specification. It provides a corresponding decomposition corresponding to the nonlinear logit estimated in Table 12. Again most of the drop (24 percentage points) in

the Left vote share remains unexplained (accounted for by a drop in the constant term). Now the variables involving recurring benefits fail to explain any change at all, either through changes in endowment, coefficient or interaction. Hence we conclude that the decline in clientelism effectiveness, or in flow of clientelistic benefits, fails to explain any significant fraction of the decline in the vote share of the Left.

4   Voter Dissatisfaction

We now turn to alternative possible explanations for the shift in voter attitudes away from the Left, such as grievances regarding public health and education services, perceptions of corruption or capture, and land acquisition policy of the state government. Questions pertaining to grievances or corruption perceptions were not included in the 2004 survey, so we are unable to compare these between 2004 and 2011. In the 2011, we included questions regarding grievances with government health and education services, and voter dissatisfaction with local and non-local political leaders in the state on various dimensions on a scale from 1 to 5 (with 5 indicating the highest level of dissatisfaction). The specific dimensions were chosen on the basis of consultation with local citizens and scholars of political ethnography of West Bengal villages. They were worded in accordance with terms that would be widely recognizable by respondents. They were also designed to avoid direct mention of land acquisition policies or the events in Singur and Nandigram, to avoid 'leading' them by the specific questions asked.

With regard to local leaders, voters were asked to express the extent of their dissatisfaction on the following dimensions: (i) dispute resolution (ii) socio-economic justice (iii) participation in school education (iv) participation in government health centers (v) participation in irrigation, construction and other public works (vi) rapport with local traders (vii) honesty (viii) political organization and group harmony (ix) competence and judgment (x) work motivation (xi) empathy towards citizens (xii) changes in political activity compared to the past. Items (ii) and (xi) would be expected to reflect concerns about the land acquisition policy, items (iii) to (v) would reflect performance on delivery of public goods and services, while items (vi), (vii) would reflect corruption and elite capture.

With regard to non-local leaders, they were asked to register their dissatisfaction on the following dimensions: (i) leaders' image (ii) image of party workers (iii) party organization (iv) extent to which party espouses causes of hatred and divisiveness (v) party activities (vi) bad policies (vii) pro-poor attitude (viii) relation with other political parties (ix) attitude towards women (x) relations with citizens/local community. Here items (i), (ii), (vi), (vii), (viii) and (x) would reflect attitudes towards the land acquisition policy.

Table 13 provides the aggregate of the dissatisfaction scores across different dimensions with respect to local and non-local leaders, in Left-majority and Left-minority GPs respectively. Aggregate dissatisfaction with both local and non-local leaders is significantly higher in Left-majority areas. Note that they are *not* significantly higher for SC or ST groups; indeed ST groups are significantly less dissatisfied compared to the rest of the population. It is possible however that they were more dissatisfied compared with 2004; we have no way of knowing since comparable questions were not asked in the 2004 survey.

On the other hand, dissatisfaction with non-local leaders was uniformly higher across all land classes. For local leaders this was true only for those owning more than 2.5 acres of agricultural land. This is consistent with a greater concern for inequity of policies pursued by Left leaders at the state level, as manifested by their land acquisition policies.

Table 14 provides mean dissatisfaction scores on specific dimensions in Left-majority and Left-minority areas. With regard to local leaders, the highest dissatisfactions pertain to public services in health and education. Dissatisfaction with local leaders in Left-dominated areas was significantly worse with regard to areas pertaining to corruption (items (vi) and (vii)), public services (items (iii) through (v)) and political organization (item (viii)). There is also greater dissatisfaction on account of changes in political activity compared to past years (item (xii)). On the other hand, Left-dominated areas registered less dissatisfaction with regard to socio-economic justice, competence, work motivation and empathy with citizens. We therefore do not see much evidence that the land acquisition policy underlay dissatisfaction with local leaders.

With regard to non-local leaders, the greatest areas of dissatisfaction were the leaders image, the image of party workers, attitude towards women, relations with citizens and pro-poor attidude. Some of these could reflect concerns with the state government's land acquisition policy. One might expect greater dissatisfaction in TNC dominated areas (since TNC supporters would be more likely to be critical of the Left Front state leadership), but this turns out not to be the case for any dimension.

Table 15 describes answers to a different set of questions regarding grievances the households have concerning government health centers and public health initiatives. Of the 73% households which required some kind of medical treatment since 2004, 28% reported some kind of grievance with services at government hospitals. One out of five then approached political leaders or other bureaucrats for help, of whom 85% were subsequently satisfied with the follow-up action. In a perverse kind of way this can be one way that local leaders gain popularity. Lack of medicines constituted the single most important complaint (15%), while doctor absenteeism was not a comparable concern (5%). A larger fraction of household heads (38%) reported grievances with public health services, with the leading concerns being mosquito-spraying programs (29%) and water

pollution (17%).

Table 16 presents proportions of citizens reporting grievances with government schools, which amounted to 12% of children currently in school. Hence concern with schools was less widespread than with medical services and public health. Even amongst dropouts, only 16% listed grievances with schools as a significant reason for dropping out. The largest single concern was over the mid-day meal scheme (9%) followed by school infrastructure (6%). Concerns for teacher absenteeism (2%) or their preoccupation with private tuitions (4%) were comparably less important.

Table 17 presents linear probability regressions of voting for the Left in the straw poll, on aggregate dissatisfactions with local and non-local leaders respectively, interacted with whether the GP in question is Left dominated or not. Controls include household characteristics and village fixed effects. Dissatisfaction scores have a strong negative impact on the likelihood of voting Left. The effect is stronger for dissatisfaction with local leaders (where an increased score of 1, smaller than one standard deviation, was associated with a twenty percentage point drop in the likelihood of voting Left). In comparison, an increase in dissatisfaction with non-local leaders by one unit was associated with a drop of twelve percentage points. This indicates that concern with local leaders and local issues (public services and corruption) dominated dissatisfaction with state policy and non-local leaders. As we have already explained above, the dissatisfaction scores with local leaders were mainly on dimensions of public services and corruption rather than an unjust policy or lack of a pro-poor attitude.

Note that the regression coefficients of dissatisfaction in Table 17 are robust: they are hardly affected by whether or not we control for benefits received or grievances with health and education services. The significant coefficient of recurring benefits received in Left dominated areas that we saw earlier in Tables 10 and 11 (and continues to be significant when we add regressors for grievances) loses magnitude and significance when dissatisfaction scores are added to the regression (i.e., compare columns 1 and 3 in Table 17). This is probably because some of the effects of the benefits are included in the measures of dissatisfaction, an issue we shall explore further below. The grievances with health and education do not have a significant regression coefficient, irrespective of specification.

It is somewhat surprising to see that the regression coefficient of local dissatisfaction in Table 17 does not vary between Left dominated and TNC dominated areas. One would have expected the respondents to interpret the term 'local leaders' to be the ones in the party currently dominating the GP. In that case, dissatisfaction in a TNC dominated GP should have been associated with a positive vote in favor of the Left. Since this turns out to not be the case, it seems the respondents were interpreting the term 'local leaders' to refer to those at higher levels of the government (e.g., the district panchayat), where the

Left was typically more dominant (see Appendix 1). Alternatively, in TNC dominated areas the respondents assigned the blame for local problems with public services with higher levels of government for failure to devolve sufficient funds or control the behavior of service providers. This is natural in the case of schools and health centers which continue to be administered by the corresponding ministries of health and education in the state government. Local leaders in the GP have less influence over these schools and health centers. Other public infrastructure programs administered by GPs are funded by higher levels of the government, so the same may be true there.

Table 18 explores the effect of specific dimensions of dissatisfaction. The first set of columns considers the two dimensions where Left dominated areas registered higher dissatisfaction: public goods (which aggregates schools, health centers and infrastructure) and corruption (aggregates of dissatisfaction with 'honesty' and 'rapport with local traders'). Each of them is individually significant, with sizeable regression coefficients ranging between 0.13 and 0.17 in both Left and TNC dominated areas. Since the coefficient of the aggregate dissatisfaction is only slightly bigger, this suggests that dissatisfactions on these two dimensions are highly positively correlated. When they are simultaneously included in the regression in column 3, we see that the coefficient of the public goods dissatisfaction is significant and larger in magnitude in the TNC dominated areas. The converse is true for the corruption dissatisfaction. So one interpretation is that voters in TNC dominated areas blamed the state government for inadequate schools and health centers. And voters in Left dominated areas blamed the local Left leaders for higher corruption. This becomes even clearer in column 4 where we additionally include dissatisfaction on the empathy/justice dimension in the regression.

The preceding results indicate that vote patterns were closely proxied by measures of voter dissatisfaction. It is therefore helpful to unpack the sources of voter dissatisfaction. One way of doing this is looking at specific dimensions of dissatisfaction, which we have already done. Another is to realize that voter dissatisfaction may also depend on benefits and grievances. We check this in Table 19, where we regress aggregate dissatisfaction scores on benefits and grievances with health and education services. Recurring benefits interacted with GP Left share have a significant negative coefficient on dissatisfaction with local leaders (which we interpret as dissatisfaction with the Left party, given the preceding results). No other variable is significant in the regression. This provides reassurance that the dissatisfaction measures are sensible, and also helps account for the drop in the regression coefficient of recurring benefits in Left dominated areas in Table 17 when dissatisfaction scores were included in the regression. The effects of higher benefits received from a Left-dominated GP were being largely included in the lower induced levels of dissatisfaction.

Next, we explore variations in voter dissatisfaction across locations. Tables 20, 21 and 22 show that both local and non-local dissatisfaction experienced a local peak at

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Singur and Nandigram (after controlling for differences between North Bengal and the rest of the state, since North Bengal areas tend to be less dissatisfied with the Left on average). The slope around Singur was steeper for Left-dominated GP areas. The slope was also steeper around Nandigram, where there was more violence after the land acquisition. This indicates that the land acquisition policies played some role in affecting voter attitudes for those residing in neighboring areas.

We finally consider the role of media exposure. There was no upward trend in newspaper readership between 2004 and 2011: the number of respondents who reported reading newspapers dropped from 917 in 2004 to 877 in 2011. On the other hand, people who reported watching TV regularly rose from 1115 to 1414, an increase of 27%. Tables 21 and 22 show that those watching TV were less dissatisfied with either local or non-local leaders, than those not watching TV. Moreover, those reading TNC-leaning newspapers were not more dissatisfied.[10] Neither did media exposure significantly change the effects of proximity to Singur or Nandigram.

5   Concluding Comments

This paper uses successive rounds of voter surveys in a household panel in rural West Bengal to gauge reasons for the recent decline in the political popularity of the Left Front. We do not find evidence that this was the result of a change in clientelistic programs administered by local governments, or in a decline in the vote-generating effectiveness of such programs. Nor is there much evidence of significant changes in media exposure. Instead the surveys reveal greater correlations of the 2011 anti-Left vote with dissatisfaction with government health and education services, and with perceived corruption among local political leaders. Voter dissatisfactions were also related to local proximity to Singur and Nandigram, where the Left Front dominated state government tried to forcibly acquire land from farmers between 2006-2008. Hence poor governance in the form of corruption, public services and policy mistakes seem to account for the reversal of political fortunes of the Left, rather than any significant enhancement in accountability mechanisms.

Our analysis rested on correlations of vote patterns with receipt of various kinds of benefits from the government and political leaders and with reported measures of voter dissatisfaction. Hence the usual proviso concerning lack of evidence of causation continues to apply. Moreover, even within the scope of the exercise a number of additional issues could be investigated in future work. These include the possible role of changing

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[10]When we replace this variable by whether the respondent reads a non-Left newspaper, we find a similar result.

demographic composition of voters, and greater focus on the traditional vote banks of the Left: low caste and poor households.

The lack of data on voter dissatisfaction with public services and corruption in previous surveys also prevents us from comparing these before and after 2011. We therefore do not know what the changes in dissatisfaction on different dimensions were between 2004 and 2011. Even if dissatisfactions rose, it would be difficult to evaluate the extent to this owed to increased priority assigned to health and education services by citizens, rather than a worsening of actual service levels.

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Table 1: **Sample Characteristics: Household Heads**

Agri Land Ownership in 2004	No. of HH	Age HoH	% HoH Males	Max Education (in HH)	% SC/ST	% Agri Occupation
Landless	1214	45	88	6.6	37.4	26
0-1.5 Acres	658	48	88	7.8	38.9	65
1.5 - 2.5 Acres	95	56	92	10.8	22.4	82
2.5-5 Acres	258	58	93	11.1	27.1	72
5-10 Acres	148	60	89	12.5	26.1	66
> 10 Acres	29	59	100	13.9	30.9	72
All	2402	49	89	8.0	35.4	47

Table 2: **Changes in HH Composition and Economic Status**

Panel [a] Changes in HH Composition

Average No. of Members Leaving HH	1.00
Average No. of Members Joining HH	0.75
Proportion of HHs where Family Member Left For Town	4.53
Proportion of HHs where Family Division took Place	10.82

Panel [b] Changes in Economic Status of HH

Averages	2004 Survey Response	2011 Survey Response
Total Reported Income (Real Rs.; Base: 04-05)	39,762	55,347
Value Reported Assets (Real Rs.; Base: 04-05)	105,290	87,512
Total Land (Acres)	1.69	1.71

Panel [c] Intra-village Land Distribution[c]

Averages	2004 Survey Response	2011 Survey Response
Proportion Landless	0.50	0.54
Proportion Marginal	0.26	0.25
Proportion Small	0.05	0.06
Proportion Medium/Big	0.18	0.14

[a] Total Income is defined as annual income per household deflated by All India Wholesale Price Index (All Commodities) with base 2004-05. Includes income from agriculture, non-agriculture income, wage labour, services, remittances and other source.

[b] The Value of Assets is calculated by multiplying number of each asset by its prices obtained from a Village Survey in 2010. The Value is deflated by All India WPI with base 2004-05. The variable consists of farm machines, farm animals and consumer durables.   19

[c] The classification of land holdings is done using agriculture land holdings in respective periods. Marginal land: 0¡agricultural landholdings ¡=1.25 acres. Small: 1.25¡ agri land ¡=2.5 acres. Medium and big: agriland¿ 2.5 acres.

Table 3: **Election Results from Rural West Bengal**

Panel [a] Official Election Results from ECI [†]

	2006	2011
Vote Shares (%)		
TMC	23.85	34.80
Left Front	49.88	41.70
INC	15.66	11.52
Others	11.20	11.99
Voter Turnout (%)	83.95	85.83

Panel [b] Results from Sample Straw Polls

	2004	2011
Vote Shares (%)		
TMC	10.83	45.45
Left Front	58.43	34.23
INC	19.11	11.90
Others	4.88	1.61
Didn't Vote (%)	6.76	6.80

[†] The official election results are aggregated for only those constituencies from which the HH survey sample was collected. This is done to facilitate comparison between panels [a] and [b]

Table 4: **Matrix of Vote Shares in 2004 and 2011 Survey Straw Polls**

Share of Straw Votes in 2011

		AITC	Left Front	INC	Others	Didn't Vote	$\sum_{2004}$
Share of Straw	AITC	9.5	0.6	0.3	0	0.4	10.8
Votes in 2004	Left Front	23.3	29.4	2.6	0.7	2.5	58.4
	INC	8.4	1.6	8.3	0.2	0.7	19.1
	Others	2.6	1.4	0.3	0.6	0	4.9
	Didn't Vote	1.7	1.3	0.4	0.1	3.2	6.8
	$\sum_{2011}$	45.5	34.2	11.9	1.6	6.8	100

Table 5: **Changes in Proportion of HH Voting for Left by Caste, Religion and Land Ownership**

	Number of HH	Proportion HH Voting Left (2004 Straw Polls)	Proportion HH Voting Left (2011 Straw Polls)
All HH	2384	0.58	0.32
SC HH	764	0.65	0.37
ST HH	83	0.73	0.42
Hindu	1902	0.58	0.32
Muslim	462	0.57	0.35
Landless[a]	1143	0.58	0.32
Marginal Land[b]	697	0.64	0.35
Small Land[c]	150	0.56	0.31
Medium or Big Land[d]	393	0.47	0.26

[a] The classification of land holdings is done using agriculture land holdings in respective periods.

[b] marginal land: 0<agricultural landholdings <=1.25 acres

[c] small: 1.25<agri land <=2.5 acres

[d] medium and big: agriland> 2.5 acres.

Table 6: **Households Receiving Benefits from Formal Government Schemes**

	Percentage of HHs Receiving At least One Benefit	
	(1993-02)	(2003-11)
Any Benefit	61.45	62.50
MNREGA[a]	NA [b]	33.89
BPL Card	17.70	18.08
Credit	4.66	2.10
Minikit	5.37	10.53
Road	27.06	24.79
House or Toilet	4.61	10.15
Drinking Water	7.55	12.50
Old Age Pension	n.a.	3.15
Widow Pension	n.a.	1.80

[a] MNREGA scheme began in 2004 and hence there is no data available for 1993-2002 for this. IRDP is the closest scheme that existed before 1999, however, they are not substitute schemes.

[b] NA means "Not Applicable".

[c] n.a. means "Not Available". Questions regarding these schemes were not asked in the 2003-04 survey.

Table 7: **Changes in Distribution of Formal Benefits**

	All GPs		GPs with Left Share > 50%		GPs with Left Share < 50%	
	1993-2002	2003-2011	1993-2002	2003-2011	1993-2002	2003-2011
	Annual Per-HH Benefits Received [a]					
All HH	0.19	0.15	0.21	0.16	0.16	0.14
SC HH	0.20	0.18	0.22	0.18	0.14	0.17
ST HH	0.31	0.30	0.42	0.31	0.15	0.30
Landless	0.19	0.13	0.21	0.13	0.14	0.13
Marginal Land	0.23	0.22	0.24	0.25	0.20	0.18
Small Land	0.21	0.15	0.21	0.14	0.20	0.15
Medium/Big	0.16	0.13	0.16	0.13	0.15	0.13
	Intra-village Shares[b]					
SC HH	0.34	0.39	0.35	0.48	0.31	0.31
ST HH	0.04	0.04	0.04	0.04	0.06	0.04
Landless	0.49	0.54	0.48	0.51	0.54	0.58
Marginal Land	0.30	0.32	0.30	0.35	0.31	0.28
Small Land	0.05	0.05	0.05	0.04	0.05	0.07
Medium/Big	0.15	0.09	0.17	0.10	0.10	0.08

[a] 'Annual Per-Capita Benefits Received' refers to the average number of benefits received per HH per year in a village in any given time-block.

[b] 'Intra-village Share' refers to the share of a specific group in the benefits distributed within the village in any given time-block.

Table 8: **Changes in Distribution of Formal Benefits (Recurring)**

	All GPs		GPs with Left Share > 50%		GPs with Left Share < 50%	
	1993-2002	2003-2011	1993-2002	2003-2011	1993-2002	2003-2011
	Annual Per-HH Benefits Received [b]					
All HH	0.02	0.06	0.02	0.06	0.01	0.05
SC HH	0.02	0.07	0.03	0.07	0.01	0.07
ST HH	0.05	0.13	0.07	0.12	0.02	0.15
Landless	0.01	0.04	0.01	0.05	0.01	0.04
Marginal Land	0.03	0.08	0.03	0.09	0.02	0.08
Small Land	0.02	0.06	0.02	0.05	0.02	0.07
Medium/Big	0.01	0.05	0.02	0.05	0.01	0.05
	Intra-village Shares[c]					
SC HH	0.38	0.39	0.50	0.49	0.13	0.31
ST HH	0.04	0.05	0.03	0.06	0.06	0.05
Landless	0.45	0.50	0.44	0.50	0.47	0.51
Marginal Land	0.34	0.34	0.32	0.34	0.40	0.32
Small Land	0.05	0.07	0.06	0.06	0.03	0.08
Medium or Big Land	0.15	0.10	0.18	0.10	0.09	0.09

[a] Recurring Official Benefits consist of: MNREGA, MPLAD work, Food for Work, Credit and Minikits. .

[b] 'Annual Per-HH Benefits Received' refers to the average number of benefits received per HH per year in a village in any given time-block.

[c] 'Intra-village Share' refers to the share of a specific group in the benefits distributed within the village in any given time-block.

Table 9: **Changes in Panchayat Help in Emergencies and for Occupations**

	All GPs		GPs with Left Share > 50%		GPs with Left Share < 50%	
	1993-2002	2003-2011	1993-2002	2003-2011	1993-2002	2003-2011
	Annual Per-HH Benefits Received [a]					
All HH	0.02	0.03	0.03	0.03	0.01	0.02
SC HH	0.02	0.03	0.03	0.03	0.01	0.02
ST HH	0.02	0.03	0.03	0.03	0.01	0.04
Landless	0.03	0.02	0.03	0.02	0.01	0.02
Marginal Land	0.02	0.04	0.02	0.04	0.02	0.03
Small Land	0.01	0.03	0.02	0.04	0.01	0.03
Medium/Big	0.02	0.04	0.02	0.04	0.01	0.04
	Intra-village Shares [b]					
SC HH	0.31	0.32	0.35	0.40	0.23	0.25
ST HH	0.04	0.02	0.03	0.03	0.05	0.02
Landless	0.57	0.49	0.57	0.50	0.58	0.47
Marginal Land	0.25	0.34	0.24	0.32	0.28	0.36
Small Land	0.04	0.04	0.04	0.04	0.04	0.04
Medium or Big Land	0.13	0.13	0.15	0.13	0.10	0.13

[a] 'Annual Per-HH Benefits Received' refers to average number of times panchayat help given per household in the entire period

[b] 'Intra-village Share' refers to the share of a specific group in the benefits distributed within the village in any given time-block.

Table 10: **Household Left-Vote Regression: Linear Probability and Logit Specification 1, 2004 and 2011**

	(1) 2004 LPM	(2) 2011 LPM	(3) 2004 Logit	(4) 2011 Logit
One Time Benefits* Left Share	-0.04	0.23*	0.00	0.26*
	(0.24)	(0.12)	(0.30)	(0.14)
Recurring Benefits* Left Share	0.92***	0.42**	1.75***	0.52***
	(0.28)	(0.18)	(0.43)	(0.20)
Total Agricultural Land	-0.02***	-0.01*	-0.03***	-0.02*
	(0.01)	(0.01)	(0.01)	(0.01)
Total Other Land	-0.02*	-0.00	-0.02	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Hindu	-0.10**	-0.03	-0.11**	-0.04
	(0.05)	(0.05)	(0.05)	(0.05)
HoH is SC	0.11***	0.04	0.12***	0.05
	(0.03)	(0.03)	(0.03)	(0.04)
HoH is ST	0.20**	0.10	0.24***	0.12
	(0.09)	(0.09)	(0.08)	(0.11)
Constant	0.90***	0.44***		
	(0.12)	(0.10)		
Observations	2229	2229	2184	2181
Adjusted R^2	0.132	0.109		

[i] * $p<0.10$, ** $p<0.05$, *** $p<0.01$ Robust standard errors in parentheses, clustered at Mouza level.

[ii] Dependent variable takes value 1 if HoH voted for Left Front in straw polls corresponding to the year of survey.

[iii] All specifications include Village FE, age of HoH, age squared, maximum education in HH, immigration dummy, and occupational dummies.

Table 11: **Household Left-Vote Regression: Logit Specifications 2 and 3, 2004 and 2011**

	(1) 2004 Logit	(2) 2011 Logit	(3) 2004 Logit	(4) 2011 Logit
One Time Benefits* Left Share	-0.21	0.21		
	(0.55)	(0.15)		
One-time Benefits*TMC/INC Share	0.40	0.12		
	(0.72)	(0.29)		
Recurring Benefits* Left Share	1.44*	0.69***		
	(0.77)	(0.23)		
Recurring Benefits*TMC/INC Share	0.63	-0.52		
	(1.24)	(0.43)		
One-time Benefits*Left Dominated GP			-0.06	0.15
			(0.21)	(0.12)
One-time Benefits*TMC/INC Dominated GP			0.33	0.28
			(0.29)	(0.18)
Recurring Benefits*Left Dominated GP			1.22***	0.49***
			(0.31)	(0.16)
Recurring Benefits*TMC/INC Dominated GP			0.81	-0.09
			(0.74)	(0.23)
Total Agricultural Land	-0.03***	-0.02*	-0.03***	-0.02*
	(0.01)	(0.01)	(0.01)	(0.01)
Total Other Land	-0.02	-0.00	-0.02*	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Hindu	-0.11**	-0.03	-0.11**	-0.04
	(0.05)	(0.05)	(0.05)	(0.05)
HoH is SC	0.12***	0.05	0.12***	0.05
	(0.03)	(0.04)	(0.03)	(0.04)
HoH is ST	0.24***	0.12	0.24***	0.13
	(0.08)	(0.11)	(0.08)	(0.11)
Observations	2184	2181	2184	2181

[i] * $p<0.10$, ** $p<0.05$, *** $p<0.01$ Robust standard errors in parentheses, clustered at Mouza level.

[ii] Dependent variable takes value 1 if HoH voted for Left Front in straw polls corresponding to the year of survey.

[ii] The coefficients are marginal effects at the means of the independent variables.

[iv] All specifications include Village FE, age of HoH, age squared, max educ. in HH, immigration and occupational dummies.

[v] Columns 1 and 2 correspond to specification 2 and columns 3 and 4 correspond to specification 3.

Table 12: **Decomposition of Mean Difference in Left Votes between 2004 and 2011: Role of Clientalism in Declining Left Votes**

[a] Detailed Decomposition of Specification 1 from Point of View of 2011

	Endowment	Coefficients
One Time Benefits* Left Share	-0.00	-0.00
	(0.00)	(0.02)
Recurring Benefits* Left Share	-0.02**	0.02*
	(0.01)	(0.01)
HH Characteristics	-0.00*	0.05
	(0.00)	(0.12)
Constant Term		0 .23**
		(0 .12)

[b] Detailed Decomposition of Specification 3 from Point of View of 2011

	Endowment	Coefficients
One Time Benefits* Left Dominated	0.00	-0.01
	(0.00)	(0.01)
Recurring Benefits* Left Dominated	-0.01**	0.01
	(0.01)	(0.01)
One Time Benefits* TMC/INC Dominated	-0.00	-0.02**
	(0.00)	(0.01)
Recurring Benefits* TMC/INC Dominated	0.00	0.01
	(0.00)	(0.01)
HH Characteristics	-0.00*	0.05
	(0.00)	(0.12)
Constant Term		0 .24**
		(0 .11)

Notes: [i] Mean Difference in Dependent Variable is 0.26.

[ii] The total 'endowment effect' is -0.02 (significant at 5%) and the total 'coefficient effect' is 0.29 (significant at 1%).

[iii] Panel [a] reports Blinder-Oaxaca Linear Decomposition.

[iv] Panel [b] reports the extension of Blinder-Oaxaca Decomposition to Non-Linear Functions due to Yun (2003).

Table 13: **Mean 2011 Voter Dissatisfaction Scores with Local and Non-local Political Leaders**

[a] Local Political Leaders

| | 2011 Dissatisfaction Scores (Local) | | | | |
| | Left Share≥ 0.5 | | Left Share< 0.5 | | Difference in Means (P-Value) |
	Mean	Std. Dev	Mean	Std. Dev	
All HH	2.68	0.83	2.58	0.79	0.003
SC HH	2.67	0.86	2.68	0.88	0.868
ST HH	2.45	0.68	2.83	0.73	0.023
Landless	2.59	0.79	2.55	0.73	0.425
Marginal	2.63	0.84	2.59	0.84	0.546
Small	2.89	0.74	2.48	0.76	0.002
Medium/Big	2.93	0.90	2.69	0.91	0.016

[b] Non-local Political Leaders

| | 2011 Dissatisfaction Scores (Non-Local) | | | | |
| | Left Share≥ 0.5 | | Left Share< 0.5 | | Difference in Means (P-Value) |
	Mean	Std. Dev	Mean	Std. Dev	
All HH	2.68	0.80	2.54	0.70	0.000
SC HH	2.65	0.81	2.63	0.79	0.743
ST HH	2.40	0.67	2.73	0.63	0.040
Landless	2.62	0.80	2.54	0.66	0.078
Marginal	2.69	0.77	2.55	0.77	0.038
Small	2.78	0.74	2.48	0.59	0.009
Medium Big	2.79	0.88	2.58	0.79	0.030

Note: [i] There are 33 GPs villages where average left share of GP members in time-block 2003-2011 is ≥ to 0.5. There are 19 GPs where average TMC/INC share is ≥ than 0.5

[ii] Standard deviation refers to the sample standard deviation of dissatisfaction scores and not the standard error of the mean.

Table 14: **Mean 2011 Dissatisfaction Scores on Different Dimensions**

	Left Share$\geq$ 0.5		Left Share$<$ 0.5		Difference in Means (P-value)
	Mean	Std. Dev	Mean	Std. Dev	
Local Political Leaders					
Dispute Resolution	2.55	1.16	2.55	1.00	0.996
Socio-economic Justice	2.59	1.10	2.66	0.95	0.142
Participation in School Education	3.17	1.10	3.01	0.93	0.000
Participation in Govt. Health Centres	3.01	1.20	2.93	1.02	0.092
Participation in Irrigation, Construction and Other Public Works	2.76	1.13	2.42	1.16	0.000
Rapport with Local Traders	2.40	1.13	2.08	1.05	0.000
Honesty	2.57	1.23	2.34	1.24	0.000
Polit. Organization/Group Harmony	2.41	1.20	2.18	1.15	0.000
Competence and Judgement	2.62	1.23	2.71	1.02	0.088
Work Motivation	2.69	1.20	2.77	1.00	0.108
Empathy Towards Citizens	2.62	1.19	2.70	1.03	0.082
Changes in Political Activity Compared to the Past	2.64	1.26	2.49	1.26	0.006
Non-Local Political Leaders					
Leader's Image	3.01	1.35	3.00	0.98	0.933
Image of Party Worker	2.80	1.25	2.81	0.95	0.755
Party Organization	2.69	1.26	2.46	1.11	0.000
Extension to which Party Espouses Causes of Hatred/ Divisiveness	2.33	1.23	2.10	1.13	0.000
Party Activities	2.37	1.21	2.08	1.15	0.000
Bad Policies	2.24	1.27	2.10	1.19	0.013
Pro-Poor Attitude	2.76	1.14	2.78	1.01	0.699
Relation with Other Political Parties	2.51	1.15	2.47	1.01	0.342
Attitude Towards Women	3.10	1.13	2.95	0.97	0.002
Relations with Citizens/ Local Community	2.80	1.24	2.64	1.17	0.004

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Note: Standard Deviation refers to the sample standard deviation of dissatisfaction scores and not the standard error of the mean.

Table 15: **Reported Grievances with Government Hospitals and Public Health**

[I] Government Hospitals

Type of Grievance	% of Treated HHs[†] that have Grievances with Govt. Hospitals(%)	Appealed to Political Leader (% of [a])	If Political Leader was Helpful (% of [b])
	[a]	[b]	[c]
Any Grievance	28.15	20.25	85.86
No Medicine	15.39	28.57	96.05
Absentee Doctor	5.65	9.18	44.44
No Instruments	5.10	11.36	50.00
Long Waiting	4.97	9.30	50.00
Dirty Environment	3.53	9.78	22.22
Inefficient Doctors	6.54	9.68	11.11

[II] Public Health

Type of Grievance	Households with Grievances (% of all HH)	Appealed to Political Leader (% of [a])	If Political Leader was Helpful (% of [b])
	[a]	[b]	[c]
Any Grievance	38.38	18.97	64.77
Water Pollution	16.97	32.54	71.54
Arsenic Pollution	5.57	18.55	60.87
Vaccination	7.99	26.40	65.96
Mosquito Repellant Spray	28.80	13.40	36.05
Medical Help for Epidemics	3.51	25.64	40.00

[†] In the sample, 73.4% of HH reported that they had required institutional medical support between 2004-2011. Column [a] looks at what proportion of these HHs reported grievances.

Table 16: **Reported Grievances with Government Schools and Education Policy**

Type of Grievance	Percentage of Current Students that have Grievances	Percentage of Dropouts that Reported Grievances
Grievance with Edu Policy/ Pub. School Quality [†]	7.16	10.36
Any Grievance with Government School[‡⋆]	12.02	16.02
Absentee Teacher	2.20	4.95
Large Class	5.61	7.49
School Infrastructure Poor	6.47	8.47
Mid-day Meal	9.33	12.63
Bad teacher	1.74	1.70
Teacher only Interested in Tuition	3.72	6.49
Scarcity of Teachers	1.27	2.26

[†] 'Grievance with Edu Policy/ Pub. School Quality ' means that the students/ respondents had any one (or more) of the following grievances with the government: indifference of government, "More Expensive" , shortage of girls' schools, indifference about dropouts and adult education or lower quality and service compared to pvt. schools.

[‡] 'Any Grievance with Government School' means that the HH reported atleast one of the grievances from the list below: absentee teacher/Large class/ School infrastructure etc.

[⋆] There are only 4 current students who reported to have appealed to the political leader and of these 2 were helped. None of the dropouts reported to have appealed to a political leader.

Table 17: **Linear Probability Regression of Left Vote on Dissatisfaction, Benefits, and Health/Education Grievances**

	(1)	(2)	(3)	(4)	(5)
Dissatisfaction (Local)*TMC/INC Dominated		-0.19***	-0.19***	-0.19***	-0.19***
		(0.05)	(0.04)	(0.05)	(0.05)
Dissatisfaction (Local)*Left Dominated		-0.21***	-0.21***	-0.21***	-0.21***
		(0.03)	(0.03)	(0.03)	(0.03)
Dissatis. Score Non-local Leaders		-0.12***	-0.12***	-0.12***	-0.12***
		(0.03)	(0.03)	(0.03)	(0.03)
One-time Benefits*TMC/INC Dominated	0.25		0.42**		0.42**
	(0.16)		(0.17)		(0.18)
One-time Benefits*Left Dominated	0.14		0.08		0.08
	(0.11)		(0.11)		(0.12)
Recurring Benefits*TMC/INC Dominated	-0.09		-0.13		-0.14
	(0.21)		(0.22)		(0.21)
Recurring Benefits*Left Dominated	0.41***		0.18		0.19
	(0.15)		(0.18)		(0.18)
Any Grievance*TMC/INC Dominated	0.02			-0.02	-0.02
	(0.03)			(0.03)	(0.03)
Any Grievance*Left Dominated	-0.01			-0.04	-0.04
	(0.03)			(0.04)	(0.04)
Constant	0.45***	1.45***	1.44***	1.48***	1.46***
	(0.11)	(0.12)	(0.12)	(0.13)	(0.13)
Observations	2232	1928	1928	1928	1928
Adjusted R^2	0.108	0.246	0.248	0.246	0.248

* p¡0.10, ** p¡0.05, *** p¡0.01 Robust standard errors in parentheses, clustered at Mouza level.

[i] Dependent variable measures probability of voting for left front in 2011.

[ii] All specifications include village fixed effects and HH characteristics: agricultural and other land holdings, age of HoH, square of age HoH, maximum education and dummies for caste, religion, and occupation.

[iii] The variable 'Any Grievance' consists of reported grievances with government hospitals, public health initiatives, government schools and education policy.

Table 18: **Linear Probability Regression of Left Vote on Different Dimensions of Dissatisfaction with Local Political Leaders**

	(1)	(2)	(3)	(4)
Public Goods*Left Majority	-0.15***		-0.07***	-0.01
	(0.03)		(0.02)	(0.02)
Public Goods*TMC/INC Majority	-0.16***		-0.12***	-0.08**
	(0.04)		(0.03)	(0.03)
Corruption* Left Majority		-0.17***	-0.15***	-0.06***
		(0.03)	(0.03)	(0.02)
Corruption* TMC/INC Majority		-0.13***	-0.08*	-0.02
		(0.04)	(0.04)	(0.03)
Empathy/Justice*Left Majority				-0.17***
				(0.02)
Empathy/Justice*TMC/INC Majority				-0.12***
				(0.04)
Constant	0.98***	0.97***	1.11***	1.16***
	(0.14)	(0.13)	(0.14)	(0.13)
Observations	2010	2007	2000	2000
Adjusted R^2	0.153	0.180	0.193	0.234

* p<0.10, ** p<0.05, *** p<0.01 Robust standard errors in parentheses, clustered at Mouza level.

[i] Dependent variable is a dummy that takes value 1 if HH votes for Left Front in 2011.

[ii] All specifications include village FEs, onetime and recurring benefits, grievances and HH characteristics.

[iii] HH Characteristics include: agricultural and other land holdings, age of Hoh, square of age HoH, maximum education and dummies for caste, religion, and occupation.

[iv] 'Public Goods' is the average of scores for local political leader's participation in school education, govt. health care centres, irrigation, construction and other public works.

[v] 'Empathy/Justice' is an average of the scores for 'socio-economic justice' and 'empathy towards citizens'

[vi] 'Corruption' is an average of scores for 'rapport with local traders' and 'honesty'

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Table 19: **Regression of Dissatisfaction Scores on Benefits and Health/Education Grievances**

	(1) Local	(2) Local	(3) Local	(4) Non-loc	(5) Non-loc	(6) Non-loc
One-time Benefits*TMC/INC Dominated	0.33		0.34			
	(0.28)		(0.28)			
One-time Benefits*Left Dominated	0.01		0.01			
	(0.20)		(0.20)			
Recurring Benefits*TMC/INC Dominated	0.13		0.13			
	(0.32)		(0.32)			
Recurring Benefits*Left Dominated	-0.76**		-0.77**			
	(0.36)		(0.36)			
Any Grievances*TMC/INC Share		-0.00	-0.00			
		(0.07)	(0.07)			
Any Grievance*Left Dominated		0.04	0.04			
		(0.05)	(0.06)			
One-Time Benefits (Govt Schemes)				0.23		0.22
				(0.18)		(0.18)
Recurring Benefits (Govt Schemes)				0.28		0.28
				(0.21)		(0.22)
Any Grievances Against Government					0.02	0.02
					(0.05)	(0.04)
Constant	2.69***	2.66***	2.67***	2.66***	2.68***	2.65***
	(0.17)	(0.17)	(0.18)	(0.14)	(0.14)	(0.14)
Observations	2019	2019	2019	2015	2015	2015
Adjusted R^2	0.324	0.322	0.324	0.346	0.345	0.345

* $p<0.10$, ** $p<0.05$, *** $p<0.01$ Robust standard errors in parentheses, clustered at Mouza level.

[i] Dependent variable is a continuous variable measuring dissatisfaction. Higher scores mean higher dissatisfaction.

[ii] All specifications Include village fixed effects and HH characteristics: agricultural and other land holdings, age of HoH, square of age HoH, maximum education and dummies for caste, religion, and occupation.

Table 20: **Regression of Dissatisfaction Scores on Distance from Singur and Nandigram**

	(1) Local	(2) Local	(3) Non-local	(4) Non-local
North Bengal Dummy	-0.75***	-0.72***	-0.75**	-0.71**
	(0.18)	(0.15)	(0.31)	(0.28)
Distance from Nandigram (100 kms)	-0.76***		-0.83***	
	(0.12)		(0.12)	
Distance Squared (Nandigram)	0.16***		0.17***	
	(0.02)		(0.03)	
Distance from Singur (100 kms)		-0.20		-0.47**
		(0.17)		(0.19)
Distance Squared (Singur)		0.11***		0.16***
		(0.03)		(0.04)
Left Share in GP Members ¿0.5	0.38**	0.44**	0.00	0.09
	(0.18)	(0.19)	(0.12)	(0.15)
Distance from Nandigram*Left Dominated	-0.03		0.12*	
	(0.05)		(0.06)	
Distance from Singur*Left Dominated		-0.14**		0.07
		(0.06)		(0.08)
Constant	2.71***	2.06***	2.85***	2.33***
	(0.19)	(0.25)	(0.18)	(0.22)
Observations	2018	2018	1927	1927
Adjusted R^2	0.159	0.118	0.182	0.129

* p<0.10, ** p<0.05, *** p<0.01 Robust standard errors in parentheses, clustered at Mouza level.

[i] Dependent variable is a continuous variable measuring dissatisfaction. Higher scores mean higher dissatisfaction.

[ii] All specifications include HH characteristics: onetime and recurring benefits, grievances

agricultural and other land holdings, age of HoH, square of age HoH, maximum education and dummies for caste,

religion, and occupation.

Table 21: **Regression of Dissatisfaction Scores on Distance from Singur, Media Exposure and Campaign Participation**

	(1) Local	(2) Non-loc	(3) Local	(4) Non-loc	(5) Local	(6) Non-loc
HoH Watches TV	-0.30**	-0.24**			-0.29**	-0.25**
	(0.12)	(0.11)			(0.12)	(0.11)
HoH Watches TV*Distance Singur	0.03	0.00			0.02	0.01
	(0.04)	(0.04)			(0.04)	(0.04)
TMC Leaning Newspaper	0.02	-0.03			0.11	0.07
	(0.17)	(0.16)			(0.16)	(0.15)
TMC Leaning newspaper* Distance Singur	0.03	0.02			0.00	-0.02
	(0.07)	(0.06)			(0.06)	(0.06)
Participation in Campaigns			-0.06	-0.05	-0.07	-0.06
			(0.07)	(0.08)	(0.07)	(0.08)
Campaign Participation* Distance Singur			0.01	-0.01	0.01	-0.00
			(0.03)	(0.04)	(0.03)	(0.04)
North Bengal Dummy	-0.01	0.47**	0.02	0.48*	-0.00	0.46*
	(0.21)	(0.22)	(0.21)	(0.24)	(0.21)	(0.24)
Distance from Singur (100 kms)	-0.44**	-0.48**	-0.38*	-0.42**	-0.42**	-0.45**
	(0.21)	(0.19)	(0.21)	(0.19)	(0.20)	(0.18)
Distance Squared (Singur)	0.10**	0.11***	0.09**	0.10**	0.09**	0.10***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Constant	2.37***	2.45***	2.21***	2.27***	2.36***	2.39***
	(0.22)	(0.20)	(0.27)	(0.24)	(0.23)	(0.20)
Observations	2018	2014	1888	1892	1888	1892
Adjusted R^2	0.081	0.125	0.064	0.111	0.081	0.129

* p<0.10, ** p<0.05, *** p<0.01 Robust standard errors in parentheses, clustered at Mouza level.

[i] Dependent variable is a continuous variable measuring dissatisfaction. Higher scores mean higher dissatisfaction.

[ii] All specifications include HH characteristics: onetime and recurring benefits, grievances agricultural and other land holdings, age of HoH, square of age HoH, maximum education and dummies for caste, religion, and occupation.

[iii] TMC-Leaning newspapers are Pratidin and Uttarbanga.

[iv] In the 2011 survey, 877 HHs reported that they read at least one newspaper while 167 reported to read a TMC-leaning paper.

[v] In the 2011 survey, 1,414 HHs reported that they watch TV while 982 said they do not.

Table 22: **Regression of Dissatisfaction Scores on Distance from Nandigram, Media Exposure and Campaign Participation**

	(1) Local	(2) Non-loc	(3) Local	(4) Non-loc	(5) Local	(6) Non-loc
HoH Watches TV	-0.09	-0.02			-0.08	-0.02
	(0.10)	(0.09)			(0.10)	(0.09)
HoH Watches TV *Dist Nandigram	-0.02	-0.05*			-0.03	-0.05
	(0.03)	(0.03)			(0.03)	(0.03)
TMC Leaning Newspaper	0.01	-0.04			0.09	0.05
	(0.17)	(0.17)			(0.16)	(0.15)
TMC Leaning * Dist Nandigram	0.04	0.03			0.01	0.00
	(0.05)	(0.05)			(0.05)	(0.05)
Participation in Campaigns			-0.13*	-0.13*	-0.13**	-0.13**
			(0.07)	(0.07)	(0.07)	(0.07)
Campaign Particip.* Dist Nandigram			0.02	0.02	0.03	0.02
			(0.03)	(0.03)	(0.02)	(0.03)
North Bengal Dummy	0.05	0.54**	0.10	0.56**	0.07	0.53**
	(0.20)	(0.22)	(0.20)	(0.24)	(0.21)	(0.24)
Distance from Nandigram (100 kms)	-0.59***	-0.52***	-0.65***	-0.57***	-0.59***	-0.51***
	(0.17)	(0.16)	(0.17)	(0.15)	(0.17)	(0.16)
Distance Squared (Nandigram)	0.10***	0.09***	0.11***	0.10***	0.10***	0.09***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Constant	2.67***	2.64***	2.69***	2.63***	2.68***	2.59***
	(0.25)	(0.24)	(0.26)	(0.25)	(0.25)	(0.24)
Observations	2018	2014	1888	1892	1888	1892
Adjusted R^2	0.116	0.153	0.111	0.152	0.116	0.157

* p<0.10, ** p<0.05, *** p<0.01 Robust standard errors in parentheses, clustered at Mouza level.

[i] Dependent variable is a continuous variable measuring dissatisfaction. Higher scores mean higher dissatisfaction.

[ii] All specifications include HH characteristics: onetime and recurring benefits, grievances agricultural and other land holdings, age of HoH, square of age HoH, maximum education and dummies for caste, religion, and occupation.

[iii] TMC-Leaning newspapers are Pratidin and Uttarbanga.

[iv] In the 2011 survey, 877 HHs reported that they read at least one newspaper while 167 reported to read a TMC-leaning paper.

[v] In the 2011 survey, 1,414 HHs reported that they watch TV while 982 said they do not.

APPENDIX I: Left Share of Members in Gram Panchayat and Zilla Parishad

GP Name	District	Average Proportion in Gram Panchayat (2003-2011)		Share in Zilla Parishad (2008)	
		Left Front	TMC/INC	Left Front	TMC/INC
Brhammondia	Bankura	0.58	0.42	0.98	0.00
Metyala	Bankura	0.76	0.05	0.98	0.00
Sihar	Bankura	1.00	0.00	0.98	0.00
Chatra	Birbhum	0.27	0.63	0.74	0.23
Joshpur	Birbhum	0.85	0.12	0.74	0.23
Puransgram	Birbhum	1.00	0.00	0.74	0.23
Deucha	Birbhum	0.44	0.25	0.74	0.23
Jagadanandapur	Burdwan	0.57	0.43	0.94	0.04
Jahannagar	Burdwan	0.53	0.18	0.94	0.04
Galsi	Burdwan	0.94	0.06	0.94	0.04
Sitahati	Burdwan	0.57	0.12	0.94	0.04
Bhuri	Burdwan	0.74	0.09	0.94	0.04
Dinhata-1	Coochbehar	0.83	0.17	0.93	0.07
Dinhata-2	Coochbehar	0.84	0.12	0.93	0.07
Sitai	Coochbehar	0.70	0.12	0.93	0.07
Takagach	Coochbehar	0.51	0.27	0.93	0.07
Sikarpur	Coochbehar	0.86	0.14	0.93	0.07
Simlagarh	Hooghly	0.92	0.03	0.77	0.23
Mayapur-1	Hooghly	0.97	0.00	0.77	0.23
Somra-2	Hooghly	0.41	0.54	0.77	0.23
Narna	Howrah	0.48	0.52	0.69	0.31
Guabarnagar	Jalpaiguri	0.48	0.49	0.94	0.06
Shakoathora(2)	Jalpaiguri	0.48	0.52	0.94	0.06
Latabari	Jalpaiguri	0.41	0.59	0.94	0.06
Mahendrapur	Malda	0.79	0.21	0.41	0.53
Harischandrapur	Malda	0.84	0.16	0.41	0.53
Nutangram	Murshidabad	0.60	0.36	0.51	0.49
Purandarpur	Murshidabad	0.21	0.79	0.51	0.49
Mahulla-1	Murshidabad	0.33	0.52	0.51	0.49
Bhabta	Murshidabad	0.50	0.50	0.51	0.49

GP Name	District	Average Proportion in Gram Panchayat (2003-2011)		Share in Zilla Parishad (2008)	
		Left Front	TMC/INC	Left Front	TMC/INC
Prasadpur	Murshidabad	0.38	0.45	0.51	0.49
Talda-Majdia	Nadia	0.46	0.51	0.73	0.24
Belpukur	Nadia	0.35	0.36	0.73	0.24
Amdanga Arkhali	North 24-Parganas	0.69	0.31	0.53	0.47
Kotra	North 24-Parganas	0.24	0.73	0.53	0.47
Adhata	North 24-Parganas	0.80	0.20	0.53	0.47
Dadpur	North 24-Parganas	0.62	0.19	0.53	0.47
Rishi BankimChandra	North 24-Parganas	0.46	0.54	0.53	0.47
Karsa-2	Paschim Midnapore	1.00	0.00	0.92	0.05
Karsa-2	Purba Midnapore	1.00	0.00	0.30	0.66
Keshapat	Purba Midnapore	0.58	0.38	0.30	0.66
Mysora	Purba Midnapore	0.94	0.06	0.30	0.66
Rogra	Purba Midnapore	1.00	0.00	0.30	0.66
Talgachari-1	Purba Midnapore	0.42	0.37	0.30	0.66
Marumasiha	Purulia	0.31	0.64	0.86	0.14
Chhirudih	Purulia	0.48	0.48	0.86	0.14
Chatumadar	Purulia	0.10	0.90	0.86	0.14
Santari	Purulia	0.81	0.00	0.86	0.14
Jagadishpur	South 24-Parganas	0.25	0.75	0.42	0.51
Bodai	South 24-Parganas	0.46	0.54	0.42	0.51
Narayanpur	South 24-Parganas	0.03	0.91	0.42	0.51
Namkhana	South 24-Parganas	0.42	0.58	0.42	0.51
Ramkrishna	South 24-Parganas	0.54	0.46	0.42	0.51
Dhapdhapi-2	South 24-Parganas	0.31	0.65	0.42	0.51
Rampur	Uttar Dinajpur	0.31	0.58	0.33	0.67
Karandighi-2	Uttar Dinajpur	0.60	0.37	0.33	0.67
Karandighi-1	Uttar Dinajpur	0.62	0.21	0.33	0.67