Online Appendix to "An Informational Theory of Electoral Targeting in Young Clientelistic Democracies: Evidence from Senegal"

A Model's Proofs

A.1 Proofs of Lemmas

Lemma 1 *Before the first election, parties E and Y target a given village i following, respectively,*

$$g_{1,i}^{E}=\begin{cases}1 \text{ with probability } \phi^{E} & \theta_i=\theta^0, \eta_i=\eta^H \\ 0 \text{ with probability } 1 & otherwise\end{cases}, \text{ and}$$

$$g_{1,i}^{Y}=\begin{cases}1 \text{ with probability } \phi^{Y} & \theta_i\in\left\{\theta^E, \theta^0\right\}, \kappa_i=\kappa^O \\ 0 \text{ with probability } 1 & otherwise\end{cases}.$$

Proof of Lemma 1 *Consider a set of strategies in which party E and party Y target resources to a given village i following, respectively,*

$$g_{1,i}^{E}=\begin{cases}1 \text{ with probability } \phi^{E} & \theta_i=\theta^0, \eta_i=\eta^H \\ 0 \text{ with probability } 1 & otherwise\end{cases}, \text{ and}$$

$$g_{1,i}^{Y}=\begin{cases}1 \text{ with probability } \phi^{Y} & \theta_i\in\left\{\theta^E, \theta^0\right\}, \kappa_i=\kappa^O \\ 0 \text{ with probability } 1 & otherwise\end{cases}.$$

This set of strategies constitutes an equilibrium, since neither party has an incentive to deviate. Party E's case is the simplest to see. First, targeting local public goods to any location that is not a $\left\{\theta^0, \eta^H\right\}$ is a dominated strategy, since those areas are unresponsive to targeting for either partisan reasons or because they lack sufficient organizational capacity. Second, party E has no *incentives to target a share different from ϕ^E in either $\left\{\kappa^O, \theta^0, \eta^H\right\}$ or $\left\{\kappa^{NO}, \theta^0, \eta^H\right\}$ villages, since the expected electoral return is the same in both types of villages. This follows from the fact that the electoral return of switching a village from $v = split$ to $v = E$ is the same as that of switching a village from voting $v = Y$ to voting $v = split$.*

Party Y's case follows a similar logic. First, targeting θ^Y villages is a dominant strategy since these would vote $v = Y$ anyway. Second, party Y has no incentives to target the set of $\left\{\kappa^{NO}, \theta^0\right\}$ and $\left\{\kappa^{NO}, \theta^E\right\}$ villages (from which it cannot distinguish village types at first) since targeting the set of $\left\{\kappa^O, \theta^0\right\}$ and $\left\{\kappa^O, \theta^E\right\}$ villages gives it a higher expected electoral return, given that $\gamma^{O,H} > \gamma^{NO,H}$, and also allows it to learn about village types, which has a higher continuation value.

Lemma 2 *Party E wins the first election only if*

$$\chi \left\{ \begin{array}{c} \mu^E + \left(1-\mu^E-\mu^Y\right)\left(\gamma^{O,H}\pi^O\phi^E\left(1-\phi^Y\right) + \left(1-\pi^O\right)\gamma^{NO,H}\phi^E\right) + \\ \frac{1}{2}\left(1-\mu^E-\mu^Y\right) \left(\begin{array}{c} \pi^O\gamma^{O,H}\phi^E\phi^Y + \pi^O\gamma^{O,H}\left(1-\phi^E\right)\left(1-\phi^Y\right) + \\ \left(1-\pi^O\right)\gamma^{NO,H}\left(1-\phi^E\right) + \\ \pi^O\left(1-\gamma^{O,H}\right) + \left(1-\pi^O\right)\left(1-\gamma^{NO,H}\right) \end{array} \right) \end{array} \right\} + (1-\chi)\,\delta_t \geq \frac{1}{2}$$

where recall that:

μ^E is the share of θ^E villages,

$\left(1-\mu^E-\mu^Y\right)\pi^O\gamma^{O,H}\phi^E\left(1-\phi^Y\right)$ is the share of $\left\{\kappa^O, \theta^0, \eta^H\right\}$ villages targeted only by E,

$\left(1-\mu^E-\mu^Y\right)\left(1-\pi^O\right)\gamma^{NO,H}\phi^E$ is the share of $\left\{\kappa^{NO}, \theta^0, \eta^H\right\}$ villages targeted only by E,

$\left(1-\mu^E-\mu^Y\right)\pi^O\gamma^{O,H}\phi^E\phi^Y$ is the share of $\left\{\kappa^O, \theta^0, \eta^H\right\}$ villages targeted by both parties,

$\left(1-\mu^E-\mu^Y\right)\pi^O\gamma^{O,H}\left(1-\phi^E\right)\left(1-\phi^Y\right)$ is the share of untargeted $\left\{\kappa^O, \theta^0, \eta^H\right\}$ villages,

$\left(1-\mu^E-\mu^Y\right)\left(1-\pi^O\right)\gamma^{NO,H}\left(1-\phi^E\right)$ is the share of untargeted $\left\{\kappa^{NO}, \theta^0, \eta^H\right\}$ villages, and

$\left(1-\mu^E-\mu^Y\right)\pi^O\left(1-\gamma^{O,H}\right) + \left(1-\pi^O\right)\left(1-\gamma^{NO,H}\right)$ is the share of $\left\{\theta^0, \eta^L\right\}$ villages that is unresponsive to targeting.

Proof of Lemma 2 *Together with the implications of Lemma 1 for v_i for all i, Lemma 2 holds since party E wins the election if $\chi\sum_{i=1}^N v_i + (1-\chi)\,\delta \geq \frac{1}{2}$. According to Lemma 1, there are two* *sets of villages that cast votes for party E—one that votes fully for party E and the other that splits its vote between both parties. The first set of villages that vote $v_i = E$ includes those that belong to the μ^E share of θ^E villages, the $\left(1-\mu^E-\mu^Y\right)\pi^O\gamma^{O,H}\phi^E\left(1-\phi^Y\right)$ share of $\left\{\kappa^O,\theta^0,\eta^H\right\}$ villages targeted only by party E, and the $\left(1-\mu^E-\mu^Y\right)\left(1-\pi^O\right)\gamma^{NO,H}\phi^E$ share of $\left\{\kappa^{NO},\theta^0,\eta^H\right\}$ villages targeted only by party E.*

The second set of villages that vote $v_i = \frac{1}{2}A$ include those that belong to the $\left(1-\mu^E-\mu^Y\right)\pi^O\gamma^{O,H}\phi^E\phi^Y$ share of $\left\{\kappa^O,\theta^0,\eta^H\right\}$ villages targeted by both parties, the $\left(1-\mu^E-\mu^Y\right)\pi^O\gamma^{O,H}\left(1-\phi^E\right)\left(1-\phi^Y\right)$ share of $\left\{\kappa^O,\theta^0,\eta^H\right\}$ villages targeted by neither party, the $\left(1-\mu^E-\mu^Y\right)\left(1-\pi^O\right)\gamma^{NO,H}\left(1-\right.$ share of $\left\{\kappa^{NO},\theta^0,\eta^H\right\}$ villages targeted by neither party, and the $\left(1-\mu^E-\mu^Y\right)\pi^O\left(1-\gamma^{O,H}\right)+\left(1-\pi^O\right)\left(1-\gamma^{NO,H}\right)$ share of $\left\{\theta^0,\eta^L\right\}$ villages that is unresponsive to targeting.

Lemma 3 *Following Bayes rule, Y's posterior likelihood that a village randomly chosen from the set of $\left\{\kappa^O,\theta^E\right\}$ and $\left\{\kappa^O,\theta^0\right\}$ villages and electoral behavior $v \in \{E,Y,split\}$ in the first election, respectively, has organizational capacity η^H is given by:*

1. $\Pr\left(\theta=\theta^0,\eta=\eta^H|v=Y,\theta\in\left\{\theta^E,\theta^0\right\},\kappa=\kappa^O\right)$ *or for simplicity* $\Pr(Y)=1$*;*

2. $\Pr\left(\theta=\theta^0,\eta=\eta^H|v=E,\theta\in\left\{\theta^E,\theta^0\right\},\kappa=\kappa^O\right)$ *or, for simplicity,* $\Pr(E)=\frac{\left(1-\mu^E\right)\gamma^{H,O}\phi^E\left(1-\phi^Y\right)}{\left(1-\mu^E\right)\gamma^{H,O}\phi^E\left(1-\phi^Y\right)+\mu^E}$*;*

3. $\Pr\left(\theta=\theta^0,\eta=\eta^H|v=split,\theta\in\left\{\theta^E,\theta^0\right\},\kappa=\kappa^O\right)$ *or, for simplicity,* $\Pr(split)=\frac{\gamma^{H,O}\left(\phi^E\phi^Y+\left(1-\phi^E\right)\left(1-\phi^Y\right)\right)}{\gamma^{H,O}\left(\phi^E\phi^Y+\left(1-\phi^E\right)\left(1-\phi^Y\right)\right)+\left(1-\gamma^{H,O}\right)}$. [27]

Proof of Lemma 3 $\Pr\left(\theta=\theta^0,\eta=\eta^H|v=Y,\theta\in\left\{\theta^E,\theta^0\right\},\kappa=\kappa^O\right)=1$ *trivially follows from the fact that only $\left\{\theta^0,\eta^H\right\}$ villages within $\left\{\theta^E,\theta^0\right\}$ villages vote fully for party Y.* $\Pr\left(\theta=\theta^0,\eta=\eta^H\ |v=E,\theta\in\right.$ $\frac{\left(1-\mu^E\right)\gamma^{H,O}\phi^E\left(1-\phi^Y\right)}{\left(1-\mu^E\right)\gamma^{H,O}\phi^E\left(1-\phi^Y\right)+\mu^E}$ *follows from the Bayesian updating logic. The denominator is the mass of villages that vote fully for party E, which are either $\left\{\theta^0,\eta^H\right\}$ villages that were targeted only by party E (and there is a mass $\left(1-\mu^E\right)\gamma^{H,O}\phi^E\left(1-\phi^Y\right)$ of such villages), or θ^E villages that vote for party E for ideological reasons (and there is a mass μ^E of such villages). The numerator, however,*

[27] Note that we can restrict to θ^0 villages since they are the only ones that can exhibit a split vote.

includes only the mass of the former village types since these are the only ones that are $\{\theta^0, \eta^H\}$ *villages.*

$\Pr\left(\theta = \theta^0, \eta = \eta^H | v = split, \theta \in \{\theta^E, \theta^0\}, \kappa = \kappa^O\right) = \frac{\gamma^{H,O}\left(\phi^E\phi^Y + \left(1-\phi^E\right)\left(1-\phi^Y\right)\right)}{\gamma^{H,O}(\phi^E\phi^Y + (1-\phi^E)(1-\phi^Y)) + \left(1-\gamma^{H,O}\right)}$ *also follows from the Bayesian updating logic. The denominator is the mass of villages that split their vote across both parties, which are either* $\{\theta^0, \eta^H\}$ *villages that both or no parties targeted, and there are masses* $\gamma^{H,O}\phi^E\phi^Y$ *and* $\gamma^{H,O}\left(1-\phi^E\right)\left(1-\phi^Y\right)$ *of such villages, respectively, or* $\{\theta^0, \eta^L\}$ *villages that cannot vote fully for any of the parties due to their low organizational capacity, and there is a mass* $\left(1-\gamma^{H,O}\right)$ *of such villages. The numerator, however, includes only the mass of the first two village types, since these are the only ones that are* $\{\theta^0, \eta^H\}$ *villages.*

Lemma 4 *Since there is no possible learning from electoral results, the likelihood that a village randomly chosen from the set of* $\{\kappa^{NO}, \theta^E\}$ *and* $\{\kappa^{NO}, \theta^0\}$ *villages has organizational capacity* η^H *is given by* $\Pr\left(\theta = \theta^0, \eta = \eta^H | \theta \in \{\theta^E, \theta^0\}, \kappa = \kappa^{NO}\right)$ *or, for simplicity,* $\Pr(\emptyset) = \left(1-\mu^E\right)\gamma^{H,NO}$.

Proof of Lemma 4 *The posterior likelihood that* $\{\kappa^{NO}, \theta^E\}$ *and* $\in \{\kappa^{NO}, \theta^0\}$ *villages have organizational capacity* η^H *coincides with the prior likelihood, since there is no learning due to the lack of information on their electoral outcomes.*

A.2 Proof of Proposition 1

The incumbent party Y's optimal strategy is to target goods to the villages that are more likely to be of the $\{\theta^0, \eta^H\}$ *type. From Lemma 3,* $\Pr(Y) = 1$, *and thus party Y first targets villages that vote for party Y in the first election and are known not to be of type* θ^Y.

Second, since it is clear that both $\Pr(split)$ *and* $\Pr(E)$ *are larger than* $\Pr(\emptyset)$, *if* $\gamma^{H,O}$ *is large enough with respect to* $\gamma^{H,NO}$ *and party Y is resource constrained, it is then optimal for party Y to next target villages that vote fully for party E or split their vote among both parties, and not to target* κ^{NO} *villages. Lastly, it is optimal for party Y to prioritize villages that vote fully for party E* *over those that split their vote among both parties, as long as* $\Pr(E) > \Pr(split)$*, and thus, if*

$$\left(1-\gamma^{H,O}\right)\frac{\phi^{E}\left(1-\phi^{Y}\right)}{1-\phi^{E}-\phi^{Y}-2\phi^{E}\phi^{Y}}\frac{1-\mu^{E}}{\mu^{E}} > 1,$$

which is more likely to hold for a larger ϕ^{E} *and smaller* μ^{E}*,* $\gamma^{H,O}$*, and* ϕ^{Y}*.*

A.3 Predictions and results robust to turnout considerations

While we do not explicitly model turnout in the paper, it is straightforward to microfound the effect of targeted goods in $\left\{\theta^{0},\eta^{H}\right\}$ villages to account for it. We assume that in such villages, half of the voters support party E and the other half supports party Y. Moreover, within the supporters of a given party, half always turns out to vote but the other half only turns out if it receives transfers from its preferred party. As a consequence, in the absence of transfers, only half of voters turn out, of which half votes for party E and the other for party Y. However, if a given party p targets the village, all its supporters turn out to vote and the party receives two-thirds of the votes. Similarly, if both parties target the village, all individuals turn out to vote and half vote for each party. This incorporation of turnout considerations delivers the same qualitative predictions.

Our data analysis does not take turnout into account either. However, the switching of village types could be generated by two distinct patterns of behavior: new voters entering the electorate or existing voters switching sides. In Section J.6, we re-run the analysis redefining *Type* in 2000 to account for turnout and show that results with this redefined measure are qualitatively unchanged, which indicates that party switching rather than turnout mobilization is more likely driving our results.

B Data matching

The census data are from the most recent version of the Senegalese census for which disaggregated data are currently available—the RGPH (Recensement Général de la Population et de l'Habitat) 3 conducted between 2000 and 2002. Of the initial $13,813$ observations in the sample, largely due to the fact that we exclude the Dakar region and that we drop villages that have more than $10,000$ registered voters in the election data (due to the uninformativeness of polling station names and thus the difficulty of matching), 80% show in our sample.

The data on local public goods provision are from a public infrastructure survey of all rural villages in Senegal that was conducted in 2000 ($13,436$ observations) and 2009 ($12,796$ observations) by Senegal's National Agency for Statistics and Demography. After excluding the Dakar region and areas with more than $10,000$ registered voters, we are left with $13,133$ and $12,512$ observations from the 2000 and 2009 public infrastructure surveys, respectively. We respectively match 94.9% and 95.4% of these observations to the 2002 census using a combination of fuzzy matching on names within communes and hand coding. When matching the 2009 public goods data to the electoral data, we account for administrative boundary changes during the period—always following the original 2002 administrative demarcation. Due to differences in the overlap of the matched observations across data sets and, particularly, to the fact that we drop villages that have more than $10,000$ registered voters, our data set includes 84.2% and 88.4% observations of the 2000 and 2009 public infrastructure surveys, respectively.

The polling station-level data on election outcomes are from Senegal's independent electoral commission (CENA). There were a total of $4,473$ polling stations in rural villages in Senegal in 2000. We were able to successfully match 93.4% of them to the 2002 census using a combination of fuzzy matching on names within communes and hand coding. However, due to differences in the overlap of the matched observations across data sets, and because we exclude the Dakar region and villages with more than $10,000$ registered voters from the 2002 census (for reasons of size), only 85.8% of the polling station data makes it to our data set. The corresponding numbers for 2007 are $5,251$, 93.6%, and 81.6%, respectively.

C Interviews with local politicians

To test some of our assumptions and better understand the mechanisms underlying our quantitative results, we conducted interviews with 48 current commune-level politicians and 16 village-level political intermediaries. For our sample, we randomly selected 12 communes, four from each the following strata: communes that are strongholds of the current incumbent party (Sall's APR), those that are strongholds of the primary opposition party (Wade's PDS), and mixed communes in which there is bloc voting for both parties. Within each of these 12 communes, we interviewed two members of each party/coalition, giving preference to the most senior of the local politicians, e.g., the mayor or his adjuncts.[28] We targeted commune politicians who were most influential on the commune council, e.g., the elected commune mayor, a member of the mayor's bureau (adjunct mayor, secretary), or an elected council member who is an active member of the party.[29]

To sample village-level intermediaries, we randomly selected one commune from each bloc. In the two stronghold communes, we then selected four villages, one of each of the following types: bloc vote ($> 70\%$) with a polling station, bloc vote without a polling station, non-bloc vote ($< 60\%$) with a polling station, non-bloc vote without a polling station. In the mixed commune, we identified eight villages, one of each type for each of the two main parties/coalitions. To identify the political intermediary in each village, we asked the village chief who the most representative or influential intermediary was, and if there was more than one, we interviewed all of them.

The interviews were conducted in Spring 2015 and examined knowledge of village-level electoral support, whether this knowledge differed by polling station status, and whether and how polling station status conditioned the allocation of resources. The commune politicians were asked to estimate their own party's village-level vote share in the most recent presidential elections in a random sample of 10 villages with polling stations and 10 villages without polling stations. After each guess, they were then asked to rate their confidence level on a scale of 1 to 4. This yielded a

[28] In four communes, we were unable to identify two council members of one of the coalitions, so we either interviewed a current council member who formerly belonged to the coalition of interest (and has since switched parties) or a former council member of the coalition of interest (who no longer holds office).

[29] In order to achieve representation from both coalitions, we interviewed former politicians who held office prior to 2014 if current politicians were not available.

data set of 860 unique observations of vote share guesses by politician and village.[30]

[30]There were fewer than the expected 960 observations because several communes had fewer than 10 polling stations or no polling stations, or official election outcomes incorrectly reported the names or locations of polling stations.

D Additional figures

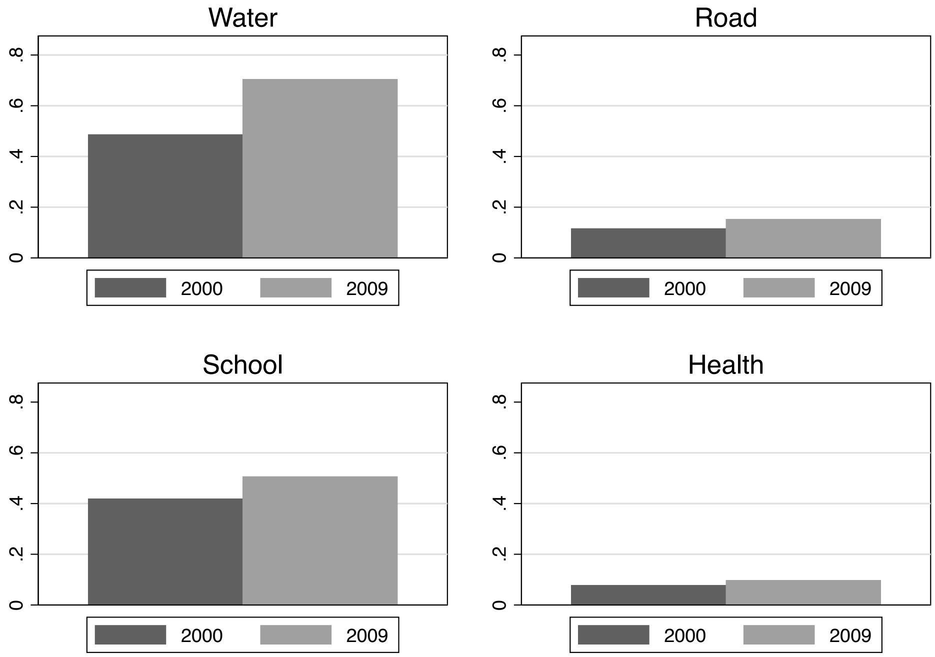

Figure A.1: Distribution of local public goods in 2000 and 2009

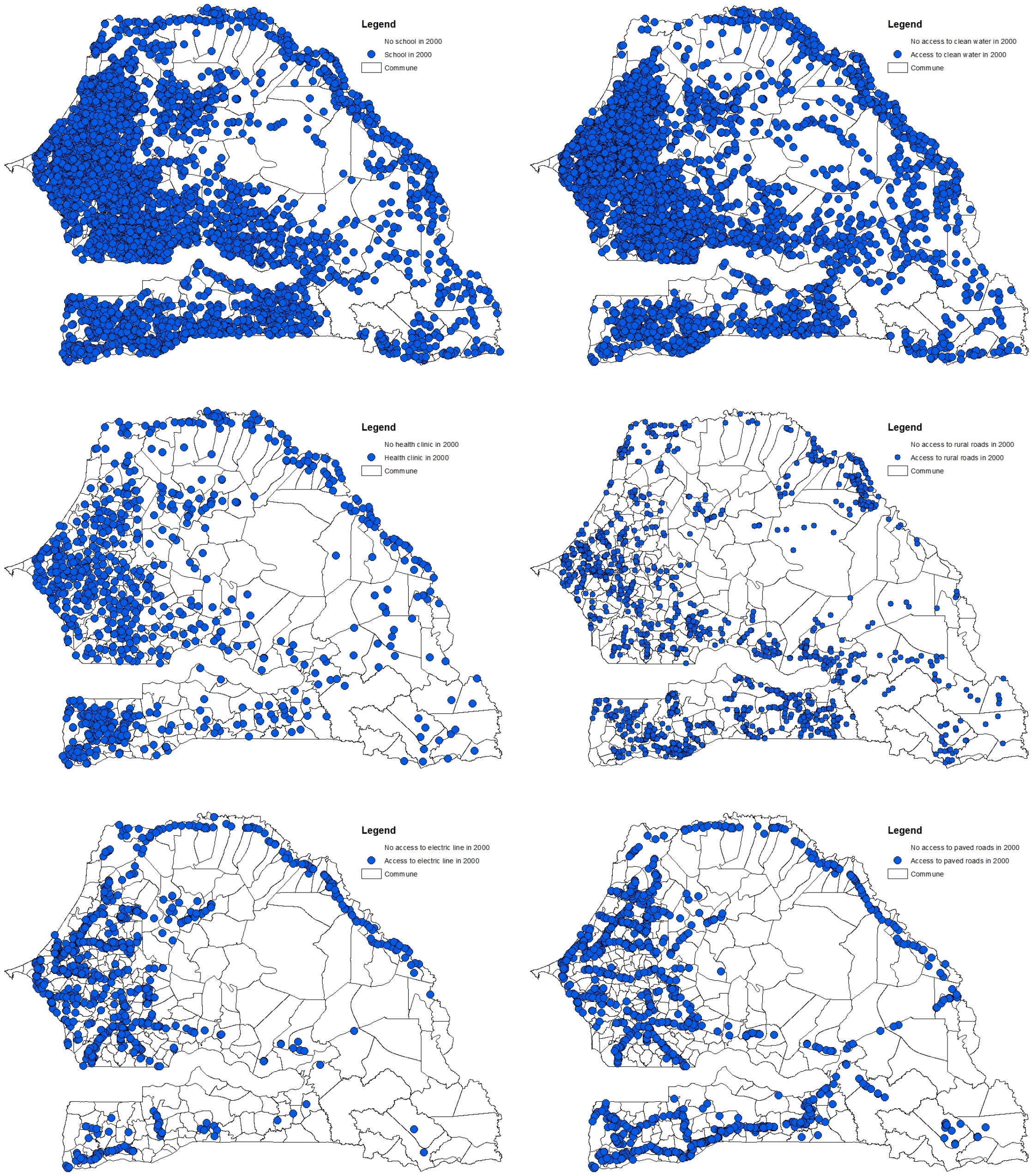

Figure A.2: Geographic distribution of local public goods (top 2 rows) vs. placebo goods (bottom row)

E Summary statistics

Table A.1: Village polling station status and electoral behavior

	2000	2007
Non-polling stations	0.654	0.614
Mixed support	0.235	0.228
Non-PDS support	0.102	0.012
PDS support	0.009	0.146
% of mixed in 2000 that switched in 2007		37.8%
% of non-PDS in 2000 that switched in 2007		94.3%

Table A.2: Bloc voting (as share of total polling stations)

	2000	2007	2012
Bloc	0.318	0.407	0.233
PDS	0.025	0.376	0.175
PS	0.274	0.011	0.002
Primary challenger to PDS	0.274 (PS)	0.010	0.035 (APR)
N	3838	4283	4297

Notes: First round election results at the national level for the parties listed above are as follows: In 2000, PDS won 31.01%, while PS won 41.30%. In 2007, PDS won 55.90%, Remwi won 14.92%, and PS won 13.56%. In 2012, PDS won 34.81%, PS won 11.30%, and APR won 26.58% of the votes.

Table A.3: Access to public goods in village

	2000	2009
Local public goods		
Water	0.485	0.704
Schools	0.419	0.505
Health clinics	0.077	0.095
Rural road	0.116	0.153
Placebo goods		
Paved road	0.094	0.102
Electric lines	0.070	0.147
Controls		
Phone line	0.069	
Electricity post	0.027	
Weekly market (Market 1)	0.027	
Market for agricultural inputs (Market 2)	0.029	
Warehouse for dried food (Market 3)	0.121	
Grocery store (Market 4)	0.339	
Fruit (Market 5)	0.167	
Animal products (Market 6)	0.373	
Materials from the sea (Market 7)	0.058	
Natural materials (Market 8)	0.388	
Cattle feed	0.166	
Artisan guilds	0.181	

Table A.4: Population shares (over 18)

	Observations	Mean	SD	Min	Max
Over 18 Population	10763	181.6448	279.5996	1	10805
Ethnicity share (over 18)					
Badiaran	10763	0.001	0.018	0	1
Bainouk	10763	0.001	0.023	0	0.876
Balante	10763	0.009	0.074	0	1
Bambara	10763	0.010	0.063	0	1
Bassari	10763	0.002	0.044	0	1
Bedick	10763	0.000	0.018	0	1
Coniagui	10763	0.001	0.011	0	0.643
Creole	10763	0.000	0.001	0	0.088
Diakhank	10763	0.003	0.043	0	0.982
Dialonke	10763	0.002	0.038	0	1
Diola	10763	0.034	0.168	0	1
Fula	10763	0.000	0.003	0	0.237
Laobe	10763	0.002	0.019	0	1
Lebou	10763	0.000	0.013	0	0.788
Malinke	10763	0.002	0.035	0	1
Mancagne	10763	0.002	0.037	0	1
Manding	10763	0.043	0.166	0	1
Manjag	10763	0.007	0.058	0	1
Maure	10763	0.009	0.069	0	1
Peul	10763	0.305	0.406	0	1
Pulaar	10763	0.060	0.204	0	1
Sarakole	10763	0.004	0.043	0	1
Serer	10763	0.113	0.275	0	1
Soce	10763	0.002	0.025	0	0.909
Soninke	10763	0.005	0.053	0	1
Soussou	10763	0.000	0.002	0	0.150
Tandanke	10763	0.000	0.005	0	0.362
Toucoule	10763	0.017	0.094	0	1
Wolof	10763	0.364	0.429	0	1
Foreigner	10763	0.002	0.017	0	0.750
Other	10763	0.000	0.010	0	0.768
Religion share (over 18)					
Catholic	10763	0.025	0.113	0	1
Khadrya	10763	0.131	0.262	0	1
Layenne	10763	0.002	0.026	0	1
Mouride	10763	0.297	0.381	0	1
Protestant	10763	0.000	0.008	0	0.377
Tidjane	10763	0.507	0.405	0	1
Other Christians	10763	0.002	0.026	0	0.951
Other Muslims	10763	0.029	0.119	0	1
Other religions	10763	0.006	0.052	0	1

Table A.5: Prevalence of household assets (as share of population)

	Observations	Mean	SD	Min	Max
Radio	10764	0.792	0.200	0	1
Television	10764	0.064	0.116	0	1
Video	10764	0.009	0.041	0	0.842
Refrigerator	10764	0.008	0.038	0	1
Telephone	10764	0.016	0.062	0	0.830
Cooking stove	10764	0.021	0.085	0	1
Fireplace	10764	0.012	0.074	0	1
Air conditioner	10764	0.001	0.012	0	0.830
Sewing machine	10764	0.011	0.038	0	1
Car	10764	0.024	0.075	0	1
Moped	10764	0.041	0.089	0	1
Bicycle	10764	0.169	0.285	0	1
Carriage	10764	0.440	0.296	0	1
Pirogue	10764	0.008	0.046	0	0.861
Hoe	10764	0.696	0.324	0	1
Cart	10764	0.368	0.302	0	1
Milking animals	10764	0.465	0.359	0	1
Tractor	10764	0.006	0.041	0	1
Truck	10764	0.007	0.031	0	1
Moped/bike	10764	0.010	0.044	0	1
Pirogue 2	10764	0.006	0.043	0	0.871
Refrigerator 2	10764	0.003	0.019	0	0.830
Sewing machine 2	10764	0.008	0.034	0	1
Music equipment	10764	0.002	0.022	0	1
Chair	10764	0.006	0.039	0	1
Fax	10764	0.002	0.016	0	0.830
Photocopier	10764	0.000	0.009	0	0.830
Computer	10764	0.000	0.009	0	0.830
Mill	10764	0.007	0.043	0	1
Camera	10764	0.002	0.019	0	0.830
Building	10764	0.013	0.083	0	1

F Party switching in Senegal and other African democracies

Using polling station-level data from Senegal, Table A.6.B summarizes the share of villages with each distinct voting profile across the last three presidential elections (2000, 2007, and 2012). These data demonstrate that very few villages that bloc vote remain loyal bloc voters to the same party over time. In particular, less than three percent of villages remain loyal following shifts in the incumbent party. Many more villages shift to bloc voting for a different party in a later election, while the majority of villages switch from splitting their vote to bloc voting or vice versa.

Table A.6: Party switching across recent presidential elections in Senegal

Panel A: Presidential elections			
	2000	2007	2012
Winning candidate	Wade (PDS)	Wade (PDS)	Sall (APR)
Rounds of voting	2	1	2
Vote share of winner (first round)	31.01	55.9	26.58
Main challenger	Diouf (PS)	Seck (Rewmi)	Wade (PDS)
Other major challengers ($>10\%$)	Niasse (AFP)	Dieng (PS)	Niasse (AFP) Dieng (PS)

Panel B: Change between years			
Type of Switching (as share of polling stations)	2000 to 2007	2007 to 2012	2000 to 2012
Bloc to mixed	0.179	0.074	0.232
Stayed the same bloc	0.024	0.137	0.013
Bloc to different bloc	0.116	0.023	0.072
Mixed to bloc	0.258	0.246	0.146
Stayed mixed	0.422	0.520	0.536
N	3,686	4,094	3,632

Notes: Two-thirds of a village voting for a single party constitutes a bloc vote; when no party achieves this, it is defined as "mixed".

Using polling station-level data from Benin, column 1 of Table A.7 shows that only 5% of villages stay loyal to the same party over the two recent parliamentary elections. As evidence of party switching in presidential elections, we see electoral support for the country's first two incumbent parties post-democratization drop below 10% when their former presidents are no longer allowed to run in the 2006 elections. In postwar Liberia, Ellen Johnson Sirleaf won the presidency in 2005 with 20% of votes in the first round and was reelected in 2011 with 44% of votes in the first round, representing a 122% increase in support. Such volatility is reflected in electoral data even at low levels of aggregation. Column 2 of Table A.7 shows that only 9% of villages continue bloc voting for the same party after 2005; as in Senegal and Benin, close to the majority of villages switch from mixed to bloc voting or vice versa.

LeBas (2011) profiles the fragmented party system in Zambia, citing routine party-switching and party-splintering as well as little sanctioning of elite defectors by voters. The new incumbent party that defeated the long-ruling founding party fielded three successful presidential candidates who won with very volatile electoral support (ranging from 29 to 76%). Riedl (2014) additionally demonstrates that Benin and Zambia have even lower levels of inter-party polarization and intra-party coherence than Senegal, further facilitating party-switching by voters and politicians.

Table A.7: Party switching in other African democracies

Type of Switching (as share of polling stations)	Benin 2011 to 2015	Liberia 2005 to 2011
Bloc to mixed	.123	.162
Stayed the same bloc	.050	.072
Bloc to different bloc	.031	.073
Mixed to bloc	.147	.218
Stayed mixed	.648	.475
N	3502	777

Notes: In Benin, we examine party switching across the 2011 and 2015 parliamentary elections among the 67% of 2011 polling stations matched across years. In Liberia, we examine party switching across the 2005 and 2011 presidential elections among the 54% of 2005 polling stations matched across years.

G Additional evidence on variation in coordinating capacity within Senegal

Gottlieb (2017) shows that there is a considerable amount of variation in coordinating capacity even within ethnic or religious groups. Using lab experimental games, she shows that communities coordinate on the preferred outcome of their local broker to varying degrees. While the Mouride coordinate at higher average rates than the Diola, as past research would imply, more than one-fifth of the overall variation community-level coordination is driven by within-group variation. Moreover, as shown in Table A.8, some Diola communities were better at coordinating than some Mouride communities.[31] This implies that parties cannot simply rely on known geographic concentrations of ethnic or religious groups as indicators of coordinating capacity, and can improve their targeting by learning about within-group variation.

Table A.8: Rate of coordination on leader preference by village type (from Gottlieb (2017))

	Mean	Min	Max
Diola	0.09	0	0.44
Toucouleur	0.23	0.06	0.50
Mouride	0.30	0.13	0.56

[31]Rates of coordination may seem low, which can be explained by strong individual incentives in the game not to coordinate on the leader-preferred outcome (full details in the original article).

H Additional evidence on new incumbent party's informational disadvantage

We validate our theory's assumption that the new incumbent party is relatively less well-informed by examining the ability of 48 local politicians (PDS and APR partisans from 12 rural communes) in 2015 to accurately report retrospective vote shares in the 2012 Senegalese presidential elections for 20 villages from each of their jurisdictions.[32] Though we were only able to collect these data post-2012, we argue that due to a similar information environment for the inexperienced incumbent party in both periods, lessons derived from recent interviews can reasonably inform the post-2000 PDS mandate for which we have quantitative data. If anything, lack of access to networks of local intermediaries and the information asymmetry around the 2012 elections should be less severe than that in 2000, and thus a hard test for the assumption.

We find a significant difference in the ability of politicians across parties to accurately report village-level electoral results in the first round of the election.[33] Examining the absolute difference between actual vote share in a village and the vote share reported by the respondent, guesses of outgoing PDS politicians are, on average, 5 percentage points (about a third of the mean) more accurate than those of the incoming APR ($p < 0.01$). Furthermore, when asked if the official electoral results at the polling station level were informative of villages' electoral behavior, 72% of APR supporters agreed compared to only 57% of PDS supporters—consistent with higher levels of learning within the inexperienced party.

[32] See Section C for sampling details.

[33] For consistency with later analyses, we report on first-round results.

I Additional evidence of differential observability of electoral outcomes and learning by new incumbents in polling-station villages

In Senegal, the evidence suggests that polling station results serve as a strong indicator of voting behavior in the one-third of Senegal's rural villages that house polling stations, and a much weaker signal of voting behavior of the surrounding villages. Our data indicates that all members of a village housing a polling station vote in that village, while villages without a polling station split their vote across several polling stations (median = 4). As a result, in the median polling station, about 80% of voters reside in the host village. Consistently, local politicians perceive the village with the polling station to constitute a majority of voters in the catchment area. One explains, "generally, the politician in analyzing the results doesn't integrate into his reflection all the villages that vote at the polling station but only the village that houses it " (Commune 12, Respondent S2).

Brokers that constitute the machine that aggregates information about voting behavior are also very much aware of this. The modal response of the 16 village-level brokers that we interviewed to how higher-level politicians know the level of support of their village was: through disaggregated election results from previous elections.[34] These brokers further indicated that it is harder to assess village-level support when there is no local polling station because it takes extra work to further disaggregate support based on village-voter lists and asking these voters will not always elicit credible information. As one broker put it, "The polling station villages that vote against the party in power are left stranded. It's easier for the politician to determine their support because of the existence of the polling station and consequently to sanction them."

Next, we provide evidence that, as a result of the greater observability of electoral outcomes in villages that host a polling station, there is greater learning among those villages, and that this learning accrues disproportionately to the new incumbent party due to its informational disadvantage. To compare levels of politician information about electoral behavior across polling

[34] See Section C for sampling details.

stations and non-polling stations, we examine the self-reported uncertainty of our 48 interviewed politicians when making 20 discrete vote share guesses for the aforementioned villages—10 with polling stations and 10 without.[35]

Regressing the confidence level of each village vote share guess on the interaction between polling station status and incumbent status, Figure A.3 shows that politicians are generally more confident in predicting electoral outcomes in polling station than non-polling station villages.However, the confidence *gap* across polling station status is significantly larger ($p < 0.10$) among supporters of the inexperienced incumbent (APR) than among supporters of the outgoing incumbent (PDS). While the sample size is small, these data further suggest that newly elected politicians have a greater opportunity to learn about a village's electoral behavior from polling station data relative to politicians in more established parties.[36]

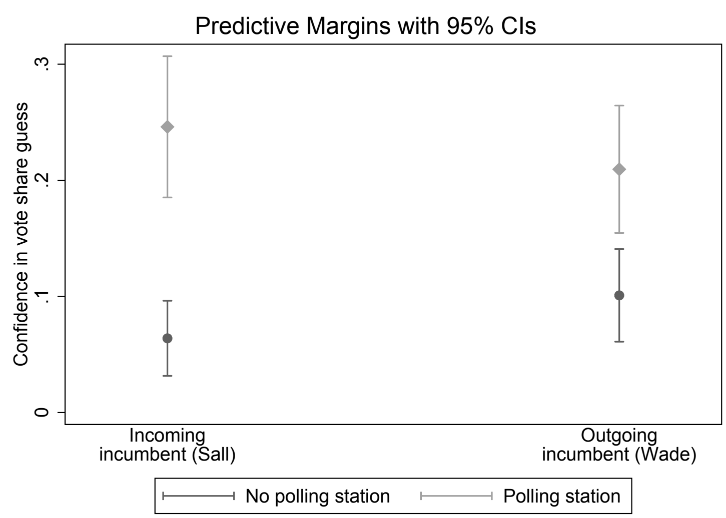

Figure A.3: Predicted marginal effects of incumbent and polling station status on knowledge of electoral behavior

[35]We code uncertainty as a binary variable which takes the value of 1 if the respondent was somewhat or very certain about their ability to retrospectively report their party's vote tally.

[36]Higher levels of confidence among the APR politicians relative to the PDS are only unexpected if we interpret them as being more informed about polling station outcomes. However, we know from our data that APR respondents may be relatively more overconfident since they are worse at reporting correct outcomes than the PDS.

J Additional robustness exercises

J.1 Placebo test

Given the potential threats to causal inference outlined in the previous section, we conduct a placebo test to increase confidence that our results are not driven by omitted variable bias. We identify goods that might be subject to the same bias, but should not have the predicted relationship with our vector of independent variables, $Type$. Our dependent variable, Y^{2009}, has two key features: it is provided by the government and is targetable to villages. For our placebo outcomes, we seek goods that are provided by the government and *cannot* be targeted to villages. If the relationship between $Type$ and Y^{2009} is being driven by omitted variables—such as population size, economic development, or existing public goods—instead of our theory, we would expect similar outcomes to obtain with a government-provided, non-targetable good.

The goods that comprise our placebo index—paved roads (as opposed to the unpaved rural roads in the local goods index) and electric lines—are provided by the government, but are much less targetable to individual villages. While some studies have highlighted the targetability of these goods (Min and Golden, 2014; Burgess et al., 2015), they are aggregated at the district rather than the much smaller village level. Figure A.2 shows the geographic distribution of our four local public goods and placebo goods, and clearly indicates that our placebo goods are much more concentrated within communes than our other local public goods. Not only are paved roads and electric lines too large and expensive to branch off into many small villages in a given commune, but their benefits are less excludable from an individual village.

Constructed in the same way as our public goods index, the placebo index is regressed on $Type$, and all our control variables use the same baseline specification as above. Table A.9 shows there is essentially no difference in the targeting of placebo goods across villages with and without polling stations, or across villages with polling stations but differing electoral types.[37] We interpret this as evidence that the relationship between our independent and dependent variables of interest is

[37] Because of the limited variation in the provision of paved roads over time, we also restrict our placebo test to just electric lines and results are robust.

unlikely to be driven by omitted variables.

Table A.9: Placebo results on learning after one election

	(1)	(2)	(3)	(4)
	OLS	OLS (logged)	Δ Access	Poisson
Mixed support	0.003	0.001	-0.007	-0.031
	(0.012)	(0.007)	(0.009)	(0.058)
non-PDS support	-0.004	-0.003	-0.004	-0.010
	(0.016)	(0.010)	(0.012)	(0.072)
PDS support	-0.089*	-0.054*	-0.086***	-0.601***
	(0.035)	(0.022)	(0.026)	(0.170)
Access to placebos in 2000	0.633***	0.612***	-0.059***	1.065***
(Logged in Model 2)	(0.027)	(0.024)	(0.015)	(0.049)
Observations	10744	10744	10744	10744
R^2	0.538	0.524	0.175	
One-sided Wald test (p-value)				
Null hypothesis:				
Mixed support ≥ PDS support	0.995	0.993	0.998	1.000
non-PDS support ≥ PDS support	0.987	0.984	0.998	1.000

Notes: Robust standard errors in parentheses, clustered at the commune level. Electorate type base level is a non-polling station village. Included controls are logged population (flexible), logged ethnic and religious group size (linear, quadratic, cubic), availability of private goods in 2000, and logged assets (linear, quadratic, cubic). Fixed effects are entered at the commune level.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

J.2 Instrumenting for polling station status

Since the concern that non-random assignment to polling stations could confound our estimates on differential targeting to villages where learning about coordinating capacity is more likely, we employ an identification strategy that exploits plausibly exogenous variation in polling station assignment. Following the informal rules that the Directorate for Elections uses to assign polling station to villages, we construct an instrumental variable that uses each village's local rank in terms of adult-population from the 2002 census within 10 kilometers (*Population rank*) and school presence in 2000 (*School*) to predict polling station assignment in 2000. Relatively more populated villages are more likely to be chosen to host a polling station in order to minimize the travel time of voters, and school presence is an important conditioning factor since most polling stations in Senegal are hosted by schools. While neither population rank nor the presence of a school is arguably random, following the logic developed in Esarey (2015), we argue and provide evidence that their interaction is, and thus use it as an instrument of a village's polling station status.

Importantly, this strategy only addresses potential endogeneity concerns arising from the selection process of polling station status. Thus, for the analyses using an instrumental variable specification, we pool the three categories of voting behavior from prior specifications—Mixed support, Non-PDS support, and PDS support—and compare it to the same omitted category as in prior specifications—Non-polling stations villages. Note that the first column of Table 2 is thus comparable to the second column of Table A.10 with the sole difference being that our key independent variable has four categories in the former and two in the latter.

Before implementing the IV analysis, we check whether there is a strong first stage. Column 1 of Table A.10 presents the results of regressing polling station status on the interaction between *Population rank* and *School*, each term individually, and all original control variables. As expected due to the informal assignment rules, population rank and school alone are correlated with polling station. More importantly, their *interaction*—the excluded instrument—is also a strong predictor, as reflected by the large F-statistic on the excluded instrument.

The exclusion restriction requires that the excluded instrument—the difference between having a school or not in central places relative to such differences in non-central places—should only affect the outcome (local public goods in 2009) through our endogenous variable, polling station assignment. We argue that, while the Population rank and School have a conditional effect on our endogenous variable—Polling Station, they have an unconditional effect on our outcome—Public Goods Index, and thus the interaction term can be used as an effective instrument to identify the effect of Polling Station (Esarey, 2015). Because we include controls for school and population ranking, we should only be concerned about a violation of the exclusion restriction if we think the greater marginal effect of having a school in central places relative to non-central places is driving public goods provision through a mechanism other than polling station assignment—in other words, if the effect of these two variables on the outcome is conditional rather than unconditional. This could be the case if, for example, the presence of a school in a central village is more indicative of economic development than in a non-central village. If this were the case, we should expect other public goods or economic indicators to also predict a greater likelihood of polling station assignment in central places relative to non-central places. We provide evidence that this is not the case, which strengthens the plausibility of the exclusion restriction.

To validate the plausibility of the exclusion restriction, we test whether all other village-level goods and economic indicators interacted with relative ranking also predict polling station assignment. Table J.2 compares the instrument in Specification 1 to specifications adding other goods/characteristics interacted with relative ranking. We observe that, while our first stage is robust to the inclusion of these interactions, none of the other interactions is statistically significant. This suggests that our excluded instrument is unlikely to be correlated with our outcome variable except through polling station assignment.

In Columns 2 and 3 of Table A.10, we compare the results of the baseline OLS regression of public goods on polling station to the IV estimates (with all usual controls). In the IV specification, the interaction term is the excluded instrument and the individual components of the interaction term—population rank and school—are included as controls. The coefficient on polling station remains a substantive and significant predictor of local public goods provision in the IV specification, which increases confidence that the observed relationship is being driven by polling station status rather than an unobserved correlate of polling stations.

One last concern is that polling station status could be predicted by prior voting behavior if the incumbent erects polling stations as a form of clientelistic reward. Appendix J.3 demonstrates the implausibility of this concern by showing that voting behavior in 2000, as measured by *Type*, does not predict polling station status in 2007.

Table A.10: Results of instrument variable strategy

Outcome: (estimation method)	(1) Polling Station (First stage)	(2) Public Goods (OLS)	(3) Public Goods (IV)
Polling Station		0.260***	0.910**
		(0.023)	(0.282)
Access to school	0.253***		-0.173***
	(0.022)		(0.052)
Population rank	-0.001*		0.003
	(0.001)		(0.001)
School × Population rank	-0.007***		
	(0.001)		
Public goods index (2000)	0.047***	0.333***	0.323***
	(0.008)	(0.016)	(0.026)
Observations	10,762	10,762	10,762
R^2	0.343	0.551	0.332
F-Statistic	28.467		28.470

Notes: Robust standard errors in parentheses, clustered at the commune level. Electorate type base level is a non-polling station village. Included controls are logged population (flexible), logged ethnic and religious group size (linear, quadratic, cubic), availability of private goods in 2000, and logged assets (linear, quadratic, cubic). Fixed effects are entered at the commune level. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A.11: Placebo Instrument

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A									
Other:		Health	Water	Rural road	Phone	Electric post	Market1	Market2	Market3
Schools=1 × Population Rank	-0.007***	-0.007***	-0.006***	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Other=1 × Population Rank		0.003	-0.001	0.000	-0.002	-0.002	0.001	0.005*	0.002
		(0.003)	(0.001)	(0.001)	(0.002)	(0.004)	(0.003)	(0.003)	(0.002)
Observations	10762	10762	10762	10762	10762	10762	10762	10762	10762
R^2	0.343	0.343	0.343	0.343	0.343	0.343	0.343	0.343	0.343
First stage F-statistic									
F-Statistic (School × rank)	28.467	26.797	24.617	29.187	27.935	27.818	27.436	31.710	26.940
F-Statistic (Placebo × rank)		0.934	3.711	0.101	1.761	0.218	0.082	4.036	1.071
Panel B									
Other:	Market4	Market5	Market6	Market7	Market8	Cattle feed	Artisan guild	Paved road	Electric line
Schools=1 × Population Rank	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Other=1 × Population Rank	0.000	-0.002	-0.000	-0.001	-0.000	0.000	-0.000	-0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Observations	10762	10762	10762	10762	10762	10762	10762	10762	10762
R^2	0.343	0.343	0.343	0.343	0.343	0.343	0.343	0.342	0.342
First stage F-statistic									
F-Statistic (School × rank)	28.161	28.450	28.672	28.102	28.490	28.370	27.580	27.726	27.011
F-Statistic (Placebo × rank)	0.237	2.701	0.009	0.292	0.205	0.157	0.010	0.060	0.047

Notes: Robust standard errors in parentheses, clustered at the commune level. *Population rank* ranks each village by population size in relation to other villages within a 5km radius. *Market 1* is an indicator for the existence of a weekly market in the village; *Market 2* is market for agricultural inputs; *Market 3* is warehouse for storing dried food; *Market 4* is grocery store; *Market 5* is access to fruit; *Market 6* is access to animal products (milk, leather/tannery); *Market 7* is access to materials from the sea (dried fish, salt, shells); and *Market 8* is access to natural materials (honey, coal, firewood). Included controls are logged population (flexible), logged ethnic and religious group size (linear, quadratic, cubic), availability of private goods in 2000, and logged assets (linear, quadratic, cubic). Fixed effects are entered at the commune level.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

J.3 Testing the effect of voting behavior in 2000 on polling stations assignment in 2007

Table A.12: Predicting Polling Stations

	(1) Polling Station (2007)	(2) Δ Polling Stations
Mixed support	-0.005	0.013
	(0.015)	(0.014)
Non-PDS support	0.000	0.011
	(0.016)	(0.015)
PDS support	0.000	0.000
	(.)	(.)
Polling station (2000)	0.844***	-0.149***
	(0.018)	(0.017)
Observations	10744	10744
R^2	0.802	0.125
One-sided Wald test (p-value)		
Null hypothesis:		
Mixed support ≥ Non-PDS support	0.182	0.696
Mixed support ≥ PDS support	0.370	0.829
Non-PDS support ≥ PDS support	0.509	0.775

Notes: Robust standard errors in parentheses, clustered at the commune level. Electorate type base level is a non-polling station village. Included controls are logged population (flexible), logged ethnic and religious group size (linear, quadratic, cubic), availability of private goods in 2000, and logged assets (linear, quadratic, cubic). Fixed effects are entered at the commune level. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

J.4 Results using an alternative threshold for bloc voting (80% instead of 66.67%)

Table A.13: Results on learning after one election, using 20% and 80% cutoffs

	(1) OLS	(2) OLS (logged)	(3) Δ Access	(4) Poisson
Mixed support	0.257***	0.119***	0.109***	0.165***
	(0.023)	(0.011)	(0.014)	(0.016)
Non-Wade support	0.260***	0.118***	0.113***	0.170***
	(0.046)	(0.021)	(0.026)	(0.028)
Wade support	0.532*	0.269**	0.403***	0.339*
	(0.229)	(0.083)	(0.105)	(0.135)
Public goods index (2000)	0.333***	0.255***	-0.283***	0.208***
	(0.016)	(0.014)	(0.009)	(0.010)
Observations	10734	10734	10734	10734
R^2	0.551	0.495	0.321	
One-sided Wald test (p-value)				
Null hypothesis:				
Mixed support ≥ Wade support	0.112	0.033	0.003	0.093
Non-Wade support ≥ Wade support	0.121	0.038	0.004	0.107

Notes: Robust standard errors in parentheses, clustered at the commune level. Electorate type base level is a non-polling station village. Included controls are logged population (flexible), logged ethnic and religious group size (linear, quadratic, cubic), availability of private goods in 2000, and logged assets (linear, quadratic, cubic). Fixed effects are entered at the commune level. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

J.5 Results using election outcomes from second round

Table A.14: Second round results on learning after one election (testing of hypotheses 1 and 2)

	(1) OLS	(2) OLS (Logged)	(3) Δ Access	(4) Poisson
Mixed support	0.246***	0.114***	0.103***	0.157***
	(0.026)	(0.012)	(0.016)	(0.017)
Non-PDS support	0.241***	0.112***	0.106***	0.165***
	(0.032)	(0.015)	(0.020)	(0.021)
PDS support	0.307***	0.143***	0.139***	0.191***
	(0.036)	(0.016)	(0.021)	(0.022)
Public goods index (2000)	0.332***	0.255***	-0.283***	0.207***
(Logged in model 2)	(0.015)	(0.014)	(0.009)	(0.010)
Observations	10747	10747	10747	10747
R^2	0.551	0.495	0.321	
One-sided Wald test (p-value)				
Null hypothesis:				
Mixed support ≥ PDS support	0.035	0.025	0.027	0.032
Non-PDS support ≥ PDS support	0.060	0.050	0.094	0.151

Notes: Robust standard errors in parentheses, clustered at the commune level. Electorate type base level is a non-polling station village. Included controls are logged population (flexible), logged ethnic and religious group size (linear, quadratic, cubic), availability of private goods in 2000, and logged assets (linear, quadratic, cubic). Fixed effects are entered at the commune level.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A.15: Second round results on learning after two elections (testing of hypothesis 3)

	(1)	(2)
Data used for independent variables:	2000	2000 and 2007
Mixed support	0.246***	
	(0.026)	
PS support	0.241***	
	(0.032)	
PDS support	0.307***	
	(0.036)	
Always mixed (second round)		0.303***
		(0.028)
Ever switched (second round)		0.294***
		(0.025)
Always PS (second round)		-0.053
		(0.076)
Public goods index (2000)	0.332***	0.329***
	(0.015)	(0.015)
Observations	10747	10763
R^2	0.551	0.555
One-sided Wald test (p-value)		
Null hypothesis:		
PS support $\geq$ Mixed support	0.438	
PS support $\geq$ PDS support	0.060	
Mixed support $\geq$ PDS support	0.035	
Always PS $\geq$ Always mixed		0.000
Always PS $\geq$ Ever switched		0.000
Always mixed $\geq$ Ever switched		0.620

Notes: Robust standard errors in parentheses, clustered at the commune level. Electorate type base level is a non-polling station village. Included controls are logged population (flexible), logged ethnic and religious group size (linear, quadratic, cubic), availability of private goods in 2000, and logged assets (linear, quadratic, cubic). Fixed effects are entered at the commune level.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

J.6 Results using recoding village types accounting for turnout

While in our baseline analysis we abstract from turnout issues, we re-run the our analysis redefining *Type* in 2000 to only include in each polling station type villages that have greater than 33% voter turnout. Very low turnout villages are then instead recoded as split. Table A.16 shows that the results are qualitatively unchanged.

Table A.16: Recoding Type Using Turnout

	(1) OLS	(2) OLS (logged)	(3) Δ Access	(4) Poisson
Mixed support	0.270***	0.126***	0.120***	0.175***
	(0.025)	(0.011)	(0.015)	(0.016)
Non-PDS support	0.216***	0.101***	0.086***	0.140***
	(0.030)	(0.014)	(0.018)	(0.019)
PDS support	0.453***	0.197***	0.200**	0.241***
	(0.108)	(0.047)	(0.061)	(0.061)
Public goods index (2000)	0.332***	0.255***	-0.283***	0.207***
	(0.015)	(0.014)	(0.009)	(0.010)
Observations	10753	10753	10753	10753
R^2	0.551	0.495	0.321	
One-sided Wald test (p-value)				
Null hypothesis:				
Mixed support ≥ Non-PDS support	0.963	0.972	0.975	0.985
Mixed support ≥ PDS support	0.045	0.063	0.092	0.132
Non-PDS support ≥ PDS support	0.019	0.026	0.035	0.051

Notes: Robust standard errors in parentheses, clustered at the commune level. Electorate type base level is a non-polling station village. Included controls are logged population (flexible), logged ethnic and religious group size (linear, quadratic, cubic), availability of private goods in 2000, and logged assets (linear, quadratic, cubic). Fixed effects are entered at the commune level. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$