7 Online Appendix for "The Local Political Economy Effects of School Construction in Indonesia"

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7.1 Further Details on the Historical Background

Requirements for Candidates to the Village Head position

Before every village head election a Village Election Board was created. The Board was in charge of supervising the election process and to verify that all candidates satisfied the requirements stipulated in the Law no. 5 of 1979 on Village Governance. The set of requirements are the following:

- 1. Devoted to God Almighty.
- 2. Faithful and loyal to the Pancasila—national ideology of Indonesia—and the 1945 Constitution.
- 3. Well-behaved, honest, fair, intelligent, and authoritative.
- 4. No direct of indirect involvement with the communist party.
- 5. No voting rights revoked.
- 6. Not a criminal record.
- 7. Registered as a permanent resident and living in the village in question for at least 2 years or born in the village.
- 8. Being at least 25 years old and at most 60 years old.
- 9. Junior high school education or equivalent knowledge or experience.

Note that the last requirement specifies a minimum education level: junior high school. However, the wording of the law is explicitly ambiguous to allow a lax enforcement of the requirement: many candidates without a junior high school degree could claim that they have an "equivalent knowledge or experience" to a junior high school degree. Not surprisingly, the junior high school requirement was not strictly enforced, as shown in Appendix Figure 5.

7.2 Data Appendix

Of the 22,000 villages in the island of Java, I am able to consistently match 14,569 across the 6 waves included in this study. Among these villages, 2,839 of them do not report consistent term lengths of the village head for years 1996, 2000, and 2003 and are dropped for the sample. In addition to this, 368 villages are dropped because of having missing information on the years of education of the village head, the length of tenure of the village head or the number of INPRES schools. Finally, 1,091 villages are dropped because of having more than 10,000 inhabitants (the average village has 3,378 inhabitants) or more than two INPRES schools constructed. The large size of these villages could influence some of the results. 416 of the remaining villages have an appointed village head (kelurahan villages) and are excluded from the main analysis. The resulting sample contains information on 9,855 villages. The baseline specifications in the paper focus on the period 1986-2003 when information of the education of the village head is available. There are 6 census waves in this period. Consequently, the number of village-year observations in the baseline specification is 59,130. In some regressions the number of observations is lower than this. This is due to the fact that some outcome variables are not reported in every wave of the census or by a few missing observations in the outcome variable for some years. When information missing for some years, I mention it in the table notes.

Construction of Variables

Years of Education of the Village Head: This variable is constructed as follows: no schooling = 0 years of schooling; not completed primary school = 2 years; primary school = 6 years; junior high school = 9 years; senior high school = 12 years; academy = 14 years; college = 16 years.

Village-level electoral calendar: The electoral calendar in each village is derived from the reported length of tenure of the village head in 1993. In particular, the year of the first election post-1992 is inferred using the following procedure.

- If the village head reports having been in office between 0 and 1 years in 1993, I know there was an election in that village between 1992 and 1993. I assume that election was the first election post-1992.
- If the village head reports having been in office for 2 or 10 years in 1993, I know there was an election in 1991. Since this election was prior to 1992, the first election after 1992 is scheduled to take place in 6 years. Hence, in 1999.

- If the village head reports having been in office for 3 or 11 years in 1993, I know there was an election in 1990. Since this election was prior to 1992, the first election after 1992 is scheduled to take place in 5 years. Hence, in 1998.
- Similarly for the rest of villages.

Measures of Public Goods:

- Primary Health Care Center: This outcome variable is a dummy that takes value one if the village has a polyclinic or a *puskesmas*. *Puskesmas* are primary health care centers in charge of basic medical services and preventive care. In polyclinics households can have access to more advanced medical treatments. Formally trained doctors and nurses work in both type of health facilities.
- **Doctors in the village:** This variable takes value one if at least one formally trained doctor lives and works in the village.
- Access to safe drinking water: This variable takes value one if most households in the village obtain their drinking water from a pump or from a water company. It takes value zero if households drink water from a natural well, from rain, river or other source.
- Number of Health Posts: This variable corresponds to the number of health posts or *posyandu* in the village. These are small community-based healthcare facilities that are responsible for family planning and maternal and child care.
- Garbage Disposal: This outcome variable takes value one if the village has a system of garbage disposal through the use of bins or by burying the waste into a hole. It takes value zero if households through their wast to the river or dispose their garbage through some other method.

Proxies for Demands of Public Goods:

• Villages are considered to have a low level of provision of public goods at baseline if in the year 1986 they do not have primary health centers in the village, there are no doctors living in the village, there is no access to purified water, and/or there is not a system of garbage bin disposal. Number of health posts is reported from 1990 onward and, hence, 1990 is considered the baseline year. • Mortality. Appendix Table 22 uses the mortality rate at baseline as a predictor of the demand for health services. In particular high level of mortality is a dummy that takes value one if the number of deaths per capita in 1986 in the village is above the median number of deaths per capita in the sample.

7.3 The Effect of the Village Head Education on Public Goods Provision: 2SLS Estimates

The results presented in this paper suggest that the most likely mechanism behind the estimated increase in public good provision is the increase in the level of education of village heads. This mechanism is also consistent with the literature on Indonesian village context during the period. The high concentration of power in the figure of the village head during the Soeharto period, made the village head a key player in the management of village public goods (Evers (2000), Antlöv (2003)).

In this subsection I implement an instrumental variables strategy where I use the interaction of the timing of elections and the intensity of the INPRES program to construct an instrument for the level of education of the village head. This strategy allows me to provide estimates of the returns to schooling of village heads in terms of the extra public good provision that they deliver. More formally, I estimate the following econometric model where equation (5) presents the structural equation of interest while equation (6) shows the first stage:

$$y_{vt} = \beta_0 + \beta_1 e duc_{vt} + \beta_2 postel 92_{vt} + \alpha_v + \delta_t + \varepsilon_{vt}$$
(5)

$$educ_{vt} = \rho_0 + \rho_1 postel 92_{vt} + \rho_2 postel 92_{vt} \times Num INPRES_v + \alpha_v + \delta_t + \epsilon_{vt}$$
(6)

where $educ_{vt}$ is the number of years of education of the village head in office in year t in village v. The rest of variables are defined as before. As the specification shows, the interaction of the timing of the first election after 1992 and the number of INPRES schools is used as an instrument for the level of education of the village head.⁵⁴

In order to explore whether more educated village heads increase the provision of those public goods in worse condition at baseline, I estimate the following econometric model.

$$y_{vt} = \beta_0 + \beta_1 e duc_{vt} + \beta_2 e duc_{vt} \times BadService_v + \beta_3 postel 92_{vt} + \alpha_v + \delta_t + \varepsilon_{vt}$$
(7)

where $BadService_v$ takes value 1 for villages that had bad quality of the public good y in the year 1986. Both the level of education of the village head and its the interaction

⁵⁴Note that the results are robust to excluding $postel92_{vt}$ from equation (5) and, hence, using as instruments both $postel92_{vt}$ and its interaction with the number of INPRES schools.

with the bad service dummy are instrumented for, using specification (3) as first stage. Hence, the instrumental variables used in this specification are the dummy for the period after first election post-1992, $postel92_{vt}$, interacted with the number of INPRES schools, the post dummy interacted with bad service at baseline and the triple interaction of the three variables.

The validity of these instrumental variables strategies require that the following assumptions are satisfied:

- 1. Relevance: the instruments are correlated with the endogenous regressors.
- 2. Validity of the first stage: the timing of elections and its interaction terms are quasirandom.
- 3. Exclusion restriction: the interaction of the timing of the first election post-1992 with INPRES intensity and bad baseline service, conditional on controls, only affects public good provision through changing the level of education of the village head.

The evidence presented in Table 6 supports the validity of the first assumption: the first election after 1992 raises the level of education of village heads by 0.43 years of education, on average. Furthermore, the effect is higher for villages that experienced a more intense INPRES school construction program. Note that the R-squared of the relevant specification (column 2) is high, 0.58. Appendix Table 20 shows the first stage of the heterogeneous effects specification, which also shows substantial R-squares. To further support assumption 1, all the instrumental variables results provided in the paper present the F-statistic of the Cragg-Donald weak instruments test.

The results presented in Table 2 support the validity of the second assumption, since changes in a large number of covariates do not predict the timing of the elections. Furthermore, given that all specifications include village fixed effects, the interaction of the timing of elections with time-invariant factors—such as the number of INPRES schools or bad baseline at service—will also be uncorrelated to the error term of the first stage.

In section 5 of the paper, we provide a number of pieces of evidence that suggest that the main channel behind the estimated effects is the changes in the level of education of the village head. Hence, the assumption that the interactions of the timing of the first election post-1992 only affect outcomes by increasing the education of the village head is a plausible assumption. Nevertheless, in the next subsection, I discuss some potential threats to the exclusion restriction and I present a number of additional robustness checks.

Appendix Tables 18.A and 18.B present the Ordinary Least Squares (OLS henceforth) and the Two Stage Least Squares (2SLS henceforth) results for the instrumental variables

strategies described above. The first and the third column of each outcome variable present the OLS results. The second and fourth columns present the 2SLS results of specifications (5) and (7), respectively.⁵⁵

The results on the estimation of equation (5) suggest that more educated village heads only lead to average increases in public goods for primary health care centers and garbage bin disposal systems. While the point estimates suggest that there are also increases in the other public goods, the results are less precisely estimated. This could be driven by the fact that effective leaders may focus on increasing the provision of those public goods that are in greater need or in worse condition. To further explore the hypothesis of heterogenous effects across villages, the third and the fourth column for each public good present the results where the level of education of the village head is interacted with a measure of bad quality of service at baseline. The results confirm the heterogeneous pattern of public good provision: more educated village heads increase the provision of those public goods that were in worse condition at baseline.⁵⁶

Overall, the results suggest that more educated village heads lead to increases in those public goods for which there is a greater need. Although village head education does not seem to be the only factor in explaining the evolution of the provision of these goods, the increase in village head education can account for a sizable share of the increase.

7.4 2SLS Robustness Checks

In this section I present a number of robustness checks for the 2SLS results and discuss potential threats to the exclusion restriction.

A potential concern with the results presented in Appendix Tables 18.A and 18.B is that the strength of the first stage is moderate: the Cragg-Donald statistic ranges between 0.36 and 8.4t. Appendix Table 21 implements an alternative instrumental variable strategy where the post first-election after 1992 dummy is also used as an instrumental variable—i.e.,

⁵⁵The first stage corresponding to the second column is presented in Table 6, column 2. The first stage corresponding the fourth column is presented in the appropriate column of Appendix Table 20.

⁵⁶The OLS results are smaller in magnitude than the 2SLS results. This could be driven by a number of reasons. First, the number of years of education of village heads might be measured with error, which would generate attenuation bias in the OLS estimation. Second, the OLS might suffer from omitted variable bias. For instance, villages might suffer positive economic shocks (e.g. discovery of natural resources) that, all else equal, increase public good provision. If those same shocks weaken the a accountability relationship and allow ineffective low-educated leaders to stay for longer in power, the OLS would be downward biased. Results along these lines were found in Brollo et al. (2013). Third, in the presence of heterogenous treatment effects, the 2SLS captures the effect of the education of village heads in those villages where the INPRES program induced them to replace their village leaders by more educated ones. This set of villages might be the ones with greater returns to the education of village heads, and hence, higher point estimates of the effect of education of the village head on public good provision.

I impose $\beta_2 = 0$ in equation (5). This additional instrument leads to stronger first stages, with Cragg-Donald statistics substantially higher. Both instrumental variable strategies lead to similar effects of the years of education of the village heads interacted with poor quality of service at baseline. Hence, it is unlikely that the main results are severely affected by weak instruments bias.

Appendix Table 23 presents additional robustness checks similar to those implemented on the reduced form specifications and presented in Table 5. The results show that the results are robust to controlling for population, adding as controls the interaction of the pretreatment level of primary school enrolment in the village and year fixed effects, and adding as controls the pre-treatment value of the covariates that were correlated to the timing of elections interacted with year fixed effects.⁵⁷

Next, I discuss the possibility that the increases in public good provision were driven by changes in the age of the village head. First, note that the regressions presented in Appendix Table 14 indicate that, while the age of the village heads decreases on average after the first election post-1992, the decline is not associated to the intensity of the INPRES program. This supports the use of the interaction of the post dummy and the intensity of the INPRES program as an instrument for the education of the village head, since it is uncorrelated to the age of the village head.

Nevertheless, I implement an additional robustness check where I incorporate the age of the village head as a regressor in the baseline econometric specification of interest. Appendix Tables 19.A and 19.B presents the results. The first column for each outcome variable reproduces the baseline 2SLS reported in Table 7 when restricted to the sample for which age of the village head is reported. The second column includes age as an exogenous regressor to the 2SLS specification. Although the age regressor is statistically significant for primary care facilities and doctors, incorporating this regressor does not affect the results of the interaction terms.⁵⁸ The third column includes age and age interacted with poor quality of the corresponding public goods at baseline as endogenous regressors. In order to increase the strength of the first stage, I include as instruments the average age and education of village heads in neighboring villages. The coefficients on years of education and its interaction with bad service are robust to this alternative specification, while the coefficients on age and its interaction are small in magnitude and statistically insignificant.

⁵⁷Appendix Table 22 shows that the results related to health services are robust to alternative measures of demand for public goods. In particular, I show that more educated village heads generate larger increases in the availability of health services in villages that have a high mortality rate at baseline.

⁵⁸Also, note that results suggest that, if anything, older village heads deliver more public goods. Since age and years of education are inversely correlated the exclusion of age as a regressor downward bias the estimates. Hence, the baseline results should be considered a lower bound on the effect of education on public good provision.

Overall, these results suggest that changes in the age of the village head are unlikely to account for the observed results. Given the similarity of the 2SLS point estimates in both specification, I focus on the main specification.



Appendix Figure 1. Frequency of the number of INPRES schools by province

Appendix Figure 2. Yearly Effects of Number of INPRES schools for Different Sets of Villages



Appendix Figure 3. Effects of Number of INPRES schools on Village Head Education: Villages with Elections between 1989-1991







Appendix Figure 5. Distribution of Village Heads by Level of Education in 1986 and 2003



	Mean	Std. Dev	As a fraction of total revenue
Total Revenue (in 1 000 IDR)	39 671	31 347	
Surplus previous year	251	2.302	0.006
Village Original Income	12.578	11.192	0.317
Village Community Income (swadaya)	12,869	16.069	0.324
Transfer from Central Government	6,481	3,955	0.163
Transfer from Provincial Government	729	3,010	0.018
Transfer from District Government	749	2,886	0.019
Other revenues	6,014	18,948	0.152
Total Expenditures (in 1,000 IDR)	39,596	31.132	0.998
Routine expenses	15.268	10.901	0.385
Deficit previous year	41	776	0.001
Employee Expenses	10,148	7,500	0.256
Expenses in Goods	877	1,472	0.022
Expenses in Maintenance	622	1,469	0.016
Travelling Expenses	575	932	0.014
Other routine expenses	2,125	3,433	0.054
Miscellaneous expenses	880	3,177	0.022
Development Expenses	24,328	26,425	0.613
Infraestructure Expenses	2,800	5,556	0.071
Production Facilities	2,491	5,174	0.063
Transportation Facilities	6,981	9,945	0.176
Marketing Facilities	634	4,070	0.016
Social Facilities	6,303	11,447	0.159
Other facilities expenditure	5,120	11,994	0.129

Appendix Table 1. Average Village Government Budget for year 1996

Notes : Summary statistics of the village budget of 1996 corresponding to 9,855 villages.

Year	Number of villages having their 1st election post-1992 in the corresponding year	Percent
	1 57	
1992	403	4.09
1993	679	6.89
1994	564	5.72
1995	231	2.34
1996	106	1.08
1997	1,244	12.62
1998	2,846	28.88
1999	3,548	36.00
2000	234	2.37
Total	9,855	100

Appendix Table 2. Timing of the First Election after 1992

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				Dep	endent Varia	bles:			
	Primary He	alth Center ir	the Village	Doc	tors in the Vi	llage	Access t	o Safe Drinki	ng Water
	Elections	Elections	Elections	Elections	Elections	Elections	Elections	Elections	Elections
	1992-93	1994-96	1997-00	1992-93	1994-96	1997-00	1992-93	1994-96	1997-00
Year 1990 * Num INPRES	0.000	0.002	0.000	0.012	-0.005	0.002	0.015*	0.019**	0.005
	(0.000)	(0.002)	(0.001)	(0.008)	(0.007)	(0.002)	(0.009)	(0.009)	(0.004)
Year 1993 * Num INPRES	0.002	0.000	0.001	0.011	-0.004	0.005	0.027**	0.012	0.004
	(0.002)	(0.004)	(0.001)	(0.011)	(0.008)	(0.003)	(0.012)	(0.012)	(0.005)
Year 1996 * Num INPRES	0.002	0.010	0.006**	0.008	-0.001	0.007*	0.034***	0.020	0.005
	(0.007)	(0.007)	(0.003)	(0.012)	(0.010)	(0.004)	(0.012)	(0.013)	(0.007)
Year 2000 * Num INPRES	0.012	0.013	0.009***	0.006	0.007	0.007			
	(0.009)	(0.010)	(0.003)	(0.012)	(0.013)	(0.004)			
Year 2003 * Num INPRES	0.013	0.021	0.020***	0.022	0.010	0.011			
	(0.014)	(0.021)	(0.005)	(0.017)	(0.014)	(0.006)			
Observations	6,492	5,406	45.828	6,492	5,406	45,828	4,328	3,604	30,552
R-squared	0.836	0.842	0.835	0.842	0.802	0.817	0.928	0.913	0.923
P-value Joint Significance of	0.872	0.406	0.129	0.144	0.739	0.394	0.089	0.085	0.694
Pre-treatment Interactions									

Appendix Table 3.A. The Effect of School Construction on Public Good Provision by Calendar Year

Notes: Robust Standard errors, clustered at the district level, in parenthesis. Each column restricts the sample to a subset of villages that held elections during the years shown in the column heading. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. All regressions include village and year fixed effects. The post-treatment point estimates and standard errors are in bold to facilitate the reading of the table. *** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
				Dep	endent Varia	bles:					
	Num	ber of Health	Posts	G	arbage Dispo	sal	Years of Education of the VH				
	Elections	Elections	Elections	Elections	Elections	Elections	Elections	Elections	ctions Elections		
	1992-93	1994-96	1997-00	1992-93	1994-96	1997-00	1992-93	1994-96	1997-00		
Year 1990 * Num INPRES				0.009	-0.008	0.004	-0.116	-0.020	-0.025		
				(0.011)	(0.016)	(0.005)	(0.096)	(0.081)	(0.100)		
Year 1993 * Num INPRES	0.022	0.006	0.043	0.021	-0.024	0.001	-0.132	-0.020	-0.025		
	(0.066)	(0.108)	(0.032)	(0.013)	(0.022)	(0.007)	(0.164)	(0.081)	(0.100)		
Year 1996 * Num INPRES				0.025*	-0.025	0.000	-0.141	0.400**	-0.020		
				(0.015)	(0.024)	(0.007)	(0.176)	(0.183)	(0.099)		
Year 2000 * Num INPRES	0.159	0.063	0.095	0.032*	-0.008	0.011	-0.143	0.352*	0.079		
	(0.139)	(0.169)	(0.091)	(0.018)	(0.029)	(0.009)	(0.169)	(0.208)	(0.102)		
Year 2003 * Num INPRES	0.262*	0.200	0.176**	0.052***	-0.001	0.015	-0.301**	0.479**	0.097		
	(0.137)	(0.169)	(0.087)	(0.019)	(0.030)	(0.010)	(0.146)	(0.198)	(0.106)		
Observations	4,250	3,506	30,076	6,492	5,406	45,828	6,492	5,406	45,828		
R-squared	0.694	0.708	0.706	0.719	0.706	0.720	0.561	0.600	0.596		
P-value Joint Significance of	0.737	0.959	0.189	0.391	0.367	0.317	0.229	0.803	0.987		
Pre-treatment Interactions											

Appendix Table 3.B. The Effect of School Construction on Public Good Provision & Village Head Education by Calendar Year

Notes: Robust Standard errors, clustered at the district level, in parenthesis. Each column restricts the sample to a subset of villages that held elections during the years shown in the column heading. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. All regressions include village and year fixed effects. The post-treatment point estimates and standard errors are in bold to facilitate the reading of the table. *** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Dependent	t Variables:			
		Number of	Health Posts			Garbage	Disposal	
Dan Van Maan	1.00	1.08	1.09	1.09	0.01	0.01	0.01	0.01
Dep. Var. Mean at Pasalina	4.00	4.00	4.00	4.00	0.91	0.91	0.91	0.91
Dep. Var. Mean al Baseline	3.03	3.03	3.03	3.03	0.02	0.82	0.82	0.82
post 1st Elec after 1992	-0.080	-0.083	-0.168**	-0.170**	0.003	0.003	-0.004	-0.005
-	(0.072)	(0.073)	(0.083)	(0.084)	(0.004)	(0.004)	(0.006)	(0.006)
post * Num INPRES Schools [§]		0.111				0.013**		
		(0.082)				(0.006)		
post * Num INPRES > 0			0.127*				0.010	
			(0.066)				(0.009)	
post * INPRES schools =1				0.081*				0.003
				(0.048)				(0.009)
post * INPRES schools =2				0.228				0.027**
				(0.181)				(0.012)
Observations	38,748	38,748	38,748	38,748	59,130	59,130	59,130	59,130
R-squared	0.709	0.709	0.709	0.709	0.718	0.718	0.718	0.718
Number of Villages	9.703	9.703	9.703	9.703	9.855	9.855	9.855	9.855

Appendix Table 4. The Effects of School Construction on Public Good Provision (Additional Outcomes)

Notes: Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for number of health posts which is not reported for years 1986 and 1996. § The number of INPRES schools is defined in deviations from its sample mean. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	
		Dependent	t Variables:		
	Number of	Health Posts	Garbag	e Disposal	
	Interaction: Num INPRES Schools	Interaction: Dummy INPRES Schools >0	Interaction: Num INPRES Schools	Interaction: Dummy INPRES Schools >0	
Dep. Var. Mean	4.08	4.08	0.91	0.91	
post 1st Elec after 1992	-0.113	-0.206**	-0.074***	-0.074***	
	(0.072)	(0.084)	(0.012)	(0.012)	
post * measure of INPRES school intensity	0.118	0.140**	-0.000	-0.000	
	(0.078)	(0.066)	(0.000)	(0.000)	
post * bad baseline service	2.225***	2.735***	0.412***	0.408***	
	(0.298)	(0.738)	(0.028)	(0.026)	
post * bad baseline service * INPRES sch. intensity	-0.433	-0.754	-0.001	0.005	
	(0.489)	(0.813)	(0.019)	(0.025)	
Observations	38,748	38,748	59,130	59,130	
R-squared	0.712	0.712	0.786	0.786	

Appendix Table 5. Heterogeneous Effects of School Construction on Public Good Provision (Additional Outcomes)

Notes: Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for number of health posts which is not reported for years 1986 and 1996. In the odd columns the measure of INPRES school intensity used corresponds to the number of INPRES schools in deviations from its sample mean. In even columns the intensity measure corresponds to a dummy for any INPRES schools constructed in the village. In columns 1 and 2 bad baseine service equals 1 for villages with no health post in year 1990. In columns 3 and 4 bad baseine service equals 1 for villages with no access to garbage bin disposal in year 1986. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Dependent	Variables	1			
		Numbe	er of Healt	h Posts			Ga	rbage Disp	osal	
Dep. Var. Mean	4.08	4.08	4.08	4.08	4.08	0.91	0.91	0.91	0.91	0.91
post	-0.082	-0.087	-0.082	-0.087	-0.085	0.003	0.002	0.003	0.003	0.003
	(0.072)	(0.073)	(0.071)	(0.073)	(0.073)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
post * Num INPRES Schools [§]	0.111	0.249***	0.105	0.112	0.106	0.012**	-0.000	0.012**	0.012**	0.012*
	(0.082)	(0.087)	(0.081)	(0.081)	(0.085)	(0.006)	(0.004)	(0.006)	(0.005)	(0.006)
1 Year Before Election*Num INPRES sch					-0.012					0.001
					(0.120)					(0.006)
2 Year Before Election*Num INPRES sch					-0.064					-0.001
					(0.114)					(0.004)
3 Year Before Election*Num INPRES sch					-0.016					-0.005
					(0.134)					(0.005)
Additional Controls:										
Log Population	\checkmark					\checkmark				
Pre-treatment Dep Var* Year FE		\checkmark					\checkmark			
Pre-treatment Covariates* Year FE			\checkmark					\checkmark		
Enrolment rate*Year FE				\checkmark					\checkmark	
Water and Sanitation Program*Year FI	Ŧ			\checkmark					\checkmark	
Observations	38,748	38,748	38,748	38,732	38,748	59,130	59,130	59,130	59,106	59,130
R-squared	0.709	0.728	0.710	0.709	0.709	0.718	0.840	0.720	0.720	0.718
P-value Joint Significance of										
Pre-treatment Interactions					0.951					0.686

Appendix Table 6. Robustness Checks of the Effects of School Construction on Public Goods (Additional Outcomes)

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for number of health posts which is not reported for years 1986 and 1996. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects. Additional controls are included as shown in the table.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
					. ,	Dependen	t Variables:				, í	
	Prima	ary Health Co	enter in the V	Village		Doctors in	n the Village		Ac	cess to Safe	Drinking Wa	ater
Dep. Var. Mean	0.10	0.10	0.10	0.10	0.12	0.12	0.12	0.12	0.77	0.77	0.77	0.77
post	-0.055***	0.000	-0.070***	-0.058***	-0.062***	-0.000	-0.090***	-0.067***	-0.044***	-0.000	-0.043***	-0.044***
	(0.005)	(0.000)	(0.006)	(0.005)	(0.005)	(0.000)	(0.006)	(0.005)	(0.006)	(.)	(0.006)	(0.006)
post * Num INPRES Schools [§]	0.000	0.000	0.000	0.001	0.000	0.000	-0.000	0.000	-0.000	0.000	-0.001	-0.001
	(0.001)	(0.000)	(0.002)	(0.001)	(0.001)	(0.000)	(0.003)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)
post * bad baseline service	0.054***	-0.006**	0.070***	0.058***	0.068***	0.001	0.098***	0.074***	0.160***	-0.002	0.154***	0.160***
	(0.004)	(0.003)	(0.005)	(0.004)	(0.005)	(0.003)	(0.006)	(0.005)	(0.019)	(0.016)	(0.018)	(0.019)
post * bad baseline service * INPRES sch. intensity	0.014***	0.014***	0.015***	0.014***	0.007*	0.007*	0.008*	0.008**	0.057**	0.056**	0.058**	0.057**
	(0.003)	(0.003)	(0.004)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.023)	(0.024)	(0.023)	(0.023)
Additional Controls:												
Log Population	\checkmark				\checkmark				\checkmark			
Pre-treatment Dep Var* Year FE		\checkmark				\checkmark				\checkmark		
Pre-treatment Covariates* Year FE			\checkmark				\checkmark				\checkmark	
Enrolment rate* Post				\checkmark				\checkmark				\checkmark
Water and Sanitation Program* Post				\checkmark				\checkmark				\checkmark
Observations	59,130	59,130	59,130	59,106	59,130	59,130	59,130	59,106	39,420	39,420	39,420	39,404
R-squared	0.837	0.838	0.838	0.837	0.821	0.821	0.823	0.821	0.924	0.933	0.924	0.924

Appendix Table 7A. Robustness Checks of the Heterogeneous Effects of School Construction on Public Goods

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. § The number of INPRES schools is defined in deviations from its sample mean. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects. Additional controls are included as shown in the table.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Dependent	Variables:			
		Number of	Health Posts			Garbage	e Disposal	
Dep. Var. Mean	4.08	4.08	4.08	4.08	0.91	0.91	0.91	0.91
post	-0.112 (0.071)	-0.101 (0.073)	-0.112	-0.117 (0.072)	-0.074*** (0.012)	-0.000	-0.074*** (0.012)	-0.074*** (0.012)
post * Num INPRES Schools [§]	0.118	0.251***	0.112 (0.077)	0.120	-0.000	0.000	-0.000	0.000 (0.000)
post * bad baseline service	2.229*** (0.298)	1.257*** (0.284)	2.206*** (0.295)	2.210*** (0.297)	0.412*** (0.028)	0.011 (0.019)	0.410*** (0.028)	0.410*** (0.028)
post * bad baseline service *Num INPRES Schools $^{\$}$	-0.433	-0.566	-0.422	-0.438	-0.000	-0.002	-0.000	-0.001
Additional Controls:	()	()	()		()	()	()	()
Log Population	\checkmark				\checkmark			
Pre-treatment Dep Var* Year FE		\checkmark				\checkmark		
Pre-treatment Covariates* Year FE			\checkmark				\checkmark	
Enrolment rate* Post				\checkmark				\checkmark
Water and Sanitation Program* Post				\checkmark				\checkmark
Observations	38,748	38,748	38,748	38,732	59,130	59,130	59,130	59,106
R-squared	0.712	0.729	0.713	0.712	0.786	0.840	0.786	0.786

Appendix Table 7B. Robustness Checks of the Heterogeneous Effects of School Construction on Public Goods (Additional Outcomes)

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for number of health posts which is not reported for years 1986 and 1996. § The number of INPRES schools is defined in deviations from its sample mean. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects. Additional controls are included as shown in the table.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
							Dep	endent Varia	ables:						
		Primary He	alth Center i	n the Village	,		Doct	tors in the V	illage			Access to	o Safe Drink	ing Water	
Dep. Var. Mean	0.10	0.10	0.10	0.10	0.10	0.12	0.12	0.12	0.12	0.12	0.77	0.77	0.77	0.77	0.77
post	-0.016*** (0.004)	-0.015*** (0.004)	-0.015*** (0.004)	-0.016*** (0.004)	-0.014*** (0.004)	-0.006 (0.005)	-0.005 (0.005)	-0.006 (0.005)	-0.006 (0.005)	-0.005 (0.004)	-0.017** (0.007)	-0.017** (0.007)	-0.017** (0.007)	-0.017** (0.007)	-0.017** (0.007)
post * Num INPRES Schools [§]	0.017*** (0.004)	0.016*** (0.004)	0.015*** (0.004)	0.017*** (0.004)	0.014*** (0.004)	0.010** (0.005)	0.009* (0.005)	0.009* (0.005)	0.010** (0.005)	0.008* (0.004)	0.019** (0.009)	0.019** (0.009)	0.018** (0.009)	0.019** (0.009)	0.018** (0.009)
Additional Controls:															
Share of wetland * Year FE	\checkmark	,				\checkmark	,				\checkmark	,			
IDT program * Year FE Crises Mitigation Programs*Year FE		\checkmark	\checkmark				\checkmark	\checkmark				\checkmark	\checkmark		
Transfers from Upper Govs*Year FE All of the above controls * Year FE				\checkmark	\checkmark				\checkmark	\checkmark				\checkmark	\checkmark
Observations	59,130	59,130	59,130	59,094	59,094	59,130	59,130	59,130	59,094	59,094	39,420	39,420	39,420	39,396	39,396
R-squared	0.837	0.838	0.837	0.837	0.838	0.820	0.822	0.820	0.820	0.822	0.922	0.922	0.923	0.922	0.923

Appendix Table 8. Robustness to Controlling for Development Programs and for the Impact of the Economic Crises

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects. Additional controls are included as shown in the table.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2) (3)		(4)	(5)	(6)	(7)	(8)	(9)		
					Dependent Variables	s:					
	He	ealth Facility in the Vi	illage		Doctors in the Villag	ge	Access to Safe Drinking Water				
	Baseline Result	Drop if elections in 1999-2000	Drop if elections in 1998-2000	Baseline Result	Drop if elections in 1999-2000	Drop if elections in 1998-2000	Baseline Result	Drop if elections in 1999-2000	Drop if elections in 1998-2000		
Dep. Var. Mean	0.0993	0.100	0.103	0.123	0.123	0.129	0.774	0.766	0.775		
post 1st Elec after 1992	-0.016***	-0.017***	-0.013**	-0.006	-0.010	-0.003	-0.017**	-0.019***	-0.021***		
	(0.004)	(0.005)	(0.006)	(0.005)	(0.006)	(0.008)	(0.007)	(0.007)	(0.007)		
post * Num INPRES > 0	0.017***	0.021***	0.018**	0.010*	0.017**	0.008	0.019**	0.019**	0.019**		
	(0.004)	(0.005)	(0.007)	(0.005)	(0.007)	(0.010)	(0.009)	(0.009)	(0.009)		
Observations	59,130	36,438	19,362	59,130	36,438	19,362	39,420	24,292	12,908		
R-squared	0.837	0.828	0.827	0.820	0.818	0.813	0.922	0.922	0.921		
Number of Villages	9855	6073	3227	9855	6073	3227	9855	6073	3227		

Appendix Table 9. Robustness to Dropping Villages that Held Elections after 1998

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects. *** p < 0.01, ** p < 0.05, *p < 0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Primary Health Center in the Villag			Doc	Doctors in the Village			Safe Drink	ing Water	Numb	er of Health	Posts	Ga	rbage Dispo	sal
Dep. Var. Mean	0.10	0.10	0.10	0.12	0.12	0.12	0.77	0.77	0.77	4.08	4.08	4.08	0.91	0.91	0.91
post	-0.001	-0.010***	-0.035	0.006*	-0.014***	-0.095***	0.123***	0.002	0.004	0.961***	-0.005	0.094	0.337***	0.018***	0.157**
	(0.003)	(0.003)	(0.021)	(0.003)	(0.004)	(0.018)	(0.018)	(0.006)	(0.040)	(0.144)	(0.081)	(0.368)	(0.029)	(0.006)	(0.076)
post * Num INPRES Schools [§]	0.014***	0.012***	0.012***	0.007*	0.006*	0.006*	0.013**	0.017**	0.017**	0.249***	0.105	0.113	-0.000	0.012**	0.012**
	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.006)	(0.007)	(0.007)	(0.087)	(0.081)	(0.081)	(0.004)	(0.006)	(0.005)
Additional Controls:															
Pre-treatment Dep Var* Post	\checkmark			\checkmark			\checkmark			\checkmark			\checkmark		
Pre-treatment Covariates* Post		\checkmark			\checkmark			\checkmark			\checkmark			\checkmark	
Enrolment rate* Post			\checkmark			\checkmark			\checkmark			\checkmark			\checkmark
Water and Sanitation Program* Post	t		\checkmark			\checkmark			\checkmark			\checkmark			\checkmark
Observations	59,130	59,130	59,106	59,130	59,130	59,106	39,420	39,420	39,404	38,748	38,748	38,732	59,130	59,130	59,106
R-squared	0.837	0.837	0.837	0.821	0.821	0.820	0.924	0.923	0.923	0.722	0.710	0.709	0.786	0.720	0.720

Appendix Table 10. Robustness Checks of the Effects of School Construction on Public Goods. (Controlling for Covariates interacted with Post Dummy)

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Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects. Additional controls are included as shown in the table.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Dependent	Variables:										
	Prin	nary Health Co	enter in the V	illage		Doctors in the Village				ccess to Safe	Drinking Wa	ter
Dep. Var. Mean	0.10	0.10	0.10	0.10	0.12	0.12	0.12	0.12	0.77	0.77	0.77	0.77
Dep. Var. Mean at Baseline	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.74	0.74	0.74	0.74
post 1st Elec after 1992	-0.005* (0.003)	-0.005* (0.003)	-0.016*** (0.004)	-0.016*** (0.004)	-0.000 (0.003)	-0.000	-0.007	-0.007	-0.004 (0.006)	-0.005	-0.013 (0.010)	-0.013
post * Num INPRES Schools ⁹	()	0.012*** (0.003)	(1 1 1)	()	(*****)	0.006*	(1 1 1 1)	(1 1 1 1)	(1 1 1)	0.012 (0.008)	()	(****)
post * Num INPRES > 0			0.017*** (0.004)				0.010** (0.005)			` ,	0.013 (0.011)	
post * INPRES schools =1				0.013*** (0.004)				0.010** (0.005)			. ,	0.006 (0.010)
post * INPRES schools =2				0.024*** (0.006)				0.011 (0.007)				0.024 (0.016)
Observations	59,130	59,130	59,130	59,130	59,130	59,130	59,130	59,130	39,420	39,420	39,420	39,420
R-squared	0.836	0.837	0.837	0.837	0.820	0.820	0.820	0.820	0.922	0.922	0.922	0.922

Appendix Table 11.A. Robustness to Actual Election Timing

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. § The number of INPRES schools is defined in deviations from its sample mean. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects, year fixed effects and province fixed effects interacted with year fixed effects.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
						Dependent	t Variables:						
		Number of	Health Posts			Garbage	Disposal		Y	Years of Education of the VH			
Dep. Var. Mean	4.08	4.08	4.08	4.08	0.91	0.91	0.91	0.91	9.87	9.87	9.87	9.87	
Dep. Var. Mean at Baseline	3.83	3.83	3.83	3.83	0.82	0.82	0.82	0.82	7.71	7.71	7.71	7.71	
post 1st Elec after 1992	-0.064 (0.065)	-0.066 (0.066)	-0.160** (0.074)	-0.162** (0.074)	0.000 (0.003)	-0.000 (0.004)	-0.007 (0.007)	-0.007 (0.007)	0.397*** (0.078)	0.394*** (0.076)	0.321*** (0.082)	0.319*** (0.082)	
post * Num INPRES Schools $^{\$}$		0.121 (0.082)				0.012** (0.006)				0.110*			
post * Num INPRES > 0			0.140** (0.065)				0.010 (0.009)				0.109 (0.076)		
<pre>post * INPRES schools =1</pre>				0.091* (0.046)				0.003 (0.009)				0.051 (0.075)	
post * INPRES schools =2				0.248 (0.181)				0.026** (0.012)				0.232* (0.121)	
Observations	38,748	38,748	38,748	38,748	59,130	59,130	59,130	59,130	59,130	59,130	59,130	59,130	
R-squared	0.709	0.709	0.709	0.709	0.718	0.718	0.718	0.718	0.583	0.583	0.583	0.583	

Appendix Table 11.B. Robustness to Actual Election Timing

Notes: Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for number of health posts which is not reported for years 1986 and 1996. § The number of INPRES schools is defined in deviations from its sample mean. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4) Dependent	(5) Variables:	(6)	(7)	(8)
	Electricity / Kerosene for cooking	Share of Irrigated Agricultural Land	Motor Transportation	Public Toilet	Number of Kindergarten	Number of Primary Schools	Number of High School	Asphalt Road
Dep. Var. Mean	0.135	0.458	0.687	0.0664	1.225	3.127	0.409	0.543
Dep. Var. Mean at Baseline	0.0475	0.458	0.562	0.0531	0.887	2.895	0.289	0.266
post 1st Elec after 1992	0.000	0.021	0.018*	-0.007**	-0.070***	-0.048***	-0.021***	0.009
	(0.013)	(0.016)	(0.010)	(0.003)	(0.015)	(0.013)	(0.007)	(0.010)
post * INPRES schools =1	-0.001	-0.021	-0.024**	0.005**	0.064***	0.051***	0.023**	-0.001
	(0.016)	(0.014)	(0.011)	(0.002)	(0.018)	(0.014)	(0.010)	(0.010)
post * INPRES schools =2	0.008	-0.011	-0.025	0.008*	0.109***	0.150***	0.065***	-0.015
	(0.021)	(0.009)	(0.015)	(0.005)	(0.027)	(0.023)	(0.012)	(0.014)
Observations	59,130	58,458	59,130	59,130	59,130	59,130	59,130	59,125
R-squared	0.673	0.238	0.831	0.915	0.891	0.957	0.915	0.755

Appendix Table 12. Additional Outcomes

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)
	Observations	Mean	Std. Dev.	Years Included
		A. Data on	Baseline Data	
Years of Education of the Village Head	59,130	9.87	3.13	1986-2003
Years of Education 25th percentile	59,131	6	-	1986-2003
Years of Education 50th percentile	59,132	9	-	1986-2003
Years of Education 75th percentile	59,133	12	-	1986-2003
Age of the Village Head	59,105	42.95	9.23	1986-2003
Age 25th percentile	59,130	36	-	1986-2003
Age 50th percentile	59,130	42	-	1986-2003
Age 75th percentile	59,130	49	-	1986-2003
	B. Data on C	andidate Compo	ostion of Village H	lead Elections
Number of Contestants per village	38	4.16	1.33	2009-2015
Years of Education of the Village Head	38	12	1.84	2009-2015
Years of Education 25th percentile	38	12	-	2009-2015
Years of Education 50th percentile	38	12	-	2009-2015
Years of Education 75th percentile	38	12	-	2009-2015
Age of the Village Head	38	42.82	7.60	2009-2015
Age 25th percentile	38	39	-	2009-2015
Age 50th percentile	38	43	-	2009-2015
Age 75th percentile	38	47	-	2009-2015
Years of Education of All Candidates	155	12.43	2.15	2009-2015
Age of of All Candidates	156	42.78	8.74	2009-2015
Age 25th percentile	156	37	-	2009-2015
Age 50th percentile	156	43	-	2009-2015
Age 75th percentile	156	48	-	2009-2015
Years of Education of Youngest Candidate	38	12.74	2.13	2009-2015
Age of Youngest Candidate	38	33.82	5.82	2009-2015
Age 25th percentile	38	30	-	2009-2015
Age 50th percentile	38	32	-	2009-2015
Age 75th percentile	38	39	-	2009-2015

Appendix Table 13. Summary Statistics on Candidates of Village Elections

Notes : Panel A reproduces summary statistics of the main dataset used in the paper. Panel B provides summary statistics for data collected through online searches on characteristics of candidates of village elections for 38 villages.

	(1)	(2)	(3)	(4)
	Depend	ent Variable: A	age of the Villa	ge Head
Dep. Var. Mean	42.95	42.95	42.95	42.95
Dep. Var. Mean at Baseline (year 1986)	48.46	48.46	48.46	48.46
post 1st Election after 1992	-3.161*** (0.296)	-3.167*** (0.296)	-3.363*** (0.306)	-3.362*** (0.306)
post 1st Election after 1992*Num INPRES schools [§]		0.133 (0.170)		
post 1st Election after 1992*INPRES schools >0			0.290 (0.235)	
post 1st Election after 1992*INPRES schools =1				0.318 (0.255)
post 1st Election after 1992*INPRES schools =2				0.228 (0.355)
Observations	59,105	59,105	59,105	59,105
R-squared P-value Joint Signif. Pre-treatment Interactions	0.458	0.458	0.458	0.458

Appendix Table 14. The Effects of School Construction on Village Head Age

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts. The unit of observation is the village-year level. The sample includes 9,855 villages. The dependent variable is the numer age of the village head in office in the corresponding village. § The number of INPRES schools is defined in deviations from its sample mean. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003. All regressions control for village fixed effects and year fixed effects. *** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)
	Dependent	Variable: Dun	my for Male V	illage Head
Dep. Var. Mean	0.97	0.97	0.97	0.97
Dep. Var. Mean at Baseline (year 1986)	0.99	0.99	0.99	0.99
post 1st Election after 1992	0.003 (0.004)	0.003 (0.004)	0.004 (0.004)	0.004 (0.004)
post 1st Election after 1992*Num INPRES schools [§]		-0.003 (0.003)		
post 1st Election after 1992*INPRES schools >0		. ,	-0.001 (0.004)	
post 1st Election after 1992*INPRES schools =1				0.001 (0.004)
post 1st Election after 1992*INPRES schools =2				-0.006 (0.006)
Observations	59,122	59,122	59,122	59,122
R-squared P-value Joint Signif. Pre-treatment Interactions	0.447	0.447	0.447	0.447

Appendix Table 15. The Effects of School Construction on Village Head Gender

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts. The unit of observation is the village-year level. The sample includes 9,855 villages. The dependent variable is a dummy that takes value one if the village head is a male. § The number of INPRES schools is defined in deviations from its sample mean. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003. All regressions control for village fixed effects and year fixed effects. *** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Depende	nt Variable:				
	Primary H	ealth Center	Doctors i	n the Village	Access to Safe	e Drinking Water	Number o	f Health Posts	Garbage	Bin Disposal
	Baseline	Controlling	Baseline	Controlling	Baseline	Controlling	Baseline	Controlling	Baseline	Controlling
	Result	for Education	Result	for Education	Result	for Education	Result	for Education	Result	for Education
	(common	of the	(common	of the	(common	of the	(common	of the	(common	of the
	sample)	Electorate	sample)	Electorate	sample)	Electorate	sample)	Electorate	sample)	Electorate
Dep. Var. Mean	0.10	0.10	0.12	0.12	0.79	0.79	3.95	3.95	0.91	0.91
post 1st Elec after 1992	-0.014***	-0.014***	-0.005	-0.005	-0.020***	-0.020***	-0.104	-0.104	-0.002	-0.002
	(0.004)	(0.004)	(0.005)	(0.005)	(0.007)	(0.007)	(0.091)	(0.091)	(0.006)	(0.006)
post * INPRES schools =1	0.012**	0.012**	0.009*	0.009*	0.015*	0.014*	0.067	0.067	0.001	0.001
	(0.005)	(0.005)	(0.005)	(0.005)	(0.008)	(0.008)	(0.058)	(0.058)	(0.009)	(0.009)
post * INPRES schools =2	0.023***	0.023***	0.010	0.010	0.034**	0.034**	0.259	0.259	0.023*	0.023*
	(0.007)	(0.007)	(0.008)	(0.007)	(0.017)	(0.017)	(0.196)	(0.197)	(0.012)	(0.012)
Average Education of the Electorate		0.002		0.022***		-0.014		0.001		-0.005
		(0.005)		(0.008)		(0.019)		(0.207)		(0.022)
Observations	49,662	49,662	49,662	49,662	33,108	33,108	32,604	32,604	49,662	49,662
R-squared	0.838	0.838	0.819	0.820	0.923	0.923	0.691	0.691	0.710	0.710

Appendix Table 16. Robustness Checks to Controlling for the Average Education of the Electorate

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
_			De	pendent Variab	les:		
	Log Total Income	Log Surplus from last year	Log Income from Village Sources	Log Transfer from Central Government	Log Transfer from Provincial Government	Log Transfer from District Government	Log Other Income
Dep. Var. Mean (not logged)	39669	252	25444	6480 Panel A. OLS	729	749	6014
years of educ VH	0.020*** (0.004)	0.062*** (0.018)	0.029*** (0.006)	0.015 (0.011)	-0.083*** (0.026)	-0.013 (0.029)	0.066** (0.027)
_				Panel B. 2SLS			
years of educ VH	0.009 (0.035)	-0.199 (0.178)	-0.047 (0.074)	-0.063 (0.126)	-0.276 (0.284)	-0.050 (0.249)	0.048 (0.224)
Observations	9,855	9,855	9,855	9,855	9,855	9,855	9855
R-squared (OLS)	0.151	0.089	0.067	0.010	0.241	0.096	0.030
Cragg-Donald F-Stat (2SLS)	13.17	13.17	13.17	13.17	13.17	13.17	13.17

Appendix Table 17.A. The Effect of Village Head Education on the Village Budget (Revenues)

Notes: Robust Standard errors, clustered at the district level, in parenthesis. Each column corresponds to a cross-sectional regression for the year 1996, when village government budget information is available. The unit of observation is the village. The dependent variable is defined by the column headings. All regressions include province fixed effects, a quartic on log population and a quartic on the percentage of rural households as controls. Panel A shows the OLS results while Panel B shows the 2SLS results. In Panel B, a dummy for having had elections between 1992 and 1996 is used as an instrument for the years of education of the village head. *** p<0.01, ** p<0.05, * p<0.1.

Appendix Table 17.B. The Effect of Village Head Education on the Village Budget (Expenditures)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
_	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							
	Log Total Expenditures	Log Employee Expenses	Log Expenses in Goods	Log Expenses in Maintenance	Log Infraestructure Expenses	Log Production Facilities Expenses	Log Transportation Facilities Expenses	Log Social Facilities Expenses
Dep. Var. Mean (not logged)	39594	10146	877	622	2799	2491	6982	6302
-				Panel	A. OLS			
years of educ VH	0.020*** (0.004)	0.034*** (0.005)	0.010 (0.007)	0.054*** (0.014)	0.067** (0.031)	0.075*** (0.025)	0.064*** (0.024)	0.049 (0.031)
_				Panel I	3. 2SLS			
years of educ VH	0.010 (0.034)	0.043 (0.052)	0.127* (0.065)	0.030 (0.114)	0.644** (0.323)	0.455* (0.260)	-0.111 (0.243)	0.521** (0.235)
Observations	9,855	9,855	9,855	9,855	9,855	9,855	9,855	9,855
R-squared (OLS)	0.151	0.096	0.034	0.018	0.027	0.046	0.026	0.025
Cragg-Donald F-Stat (2SLS)	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17

Notes: Robust Standard errors, clustered at the district level, in parenthesis. Each column corresponds to a cross-sectional regression for the year 1996, when village government budget information is available. The unit of observation is the village. The dependent variable is defined by the column headings. All regressions include province fixed effects, a quartic on log population and a quartic on the percentage of rural households as controls. Panel A shows the OLS results while Panel B shows the 2SLS results. In Panel B, a dummy for having had elections between 1992 and 1996 is used as an instrument for the years of education of the village head. *** p<0.01, ** p<0.05, * p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
						Depender	nt Variables:						
	Prim	ary Health C	enter in the V	illage		Doctors in the Village				Access to Safe Drinking Water			
	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS	
Dep. Var. Mean	0.10	0.10	0.10	0.10	0.12	0.12	0.12	0.12	0.77	0.77	0.77	0.77	
Dep. Var. Mean at Baseline	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.74	0.74	0.74	0.74	
years of education VH	-0.000 (0.000)	0.109* (0.056)	-0.005*** (0.001)	0.078 (0.050)	0.000	0.053 (0.038)	-0.007*** (0.001)	0.023 (0.035)	-0.000 (0.001)	0.178 (0.216)	-0.006*** (0.001)	0.081 (0.175)	
yrs. educ * bad baseline service			0.005*** (0.001)	0.036*** (0.006)			0.008*** (0.001)	0.042*** (0.004)			0.021*** (0.002)	0.216* (0.120)	
Observations	59,130	59,130	59,130	59,130	59,130	59,130	59,130	59,130	39,420	39,420	39,420	39,420	
R-squared	0.836		0.837		0.820		0.820		0.922		0.924		
Cragg-Donald F-Stat		4.519		1.865		4.519		2.053		0.774		0.360	

Appendix Table 18.A. Effects of Village Head Education on Public Good Provision (OLS and 2SLS Results)

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. The number of observations varies because of missing values in the dependent variables. In columns 2, 6, and 10 the instrumental variables corresponds to the interaction of the post 1st election after 1992 dummy with the number of INPRES schools in the village. In columns 4, 8, and 12, the set of instrumental variables also includes the post dummy interacted with bad service at baseline and the triple interaction with the number of INPRES schools. All regressions control for village fixed effects and year fixed effects. The 2SLS estimates also include the post 1st election after 1992 dummy as a covariate.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
				Dependent	Variables:						
		Number of	Health Posts			Garbage Disposal					
	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS			
Dep. Var. Mean	4.08	4.08	4.08	4.08	0.91	0.908	0.91	0.91			
Dep. Var. Mean at Baseline	3.83	3.83	3.83	3.83	0.82	0.82	0.82	0.82			
years of education VH	0.013*	0.717	0.010	0.664	0.002**	0.113**	-0.009***	-0.137*			
yrs. educ * bad baseline service	(0.007)	(0.473)	(0.007) 0.212**	(0.474) 1.717***	(0.001)	(0.055)	(0.001) 0.058***	(0.077) 0.237***			
			(0.092)	(0.564)			(0.005)	(0.018)			
Observations	38,748	38,748	38,748	38,748	59,130	59,130	59,130	59,130			
R-squared	0.709		0.709		0.718		0.751				
Cragg-Donald F-Stat		8.434		2.906		4.519		1.659			

Appendix Table 18.B. The Effect of Village Head Education on Public Good Provision (OLS and 2SLS Results)

Notes: Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for number of health posts which is not reported for years 1986 and 1996. The number of observations varies because of missing values in the dependent variables. In columns 2, and 6 the instrumental variables corresponds to the interaction of the post 1st election after 1992 dummy with the number of INPRES schools in the village. In columns 4 and 8 the set of instrumental variables also includes the post dummy interacted with bad service at baseline and the triple interaction with the number of INPRES schools. All regressions control for village fixed effects and year fixed effects. The 2SLS estimates also include the post 1st election after 1992 dummy as a covariate.*** p < 0.01, ** p < 0.05, *p < 0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				I	Dependent Variab	les:			
	Primary	Health Center in t	the Village	Γ	octors in the Vill	age	s to Safe Drinkin	g Water	
	Baseline Result	Age Exogenous	Age & Interaction Endogenous	Baseline Result	Age Exogenous	Age & Interaction Endogenous	Baseline Result	Age Exogenous	Age & Interaction Endogenous
Dep. Var. Mean	0.10	0.10	0.10	0.12	0.12	0.12	0.77	0.77	0.77
years of education VH	0.079 (0.050)	0.061*	-0.020** (0.010)	0.022 (0.035)	0.013	-0.027 (0.024)	0.082 (0.178)	0.064	-0.103** (0.043)
yrs. educ * bad baseline service	0.036*** (0.006)	0.038*** (0.006)	0.029*** (0.010)	0.042*** (0.004)	0.045*** (0.004)	0.035 (0.026)	0.217* (0.123)	0.204** (0.095)	0.274** (0.110)
age of the VH		0.014*** (0.005)	0.008 (0.015)		0.008*	0.016 (0.050)		0.018 (0.025)	-0.019 (0.014)
age of the VH * bad baseline service			-0.007 (0.016)			-0.014 (0.053)		× ,	0.054 (0.041)
Observations	59,105	59,105	59,105	59,105	59,105	59,105	39,396	39,396	39,396
Number of villages Cragg-Donald F-Stat	9,855 1.866	9,855 3.521	9,855 0.210	9,855 2.038	9,855 3.303	9,855 0.188	9,855 0.354	9,855 0.570	9,855 1.141

Appendix Table 19.A. Robustness Checks to Controlling for Age of the Village Head (2SLS Results)

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. The number of observations varies because of missing values in the dependent variables. In columns 1, 2, 4, 5, 7, and 8 the instrumental variables corresponds to the interaction of the post 1st election after 1992 dummy with the number of INPRES schools, the post dummy interacted with bad service at baseline and the triple interaction of the three variables. Columns 3, 6, and 9 also include as instrument the average age and education of village heads in neighboring villages. All regressions control for village fixed effects, year fixed effects and the post 1st election after 1992 dummy.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	
			Dependent	Variables:			
	Nu	mber of Health P	osts		1		
	Baseline Result	Age Exogenous	Age & Interaction Endogenous	Baseline Result	Age Exogenous	Age & Interaction Endogenous	
Dep. Var. Mean	4.08	4.08	4.08	0.91	0.91	0.91	
years of education VH	0.662 (0.475)	0.701 (0.618)	0.252 (0.228)	-0.134* (0.077)	-0.118* (0.063)	-0.041** (0.020)	
yrs. educ * bad baseline service	1.717*** (0.564)	1.727*** (0.568)	3.788 (10.108)	0.236*** (0.018)	0.230*** (0.016)	0.130 (0.097)	
age of the VH		0.094	-0.043		-0.011	0.017	
age of the VH * bad baseline service		(0.084)	(0.233) -1.762 (8.046)		(0.009)	(0.014) -0.112 (0.111)	
Observations	38,733	38,733	38,733	59,105	59,105	59,105	
Number of villages	9,703	9,703	9,703	9,855	9,855	9,855	
Cragg-Donald F-Stat	2.891	2.686	0.0937	1.664	3.435	0.545	

Appendix Table 19.B. Robustness Checks to Controlling for Age of the Village Head (2SLS Results)

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for number of health posts which is not reported for years 1986 and 1996. The number of observations varies because of missing values in the dependent variables. In columns 1, 2, 4, and 5, the instrumental variables corresponds to the post 1st election after 1992 dummy interacted with the number of INPRES schools, the post dummy interacted with bad service at baseline and the triple interaction of the three variables. Columns 3 and 6 also include as instrument the average age and education of village heads in neighboring villages. All regressions control for village fixed effects, year fixed effects, and the post 1st election after 1992 dummy.*** p<0.01, ** p<0.05, *p<0.1

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
	Public Good considered by the Interaction terms:											
	Primary H	ealth Center	Doctors in the Village		Access to Safe Drinking Water		Number of Health Posts		Garbage Bin Disposal			
					Depender	Dependent Variables:						
		educ VH *		educ VH *		educ VH *		educ VH *		educ VH *		
	educ VH	bad baseline	educ VH	bad baseline	educ VH	bad baseline	educ VH	bad baseline	educ VH	bad baseline		
		service		service		service		service		service		
Dep. Var. Mean	0.10	0.10	0.12	0.12	0.77	0.77	4.08	4.08	0.91	0.91		
post 1st Elec after 1992	0.416***	-1.102***	0.395***	-1.136***	0.392***	-0.285***	0.838***	-0.000	0.361***	-0.249***		
-	(0.151)	(0.076)	(0.145)	(0.077)	(0.146)	(0.053)	(0.101)	(0.005)	(0.087)	(0.048)		
post * Num INPRES schools [§]	0.243	-0.005	0.243	-0.001	0.105	-0.000	0.154**	0.000	0.077	-0.001		
	(0.182)	(0.007)	(0.161)	(0.007)	(0.150)	(0.002)	(0.063)	(0.000)	(0.056)	(0.001)		
post * bad baseline service	0.011	1.644***	0.036	1.650***	-0.521**	0.958***	0.074	1.230***	0.352***	1.929***		
	(0.125)	(0.070)	(0.118)	(0.071)	(0.235)	(0.239)	(0.323)	(0.324)	(0.129)	(0.139)		
post * bad baseline service * Num INPRES [§]	-0.142	0.106*	-0.141	0.103*	0.036	0.149	0.052	0.205	0.113	0.201*		
-	(0.187)	(0.058)	(0.170)	(0.060)	(0.307)	(0.261)	(0.466)	(0.456)	(0.107)	(0.105)		
Observations	59,130	59,130	59,130	59,130	39,420	39,420	38,748	38,748	59,130	59,130		
R-squared	0.583	0.756	0.583	0.753	0.681	0.943	0.654	0.970	0.584	0.942		

Appendix Table 20. First Stage for the Specification with Heterogenous Effects by Quality of Public Goods at Baseline

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts and 9,855 villages. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003. The number of observations varies because of missing values in the dependent variables. All regressions control for village fixed effects and year fixed effects.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Dependen	t Variables:				
	Primary Health Center		Doctors in the Village		Safe Drinking Water		Number of Health Posts		Garbage Disposal	
Dep. Var. Mean	0.10	0.10	0.12	0.12	0.77	0.77	4.08	4.08	0.91	0.91
years of education VH	0.013*	-0.016**	0.012	-0.023***	0.002	0.031	0.058	0.021	0.028**	-0.068***
yrs. educ * bad baseline service	(0.008)	(0.008) 0.033*** (0.003)	(0.008)	(0.009) 0.042*** (0.004)	(0.017)	(0.053) 0.191*** (0.072)	(0.107)	(0.105) 1.757*** (0.455)	(0.011)	(0.021) 0.223*** (0.017)
Observations	59,130	59,130	59,130	59,130	39,420	39,420	38,748	38,748	59,130	59,130
Number of villages	9,855	9,855	9,855	9,855	9,855	9,855	9,703	9,703	9,855	9,855
Cragg-Donald F-Stat	14.73	7.494	14.73	7.624	2.967	0.819	47.98	24.12	14.73	7.699

Appendix Table 21. Effects of Village Head Education on Public Good Provision (2SLS, Alternative Instrumental Variables)

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003 and number of health posts which is not reported in years 1986 and 1996. The number of observations varies because of missing values in the dependent variables. In the odd columns the instrumental variables corresponds to the post 1st election after 1992 dummy and its interaction of with the number of INPRES schools in the village. In the even columns the set of instrumental variables also includes the post dummy interacted with bad service at baseline and the triple interaction with the number of INPRES schools. All regressions control for village fixed effects and year fixed effects.*** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	
			Dependent	Variables:			
	Primary He	alth Center	Doctors in	the Village	Number of Health Posts		
	OLS	2SLS	OLS	2SLS	OLS	2SLS	
Dep. Var. Mean	0.10	0.10	0.12	0.12	4.08	4.08	
years of education VH	-0.001***	0.049*	-0.001*	0.002	0.004	0.389	
	(0.000)	(0.026)	(0.001)	(0.021)	(0.008)	(0.403)	
yrs. educ * high mortality at baseline	0.002***	0.024***	0.003***	0.018***	0.020	0.151	
	(0.001)	(0.005)	(0.001)	(0.005)	(0.013)	(0.095)	
Observations	59,130	59,130	59,130	59,130	38,748	38,748	
Cragg-Donald F-Stat		3.229		3.229		4.724	

Appendix Table 22. Effect of Village Head Education on Public Good Provision (OLS and 2SLS Results, Alternative Demand Predictors)

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for number of health posts which is not reported in years 1986 and 1996. The number of observations varies because of missing values in the dependent variables. In columns 2, 4, and 6 the instrumental variables corresponds to interaction of the post 1st election after 1992 dummy with the number of INPRES schools, the post dummy interacted with high mortality at baseline at baseline and the triple interaction of the three variables. All regressions control for village fixed effects and year fixed effects. Columns 2, 4, and 6 also add the post 1st election after 1992 dummy as a covariate. *** p<0.01, ** p<0.05, *p<0.1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Dependent Variables:											(-)		(-)	
	Primary Health Center			Doctors in the Village			Access to Safe Drinking Water			Number of Health Posts			Garbage Dispos		sal
Dep. Var. Mean	0.10	0.10	0.10	0.12	0.12	0.12	0.77	0.77	0.77	4.08	4.08	4.08	0.91	0.91	0.91
years of education VH	0.078	0.083	0.075	0.022	0.030	0.016	0.081	0.070	0.082	0.667	0.753	0.638	-0.137*	-0.151*	-0.138*
	(0.049)	(0.053)	(0.051)	(0.034)	(0.039)	(0.038)	(0.173)	(0.159)	(0.179)	(0.472)	(0.537)	(0.475)	(0.077)	(0.085)	(0.078)
yrs. educ * bad baseline service	0.036***	0.037***	0.044***	0.042***	0.045***	0.059***	0.215*	0.214*	0.219*	1.720***	1.718***	1.708***	0.237***	0.239***	0.237***
	(0.006)	(0.006)	(0.006)	(0.004)	(0.004)	(0.004)	(0.119)	(0.115)	(0.125)	(0.565)	(0.579)	(0.556)	(0.018)	(0.018)	(0.018)
Additional Controls:															
Log Population	\checkmark			\checkmark			\checkmark			\checkmark			\checkmark		
Enrolment rate* Year FE		\checkmark			\checkmark			\checkmark			\checkmark			\checkmark	
Water and Sanitation Program* Year F	Е	\checkmark			\checkmark			\checkmark			\checkmark			\checkmark	
Pre-treatment Covariates* Year FE			\checkmark			\checkmark			\checkmark			\checkmark			\checkmark
Observations	59,130	59,106	59,130	59,130	59,106	59,130	39,420	39,404	39,420	38,748	38,732	38,748	59,130	59,106	59,130
Number of villages	9,855	9,851	9,855	9,855	9,851	9,855	9,855	9,851	9,855	9,703	9,699	9,703	9,855	9,851	9,855
Cragg-Donald F-Stat	1.868	1.699	1.875	2.055	1.868	2.050	0.363	0.397	0.354	2.913	2.487	2.836	1.657	1.455	1.664

Appendix Table 23. Effect of Village Head Education on Public Good Provision (2SLS, Robustness Checks)

Notes : Robust Standard errors, clustered at the district level, in parenthesis. The sample includes 82 districts. The unit of observation is the village-year level. The dependent variable is defined by the column headings. The years included in all regressions are 1986, 1990, 1993, 1996, 2000 and 2003, except for access to safe water which is not reported for years 2000 and 2003 and number of health posts which is not reported in years 1986 and 1996. The number of observations varies because of missing values in the dependent variables. The instrumental variables corresponds to the interaction of the post 1st election after 1992 dummy with the number of INPRES schools in the village, the post dummy interacted with bad service at baseline and the triple interaction of the three variables. All regressions control for village fixed effects, year fixed effects and the post 1st election after 1992 dummy. Additional controls are included as shown in the table. *** p<0.01, ** p<0.05, *p<0.1.