

Appendix

A1. Data

Dataset construction

Reinikka and Svensson (2005) (henceforth RS (2005)) use data from Uganda's Public Expenditure Tracking Survey (PETS) conducted among head teachers in 1996 and 2002. The original 1996 sample consists of 250 schools randomly drawn from 18 districts. However, the number of schools surveyed in both 1996 and 2002 is 218 (250-32). Indeed, the authors note that, due to security concerns and closures, not all of the original 250 schools were resurveyed in 2002. RS (2005) rely on this group to generate their (first-difference) OLS estimates of Equation (3) and Equation (4). An additional 170 schools from 9 of the original 18 districts were surveyed in 2002, yielding 388 (218+170) schools in 2002.

The share of capitation grants reaching the school in year t ($t = \{1995, 2001\}$) is defined as the total amount disbursed in year t (intended for year t) and received by a school at year t (or at the beginning of year $t + 1$) divided by the total amount intended for year t . The number of students in grades P1–P3 and P4–P7 determines the grant total. In 1995, the formula allocated 2,500 Ugandan shillings (Ush) per year per student in grades P1–P3 and 4,000 Ush in grades P4–P7. In 2001, the introduction of Universal Primary Education (UPE) at the beginning of year 1997 doubled the allocations: 5,000 Ush for grades P1–P3 and 8,100 Ush for grades P4–P7.¹

We use the following three questions from the 2002 PETS to compute the total grant amount intended for 2001 and received in 2001 (or at the beginning of 2002):

- Q87: 'Did you receive a UPE cheque (or UPE cash) from district in: (a) January 2001; (b) February 2001; (c) March 2001; (d) April 2001; (...); (m) January 2002; (n) February (2002); (o) March 2002?'
- Q88: 'If yes, how much was the cheque received [for each of these months] in Ush?'
- Q89: 'If yes, what months should this instalment cover?'

The enumerator coded question Q89 in a month-year format ('xxyy'). We consider 15 entries 'missing' because they signify a year other than 2001 (year 2000 or 2002) or have an incorrect format: 102, 202, 302, 402, 502, 602, 900, 1000, 1007, 1020, 1100, 1120, 1200, 1220 and 3012. RS (2005) catch only 8 of these cases (900, 1000, 1100, 1200, 102, 202, 302 and 402), but this omission is not consequential for the results. Using question Q88, we compute the amount received by the school for each month between January 2001 and March 2002 if intended for

¹ UPE eliminated parental contributions, previously a large proportion of school funding. As explained by Hubbard (2007): 'To compensate schools for the loss, the school supply capitation grant was rebranded as the UPE Capitation Grant, and its nominal value per student was doubled.'

2001. If the school does not specify the month for which a particular grant is intended, we treat these cases as 'missing'.²

We follow the central government's formula to compute the intended capitation grant in 2001: 5,000 Ush per year per student in grades P1–P3 and 8,100 Ush in grades P4–P7. However, the authors informed us that they could not determine whether the capitation grant would be calculated from the student body at the beginning, middle or end of the year or if it was adjusted throughout the year. The 2002 PETS provides the total number of students in each group at the beginning (questions Q12 and Q13) and at the end (questions Q17 and Q18) of 2001. The authors compute two grants: one based on student body at the beginning of 2001 ($Q12 \times 5000 + Q13 \times 8100$), the other based on student body at the end of 2001 ($Q17 \times 5000 + Q18 \times 8100$). As is apparent in their .do file (although not specified in the paper), RS (2005) retain the maximum of these two values, which provides a lower bound for the share of capitation grants reaching the school in 2001.

Reinikka and Svensson (2006) note that funds were withheld if districts did not submit the required quarterly documentation. To adjust, RS (2005) scale a school's entitlement by the share of funds actually disbursed by the central government. We follow the same procedure.

Correspondence with the authors informed us that they proceeded similarly to construct the share of grants received in 1995. But we cannot replicate the construction of this variable as the authors did not keep readily accessible records of the raw data for most of the questions from the 1996 PETS, including the equivalent to questions Q87 to Q89 of the 2002 PETS and the number of students enrolled in P1–P3 and in P4–P7. Regarding the student body, only one measure was collected, but precisely when this occurred is unclear. This differs from the start-of-year and end-of-year figures reported for 2001. Because RS (2005) focus on the maximum of these two values, they provide a lower bound for the share of grants received in 2001. This implies that Δs_{it} is, if anything, an underestimate of the true value of this difference. We endorse the authors' approach since it reduces the probability of measuring a statistically significant impact (i) of distance to a newspaper outlet in 1997 in Equation (3); (ii) of an increase in the share of capitation grants reaching a school due to the newspaper campaign in Equation (4). (Indeed, analysis shows that the variation in Δs_{it} is lower when based on the lower rather than on the higher bound.)

Enrolment is the primary educational outcome assessed by RS (2005). The dependent variable Δy_i in Equation (4) is the change in total enrolment between 1995 and 2001. Because RS (2005) retain the maximum of the two measures of total enrolment in 2001, we check that results are robust to relying on the minimum of these two values in our additional analysis.

Distance to a newspaper outlet in 2001 proxies for distance to a newspaper outlet in 1997. This variable comes from question Q29 of the 2002 PETS, which asks the head teacher to report the 'distance to the nearest place to buy a newspaper (in km).' As specified in RS (2006), RS (2005) use the natural logarithm of one plus this distance.

RS (2005) use two questions to determine the head teacher's knowledge of the capitation grant. The first is 'Do you know the school's entitlement of UPE capitation grant per student in 2001?' (Q58), asked separately for P1–P3 and P4–P7. If head teachers are correct about both groups, we code this variable as one and zero otherwise. Further communication with the authors indicated that they allowed for an error of $\pm 5\%$ in the responses. We do the same. The second question is

² Over the 15 months covered by question Q88, 122 schools reported at least once that their total monthly funding was intended for both 2001 and another year. While it would be preferable to focus on schools which received funding for 2001 only, doing so would reduce the sample drastically.

‘Do you know when the district receives funds for UPE from the Ministry of Finance?’ (Q63). Again, we code this variable as one if the head teacher knows when the district receives funds and zero otherwise. The final knowledge variable sums the two previous variables, yielding a value of 0, 1, or 2.

Variables for additional analysis

In Section 4.1.2 and Table 6, we present the correlation of distance from a newspaper outlet and a community’s ability to communicate with local officials. We use three proxies:

- (i) School proximity to an urban centre: Natural logarithm of one plus the ‘distance to the nearest bank branch (in km)’ (Question Q30)
- (ii) Presence of a local official or of a representative of the District Education Office (DEO) in the School Management Committee (SMC): Question Q52 asks the head teacher to specify if the ‘local council (LC)’ (Q52A) and the ‘DEO’s office’ (Q52B) are ‘represented in the SMC.’
- (iii) Whether the school received discretionary financial support: Question Q84 asks the head teacher to specify the amount of discretionary financial support received from various sources (government, PTA, etc.).

The underlying assumption is that these variables, measured in 2001, are acceptable proxies for the same characteristics in 1997.

Also in Section 4.1.2, we check if head teachers knew about their school’s entitlement to a UPE grant by relying on Question Q57, which asks the head teacher whether his/her ‘school [is] entitled to UPE capitation grant.’

We report figures in Section 5.1 that derive from the following questions: ‘Do you display publicly UPE capitation grant received?’ (Question Q76c); ‘Do you display publicly total teachers’ salaries received from the district?’ (Question Q76b).

In Section 5.2 and Table 15, we test three variables for their orthogonality to distance to a newspaper outlet. One is simply the number of teachers per school. We compute the remaining two variables from the following survey questions:

- (i) Values of PTA charges: We rely on question QB7 of the 1996 PETS (‘Total PTA levies collected’), and question Q84d of the 2002 PETS (‘Total PTA fees’). We thank Bernard Gauthier for sharing the data for question QB7 of the 1996 PET.
- (ii) Values of teachers’ salaries: We rely on question QC1 of the 1996 PETS (‘Total teachers’ salary and allowances from the government’) and question Q84b of the 2002 PETS (Total teachers’ salaries (incl. HT (head teacher)) from the government). We thank Bernard Gauthier for sharing the data for question QC1 of the 1996 PETS.

A2. Additional results

Controlling for the change in institutional quality

We would have liked to control for the change in institutional quality between 1995 and 2001 – however, this information is not available in the Ugandan PETS. The Afrobarometer survey (<http://www.afrobarometer.org/>) reports relevant variables but only in the years 2000 and 2002. We therefore approximate the change in institutional quality between 1995 and 2001 by the change in the perception of institutional quality between 2000 and 2002. More precisely, we compute the change in perceived corruption in the local government council. We then incorporate the district-level average of this variable into our main dataset, which allows us to identify a correlation between perception of corruption and distance to a newspaper outlet that is close to zero. Therefore, when we control for the change in perceived corruption in the local government council in the estimation originally reported in Table 5 (regressing the difference in grant capture between 2001 and 1995 on distance to a newspaper outlet and the difference in consumption at the district level between 2001 and 1995), the coefficient of distance is unaffected.

Table A1: Distance to a newspaper outlet and change in the share of capitation grants when one controls for the change in perceived corruption in the local government council

	Dep. var.: Δs	
	95-01	95-01
	(1)	(2)
Distance to a newspaper outlet	-6.77***	-6.99**
	(2.62)	(2.97)
Control for change in perceived corruption in the local government council	No	Yes
Number of schools	199	167

Note: Δs represents the change in the share of entitled capitation grants received by a school between 1995 and 2001. Change in consumption at the district level is included as a control. OLS robust standard errors are in parentheses. ^a, *, ** and *** indicate statistical significance at the 85% ($p < 0.15$), 90% ($p < 0.10$), 95% ($p < 0.05$) and 99% ($p < 0.01$) confidence levels, respectively.

Controlling for literacy

We might expect the effect of the newspaper campaign to be stronger in areas with higher literacy: in such areas, the incentive of the head teacher to secure the capitation grant is likely complemented by that of the local community if a significant share is aware of the intended total thanks to the campaign. Some anecdotal reports suggest that efforts to disseminate information directly to Ugandan citizens, for example by public posting of district and school financial information, prove successful only in literate areas (Hubbard (2007)).

To test this conjecture more formally, we use the Demographic and Health Survey (DHS) to compute representative measures of literacy at the district level in both 1995 and 2000-2001. More precisely, we rely on an indicator for whether a respondent is literate (as determined by his or her ability to read a sentence provided by the enumerator). We average these responses for each district, merge them with the districts in our main dataset, and compute the difference between 2000-2001 and 1995.

We then run two estimations in Table A2. The first column regresses the change in capture on distance to the nearest newspaper outlet, the change in literacy at the district level, and the interaction between distance and the change in literacy. The second column replaces the change in literacy at the district level with the initial level of literacy in 1995. In both estimations, the coefficient of the interaction term is negative and significant.

Table A2: Distance to a newspaper outlet and change in the share of capitation grants when accounting for district literacy

	Dep. var.: Δs	
	Literacy 1995-2001	Literacy 1995
	(1)	(2)
Distance to a newspaper outlet	-11.25***	3.86
	(4.26)	(4.82)
Literacy	-249.51	80.72***
	(137.92)	(25.29)
Distance*Literacy	-0.004**	-0.005***
	(0.002)	(0.002)
Number of schools	199	199

Note: Δs represents the change in the share of entitled capitation grants received by a school between 1995 and 2001. Change in consumption at the district level is included as a control. OLS robust standard errors are in parentheses. ^a, *, ** and *** indicate statistical significance at the 85% ($p < 0.15$), 90% ($p < 0.10$), 95% ($p < 0.05$) and 99% ($p < 0.01$) confidence levels, respectively.

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