

TABLES AND FIGURES  
FOR  
LOCAL ELITES AS STATE CAPACITY:  
HOW CITY CHIEFS USE LOCAL INFORMATION TO  
INCREASE TAX COMPLIANCE IN THE D.R. CONGO

By Pablo Balán, Augustin Bergeron, Gabriel Tourek,  
and Jonathan L. Weigel<sup>†</sup>

October 23, 2022

---

\* AEA RCT Registry ID: AEARCTR-0003308.

† Affiliations: Harvard University (pbalan@g.harvard.edu), Harvard University (augustinbergeron@fas.harvard.edu), MIT (gztourek@mit.edu), Haas School of Business, University of California Berkeley and CEPR (jweigel@berkeley.edu).

**TABLE 1: COMPONENTS OF THE TAX CAMPAIGN AND ITS EVALUATION**

<b>Activity</b>	<b>Actor</b>	<b>Timing</b>	<b>N</b>	<b>J</b>
<b>Tax campaign</b>				
Property registration	Collectors	May-Dec 2018	45,162	356
Tax visits	Collectors	May-Dec 2018	45,162	356
<b>Evaluation</b>				
Baseline survey	Enumerators	Jul-Dec 2017	4,246	356
Midline survey	Enumerators	Jun 2018-Feb 2019	36,130	356
Endline survey	Enumerators	Mar-Sep 2019	3,893	356

*Notes:* N = number of observations, J = number of clusters (neighborhoods). The property register has more observations per neighborhood than the midline survey because the former includes information on all compounds, including (exempt) government buildings, churches, and empty lots, while the midline survey was only conducted with privately owned plots liable for the property tax. The primary tax outcomes result from merging official property tax records with data from the property register. The mechanics of the tax campaign and data sources are discussed, respectively, in Sections ?? and ??.

**TABLE 2: TREATMENT ALLOCATION**

<b>Treatment</b>	<b>Central</b>	<b>Local</b>	<b>CLI</b>	<b>CXL</b>	<b>Control</b>
Neighborhoods	110	111	80	50	5
Properties	14,489	14,383	9,422	6,071	797

*Notes:* This table shows the numbers of neighborhoods (clusters) and properties assigned to each treatment arm. In Central, state agents hired by the provincial tax ministry collected property taxes, while in Local, neighborhood chiefs collected. CLI is short for Central + Local Information, a treatment arm in which tax ministry agents consulted with chiefs before making tax visits. In CXL, or Central X Local, one agent of the tax ministry and one chief worked together on the campaign. In Control, citizens received tax letters informing them of their responsibility to pay at the tax ministry (rather than paying to collectors), as was the status quo declarative system in Kananga until 2016. We discuss these treatments in Section ???. We also discuss the reason for differential allocation of clusters across treatment arms in Section ??.

**TABLE 3: RANDOMIZATION BALANCE**

	Obs	ControlMean	ExpCoef L	ExpCoef CLI	ExpCoef CXL
rev'2016'alternate	="351.0000"	="145.3713"	="25.8847" ="(39.3606)"	="-34.2848" ="(40.8352)"	="-32.8344" ="(39.6558)"
rouge	="351.0000"	="0.0182"	="0.0132" ="(0.0208)"	="0.0033" ="(0.0200)"	="0.0373" ="(0.0274)"
edu' yrs	="3614.0000"	="10.5634"	="-0.0658" ="(0.2418)"	="-0.0280" ="(0.2710)"	="-0.5980" ="(0.3234)"
elect1	="3627.0000"	="0.1272"	="0.0086" ="(0.0142)"	="0.0017" ="(0.0166)"	="0.0176" ="(0.0206)"
lg'inc'mo	="3594.0000"	="10.5348"	="0.0721" ="(0.1646)"	="-0.0687" ="(0.1875)"	="-0.2075" ="(0.2501)"
trust' chief	="3613.0000"	="3.0670"	="0.0541" ="(0.0589)"	="0.1016" ="(0.0688)"	="0.1947" ="(0.0830)"
trust' nat'gov	="3436.0000"	="2.5145"	="0.0382" ="(0.0598)"	="-0.0004" ="(0.0670)"	="0.0153" ="(0.0893)"
trust' prov'gov	="3459.0000"	="2.4123"	="0.0798" ="(0.0606)"	="0.0394" ="(0.0711)"	="-0.0005" ="(0.0848)"
trust' tax'min	="3423.0000"	="2.3580"	="0.0399" ="(0.0582)"	="-0.0187" ="(0.0666)"	="-0.0720" ="(0.0754)"

	Obs	ControlMean	ExpCoef L	ExpCoef CLI	ExpCoef CXL
dist'stateandmkt	="4.41e+04"	="1.4972"	="0.0569" ="(0.0542)"	="-0.0008" ="(0.0582)"	="0.0418" ="(0.0660)"
dist'health	="4.41e+04"	="0.3250"	="0.0228" ="(0.0210)"	="0.0394" ="(0.0245)"	="0.0040" ="(0.0272)"
dist'edu	="4.41e+04"	="0.6510"	="0.0309" ="(0.0275)"	="0.0362" ="(0.0370)"	="0.0121" ="(0.0359)"
dist'roads	="4.35e+04"	="0.4142"	="0.0336" ="(0.0442)"	="-0.0210" ="(0.0499)"	="0.0404" ="(0.0623)"
dist'ravin	="4.35e+04"	="0.1200"	="0.0021" ="(0.0094)"	="0.0113" ="(0.0118)"	="0.0308" ="(0.0127)"
house'quality'new	="2.84e+04"	="0.0041"	="0.0146" ="(0.0982)"	="0.1372" ="(0.0895)"	="-0.0662" ="(0.1076)"
sex'prop	="2.22e+04"	="0.7669"	="0.0135" ="(0.0106)"	="0.0011" ="(0.0127)"	="-0.0080" ="(0.0129)"
age' prop	="1.99e+04"	="54.3547"	="0.4486" ="(0.4823)"	="0.1183" ="(0.5944)"	="0.5567" ="(0.6441)"
main'tribe	="2.26e+04"	="0.7689"	="0.0234" ="(0.0159)"	="0.0028" ="(0.0150)"	="0.0227" ="(0.0154)"
employed	="2.43e+04"	="0.7382"	="0.0067" ="(0.0141)"	="0.0039" ="(0.0147)"	="0.0135" ="(0.0153)"
salaried	="2.43e+04"	="0.2537"	="0.0054" ="(0.0093)"	="-0.0138" ="(0.0115)"	="-0.0126" ="(0.0108)"
work'gov	="2.43e+04"	="0.1531"	="0.0054" ="(0.0073)"	="0.0056" ="(0.0091)"	="-0.0069" ="(0.0092)"
job'gov	="2.70e+04"	="0.2284"	="0.0033" ="(0.0121)"	="0.0190" ="(0.0136)"	="0.0068" ="(0.0160)"

	Baseline to Endline Attrition		Baseline Replacement		Midline Attrition
	(1)	(2)	(2)	(3)	
local	-0.016 (0.013)		0.011 (0.017)		0.020 (0.025)
centralwinfo	-0.022 (0.014)		0.008 (0.018)		-0.012 (0.027)
centralxlocal	-0.040** (0.015)		0.017 (0.022)		-0.056** (0.028)
Observations	4186		3437		44365
Clusters	351		351		351
Mean	.097		.145		.211

*Notes:* This table reports the coefficients from balance tests estimated by regressing baseline and midline characteristics for property owners (Panel A), properties (Panel B), and neighborhoods (Panel C) on treatment indicators, including randomization stratum fixed effects and clustering standard errors at the neighborhood level. Panel D shows differences in attrition from baseline to endline surveying, replacement at endline of baseline respondents, and attrition from registration to midline surveying. The Central arm is the omitted category, and Pure Control neighborhoods are excluded. Superscripts *B*, *M*, and *R* denote variables from baseline, midline, and registration, respectively. The results are discussed in Section ???. Variables are described in Section A2.6. Balance tests for bilateral treatment comparisons are shown in Table A2. We discuss these results in Section ??.

**TABLE 4: LOCAL V. CENTRAL: COMPLIANCE AND REVENUES**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Compliance (4)	Tax Compliance (5)
Local	0.022573** (0.005757)	0.032213*** (0.000011)	0.031951*** (0.000171)	0.033083*** (0.000007)	0.039584*** (0.000003)
Month FE	No	Yes	Yes	Yes	Yes
House FE	No	No	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes
Observations	28872	27764	213	27764	23803
Clusters	221	213		213	213
Mean	.068	.063	.065	.063	.073
	Revenues (1)	Revenues (2)	Revenues (3)	Revenues (4)	Revenues (5)
Local	57.627377** (0.025869)	79.639810*** (0.000599)	81.830495** (0.035557)	68.855292*** (0.000960)	81.991300*** (0.000609)
Month FE	No	Yes	Yes	Yes	Yes
House FE	No	No	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes
Observations	28872	27764	213	27764	23803
Clusters	221	213		213	213
Mean	192.891	182.236	210.134	182.236	208.568

*Notes:* This table reports estimates from Equation ??, comparing property tax compliance in Local and Central (the excluded category). The two panels show estimates from separate regressions of compliance and revenues (in Congolese Francs) on treatment, respectively. All regressions include fixed effects for randomization strata and cluster standard errors at the neighborhood level. Column 1 regressions do not include time period fixed effects described in Section ?? while those in other columns include them. Regressions in Columns 1–3 do not include house fixed effects. Column 3 shows results when the data are collapsed to the neighborhood level. We use robust standard errors and assign the minimum value for time period fixed effects to a neighborhood. Regressions in Column 4 exclude exempt properties. The data include all properties registered by tax collectors merged with the government’s property tax database. We discuss these results in Section ??.

**TABLE 4 → REPLICATED USING RANDOMIZATION INFERENCE APPROACH**

	Tax Compliance (1) b/p/pvalues	Tax Compliance (2) b/p/pvalues	Tax Compliance (3) b/p/pvalues	Tax Compliance (4) b/p/pvalues	Tax Compliance (5) b/p/pvalues
Local	0.0225727 (0.00576) [0.016000]	0.0322129 (0.0000111) [0.001000]	0.0319507 (0.000171) [0.000000]	0.0330827 (0.00000729) [0.001000]	0.0395844 (0.00000316) [0.000000]
Month FE	No	Yes	Yes	Yes	Yes
House FE	No	No	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes
Observations	28872	27764	213	27764	23803
Clusters	221	213		213	213
Mean	.068	.063	.065	.063	.073

	Revenues (1) b/p/pvalues	Revenues (2) b/p/pvalues	Revenues (3) b/p/pvalues	Revenues (4) b/p/pvalues	Revenues (5) b/p/pvalues
Local	57.62738 (0.0259) [0.051000]	79.63981 (0.000599) [0.005000]	81.83050 (0.0356) [0.019000]	68.85529 (0.000960) [0.010000]	81.99130 (0.000609) [0.003000]
Month FE	No	Yes	Yes	Yes	Yes
House FE	No	No	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes
Observations	28872	27764	213	27764	23803
Clusters	221	213		213	213
Mean	192.891	182.236	210.134	182.236	208.568

*Notes:* Table 4 Replicated .

**TABLE 4 → CONTROLLING FOR TRUST IN CHIEF**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Compliance (4)	Tax Compliance (5)
Local	0.013468 (0.402058)	0.026336* (0.073273)	0.031566*** (0.000207)	0.027360* (0.062147)	0.033820* (0.066422)
Not very much confidence	-0.018987 (0.449357)	-0.022744 (0.376383)		-0.020583 (0.427798)	-0.024356 (0.478135)
Some confidence	0.014074 (0.491937)	0.009775 (0.634854)		0.009017 (0.662262)	0.011788 (0.669754)
A lot of confidence	-0.010786 (0.532775)	-0.018666 (0.286017)		-0.019417 (0.268766)	-0.024909 (0.278368)
trust_chief_dum			0.163647 (0.444175)		
Month FE	No	Yes	Yes	Yes	Yes
House FE	No	No	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes
Observations	2319	2231	213	2231	1699
Clusters	221	213		213	212
Mean	.068	.063	.065	.063	.073
	Revenues (1)	Revenues (2)	Revenues (3)	Revenues (4)	Revenues (5)
Local	12.260220 (0.815018)	62.853343 (0.172533)	81.688632** (0.033663)	56.129611 (0.203464)	76.678395 (0.178585)
Not very much confidence	-1.51e+01 (0.886980)	-3.22e+01 (0.769742)		-4.64e+01 (0.665631)	-7.27e+01 (0.615240)
Some confidence	-7.104241 (0.914491)	-4.52e+01 (0.482958)		-4.02e+01 (0.523976)	-6.41e+01 (0.474102)
A lot of confidence	-1.29e+01 (0.834576)	-4.54e+01 (0.457900)		-4.05e+01 (0.504813)	-7.35e+01 (0.371583)
Trust Chief			-1.444939 (0.975616)		
Month FE	No	Yes	Yes	Yes	Yes
House FE	No	No	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes
Observations	2319	2231	213	2231	1699
Clusters	221	213		213	212
Mean	193.001	182.3	210.394	182.3	208.635

*Notes:* Table 4 Replicated .

**TABLE 4 → CONTROLLING FOR TRUST IN CHIEF, AND LOCAL X TRUST CHIEF**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Compliance (4)
Local	0.067977* (0.092107)	0.062912 (0.120787)	0.060294 (0.136303)	0.083984 (0.105125)
Trust Chief	0.005892 (0.355080)	0.000701 (0.913192)	-0.000333 (0.959239)	0.000518 (0.949348)
Local x Trust Chief	-0.017561 (0.113692)	-0.011849 (0.288890)	-0.010674 (0.339688)	-0.016039 (0.268151)
Month FE	No	Yes	Yes	Yes
House FE	No	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	2319	2231	2231	1699
Clusters	221	213	213	212
Mean	.068	.063	.063	.073
	Revenues (1)	Revenues (2)	Revenues (3)	Revenues (4)
Local	1.54e+02 (0.259433)	1.33e+02 (0.322943)	1.50e+02 (0.258923)	2.19e+02 (0.211104)
Trust Chief	19.393641 (0.487934)	-1.813151 (0.945892)	4.972156 (0.850208)	2.893930 (0.924347)
Local x Trust Chief	-4.57e+01 (0.266653)	-2.26e+01 (0.572738)	-3.04e+01 (0.441895)	-4.59e+01 (0.372555)
Month FE	No	Yes	Yes	Yes
House FE	No	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	2319	2231	2231	1699
Clusters	221	213	213	212
Mean	193.001	182.3	182.3	208.635

Notes: Table 4 Replicated .

**TABLE 5: LOCAL V. CENTRAL: MISMANAGEMENT AND VIEWS OF GOVERNMENT, CHIEFS, AND TAXES**

	beta	SE	r2	N	centralmean
Assigned Exemption	0.039	0.021	0.055	13772.000	0.266
Incorrect Exemption	0.012	0.007	0.020	13771.000	0.044
Assigned High Band	0.030	0.021	0.230	27764.000	0.114
Incorrect Assignment	-0.013	0.006	0.041	27764.000	0.031
Paid Bribe (Midline)	-0.001	0.003	0.007	18596.000	0.016
Gap Self v. Admin (Midline)	0.016	0.009	0.018	14309.000	0.077
Paid Bribe (Endline)	0.018	0.009	0.049	1169.000	0.014
Other Payments (Endline)	0.031	0.014	0.041	2407.000	0.094

	beta	SE	r2	N	centralmean
View of government (index)	0.023	0.049	0.100	2411.000	-0.033
Trust in government	0.127	0.057	0.075	2286.000	-0.079
Responsiveness of government	-0.049	0.045	0.099	2282.000	-0.002
Performance of government	-0.060	0.052	0.060	2179.000	0.033
Integrity of government	0.043	0.047	0.058	2313.000	-0.038
Perceived tax compliance on avenue	0.100	0.055	0.073	1851.000	-0.065
Trust in tax ministry	0.085	0.061	0.073	2259.000	-0.075
Property tax morale	0.075	0.047	0.057	2343.000	-0.025
Fairness of property taxation	-0.004	0.053	0.046	2407.000	-0.007
Perception of enforcement	-0.019	0.058	0.070	2379.000	-0.021

*Notes:* Each row summarizes an OLS estimation of Equation ??, comparing Local and Central, with the dependent variable noted in the first column.  $\hat{\beta}$  is the coefficient on the treatment indicator, followed by the cluster-robust standard error,  $R^2$ , number of observations, and  $\bar{x}_{Central}$  the Central group mean. In Panel A, row 1 shows differences in whether the collector designated the property exempt from taxes. Properties owned by the elderly, widows, government pensioners, and handicapped individuals, among others, are legally supposed to be exempt. Row 2 shows differences in whether an independent enumerator disagreed (in either direction) with the exemption status of a given property. Row 3 shows differences in whether a property was assigned to the high-value category, and row 4 shows whether enumerators' independent evaluations diverged with the collectors' designation. In Panel B, the outcomes in rows 5 and 7 are self-reported bribe payment as measured during the midline and endline surveys, respectively. The outcome in row 6 indicates property owners who reported paying the tax but who were not recorded as having paid in the administrative data. The outcome in row 8 is self-reported payment of any informal fees at endline. We discuss the results from Panels A and B in Section ???. In Panels C and D, for endline outcomes we also measured at baseline — all variables except for *Perceived tax compliance* and *Fairness of property taxation* — we control for the baseline value. Each dependent variable, described briefly in Section ?? and in detail in Section A2.6, is standardized to facilitate interpretation of coefficient magnitude. We discuss the results in Panels C and D in Section ???. In all panels, regressions include fixed effects for randomization strata, and cluster standard errors at the neighborhood level. Regressions estimating effects on midline and property assessment outcomes include time period fixed effects described in Section ?? and house type fixed effects. We do not include house type fixed effects for endline outcomes to maximize the analysis sample, as discussed in Section ???. The number of observations varies across regressions due to (i) outcomes being drawn from different surveys, and (ii) non-response for specific survey questions.

**TABLE 5 → ADD P-VALUE, BRIBE AMOUNT (MIDLINNE AND ENDLINE)**

	beta	SE	p	r2	N	centralmean
Assigned Exemption	0.039	0.021	0.063	0.055	13772.000	0.266
Incorrect Exemption	0.012	0.007	0.107	0.020	13771.000	0.044
Assigned High Band	0.030	0.021	0.162	0.230	27764.000	0.114
Incorrect Assignment	-0.013	0.006	0.032	0.041	27764.000	0.031
Paid Bribe (Midline)	-0.001	0.003	0.843	0.007	18596.000	0.016
Paid Bribe Amount (Midline)	-12.527	5.008	0.013	0.010	18570.000	26.353
Gap Self v. Admin (Midline)	0.016	0.009	0.067	0.018	14309.000	0.077
Paid Bribe (Endline)	0.018	0.009	0.051	0.049	1169.000	0.014
Paid Bribe Amount (Endline)	19.857	12.514	0.114	0.030	1169.000	13.732
Other Payments (Endline)	0.031	0.014	0.033	0.041	2407.000	0.094

	beta	SE	r2	N	centralmean
View of government (index)	0.023	0.049	0.100	2411.000	-0.033
Trust in government	0.127	0.057	0.075	2286.000	-0.079
Responsiveness of government	-0.049	0.045	0.099	2282.000	-0.002
Performance of government	-0.060	0.052	0.060	2179.000	0.033
Integrity of government	0.043	0.047	0.058	2313.000	-0.038
Perceived tax compliance on avenue	0.100	0.055	0.073	1851.000	-0.065
Trust in tax ministry	0.085	0.061	0.073	2259.000	-0.075
Property tax morale	0.075	0.047	0.057	2343.000	-0.025
Fairness of property taxation	-0.004	0.053	0.046	2407.000	-0.007
Perception of enforcement	-0.019	0.058	0.070	2379.000	-0.021

Notes:

**TABLE 6: LOCAL V. CENTRAL: TAX VISITS**

	Visited Post Carto (1)	Visits Post Carto (2)	Visited Other Contact (3)	Visits Other Contact (4)
Local	-0.009 (0.727)	0.014 (0.764)	0.008 (0.224)	0.019 (0.137)
Month FE	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	18162	18151	3513	3513
Clusters	209	209	206	206
Mean	.417	.552	.025	.039

Notes: This table reports estimates from Equation ??, comparing the tax visits collectors made after registration in Local and Central (the excluded category). All regressions include fixed effects for house type, randomization strata, and time periods described in Section ??, and cluster standard errors at the neighborhood level. Columns 1 and 2 report differences in tax visits by — after the registration visit — by the extensive and intensive margins, respectively. Columns 3 and 4 report differences in citizen-reported other contact with collectors outside of the tax campaign, by the intensive and extensive margins, respectively. We exclude property type fixed effects in Table A17. We discuss these results in Section ??.

**TABLE 6 → REPLICATED USING RANDOMIZATION INFERENCE APPROACH**

	Visited Post Carto (1) b/p/pvalues	Visits Post Carto (2) b/p/pvalues	Visited Other Contact (3) b/p/pvalues	Visits Other Contact (4) b/p/pvalues
Local	-0.00901399 (0.727) [0.739000]	0.0137692 (0.764) [0.773000]	0.00819473 (0.224) [0.295000]	0.0186747 (0.137) [0.215000]
Month FE	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	18162	18151	3513	3513
Clusters	209	209	206	206
Mean	.417	.552	.025	.039

Notes: Table ?? replicated using the ritest command.

**TABLE 7: CENTRAL V. CENTRAL + LOCAL INFORMATION**

	Tax Compliance		Tax Amount			
	(1)	(2)	(3)	(4)	(5)	(6)
Central Plus Local Info	0.024** (0.009)	46.566** (0.029)	-0.016 (0.563)	-0.026 (0.564)	0.026* (0.061)	0.022** (0.016)
Local						0.046*** (0.000)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	20636	20636	13884	13877	5283	33746
Clusters	165	165	163	163	161	267
Mean	.051	150.66	.387	.497	.097	.052
CLIVC_p						.0073865172468358

Notes: This table compares the Central + Local Information (CLI) arm to the Central arm, which is the excluded category. Columns 1, 5, and 6 report impacts on compliance. Column 2 reports impacts on revenues. Columns 3 and 4 report differences in tax visits by collectors after registration by the extensive and intensive margins, respectively. All regressions include fixed effects for house type, randomization strata, and time periods and cluster standard errors at the neighborhood level. All specifications include time fixed effects defined to maximize overlap between the treatments under comparison, as discussed in Section ???. Column 5 restricts to the subsample of properties that received any tax visits after registration. Column 6 includes a dummy for the Local treatment in the regression. The bottom row reports the *p*-value from a test for equality between the CLI and Local. We discuss these results in Section ??.

**TABLE 7 → USING ANALYSIS\_DATA\_SOSSOU1.DTA**

	Tax Compliance			Tax Amount		
	(1)	(2)	(3)	(4)	(5)	(6)
Central Plus Local Info	0.024** (0.009)	46.745** (0.029)	-0.016 (0.558)	-0.026 (0.559)	0.027* (0.057)	0.022** (0.015)
Local						0.046*** (0.000)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	20631	20631	13881	13874	5283	33735
Clusters	165	165	163	163	161	267
Mean	.051	150.714	.387	.497	.097	.052
CLIVC_p						.0076112367873601

Notes:

**TABLE 7 → REPLICATED USING RANDOMIZATION INFERENCE APPROACH**

	Tax Compliance			Tax Amount		
	(1) b/p/pvalues	(2) b/p/pvalues	(3) b/p/pvalues	(4) b/p/pvalues	(5) b/p/pvalues	(6) b/p/pvalues
Central + Chief Info	0.0242069 (0.00888) [0.032000]	46.565683 (0.0295) [0.083000]	-0.0161646 (0.563) [0.622000]	-0.0255041 (0.564) [0.619000]	0.0263560 (0.0615) [0.851000]	0.0220742 (0.0158) [0.024000]
Local						0.0462378 (1.09e-10)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	20636	20636	13884	13877	5283	33746
Clusters	165	165	163	163	161	267
Mean	.051	150.66	.387	.497	.097	.052
CLIVC_p						.0073865172467853

Notes:

**TABLE 7 → REPLICATED REPLACING HOUSE FE BY TRUST THE CHIEF**

	Tax Compliance					Tax Amount	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Central Plus Local Info	0.034** (0.036)	32.580 (0.374)	-0.062 (0.120)	-0.097 (0.161)	0.018 (0.586)	0.038** (0.016)	36.673 (0.351)
Local						0.049*** (0.000)	125.347** (0.005)
Not very much confidence	0.010 (0.757)	105.340 (0.458)	-0.028 (0.668)	-0.001 (0.990)	0.072 (0.337)	-0.019 (0.422)	-20.198 (0.832)
Some confidence	0.036* (0.081)	39.078 (0.505)	0.039 (0.431)	0.058 (0.523)	0.065 (0.153)	0.009 (0.603)	-36.367 (0.491)
A lot of confidence	0.002 (0.935)	1.824 (0.975)	-0.014 (0.769)	-0.019 (0.821)	0.022 (0.578)	-0.019 (0.250)	-57.134 (0.265)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1656	1656	1271	1271	568	2750	2750
Clusters	162	162	159	159	148	264	264
Mean	.051	150.714	.387	.497	.097	.052	.052
CLIVC_p						.4859104896636531	.0263355731770327

Notes:

**TABLE 7 → INTERACTING CLI AND LOCAL WITH TRUST THE CHIEF**

	Tax Compliance				Tax Amount		(7)
	(1)	(2)	(3)	(4)	(5)	(6)	
Central Plus Local Info	0.047 (0.192)	78.373 (0.397)	0.040 (0.648)	0.042 (0.778)	0.032 (0.669)	0.046 (0.197)	73.929 (0.422)
No confidence at all	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)
Not very much confidence	0.016 (0.645)	176.423 (0.430)	0.008 (0.924)	0.074 (0.663)	0.067 (0.466)	0.011 (0.763)	149.437 (0.482)
Some confidence	0.045** (0.042)	35.637 (0.656)	0.032 (0.634)	0.049 (0.698)	0.066 (0.266)	0.047** (0.029)	50.305 (0.540)
A lot of confidence	0.008 (0.684)	28.619 (0.734)	0.083 (0.204)	0.108 (0.396)	0.034 (0.520)	0.003 (0.889)	24.685 (0.769)
No confidence at all × Central Plus Local Info	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)
Not very much confidence × Central Plus Local Info	-0.017 (0.799)	-174.082 (0.493)	-0.077 (0.595)	-0.162 (0.507)	0.013 (0.935)	-0.002 (0.972)	-137.633 (0.569)
Some confidence × Central Plus Local Info	-0.023 (0.596)	18.076 (0.869)	0.008 (0.937)	0.014 (0.935)	-0.006 (0.953)	-0.020 (0.646)	20.513 (0.852)
A lot of confidence × Central Plus Local Info	-0.017 (0.686)	-46.521 (0.670)	-0.201** (0.027)	-0.259 (0.109)	-0.026 (0.766)	-0.014 (0.726)	-50.185 (0.644)
Local						0.103** (0.001)	297.811** (0.011)
No confidence at all × Local						0.000 (.)	0.000 (.)
Not very much confidence × Local						-0.068 (0.186)	-374.124 (0.121)
Some confidence × Local						-0.090** (0.022)	-239.836* (0.062)
A lot of confidence × Local						-0.047 (0.178)	-172.147 (0.192)
Constant	0.126* (0.075)	254.072 (0.128)	0.459*** (0.000)	0.627*** (0.000)	0.295** (0.009)	0.111** (0.034)	219.515* (0.091)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1656	1656	1271	1271	568	2750	2750
Clusters	162	162	159	159	148	264	264
Mean	.051	150.714	.387	.497	.097	.052	.052
CLIVC_p						.181896764015032	.0423273132808241

*Notes:*

**TABLE 8: THE VALUE OF CHIEFS' INFORMATION**

	Visited Post Carto (1)	Compliance (2)	Visited Post Carto (3)	Compliance (4)	Visited Post Carto (5)	Compliance (6)	Visited Post Carto (7)	Compliance (8)
Ease of payment	0.045*** (0.001)	0.056*** (0.000)	0.029** (0.041)	0.044*** (0.000)		0.039* (0.071)	0.041** (0.001)	0.004 (0.820)
Predicted Ease of payment								0.027** (0.004)
Wall quality			0.025** (0.049)	0.021** (0.004)	0.011 (0.300)	0.015** (0.033)	0.025** (0.022)	0.012** (0.015)
Roof quality			0.005 (0.411)	-0.000 (0.973)	0.006 (0.453)	0.001 (0.844)	0.018** (0.026)	-0.010 (0.121)
Erosion threat			0.017 (0.117)	-0.004 (0.429)	-0.003 (0.781)	-0.011 (0.114)	-0.002 (0.858)	-0.005 (0.289)
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5574	8135	4551	5150	4980	4994	4820	4826
Clusters	79	80	66	66				
Mean	.376	.072	.352	.065				
	Visited Post Carto (1)	Compliance (2)	Visited Post Carto (3)	Compliance (4)	Visited Post Carto (5)	Compliance (6)	Visited Post Carto (7)	Compliance (8)
Willingness	0.034** (0.004)	0.037*** (0.000)	0.033** (0.007)	0.038*** (0.000)		0.037* (0.075)	0.032** (0.006)	0.016 (0.315)
Predicted Willingness to pay								0.026** (0.003)
Wall quality			0.022 (0.104)	0.021** (0.017)	0.012 (0.283)	0.015** (0.028)	0.025** (0.023)	0.012** (0.013)
Roof quality			0.011 (0.187)	0.001 (0.749)	0.006 (0.442)	0.001 (0.825)	0.018** (0.026)	-0.010 (0.120)
Erosion threat			0.016 (0.168)	-0.005 (0.285)	-0.003 (0.789)	-0.011 (0.126)	-0.002 (0.833)	-0.005 (0.272)
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3933	5521	3929	4461	4980	4994	4820	4826
Clusters	50	50	50	50				
Mean	.357	.062	.357	.066				
Clusters2								
Mean2								

*Notes:* This table explores the extent to which chiefs' recommendations in Central + Local Information (CLI) predict tax visits after registration and tax payment. Columns 1–5 show correlations in CLI between chiefs' recommendations and outcomes. Columns 6–9 report correlations between predicted propensity measures described in Section ?? and outcomes in Local (Columns 6 and 7) and Central (Columns 8 and 9). Columns 1, 3, 6, and 8 show correlations between propensity and tax visits; Columns 2, 4, 5, 7, and 9 show correlations between propensity and compliance. Column 5 shows correlations with compliance conditional on receiving a visit after registration. All regressions include house type and randomization stratum fixed effects and cluster standard errors at the neighborhood level. Columns 3, 4, and 6–8 include controls for visible household characteristics. We show results excluding house fixed effects in Table A21. We discuss these results in Section ??.

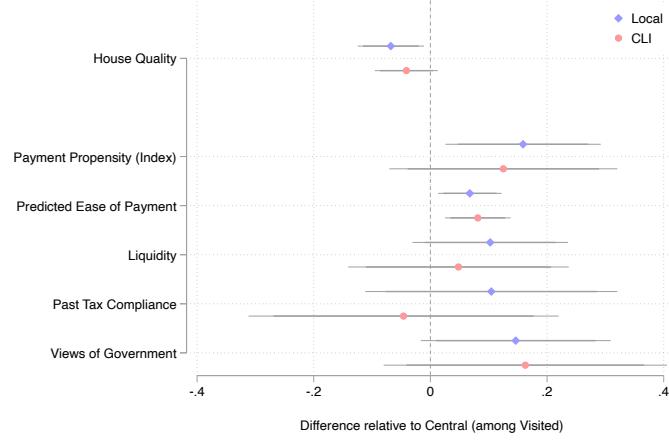
**TABLE 8 → REPLICATED USING RI APPROACH**

	Visited Post Carto (1) b/p/pvalues	Compliance (2) b/p/pvalues	Visited Post Carto (3) b/p/pvalues	Compliance (4) b/p/pvalues	Visited Post Carto (5) b/p/pvalues	Compliance (6) b/p/pvalues	Visited Post Carto (7) b/p/pvalues	Compliance (8) b/p/pvalues
Ease of payment	0.0448166 (0.000562) [0.000000]	0.0561250 (1.32e-11) [0.000000]	0.0287024 (0.0405) [0.010000]	0.0442083 (0.00000690) [0.000000]				
Predicted Ease of payment					0.0402718 (0.0600) [0.039000]	0.0427684 (0.000948) [0.000000]	0.00361255 (0.820) [0.861000]	0.0274241 (0.00422) [0.002000]
Wall quality			0.0252118 (0.0489)	0.0215808 (0.00358)	0.0115991 (0.301)	0.0149890 (0.0335)	0.0251225 (0.0223)	0.0117555 (0.0148)
Roof quality			0.00505794 (0.411)	-6.07210e-05 (0.973)	0.00606578 (0.447)	0.000954697 (0.829)	0.0179921 (0.0262)	-0.00990713 (0.121)
Erosion threat			0.0171078 (0.117)	-0.00349232 (0.429)	-0.00335231 (0.781)	-0.0112759 (0.114)	-0.00179889 (0.858)	-0.00501646 (0.289)
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5574	8135	4551	5150	4980	4994	4820	4826
Clusters	79	80	66	66				
Mean	.376	.072	.352	.065				
	Visited Post Carto (1) b/p/pvalues	Compliance (2) b/p/pvalues	Visited Post Carto (3) b/p/pvalues	Compliance (4) b/p/pvalues	Visited Post Carto (5) b/p/pvalues	Compliance (6) b/p/pvalues	Visited Post Carto (7) b/p/pvalues	Compliance (8) b/p/pvalues
Willingness	0.0341760 (0.00436) [0.000000]	0.0374461 (0.00000513) [0.000000]	0.0329332 (0.00658) [0.000000]	0.0383918 (0.0000101) [0.000000]				
Predicted Willingness to pay					0.0381218 (0.0634) [0.000000]	0.0323626 (0.00649) [0.000000]	0.0151765 (0.342) [0.600000]	0.0259770 (0.00293) [0.000000]
Wall quality			0.0218924 (0.104)	0.0213414 (0.0169)	0.0119040 (0.285)	0.0154956 (0.0277)	0.0248635 (0.0233)	0.0120698 (0.0130)
Roof quality			0.0106988 (0.187)	0.000726341 (0.749)	0.00614611 (0.441)	0.000974282 (0.825)	0.0179332 (0.0261)	-0.00977337 (0.120)
Erosion threat			0.0163334 (0.168)	-0.00491736 (0.285)	-0.00325273 (0.787)	-0.0110857 (0.125)	-0.00209543 (0.834)	-0.00520781 (0.272)
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3933	5521	3929	4461	4980	4994	4820	4826
Clusters	50	50	50	50				
Mean	.357	.062	.357	.066				
Clusters2								
Mean2								

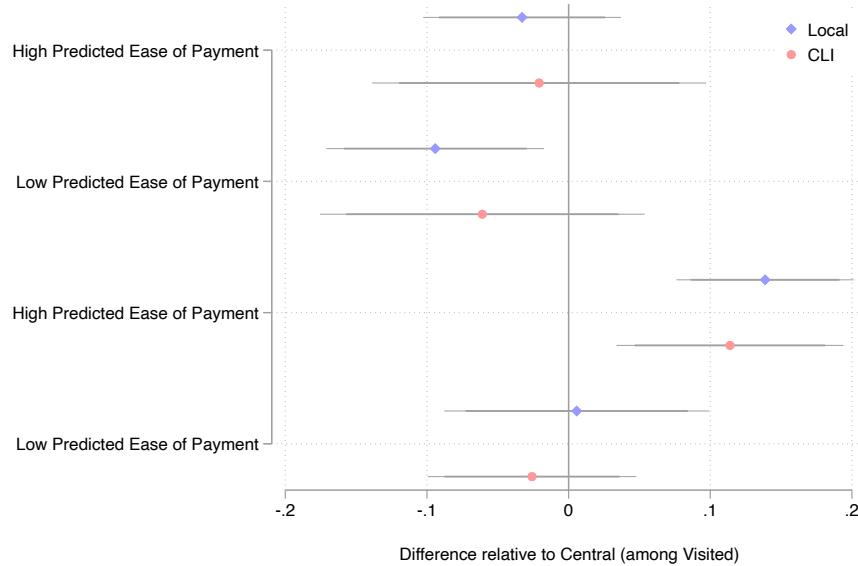
*Notes:*

**FIGURE 1: CHARACTERISTICS OF HOUSEHOLDS VISITED BY COLLECTORS AFTER REGISTRATION ACROSS TREATMENTS**

**A: Visible and Non-Visible Characteristics**



**B: Predicted Ease of Payment and House Quality**



*Notes:* This figure reports differences by treatment arm in the characteristics of properties visited by collectors after registration, showing differences in characteristics of visited properties in the Local and CLI arms relative to the Central arm. Panel A shows differences in visible and non-visible characteristics for indices described in Section ???. Panel B shows differences in the probability of receiving a visit in the four cells indicated (defined by interactions of high/low dummies for household house quality and predicted ease of payment). Differences are estimated through separate regressions of characteristics on a treatment indicator among visited properties, controlling for the leave-one-out neighborhood mean of the outcome (Panel A) or the neighborhood mean of house quality and ease of payment (Panel B). We include time period, house type, and stratum fixed effects. We cluster standard errors at the neighborhood level. Households that paid during registration are dropped. As a comparison, Figure A9 shows the correlations between tax visits and household characteristics within treatments, rather than differences across treatments. Figures A10 and A11 replicate this analysis while omitting house fixed effects and neighborhood mean controls, respectively. We discuss these results in Section ??.

**TABLE 9: LOCAL V. CENTRAL: THE DISTRIBUTION OF THE TAX BURDEN**

	Paid - Periph (1)	Paid - MM (2)	HQ - Visited (3)	HQ - Paid (4)	Income - Visited (5)
Local	0.036*** (0.008)	0.002 (0.013)	-0.146** (0.057)	0.002 (0.042)	-0.063 (0.167)
a7_hq_y			0.940*** (0.041)		
a7_inc_mo_avg				0.001 (0.020)	
a7_econ_ind					0.289 (0.270)
Month FE	Yes	Yes	Yes	Yes	Yes
House FE	No	No	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes
Observations	24380	3384	1310	228	228
Clusters	208	150	157	121	121
Mean	.064	.062	.099	.007	.118

*Notes:* This table reports estimates from a version of Equation ??, comparing property tax compliance in Local and Central (the excluded category). We include fixed effects for house type, randomization strata, and time periods, as described in Section ??, and we cluster standard errors at the neighborhood level. Columns 1 and 2 report estimates of the impact of local collection on compliance for low- and high-band households, respectively. Column 3 reports differences in an index of house quality conditional on the property paying the tax. Column 4 reports differences in monthly household income of properties, averaged across baseline and endline values, in Congolese Francs, conditional on paying the tax. Column 5 reports differences in an index of liquidity measures drawn from baseline (excepting income, which is also included, and uses information from endline) among payers. Columns 3–5 control for the leave-one-out neighborhood mean of the outcome. For robustness, we re-estimate these results excluding (i) property type fixed effects (Table A32) and (ii) leave-one-out neighborhood mean controls (Table A33). We also estimate (iii) an interacted version of the house type regressions in Columns 1–2 (Table A34) and (iv) an alternative version of Columns 3–5 in tax compliance is regressed on indicators for having complier characteristics above the median value in the sample are interacted, a Local treatment indicator, and the interaction (Table A35). Figure A13 (Panel B) shows the distribution of house quality among tax compliers across treatments. We discuss the interpretation of these results in Section ??.

**TABLE 9 → REPLICATED USING RI**

	Paid - Periph (1) b/p/pvalues	Paid - MM (2) b/p/pvalues	HQ - Visited (3) b/p/pvalues	HQ - Paid (4) b/p/pvalues	Income - Visited (5) b/p/pvalues
Local	0.0362650 (0.0000106) [0.001000]	0.00164441 (0.898) [0.903000]	-0.146327 (0.0106) [0.018000]	0.00192675 (0.963) [0.962000]	-0.0629973 (0.707) [0.695000]
a7_hq_y			0.940466 (3.22e-52)		
a7_inc_mo_avg				0.000598220 (0.977)	
a7_econ_ind					0.288814 (0.286)
Month FE	Yes	Yes	Yes	Yes	Yes
House FE	No	No	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes
Observations	24380	3384	1310	228	228
Clusters	208	150	157	121	121
Mean	.064	.062	.099	.007	.118

*Notes:*

**FIGURE A1: SAMPLE TAX NOTICE**

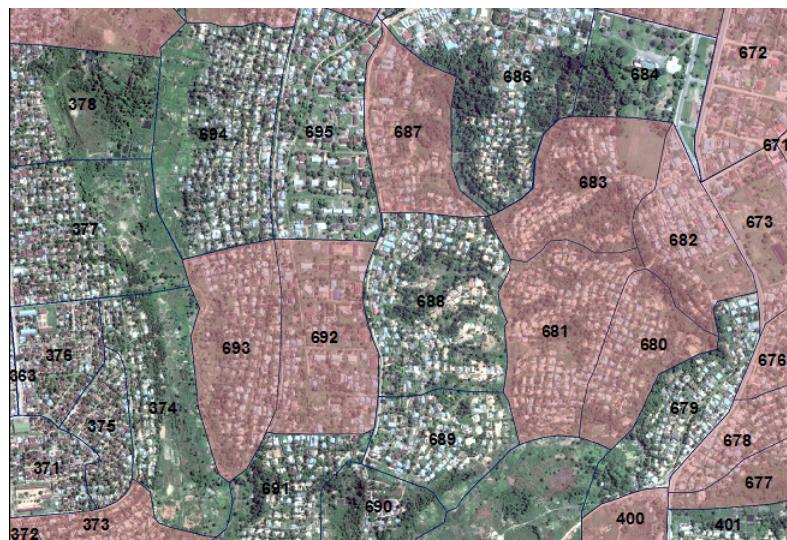
	<b>REPUBLIQUE DEMOCRATIQUE DU CONGO PROVINCE DU KASAÏ OCCIDENTAL DIRECTION GENERALE DES RECETTES DU KASAÏ OCCIDENTAL DGRKOC</b>	
Pour la campagne de collecte de l'Impôt Foncier 2018 :		
<b>La parcelle, No. <u>697051</u>,</b>		
appartenant à _____,		
<b>est assujettie à un taux de : <u>3000 FC*</u></b>		
à payer au perceuteur de la DGRKOC une fois par année.		
Comme preuve de paiement, vous recevrez un reçu imprimé sur place (voir l'exemple du reçu à droite).		
<b>Il est important de payer l'impôt foncier.</b>		

\* D'autres montants s'appliquent si vous habitez dans une maison en matériaux durables.

	<b>DIRECTION GENERALE DES RECETTES DU KASAÏ CENTRAL</b> <b>RÉPUBLIQUE DÉMOCRATIQUE DU CONGO KANANGA</b> <b>IMPÔT SUR LA SUPERFICIE DES PROPRIÉTÉS FONCIÈRES BATIES ET NON BATIES</b>
<b>Première Copie</b> Date et Heure : 22-FEB-2018 11:54:35 No : KGA2018020000000001-0000016	
Nom du contribuable : Mutombo Dikembe Jean-Jacques Licence d'Exploitation : 202005	
Type de taxe : Perif 3.000 Unité : Terrain Quantité/Base : 1 Taux : 1.5 Montant (CDF) : 3000 Nom de l'agent : Kabeya Kabeya Jean (KN2018000000000)	

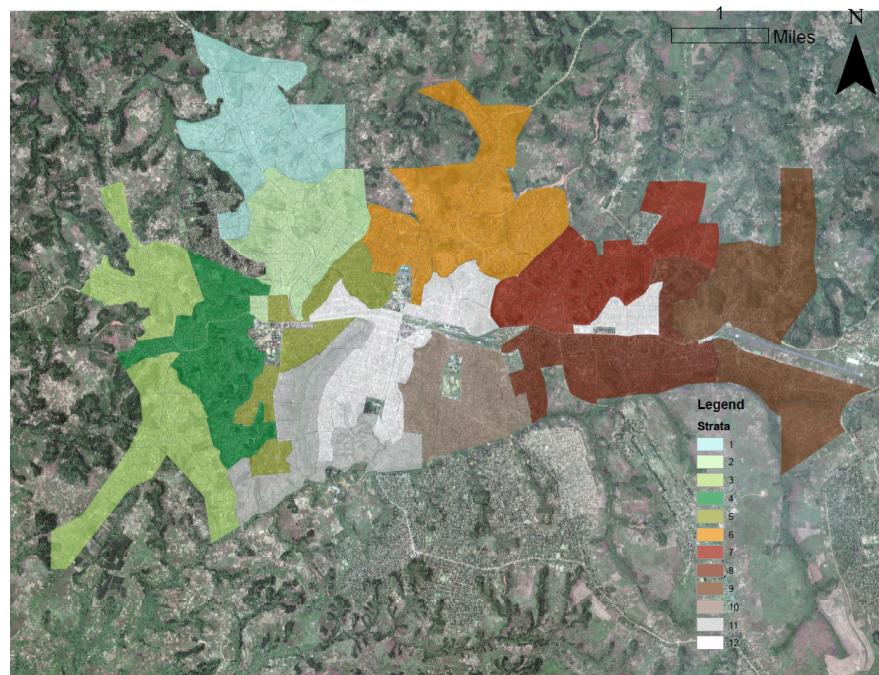
*Notes:* This figure displays a sample tax notice, which is discussed in Section ???. The flier says: “For the 2018 property tax collection campaign: the compound 697051 belonging to [name of owner] is subject to a tax rate of 3000 CF to be paid to a DGRKOC collector once per year. As proof of payment, you will receive a receipt printed on the spot (see example to the right). It is important to pay the property tax.” The footnote says “Other amounts apply if you live in a house built of durable materials.” This flier contains the Control message (“It is important to pay the property tax”), discussed in the text in Section ?? and in detail in Section A2.2. A version of the flier in Tshiluba, the primary local language, was printed on the opposite side. Fliers were identical across treatment arms.

**FIGURE A2: THE UNIT OF RANDOMIZATION: NEIGHBORHOODS OF KANANGA**



*Notes:* This figure displays a sample of neighborhood divisions in Kananga, which are discussed in Section A2.1.

**FIGURE A3: GEOGRAPHIC STRATA**



*Notes:* This figure displays the geographic strata of Kananga, which are discussed in Section A2.1.

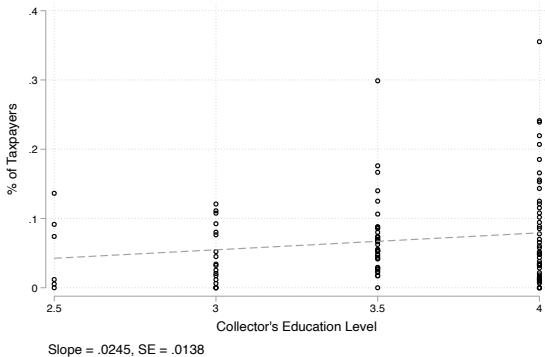
**TABLE A1: LOCAL V. CENTRAL: COLLECTOR CHARACTERISTICS**

Variable	(1) Central collectors	(2) Local Collectors	(3) Difference
Age	30.760 (8.098)	58.712 (11.031)	27.952*** (1.740)
% Female	0.060 (0.240)	0.045 (0.208)	-0.015 (0.037)
Born in Kananga	0.480 (0.505)	0.607 (0.491)	0.127 (0.085)
Log Monthly Income	4.238 (0.969)	4.045 (1.153)	-0.192 (0.189)
Number of Possessions	1.820 (1.320)	1.044 (1.263)	-0.776*** (0.218)
Education years	16.940 (3.413)	13.266 (3.487)	-3.674*** (0.592)
Works Other Job	0.682 (0.471)	0.761 (0.428)	0.079 (0.078)
Test Maths (Mean)	0.745 (0.234)	0.743 (0.258)	-0.002 (0.043)
Reading Ability (Mean)	1.770 (0.612)	1.838 (0.779)	0.068 (0.124)
Trust in Gov. (Mean)	3.033 (0.732)	2.716 (1.051)	-0.317* (0.165)
Prov. Gov. Capacity (Mean)	150.178 (73.893)	158.660 (99.387)	8.482 (15.690)
Poor Priority (Mean)	2.680 (0.563)	2.758 (0.588)	0.078 (0.099)
Progressiveness (Mean)	2.584 (0.285)	2.470 (0.308)	-0.114** (0.051)
Observations	50	113	163

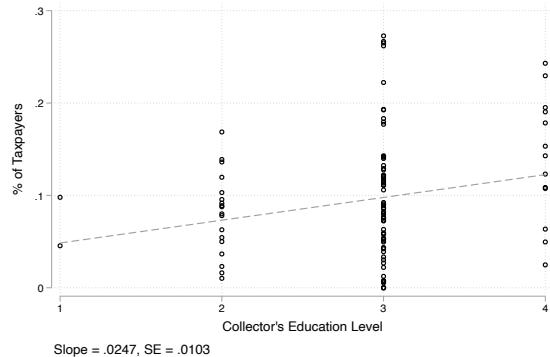
*Notes:* This table compares baseline characteristics of state collectors in neighborhoods assigned to the Central treatment arm (Column 1) and chiefs in neighborhoods assigned to the Local treatment arm (Column 2). Column 3 reports a simple difference-in-means test. The data come from surveys conducted with tax collectors before the 2018 campaign. The first seven variables are the respondent's age, a sex indicator, an indicator for being born in Kananga, log monthly income, wealth (defined as the number of possessions: motorbike, car, radio, TV, generator and sewing machine), years of education, and an indicator for working another job during the tax campaign. *Math Ability* and *Reading Ability* are collectors' average score on a series of quiz-type questions. The last four measures concern attitudes about the government and redistribution, measured through survey questions with Likert-scale response options. These comparisons are discussed in Section ??.

**FIGURE A4: COLLECTOR PERFORMANCE AND EDUCATION / WEALTH**

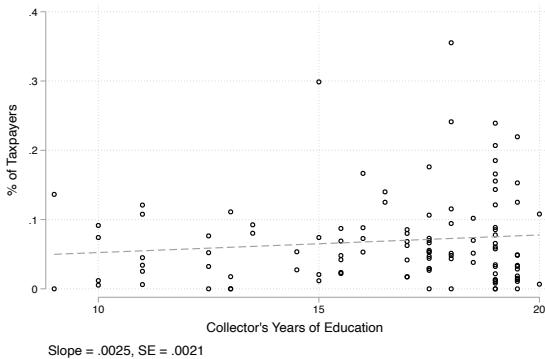
A: State collectors' Education Level



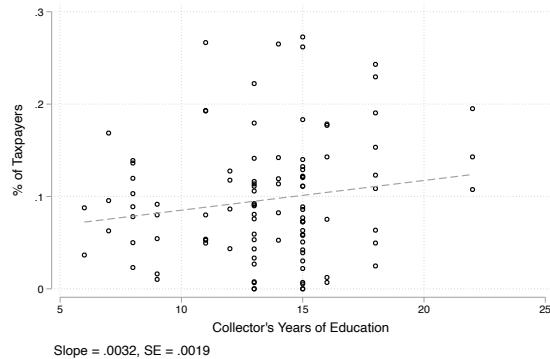
B: Chief collectors' Education Level



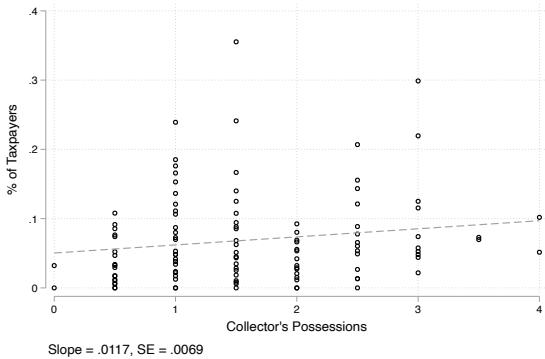
C: State collectors' Years of Education



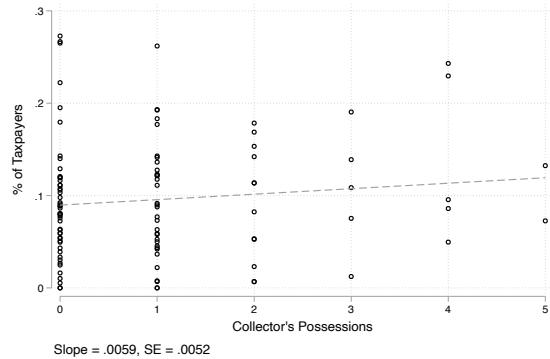
D: Chief collectors' Years of Education



E: State collectors' # Assets / possessions



F: Chief collectors' # Assets / possessions



*Notes:* This figure shows the relationship between tax compliance in the neighborhood and tax collectors' education levels (Panels A and B), years of education (Panels C and D), and wealth (Panels E and F). Wealth here is defined as number of possessions among the following: motorbike, car, radio, TV, generator, and sewing machine. The relationships are reported separately for neighborhoods assigned to the Central and CLI treatment arms where tax collection was done by state agents (Panels A, C, and E) and for neighborhoods assigned to the Local treatment arm where tax collection was done by city chiefs (Panel B, D, and F). These comparisons are discussed in Section ??

**TABLE A2: RANDOMIZATION BALANCE: BILATERAL TREATMENT COMPARISONS**

	Percentage Paid in 2016 (1)	Affected by Conflict in 2016 (2)	(3)
rev_2016_alternate	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
rouge	0.132 (0.289)	-0.131 (0.362)	0.444** (0.215)
Stratum FE	Yes	Yes	Yes
Observations	221	190	160
Clusters	221	190	160
Mean			
F_stat			
p_val			

	Years of Education (1)	Electricity (2)	Log HH Monthly Income (3)
edu_yrs	-0.003 (0.003)	0.001 (0.003)	-0.003 (0.003)
Do you have any source of electricity at your home?	0.008 (0.027)	0.021 (0.031)	0.030 (0.031)
lg_inc_mo	0.006 (0.005)	-0.003 (0.005)	-0.006 (0.005)
Local leaders	0.012 (0.012)	0.026** (0.012)	0.026** (0.013)
The national government (in Kinshasa)	-0.015 (0.014)	-0.010 (0.012)	-0.002 (0.013)
The provincial government	0.026 (0.016)	0.018 (0.015)	-0.001 (0.016)
The tax ministry	-0.001 (0.010)	-0.008 (0.012)	-0.003 (0.012)
Stratum FE	Yes	Yes	Yes
Observations	2117	1768	1501
Clusters	221	187	159
Mean			
F_stat			
p_val			

	Years of Education (1)	Electricity (2)	Log HH Monthly Income (3)
edu_yrs	-0.003 (0.003)	0.001 (0.003)	-0.003 (0.003)
Do you have any source of electricity at your home?	0.008 (0.027)	0.021 (0.031)	0.030 (0.031)
lg_inc_mo	0.006 (0.005)	-0.003 (0.005)	-0.006 (0.005)
Local leaders	0.012 (0.012)	0.026** (0.012)	0.026** (0.013)
The national government (in Kinshasa)	-0.015 (0.014)	-0.010 (0.012)	-0.002 (0.013)
The provincial government	0.026 (0.016)	0.018 (0.015)	-0.001 (0.016)
The tax ministry	-0.001 (0.010)	-0.008 (0.012)	-0.003 (0.012)
Stratum FE	Yes	Yes	Yes
Observations	2117	1768	1501
Clusters	221	187	159
Mean			
F_stat			
p_val			

*Notes:* This table summarizes balance tests for bilateral treatment comparisons. Each column compares the noted treatment arm to Central. The bottom row of each panel contains the statistics for tests of the omnibus null hypothesis that the treatment effects for the covariates studied in Table 3 are all zero using parametric *F* tests. As usual, regressions include stratum fixed effects and cluster standard errors at the neighborhood level. We run separate tests for variables drawn from baseline survey, midline survey, and neighborhood-level data to maximize the number of observations included in each regression. Midline characteristics include the distance characteristics from registration reported in Table 3. We discuss these results in Section ??.

**TABLE A3: RANDOMIZATION BALANCE: INCLUDING CONTROL GROUP**

	Obs	ControlMean	ExpCoef C	ExpCoef L	ExpCoef CLI	ExpCoef CXL
rev'2016'alternate	=”356.0000”	=”176.4815”	=”-31.1102” =”(162.2903)”	=”-22.0765” =”(162.5776)”	=”-77.9999” =”(160.3743)”	=”-47.5349” =”(161.1344)”
rouge	=”356.0000”	=”0.2000”	=”-0.1818”	=”-0.1640”	=”-0.1625”	=”-0.1400”
edu'yrs	=”3667.0000”	=”9.7547”	=”0.8087” =”(1.4994)”	=”0.7107” =”(1.4999)”	=”0.4039” =”(1.5058)”	=”0.4070” =”(1.5187)”
elect1	=”3680.0000”	=”0.1887”	=”0.0615”	=”0.0493”	=”-0.0698”	=”-0.0447”
lg'inc'mo	=”3646.0000”	=”10.6402”	=”-0.1054”	=”0.0735”	=”-0.1506”	=”-0.2532”
trust'chief	=”3666.0000”	=”2.9057”	=”0.1613”	=”0.2328”	=”0.3126”	=”0.3572”
trust'nat'gov	=”3488.0000”	=”2.3269”	=”0.3513”	=”0.3503”	=”0.3514”	=”0.3547”
trust'prov'gov	=”3511.0000”	=”2.2500”	=”0.1876” =”(0.1811)”	=”0.2219” =”(0.1817)”	=”0.1777” =”(0.1845)”	=”0.2000” =”(0.1921)”
trust'tax'min	=”3474.0000”	=”2.3725”	=”0.1623” =”(0.2027)”	=”0.2496” =”(0.2034)”	=”0.1864” =”(0.2079)”	=”0.1833” =”(0.2109)”
			=”0.0145” =”(0.1516)”	=”0.0187” =”(0.1523)”	=”0.0374” =”(0.1571)”	=”0.0759” =”(0.1601)”
	Obs	ControlMean	ExpCoef C	ExpCoef L	ExpCoef CLI	ExpCoef CXL
dist'stateandmkt	=”4.49e+04”	=”1.8579”	=”-0.3606***” =”(0.1755)”	=”-0.3149***” =”(0.1802)”	=”-0.2823” =”(0.1864)”	=”-0.3553***” =”(0.1994)”
dist'health	=”4.49e+04”	=”0.3760”	=”0.0509”	=”-0.0227”	=”0.0131”	=”-0.0582”
dist'edu	=”4.49e+04”	=”0.7795”	=”-0.1285”	=”-0.1013”	=”-0.0412”	=”-0.1344”
dist'roads	=”4.43e+04”	=”0.3790”	=”0.2061”	=”(0.2067)”	=”(0.2097)”	=”(0.2105)”
dist'ravin	=”4.43e+04”	=”0.1233”	=”0.0352”	=”0.0816”	=”0.0280”	=”0.0386”
house'quality'new	=”2.90e+04”	=”-0.1403”	=”0.1361”	=”(0.1381)”	=”(0.1391)”	=”(0.1468)”
sex'prop	=”2.27e+04”	=”0.8389”	=”0.032”	=”0.0074”	=”0.0030”	=”0.0229”
age'prop	=”2.03e+04”	=”53.8519”	=”0.0209”	=”(0.0219)”	=”(0.0218)”	=”(0.0233)”
main'tribe	=”2.30e+04”	=”0.8123”	=”0.1444”	=”0.0531”	=”0.2796”	=”0.1443”
employed	=”2.48e+04”	=”0.7768”	=”(0.3139)”	=”(0.3129)”	=”(0.3126)”	=”(0.3205)”
salaried	=”2.48e+04”	=”0.2318”	=”0.0720***”	=”-0.0519***”	=”-0.0674***”	=”-0.0792***”
work'gov	=”2.48e+04”	=”0.1588”	=”(0.0246)”	=”(0.0249)”	=”(0.0266)”	=”(0.0269)”
job'gov	=”2.75e+04”	=”0.2575”	=”0.0291”	=”0.02391”	=”0.1717”	=”0.6439”
			=”0.0490”	=”(0.0489)”	=”(0.1369)”	=”(1.2653)”

	Baseline to Endline Attrition		Baseline Replacement		Midline Attrition
	(1)	(2)	(3)		
central	-0.024 (0.051)	-0.015 (0.041)	-0.015 (0.041)	(0.056)	-0.047
local	-0.040 (0.051)	-0.004 (0.040)	-0.004 (0.040)	(0.058)	-0.026
centralwinfo	-0.045 (0.051)	-0.007 (0.041)	-0.007 (0.041)	(0.056)	-0.058
centralxlocal	-0.064 (0.051)	0.002 (0.046)	0.002 (0.046)	(0.058)	-0.103*
Observations	4246	3483	3483	45162	
Clusters	356	356	356	356	
Mean	.133	.174	.174	.256	

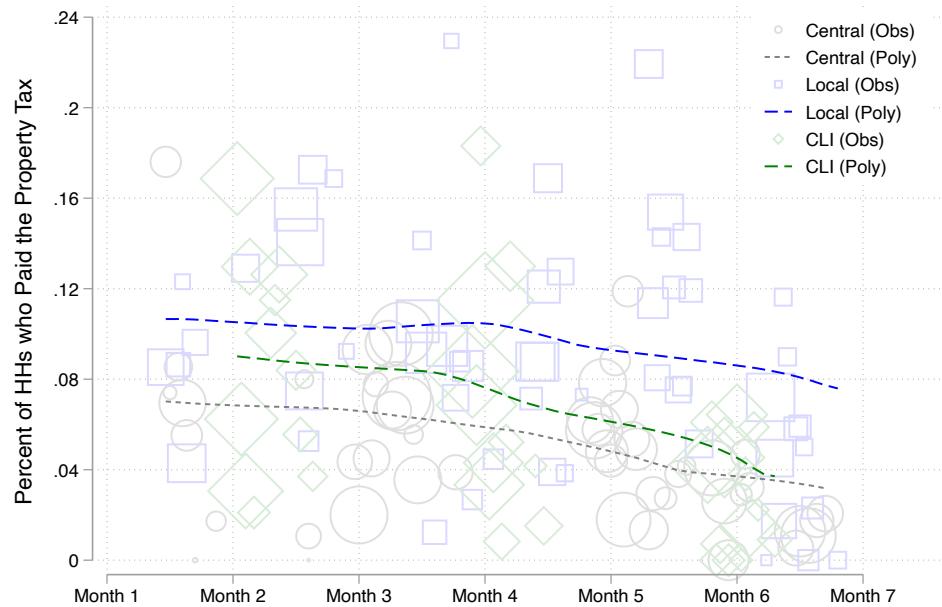
*Notes:* This table reports the coefficients from balance tests estimated by regressing characteristics for property owners (Panel A), properties (Panel B), and neighborhoods (Panel C) on treatment indicators, clustering standard errors at the neighborhood level. Panel D shows differences in attrition from baseline to endline surveying, replacement at endline of baseline respondents, and attrition from registration to midline surveying. The Control arm is the excluded category. Randomization stratum fixed effects are not included because Control neighborhoods do not exist in every strata. Superscripts *B*, *M*, and *R* denote which variables come from baseline, midline, and registration, respectively. Variables are described in Section A2.6. Joint orthogonality tests for specific treatment comparisons are shown in Table A2. We discuss these results in Section ??.

**TABLE A4: MIDLINE NON-RESPONSE ACROSS TREATMENTS**

	(1)	(2)	(3)
Sex Missing	0.181 (0.317)	-0.081** (0.035)	0.388* (0.214)
Age Missing	-0.304 (0.319)	-0.090** (0.038)	-0.460** (0.214)
Majority Tribe Missing	0.026 (0.024)	0.035 (0.025)	0.025 (0.023)
Employed Missing	-0.348 (0.220)	0.097* (0.057)	0.044 (0.040)
Salaried Missing	0.368* (0.217)	-0.060 (0.051)	-0.031 (0.032)
Relative Works for Government Missing	-0.002 (0.032)	0.002 (0.033)	0.002 (0.030)
Stratum FE	Yes	Yes	Yes
Observations	22533	18927	16494
Clusters	221	189	160
F_stat			
p_val			

*Notes:* This table summarizes tests for differential midline non-response. Each column compares the noted treatment arm to Central. The bottom row of each panel contains the statistics for tests of the omnibus null hypothesis that the treatment effects for all the variables listed are zero using parametric  $F$ -tests. As usual, regressions include stratum fixed effects and cluster standard errors at the neighborhood level. The *Works for Government* variable is omitted as it is defined from the same underlying variable as *Salaried* and is thus collinear.

**FIGURE A5: DECREASING COMPLIANCE OVER TIME — CENTRAL, LOCAL, CLI**



*Notes:* This figure shows the decrease in compliance for Central, Local, and CLI over the 2018 tax campaign. Blue squares represent Local observations, gray circles represent Central observations, and green diamonds represent CLI observations, with size indicating number of observations. Lines — dashed blue for Local, dotted gray for Central, and dashed green for CLI are local linear polynomials estimated using the displayed data, separately by treatment. This figure is discussed in Section ??.

**TABLE A5: LOCAL V. CENTRAL ROBUSTNESS: DIFFERENT APPROACHES TO TIME IMBALANCE**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Compliance (4)	Tax Compliance (5)	Tax Compliance (6)	Tax Compliance (7)
Local	0.023*** (0.008)	0.033*** (0.007)	0.033*** (0.007)	0.031*** (0.007)	0.032*** (0.007)	0.042*** (0.007)	0.032*** (0.008)
Month FE	No	No	No	No	Yes	No	No
House FE	Yes						
Stratum FE	Yes						
Observations	28872	27764	27506	37186	28872	25912	26637
Clusters	221	213	211	221	221	199	203
Mean	.068	.063	.064	.063	.068	.053	.068

	Tax Revenues (1)	Tax Revenues (2)	Tax Revenues (3)	Tax Revenues (4)	Tax Revenues (5)	Tax Revenues (6)	Tax Revenues (7)
Local	46.362** (23.068)	69.744*** (20.695)	69.558*** (21.493)	73.775*** (18.343)	68.695** (21.901)	91.176*** (20.199)	77.966** (30.905)
Month FE	No	No	No	No	Yes	No	No
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	28872	27370	27664	36792	28872	25912	26637
Clusters	221	210	212	221	221	199	203
Mean	192.891	184.394	185.422	184.394	192.891	158.855	192.891

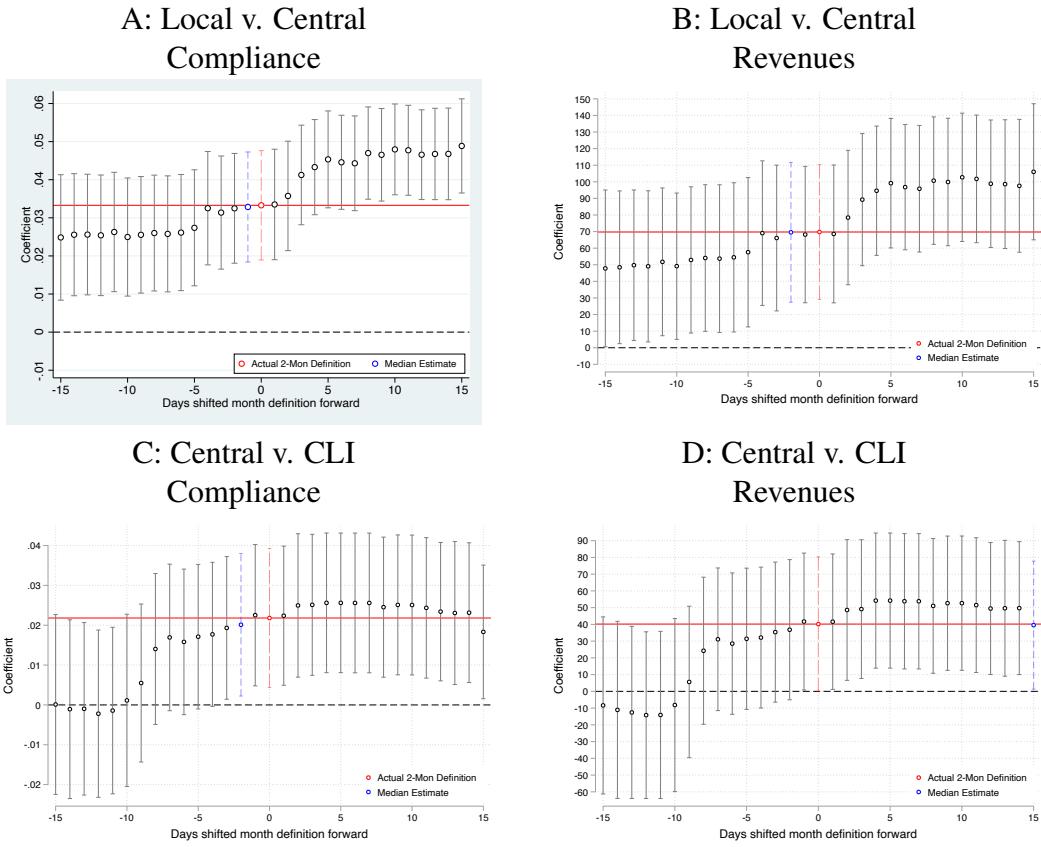
*Notes:* This table displays alternate approaches for addressing time imbalance in the comparison of the Local arm to the Central arm, the excluded category, as noted in Section ?? and discussed at length in Section A2.5. Panel A reports impacts on compliance, and Panel B reports impacts on revenues. Column 1 makes no adjustments. Column 2 includes the time period fixed effects described in Section ?? . Column 3 includes time period fixed effects defined by selecting the median estimate among all permutations of the start date (Figure A6). Column 4 implements an interaction-weighted estimator, following Gibbons et al. (2018), in which time periods defined as in Column 2 are not included as fixed effects but interacted with the treatment indicator and the estimate is the average of the coefficient on the interaction terms, weighted by the number of observations in each period. Column 5 includes one-month fixed effects. Column 6 trims the sample to periods when both treatment arms were in operation. Column 7 implements coarsened exact matching (Iacus et al., 2012). All regressions include fixed effects for house type and randomization strata and cluster standard errors at the neighborhood level. We discuss these results in Section ??.

**TABLE A5 → REPLICATED USING RI APPROACH**

	Tax Compliance (1) b/p/values	Tax Compliance (2) b/p/values	Tax Compliance (3) b/p/values	Tax Compliance (4) b/p/values	Tax Compliance (5) b/p/values	Tax Compliance (6) b/p/values	Tax Compliance (7) b/p/values
Local	0.0233105 (0.00462) [0.014000]	0.0330827 (0.00000729) [0.001000]	0.0328438 (0.0000135) [0.001000]		0.0321948 (0.0000143) [0.000000]	0.0421408 (4.43e-09) [0.00462] [0.016000]	0.0233105
Month FE	No	No	No	No	Yes	No	No
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	28872	27764	27506	43771	28872	25912	28872
Clusters	221	213	211	221	221	199	221
Mean	.068	.063	.064	.063	.068	.053	.068
	Tax Revenues (1)	Tax Revenues (2)	Tax Revenues (3)	Tax Revenues (4)	Tax Revenues (5)	Tax Revenues (6)	Tax Revenues (7)
Local	46.362** (23.068)	69.744*** (20.695)	69.558** (21.493)	73.775*** (18.343)	68.695** (21.901)	91.176*** (20.199)	77.966** (30.905)
Month FE	No	No	No	No	Yes	No	No
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	28872	27370	27664	36792	28872	25912	26637
Clusters	221	210	212	221	221	199	203
Mean	192.891	184.394	185.422	184.394	192.891	158.855	192.891

*Notes:* Replicated

**FIGURE A6: SHIFTING TWO-MONTH FIXED EFFECT START DATE**



*Notes:* This figure shows robustness to shifting the start date for defining two-month fixed effects 15 days forward and backwards from the start date in our preferred specification. Panels A and B report estimates for Local compared to Central collection for compliance and revenues, respectively. Panels C and D report estimates for Central + Local Information (CLI) compared to Central. The long-dashed red estimate reflects the estimate using the preferred definition of time periods; the short-dashed blue estimate is the median estimate among the shifted estimates. All regressions include fixed effects for house type and randomization strata and cluster standard errors at the neighborhood level. We discuss these results in Section ?? and report the median estimate in Table A5.

**TABLE A6: LOCAL V. CENTRAL ROBUSTNESS: FULLY-SATURATED MODEL WITH CROSS-RANDOMIZED TREATMENTS**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Compliance (4)	Tax Compliance (5)	Tax Compliance (6)
Local	0.033*** (0.007)	0.033*** (0.007)	0.051*** (0.011)	0.039*** (0.008)	0.036*** (0.010)	0.057*** (0.014)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	27764	27764	27764	23618	23618	23618
Clusters	213	213	213	213	213	213
Mean	.063	.063	.063	.068	.068	.068

	Revenues (1)	Revenues (2)	Revenues (3)	Revenues (4)	Revenues (5)	Revenues (6)
Local	68.855*** (20.560)	68.923*** (20.562)	75.294** (23.838)	81.797*** (23.626)	72.674** (22.119)	76.723** (28.482)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	27764	27764	27764	23618	23618	23618
Clusters	213	213	213	213	213	213
Mean	182.236	182.236	182.236	196.263	196.263	196.263

*Notes:* This table reports estimates from Equation ??, comparing property tax outcomes in Local and Central (the excluded category). The panels show the estimates from separate regressions with the outcome an indicator for compliance (Panel A) and revenues (Panel B), respectively. All regressions include fixed effects for house, time period, and randomization strata, and they cluster standard errors at the neighborhood level. Column 1 shows the preferred specification, including no additional controls. Column 2 includes dummies for tax rate abatement groups. Column 3 adds interactions between the abatement group dummies and the Local indicator. Column 4 includes dummies for collector bonus type. Column 5 adds interactions between the collector bonus type dummies and the Local indicator. Column 6 includes abatement and collector bonus dummies and interactions with the Local indicator. Bergeron et al. (2020b) provides details on abatement and collector bonus treatment groups. We discuss these results in Section ??.

**TABLE A6 → CONTROLLING FOR TRUST IN CHIEF**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Compliance (4)	Tax Compliance (5)	Tax Compliance (6)
Local	0.027* (0.062)	0.028* (0.060)	0.050 (0.115)	0.033* (0.073)	0.039 (0.219)	0.082* (0.095)
Not very much confidence	-0.021 (0.428)	-0.020 (0.436)	-0.021 (0.412)	-0.023 (0.498)	-0.023 (0.497)	-0.024 (0.471)
Some confidence	0.009 (0.662)	0.008 (0.708)	0.008 (0.711)	0.001 (0.955)	0.001 (0.964)	-0.002 (0.950)
A lot of confidence	-0.019 (0.269)	-0.018 (0.312)	-0.018 (0.304)	-0.024 (0.267)	-0.025 (0.264)	-0.024 (0.265)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2231	2231	2231	1682	1682	1682
Clusters	213	213	213	212	212	212
Mean	.063	.063	.063	.068	.068	.068
	Revenues (1)	Revenues (2)	Revenues (3)	Revenues (4)	Revenues (5)	Revenues (6)
Local	56.130 (0.203)	55.117 (0.212)	86.635 (0.369)	73.178 (0.201)	77.231 (0.323)	141.846 (0.297)
Not very much confidence	-46.359 (0.666)	-45.050 (0.674)	-45.692 (0.670)	-66.458 (0.645)	-66.484 (0.645)	-64.635 (0.655)
Some confidence	-40.214 (0.524)	-41.141 (0.513)	-40.723 (0.519)	-84.037 (0.339)	-84.231 (0.337)	-84.009 (0.343)
A lot of confidence	-40.457 (0.505)	-38.798 (0.524)	-38.846 (0.524)	-67.791 (0.404)	-67.938 (0.401)	-63.955 (0.437)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2231	2231	2231	1682	1682	1682
Clusters	213	213	213	212	212	212
Mean	182.3	182.3	182.3	196.246	196.246	196.246

*Notes:* .

**TABLE A7: LOCAL V. CENTRAL ROBUSTNESS: INCLUDING CONTROLS, PILOT NEIGHBORHOODS, EXCLUDING MISASSIGNED NEIGHBORHOOD, AND TOP-CODING**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Compliance (4)	Tax Compliance (5)	Tax Compliance (6)
Local	0.032*** (0.007)	0.030*** (0.007)	0.031*** (0.007)	0.031*** (0.007)	0.033*** (0.007)	0.029*** (0.006)
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	No
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	27751	27751	27751	28784	27658	219
Clusters	213	213	213	219	212	
Mean	.063	.063	.063	.064	.063	.061

	Revenues (1)	Revenues (2)	Revenues (3)	Revenues (4)	Revenues (5)	Revenues (6)
Local	65.349** (20.531)	60.651** (21.003)	62.026** (20.817)	64.469** (19.917)	68.718*** (20.486)	64.366** (19.999)
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	No
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	27751	27751	27751	28766	27658	219
Clusters	213	213	213	219	212	
Mean	182.3	182.3	182.3	181.525	182.3	182.416

*Notes:* This table reports estimates from Equation ??, comparing property tax outcomes in Local and Central (the excluded category). The panels show the estimates from separate regressions with the outcome an indicator for compliance (Panel A) and revenues (Panel B), respectively. All regressions include fixed effects for house, time period, and randomization strata, and they cluster standard errors at the neighborhood level. Column 1 includes controls for age, age-squared, and gender, measured in midline survey. Column 2 adds a control for distance from schools (the one imbalanced covariate when comparing Local to Central in Table A2). Column 3 adds controls for having any job, a salaried job, and a government job, a family member with a government job, and belonging to the majority tribe. When including controls, we replace missing values in control variables with the mean for the entire sample and include a separate dummy (for each control variable) for the value being missing. Column 4 includes pilot neighborhoods, with time period and stratum values that reflect its implementation several months before the campaign and in a remote neighborhood. Column 5 excludes the neighborhood misassigned from CXL to Local during the campaign. Column 6 displays estimates from a regression on mean outcomes at the neighborhood-level, winsorizing the top 10% of neighborhoods, using robust standard errors, and assigning the minimum value for time period fixed effects to a neighborhood. We discuss these results in Section ??.

**TABLE A7 → USING TRUST IN CHIEF**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Compliance (4)	Tax Compliance (5)	Tax Compliance (6)
Local	0.027* (0.064)	0.023 (0.116)	0.024 (0.107)	0.027* (0.062)	0.028* (0.061)	0.030*** (0.000)
Not very much confidence	-0.027 (0.297)	-0.026 (0.309)	-0.027 (0.294)	-0.021 (0.427)	-0.021 (0.415)	
Some confidence	0.010 (0.644)	0.009 (0.654)	0.009 (0.650)	0.009 (0.665)	0.009 (0.680)	
A lot of confidence	-0.016 (0.385)	-0.016 (0.364)	-0.017 (0.333)	-0.019 (0.268)	-0.019 (0.277)	
trust_chief_mean						0.002 (0.855)
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	No
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2231	2231	2231	2231	2225	213
Clusters	213	213	213	213	212	
Mean	.063	.063	.063	.064	.063	.061
	Revenues (1)	Revenues (2)	Revenues (3)	Revenues (4)	Revenues (5)	Revenues (6)
Local	54.920 (0.210)	54.102 (0.236)	51.380 (0.268)	56.093 (0.204)	56.614 (0.200)	68.288** (0.001)
Not very much confidence	-64.581 (0.554)	-65.870 (0.545)	-70.262 (0.510)	-46.603 (0.664)	-47.866 (0.656)	
Some confidence	-40.712 (0.523)	-42.402 (0.506)	-36.276 (0.569)	-40.480 (0.522)	-41.307 (0.515)	
A lot of confidence	-32.345 (0.596)	-32.219 (0.597)	-29.456 (0.631)	-40.774 (0.503)	-39.984 (0.512)	
trust_chief_mean						-12.623 (0.628)
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	No
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2231	2231	2231	2231	2225	213
Clusters	213	213	213	213	212	
Mean	182.3	182.3	182.3	181.525	182.3	182.416

Notes: .

**TABLE A8: LOCAL V. CENTRAL: CONTROLLING FOR COLLECTOR CHARACTERISTICS**

	taxes_paid	taxes_paid	taxes_paid	taxes_paid	taxes_paid	taxes_paid	taxes_paid	taxes_paid	taxes_paid
Local	0.0331*** (0.0072)	0.0378** (0.0166)	0.0374*** (0.0073)	0.0435*** (0.0081)	0.0340*** (0.0078)	0.0338*** (0.0085)	0.0328*** (0.0091)	0.0358*** (0.0082)	0.0456** (0.0207)
Age		-0.0002 (0.0005)							0.0001 (0.0005)
Number of possessions			0.0059 (0.0042)						0.0058 (0.0048)
Years of education				0.0032** (0.0013)					0.0032** (0.0014)
Trust in government (mean)					0.0030 (0.0049)				0.0050 (0.0053)
Taxes important						-0.0009 (0.0078)			-0.0039 (0.0080)
Tax ministry important							-0.0000 (0.0062)		0.0003 (0.0069)
Progressiveness (mean)								0.0052 (0.0120)	0.0104 (0.0130)
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>R</i> <sup>2</sup>	0.023	0.023	0.024	0.025	0.024	0.024	0.023	0.024	0.025
Observations	27764	26497	27453	27031	26489	27152	26361	27152	25443
Clusters	213	203	210	207	203	208	202	208	194
Mean	.075	.075	.075	.075	.075	.075	.075	.075	.075

*Notes:* This table reports estimates from Equation ??, comparing property tax outcomes in Local and Central (the excluded category), while additionally controlling for collector characteristics for which state and chief collectors have statistically significant differences in Columns 2–8. The value of collector characteristics are those of the chief in Local and the mean of those of the assigned collectors in Central. All regressions include fixed effects for randomization strata, time periods, and cluster standard errors at the neighborhood level. We discuss these results in Section ??.

**TABLE A9: LOCAL v. CENTRAL: EXEMPTION CATEGORIES**

	Exempted	Enum agrees	Senior	Widow	Gov Pension	Handicap	Exempted	Exempted
Local	0.039*	-0.012	0.041***	-0.006	0.005	0.003**	0.041	-0.026
	(0.021)	(0.007)	(0.014)	(0.012)	(0.003)	(0.001)	(0.032)	(0.024)
t_lXtribe_match							0.041	
							(0.040)	
Co-ethnic							-0.080***	
							(0.030)	
t_lXknow_eachother								0.067*
								(0.038)
Knows Collector								0.064**
								(0.031)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>R</i> <sup>2</sup>	0.055	0.020	0.042	0.029	0.016	0.006	0.065	0.064
Observations	13772	13771	13772	13772	13772	13772	7288	13772
Clusters	213	213	213	213	213	213	207	213
Mean	.264	.9560000000000001	.126	.112	.013	.004	.314	.031

Standard errors clustered by polygon. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

*Notes:* This table shows differences in the exemption rates of properties by chief and state collectors. Column 1 examines treatment effects on official exemptions. Column 2 reports whether third-party evaluations of exemption status diverged with the official designation. Columns 3–6 correspond to the different exemption categories: being senior (age 65+) in Column 3, being a widow in Column 4, receiving a government pension in Column 5 and being handicapped in Column 6. Columns 7 and 8 report exemptions by treatment and coethnicity between collectors and property owners and whether the collector and property owner know one another, respectively. All regressions include randomization stratum fixed effects and house fixed effects as well as the time fixed effects described in Section ?? and standard errors are clustered at the neighborhood-level. These results are discussed in Section ??.

**TABLE A10: LOCAL V. CENTRAL: AWARENESS OF OTHER TREATMENTS**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	(4)	(5)	Tax Compliance (6)	(7)	(8)
Local	0.033*** (0.007)	0.030** (0.013)	0.035*** (0.009)	0.029* (0.016)	0.033*** (0.008)	0.033*** (0.010)	0.034** (0.012)	0.034** (0.012)
t.IXn_other_tmt.strict		0.003 (0.008)						
(sum) other_tmt.strict	0.004 (0.005)	0.003 (0.008)						
t.IXn_other_tmt.broad				0.003 (0.006)				
(sum) other_tmt.broad			-0.001 (0.004)	-0.003 (0.005)				
t.IXother_tmt.strict.border						-0.002 (0.030)		
(sum) other_tmt.strict.border					0.007 (0.015)	0.008 (0.029)		
t.IXother_tmt.broad.border							0.004 (0.018)	0.004 (0.018)
(sum) other_tmt.broad.border							-0.012 (0.020)	-0.012 (0.020)
(max) nbr_count	-0.001 (0.003)	-0.001 (0.003)	0.001 (0.003)	0.001 (0.003)		0.002 (0.008)	0.001 (0.008)	0.006 (0.009)
(max) border_tot							0.006 (0.009)	0.006 (0.009)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	27764	27764	27764	27764	27764	27764	27764	27764
Clusters	213	213	213	213	213	213	213	213
Mean	.068	.068	.068	.068	.068	.068	.068	.068

*Notes:* This table analyzes potential spillovers due to awareness of other types of tax collectors working in adjacent neighborhoods. The specifications follow Miguel and Kremer (2004) in controlling for the number of adjacent neighborhoods in different treatments (as well as the total number of adjacent neighborhoods). We evaluate two definitions of alternate treatments: the “strict” version codes adjacent neighborhoods as being in the alternate treatment if in Central (for a Local neighborhood) or Local (for a Central neighborhood); the “broad” version codes this as Central, CLI, or CXL (if Local) and Local or CXL (if Central). Due to campaign staggering across neighborhoods, we only consider exposure to treatments in adjacent neighborhoods in which collectors had already worked or were currently working, rather than neighborhoods that had been assigned to a different treatment but had not yet received tax collectors. Columns 1 and 3 report estimates of the impact of Local, controlling for the number of adjacent neighborhoods in the alternate treatment arm and total adjacent neighborhoods, for the strict and broad definitions, respectively. Columns 2 and 4 report estimates of the impact of Local collection with an interaction term for the number of adjacent neighborhoods assigned to the alternate treatment arm, controlling for the total number of adjacent neighborhoods, for strict and broad, respectively. Columns 5 and 7 report estimates of the impact of Local, controlling for length of neighborhood borders (in kilometers) shared with the alternate treatment and total length of borders, for strict and broad respectively. Columns 6 and 8 report estimates of the impact of Local collection with an interaction term for the length of neighborhood borders shared with neighborhoods assigned to the alternate treatment arm, controlling for length of neighborhood borders shared with the alternate treatment and total length of borders, for strict and broad, respectively. We include fixed effects for house type, randomization strata and time periods described in Section ?? and cluster standard errors at the neighborhood level. We discuss these results in Section ??.

**TABLE A11: LOCAL V. CENTRAL: FISCAL EXTERNALITIES**

	beta	SE	r2	N	centralmean
Salongo (Midline)	-0.031	0.032	0.057	13952.000	0.376
Salongo Hours (Midline)	-0.240	0.247	0.025	13568.000	1.659
Salongo (Endline)	0.005	0.028	0.063	2413.000	0.404
Salongo Hours (Endline)	0.459	0.445	0.051	2358.000	3.996
Vehicle Tax	0.013	0.008	0.049	2405.000	0.031
Market Vendor Fee	0.057	0.017	0.046	2409.000	0.128
Business Tax	0.008	0.010	0.044	2409.000	0.043
Income Tax	0.037	0.014	0.031	2406.000	0.095
Fake Tax	0.003	0.005	0.025	2387.000	0.014

*Notes:* Each row summarizes an OLS estimation of Equation ??, comparing Local and Central, with the dependent variable noted in the first column.  $\hat{\beta}$  is the coefficient on the treatment indicator, followed by the cluster-robust standard error,  $R^2$ , number of observations, and  $\bar{x}_{Central}$  the Central group mean. In Panel A, rows 1 and 2 (3 and 4) report *salongo* contributions along the extensive margin and intensive margin of hours, respectively, at midline (endline). In Panel B, the outcomes are self-reported payment of other formal taxes at endline. Obsolete tax is a poll tax, which existed in the past but does not currently exist, to test the reliability of self-reports. All regressions include fixed effects for randomization strata, and cluster standard errors at the neighborhood level. Regressions using midline data include house type fixed effects, while those using endline data do not, as discussed in Section ??, because this affords analysis in a larger endline sample. The number of observations varies across regressions due to (i) outcomes being drawn from different surveys, and (ii) non-response for specific survey questions. We discuss these results in Section ??.

**TABLE A12: LOCAL V. CENTRAL: INFORMAL LABOR TAX SUBSTITUTION**

	Salongo (Midline) (1)	Salongo Amt (Midline) (2)	Salongo (Endline) (3)	Salongo Amt (Endline) (4)
Local	-0.026 (0.032)	-0.207 (0.254)	0.000 (0.030)	0.490 (0.454)
t_lXtaxes_paid	-0.075** (0.035)	-0.262 (0.226)	-0.051 (0.070)	-1.387 (1.039)
taxes_paid	0.061** (0.029)	-0.128 (0.167)	0.038 (0.052)	0.757 (0.796)
Time FE	Yes	Yes	No	No
House FE	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	13953	13569	2330	2278
Clusters	206	205	221	221
Mean	.372	1.685	.406	4.008

	Salongo (Midline) (1)	Salongo Amt (Midline) (2)	Salongo (Endline) (3)	Salongo Amt (Endline) (4)
Local	-0.014 (0.042)	-0.106 (0.666)	0.022 (0.081)	1.927 (1.324)
t_lXpred_compl_dum	-0.035 (0.041)	-0.253 (0.650)	-0.097 (0.096)	-2.186 (1.538)
pred_compl_dum	0.090*** (0.023)	0.157 (0.664)	0.178** (0.077)	2.651** (0.941)
Time FE	Yes	Yes	No	No
House FE	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	9835	9726	583	568
Clusters	195	190	150	150
Mean	.355	1.697	.372	4.382

*Notes:* This table shows estimates from versions of Equation ??, comparing the Local arm to the Central arm (excluded group), where we include an interaction with verified property tax payment (Panel A) and predicted compliance (Panel B). Predicted compliance is defined as belonging to the top 25th percentile of values for the mean of predicted ease of payment and predicted willingness to pay, generated through the exercise described in Section ?? . The outcome is informal labor tax (*salongo*) participation as measured in the midline and endline surveys. Columns 1 and 2 report *salongo* contributions along the extensive margin and intensive margin (hours contributed), respectively, at midline. Columns 3 and 4 report the same at endline. All regressions include fixed effects for house type and randomization strata and cluster standard errors at the neighborhood level. Columns 1 and 2 include time period fixed effects because they analyze midline data, as discussed in Section ?? . We discuss these results in Section ??.

**TABLE A13: LOCAL V. CENTRAL: “TOTAL” TAX BURDEN (TAXES, BRIBES, SA-LONGO)**

	(1)	(2)	(3)	(4)
Local	0.029*	0.127***	0.033***	0.105**
	(0.017)	(0.027)	(0.007)	(0.038)
Time FE	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	27764	27138	27764	27138
Clusters	213.000	213.000	213.000	213.000
Observations	27764.000	27138.000	27764.000	27138.000
Mean	.234	.045	.063	.055

*Notes:* This table shows treatment effects on household payment of property taxes, bribes, and/or *salongo* labor contributions. Columns 1 and 3 show the extensive margin (i.e. dummies for paying taxes or bribes, or for paying taxes, bribes, or doing *salongo*). Columns 2 and 4 show the intensive margin of contributions, i.e. the total number of contributions (max = 3). These intensive-margin outcomes are standardized to facilitate interpretation of magnitudes.

**TABLE A14: INVESTIGATING HAWTHORNE EFFECTS: AWARENESS OF MONITORING AND BRIBE-TAKING BEHAVIOR IN LOCAL**

	Whom did your household pay?	Whom did your household pay?	Whom did your household pay?
Knows fired chiefs	0.0009 (0.0065)		
Knows 2016 campaign		-0.0055 (0.0056)	
Assigned to 2016 campaign			-0.0014 (0.0278)
House FE	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes
<i>R</i> <sup>2</sup>	0.017	0.018	0.017
Observations	6393	6393	6492
Clusters	108	108	110
Mean	.018	.018	.018
<hr/>			
	Chief Perception of Monitoring / Punishment for Bribe-Taking	Chief Perception of Monitoring / Punishment for Bribe-Taking	Chief Perception of Monitoring / Punishment for Bribe-Taking
Knows fire chiefs	-0.4583** (0.2277)		
Knows 2016 campaign		0.0646 (0.2881)	
Nbhd in 2016 campaign			-0.0371 (0.2324)
<i>R</i> <sup>2</sup>	0.049	0.001	0.000
Observations			
Clusters			
Mean	.043	.043	.043

*Notes:* This table shows correlations between baseline chief/neighborhood characteristics and outcomes related to the acceptance of bribes in Local (i.e. neighborhoods with chief tax collection). Columns 1–3 examine an outcome drawn from a survey with chiefs conducted after the 2018 tax campaign, in which chiefs were asked to estimate the probability that collectors accepting bribes during the campaign would be sanctioned. Columns 4–6 examine bribe payment reported by citizens in the midline survey. *Knows deposed chiefs* and *Knows 2016 campaign* come from a baseline survey conducted with chiefs, who reported whether they had ever heard of (*i*) a chief being deposed, and (*ii*) the 2016 property tax campaign, respectively. *Nbhd in 2016 campaign* indicates neighborhoods randomly assigned to the 2016 property tax campaign, as measured in administrative data. We discuss these results in Section ??.

**TABLE A15: HETEROGENEOUS TREATMENT EFFECTS BY CHIEF CHARACTERISTICS: BRIBES**

	beta1	SE1	beta2	SE2	beta3	SE3	N	Depvarmean
Age	-0.003	0.004	0.010	0.006	-0.006	0.005	12129.000	0.018
Wealth (possessions)	-0.001	0.003	0.015	0.009	-0.005	0.006	12129.000	0.017
Years of education	0.002	0.004	-0.002	0.006	0.003	0.005	12129.000	0.015
Minority ethnic	0.001	0.004	0.004	0.009	-0.007	0.005	11978.000	0.018
Locality chief	0.005	0.005	-0.005	0.006	0.010	0.006	10669.000	0.015
Chief for over 10 years	-0.001	0.004	0.005	0.006	-0.004	0.005	11978.000	0.016
Dynastic succession	0.001	0.004	-0.001	0.007	-0.003	0.005	11869.000	0.018
Remote neighborhood	0.011	0.004	-0.015	0.005	0.001	0.005	12129.000	0.014
Customary chief	0.003	0.004	-0.002	0.006	-0.017	0.007	12129.000	0.017
Political party member	0.008	0.004	-0.019	0.007	0.010	0.006	11978.000	0.014
Ruling party member	0.006	0.004	-0.022	0.009	0.013	0.008	11978.000	0.015
Opposition party member	0.003	0.004	-0.014	0.009	0.002	0.006	11978.000	0.016
Has other gov position	0.002	0.004	-0.002	0.007	0.004	0.006	11978.000	0.018
Trust in government	0.007	0.005	-0.013	0.007	0.005	0.005	12129.000	0.016
Trust in tax ministry	0.007	0.004	-0.015	0.007	0.008	0.005	12129.000	0.015
View of government	0.001	0.004	0.001	0.007	-0.001	0.005	12129.000	0.016
View of gov responsiveness	0.002	0.005	-0.000	0.006	-0.004	0.005	12129.000	0.017
View of gov integrity	0.004	0.004	-0.005	0.006	0.003	0.006	12129.000	0.015
Knows fired chiefs	0.001	0.005	-0.000	0.007	0.006	0.005	11978.000	0.017
Knows 2016 campaign	0.004	0.006	-0.004	0.008	-0.002	0.005	11869.000	0.014
Neighborhood in 2016 campaign	0.003	0.004	-0.002	0.006	0.013	0.017	12077.000	0.015
Trusted by citizens	0.004	0.005	-0.005	0.007	0.006	0.005	12129.000	0.017
Accessible to citizens	0.007	0.005	-0.010	0.007	0.002	0.005	12129.000	0.016
Active in chief role	0.003	0.005	-0.003	0.007	0.003	0.005	12129.000	0.018

*Notes:* This table shows heterogeneous treatment effects by a range of chief characteristics measured before the tax campaign. Specifically, each row summarizes the results from estimating the equation  $y_{ijkt} = \beta_0 + \beta_1 Local_{jkt} + \beta_2 Local_{jkt} * Z_{jk}^{Chief} + \beta_3 Z_{jk}^{Chief} + \alpha_k + \theta_t + \varepsilon_{ijkt}$ , where  $Z_{jk}^{Chief}$  indicates the corresponding characteristic of the neighborhood chief shown in the first cell of each row.  $y_{ijkt}$  is bribe payment,  $\alpha_k$  are stratum fixed effects, and  $\theta_t$  are time fixed effects. Standard errors are clustered at the neighborhood level (213 in total). All chief characteristics are 0-1 to maximize power for estimating heterogeneous treatment effects. Continuous variables are transformed into indicators to report above-median values of the characteristics (denoted by  $> p50$ ). We discuss these results in Section ??.

**TABLE A16: THE COUNTERFACTUAL TO CHIEF BRIBE COLLECTION: PREDICTING CHIEF BRIBE PAYERS IN CENTRAL**

	Compliance (1)	Compliance (2)	Bribes (Endline) (3)
Predicted Bribe Payer	0.013 (0.024)	0.032 (0.054)	-0.000 (0.018)
Stratum FE	Yes	Yes	Yes
Observations	847	329	414
Clusters	109	95	102
Mean	.089	.089	.013

	Compliance (1)	Compliance (2)	Bribes (Endline) (3)
Predicted Bribe Payer	0.069* (0.041)	0.146* (0.085)	-0.020** (0.008)
Stratum FE	Yes	Yes	Yes
Observations	847	329	414
Clusters	109	95	102
Mean	.086	.086	.016

*Notes:* This table provides evidence on the counterfactual of the increase in bribes in Local relative to Central. Specifically, it shows correlations between predicted chief bribe payment and tax and bribe payments in the Central treatment arm. Predicted bribe payment is constructed by regressing bribe payment (at endline) in Local on baseline household and property characteristics, retaining the variables with significant coefficients, and using these variables to predict bribe payment (at endline) in the Central treatment arm. This exercise simulates the likely bribe payers if Central neighborhoods had in fact been assigned to Local. The variables used in the final prediction exercise include: age of property owner, whether a family member of household members works for the government, whether the household possesses a radio, trust in the provincial government, whether the respondent knows the neighborhood chief, has the chief's phone number, and attends the same church as the chief. The Predicted Bribe Payer variable is an indicator for the predicted value being greater than the 75th (Panel A) or 90th percentile (Panel B). Tax compliance is measured using administrative tax data, post-registration visits using the midline survey, and bribe payment using the endline survey (our preferred measure using a local code for bribes, discussed in Section ??). All regressions include fixed effects for randomization strata and cluster standard errors at the neighborhood level. Column 2 restricts the sample to households that received visits from tax collectors after registration. The number of observations for bribe outcomes is smaller than the full endline sample because this variable was only collected among households who reported at least one visit from tax collectors after property registration. We discuss these results in Section ??.

**TABLE A17: LOCAL v. CENTRAL: TAX VISITS — NO HOUSE FIXED EFFECTS**

	Visited Post Carto (1)	Visits Post Carto (2)	Visited Other Contact (3)	Visits Other Contact (4)
Local	-0.008 (0.026)	0.016 (0.046)	0.008 (0.007)	0.019 (0.013)
Month FE	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	18162	18151	3513	3513
Clusters	209	209	206	206
Mean	.417	.552	.025	.039

*Notes:* This table reports estimates from Equation ??, comparing the tax visits collectors made after registration in Local and Central (the excluded category). All regressions include fixed effects for randomization strata and time periods described in Section ??, and cluster standard errors at the neighborhood level. Columns 1 and 2 report differences in tax visits by collectors — after the registration visit — by the extensive and intensive margins, respectively. Columns 3 and 4 report differences in other contact with collectors outside of the tax campaign, as reported by citizens, by the intensive and extensive margins, respectively. We discuss these results in Section ??.

**TABLE A18: CENTRAL V. CENTRAL + LOCAL INFORMATION ROBUSTNESS: DIFFERENT APPROACHES TO TIME IMBALANCE**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Compliance (4)	Tax Compliance (5)	Tax Compliance (6)	Tax Compliance (7)
Central Plus Local Info	-0.001 (0.011)	0.024** (0.009)	0.019** (0.009)	-0.004 (0.008)	0.024** (0.010)	0.019** (0.009)	0.041** (0.016)
Month FE	No	No	No	No	Yes	No	No
House FE	Yes						
Stratum FE	Yes						
Observations	23911	20636	19767	32754	23911	18834	8575
Clusters	190	165	161	190	190	150	72
Mean	.068	.051	.057	.051	.068	.055	.024

	Tax Revenues (1)	Tax Revenues (2)	Tax Revenues (3)	Tax Revenues (4)	Tax Revenues (5)	Tax Revenues (6)	Tax Revenues (7)
Central Plus Local Info	-10.315 (26.089)	40.178* (20.481)	39.558** (19.509)	-30.749 (21.816)	57.325** (20.830)	37.204* (20.452)	52.277 (34.337)
Month FE	No	No	No	No	Yes	No	No
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23911	20176	20507	31963	23911	18834	8575
Clusters	190	162	160	190	190	150	72
Mean	192.891	155.747	138.945	155.747	192.891	156.774	61.224

*Notes:* This table displays alternate approaches for addressing time imbalance in the comparison of the Central + Local Information (CLI) arm to the Central arm, the excluded category. Panel A reports impacts on compliance, and Panel B reports impacts on revenues. Column 1 makes no adjustments. Column 2 includes the time period fixed effects described in Section ???. Column 3 includes time period fixed effects defined by selecting the median estimate among all permutations of the start date (Figure A6). Column 4 implements an interaction-weighted estimator, following Gibbons et al. (2018), in which time periods defined as in Column 2 are not included as fixed effects but interacted with the treatment indicator and the estimate is the weighted average of the coefficient on the interaction terms, weighted by the number of observations in each period. Column 5 includes one-month fixed effects. Column 6 trims the sample to periods when both treatment arms are in operation. Column 7 implements coarsened exact matching (Jacobs et al., 2012). All regressions include fixed effects for house type and randomization strata and cluster standard errors at the neighborhood level. We discuss these results in Section ??.

**TABLE A19: CENTRAL V. CENTRAL + LOCAL INFORMATION ROBUSTNESS: CONTROLLING FOR IMBALANCED MIDLINE COVARIATES**

	Tax Compliance			Tax Amount		
	(1)	(2)	(3)	(4)	(5)	(6)
Central Plus Local Info	0.024** (0.011)	52.263** (25.449)	-0.008 (0.034)	-0.021 (0.055)	0.021 (0.016)	0.030** (0.011)
Local						0.065*** (0.009)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10064	10064	10051	10048	3864	16436
Clusters	155	155	155	155	150	253
Mean	.059	159.808	.393	.51	.1	.059
CLIVC_p						.0024771616937258

	Tax Compliance			Tax Amount		
	(1)	(2)	(3)	(4)	(5)	(6)
Central Plus Local Info	0.024** (0.009)	24.241 (23.476)	-0.018 (0.028)	-0.029 (0.044)	0.027* (0.014)	0.023** (0.009)
Local						0.045*** (0.007)
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	20629	20629	13879	13872	5281	33731
Clusters	165	165	163	163	161	267
Mean	.051	150.714	.387	.497	.097	.052
CLIVC_p						.0130796014417039

*Notes:* This table compares the Central + Local Information (CLI) arm to the Central arm, the excluded category, controlling for the characteristics imbalanced at midline — sex of property owner, whether property owner is salaried, and distance to state buildings and market — as shown in Table A2 (Panel A) and excluding house type fixed effects (Panel B). Columns 1, 5, and 6 report impacts on compliance. Column 2 reports impacts on revenues. Columns 3 and 4 report differences in tax visits by collectors after registration by the extensive and intensive margins, respectively. All regressions include fixed effects randomization strata and time periods, and cluster standard errors at the neighborhood level. Column 5 restricts to the subsample of properties that received any tax visits after registration. Column 6 includes a dummy for the Local treatment in the regression. The bottom row reports the *p*-value from a test for equality between the CLI and Local. We discuss these results in Section ??.

**TABLE A20: LOCAL V. CENTRAL + LOCAL INFORMATION: HETEROGENEOUS TREATMENT EFFECTS BY OWNER PRESENT AT REGISTRATION**

	Taxes Paid (1)	Taxes Paid (2)	Taxes Paid (3)	Taxes Paid (4)
Local	0.021** (0.009)	0.027** (0.009)	0.028** (0.009)	0.029** (0.009)
t_lXpresent_sensi	0.001 (0.009)	0.005 (0.009)	0.005 (0.009)	0.014 (0.010)
IS THERE AN ADULT WHO LIVES ON THE COMPOUND PRESENT RIGHT NOW TO RECEIVE THE INF	0.039*** (0.007)	0.033*** (0.006)	0.035*** (0.007)	0.051*** (0.008)
Time FE	No	Yes	Yes	Yes
House FE	No	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	28875	27767	27767	23805
Clusters	221	213	213	213
Mean	.036	.035	.035	.035



*Notes:* This table reports estimates from Equation ??, comparing property tax compliance in Local and Central (the excluded category), where we include an interaction with an indicator for the owner of the property being present at registration. All regressions include fixed effects for randomization strata and cluster standard errors at the neighborhood level. Column 1 regressions do not include time period fixed effects described in Section ??, while those in other columns include them. Regressions in Columns 1–2 do not include house fixed effects while Column 3 includes them. Regressions in Column 4 exclude exempt properties. The data include all properties registered by tax collectors merged with the government's property tax database. We discuss these results in Section ??.

**TABLE A21: THE VALUE OF CHIEFS' INFORMATION — NO HOUSE FIXED EFFECTS**

	Visited Post Carto (1)	Compliance (2)	Visited Post Carto (3)	Compliance (4)	Compliance (5)	Visited Post Carto (6)	Compliance (7)	Visited Post Carto (8)
Ease of payment	0.046*** (0.012)	0.055*** (0.007)	0.029** (0.014)	0.043*** (0.008)		0.054** (0.017)	0.045*** (0.012)	0.013 (0.017)
Predicted Ease of payment								0.040*** (0.007)
Wall quality			0.027** (0.012)	0.017** (0.007)	0.017* (0.010)	0.008 (0.006)	0.021** (0.010)	0.011** (0.004)
Roof quality			0.005 (0.006)	0.000 (0.002)	0.003 (0.006)	-0.004 (0.004)	0.018** (0.008)	-0.010 (0.006)
Erosion threat			0.017 (0.011)	-0.003 (0.004)	0.002 (0.011)	-0.007 (0.007)	-0.000 (0.010)	-0.005 (0.004)
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5574	8135	4551	5150	5748	5763	4998	5004
Clusters	79	80	66	66				
Mean	.376	.072	.352	.065				

	Visited Post Carto (1)	Compliance (2)	Visited Post Carto (3)	Compliance (4)	Visited Post Carto (5)	Compliance (6)	Visited Post Carto (7)	Compliance (8)
Willingness	0.035** (0.011)	0.037*** (0.007)	0.033** (0.012)	0.038*** (0.008)		0.045** (0.016)	0.036*** (0.010)	0.007 (0.015)
Predicted Willingness to pay								0.032*** (0.009)
Wall quality			0.025* (0.013)	0.017** (0.008)	0.018* (0.009)	0.009 (0.006)	0.021** (0.010)	0.011** (0.005)
Roof quality			0.011 (0.008)	0.001 (0.002)	0.004 (0.006)	-0.003 (0.004)	0.018** (0.008)	-0.010 (0.006)
Erosion threat			0.016 (0.012)	-0.004 (0.005)	0.002 (0.011)	-0.006 (0.007)	-0.000 (0.010)	-0.005 (0.005)
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3933	5521	3929	4461	5748	5763	4998	5004
Clusters	50	50	50	50				
Mean	.357	.062	.357	.066				
Clusters2								
Mean2								

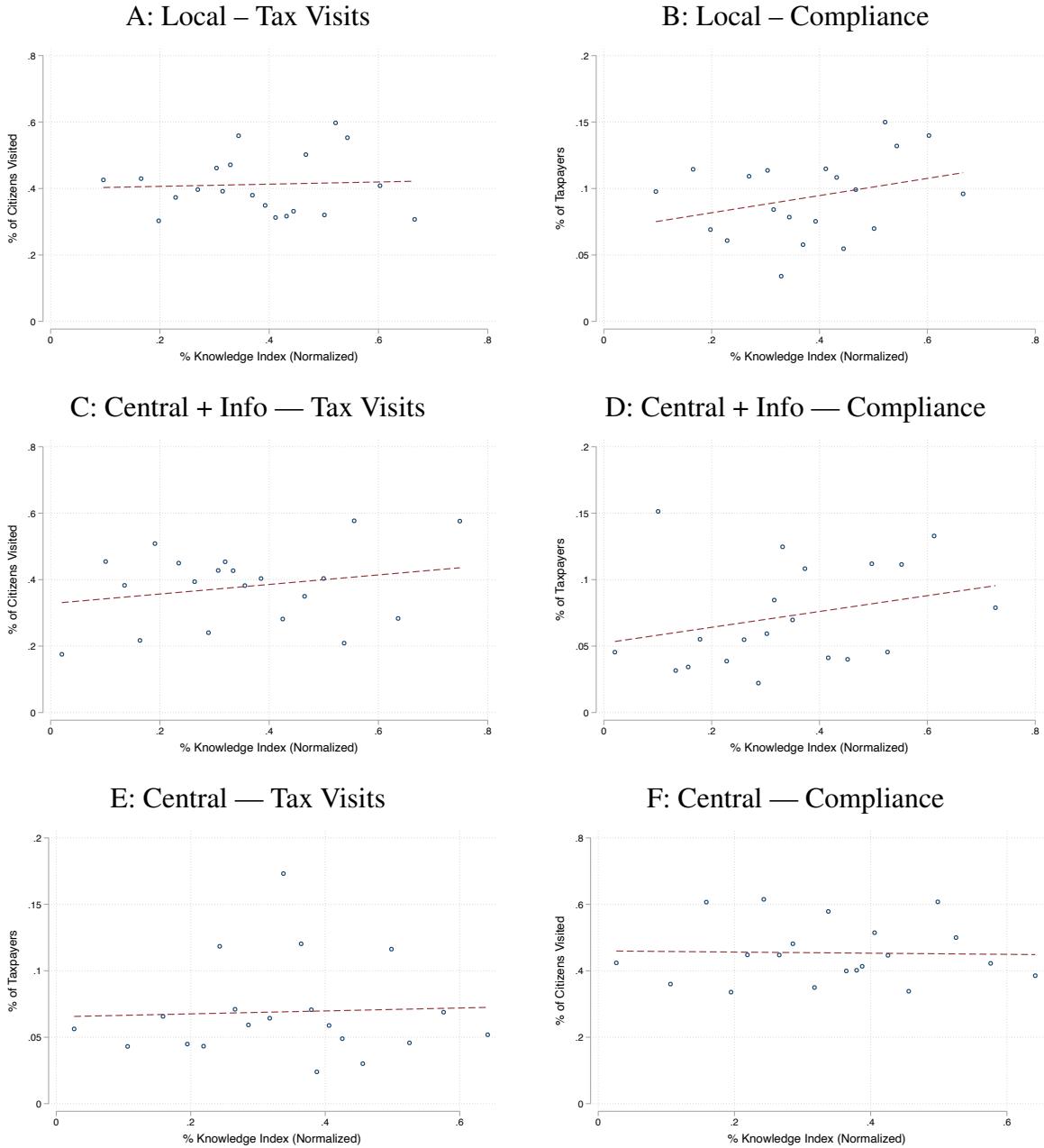
*Notes:* This table explores the extent to which chiefs' recommendations in Central + Local Information (CLI) predict tax visits after registration and tax payment, while excluding house fixed effects as a robustness check. Columns 1–5 show correlations in CLI between chiefs' recommendations and outcomes. Columns 6–9 report correlations between predicted propensity measures described in Section ?? and outcomes in the Local (Columns 6 and 7) and the Central (Columns 8 and 9) arms. Columns 1, 3, 6, and 8 show correlations between propensity and visits; Columns 2, 4, 5, 7, and 9 show correlations between propensity and compliance. Column 5 shows correlations with compliance conditional on receiving a visit after registration. All regressions include randomization stratum fixed effects and cluster standard errors at the neighborhood level. Columns 3, 4, and 6–8 include controls for visible household characteristics. We discuss these results in Section ??.

**TABLE A22: THE VALUE OF CHIEFS' INFORMATION — COMPARING TREATMENTS**

	Visited (1)	Compliance (2)	Visited (3)	Compliance (4)
combine_pay.ease	0.016 (0.020)	0.024** (0.009)	0.037* (0.021)	0.038** (0.011)
t_cliXcombine_pay.ease	0.081** (0.037)	0.028** (0.012)	0.059* (0.030)	0.011 (0.015)
Central with Info	-0.061* (0.034)	-0.002 (0.012)	-0.084** (0.033)	-0.047** (0.016)
t_lXcombine_pay.ease				
Local				
Wall quality	0.027** (0.009)	0.020*** (0.005)	0.009 (0.008)	0.018** (0.005)
Roof quality	0.009 (0.005)	-0.004 (0.003)	0.005 (0.005)	0.000 (0.003)
Erosion threat	0.003 (0.009)	-0.003 (0.004)	-0.002 (0.009)	-0.011** (0.004)
House FE	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	8396	8407	8556	8575
Clusters	139	139	144	144
Mean	.413	.061	.449	.112
	Visited (1)	Compliance (2)	Visited (3)	Compliance (4)
combine_willingness	0.025 (0.021)	0.026** (0.008)	0.033 (0.020)	0.025** (0.010)
t_cliXcombine_willingness	0.027 (0.041)	0.013 (0.011)	0.036 (0.029)	0.021 (0.014)
Central with Info	-0.031 (0.044)	0.006 (0.017)	-0.079* (0.042)	-0.059** (0.018)
t_lXcombine_willingness				
Local				
Wall quality	0.029** (0.008)	0.021*** (0.005)	0.009 (0.008)	0.018** (0.005)
Roof quality	0.009* (0.005)	-0.004 (0.003)	0.005 (0.005)	0.000 (0.003)
Erosion threat	0.005 (0.009)	-0.002 (0.004)	-0.000 (0.009)	-0.011** (0.004)
House FE	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes
Observations	8396	8407	8556	8575
Clusters	139	139	144	144
Mean	.413	.061	.449	.112
Clusters2				
Mean2				

*Notes:* This table explores the extent to which the content of chiefs' recommendations in Central + Local Information (CLI) predict tax visits after registration and tax payment differentially across treatments. Columns 1–2 compare CLI to Central, regressing outcomes of receiving a post-registration visit and paying the tax, respectively, on the predicted ease of payment measure (Panel A) and willingness to pay measure (Panel B) described in Section ??, an indicator for the CLI treatment arm, and their interaction. Columns 3–4 repeat the same exercise comparing CLI to Local. All regressions include house type and randomization stratum fixed effects, controls for observable household characteristics (wall quality, roof quality, and erosion threat), and cluster standard errors at the neighborhood level. We discuss these results in Section ??.

**FIGURE A7: TAX VISITS AND COMPLIANCE BY CHIEF KNOWLEDGE OF CITIZENS**



*Notes:* This figure shows the relationship between chiefs' knowledge of the inhabitants of the neighborhood and (i) the percent of property owners who received a tax visit after registration (Panels A, C, and E), and (ii) the level of tax compliance (Panels B, D, and F). Chiefs' knowledge of the inhabitants of the neighborhood is measured by the percentage of correct answers when asked to provide the name, education level, and occupation of a randomly selected group property owners. We show these relationships for neighborhoods assigned to Local in Panels A and B as well as neighborhoods assigned to CLI and Central tax collection in Panels C and D, and E and F, respectively. Table A23 analyzes these relationships in a regression framework. We discuss these results in Section ??.

**TABLE A23: TAX VISITS AND COMPLIANCE BY CHIEF KNOWLEDGE OF CITIZENS**

	CLI		Central		Local	
	(1)	(2)	(3)	(4)	(5)	(6)
Chief Info Above Median	0.010 (0.043)	0.028* (0.017)	-0.020 (0.041)	-0.007 (0.012)	-0.016 (0.034)	0.024* (0.012)
Observations	79	80	110	110	111	111
Clusters						
Mean	.377	.073	.454	.069	.412	.093

*Notes:* This table shows the relationship between city chiefs' knowledge of the inhabitants of the neighborhood and (i) the percent of property owners who received a tax visit after registration (Columns 1, 3, and 5), and (ii) the level of tax compliance (Columns 2, 4, and 6). Chiefs' knowledge of the inhabitants of the neighborhood is measured by the percentage of correct answers when asked to provide the name, education level, and occupation of a randomly selected group property owners. We show these relationships for neighborhoods assigned to (i) Central (Columns 1–2), where state collectors did not consult with chiefs — a placebo check — (ii) Central + Local Information (Columns 3–4), where state collectors did consult with chiefs, and (iii) Local (Columns 5–6), where chiefs themselves collected taxes. We discuss these results in Section ??.

**TABLE A24: COLLECTOR OUTCOMES AS A FUNCTION OF DISTANCE TO THEIR OWN NEIGHBORHOODS**

	taxes_paid	taxes_paid_amt	taxes_paid	taxes_paid_amt
Dist. btw collectors home and nbhd	-0.006*** (0.002)	-12.584** (5.754)		
dist_chief			-0.005 (0.019)	3.071 (62.236)
Time FE	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.014	0.023	0.005	0.016
Observations	22398	22398	13880	13880
Clusters	183	183	107	107
Mean	.066	172.966	.094	251.686

*Notes:* This table estimates the relationship between tax compliance (Columns 1 and 3) or tax revenue (Columns 2 and 4) and the distance between collectors' houses and the neighborhoods in which they worked. We estimate this relationship for state collectors in Central and CLI by calculating the average distance for the two randomly assigned collectors (Columns 1 and 2). The relationship for chief collectors is reported in Columns 3 and 4 for completeness, though there is little variation for chief collectors who hailed from the neighborhoods in which they taxed. All regressions include house type and randomization stratum fixed effects as well as the time fixed effects described in Section ???. We cluster standard errors at the neighborhood level. We discuss these results in Section ??.

**TABLE A25: LOCAL V. CENTRAL: STATE COLLECTORS WORKING NEAR THEIR HOMES**

	taxes_paid	taxes_paid_amt	taxes_paid	taxes_paid_amt
Local	0.027** (0.012)	63.062** (31.702)	0.034*** (0.009)	66.977*** (24.605)
Time FE	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes
$R^2$	0.007	0.017	0.010	0.022
Observations	17225	17225	24635	24635
Clusters	142	142	199	199
Mean	.069	202.237	.062	176.298

	taxes_paid	taxes_paid_amt	taxes_paid	taxes_paid_amt
Local	0.031** (0.013)	73.158** (33.833)	0.038*** (0.007)	86.362*** (18.763)
Time FE	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes
$R^2$	0.008	0.018	0.011	0.022
Observations	17448	17448	28874	28874
Clusters	153	153	237	237
Mean	.055	178.929	.051	141.706

*Notes:* This table estimates Equation ?? using as the dependent variable whether households paid the property tax (Columns 1 and 3) and the amount of revenues collected (Columns 2 and 4). It includes state collectors in Central (Panel A) and in Central and CLI (Panel B) as the comparison group. We include Panel B, lumping Central and CLI, to increase the number of state collectors randomly assigned to work near their homes in the analysis. Columns 1 and 2 compare chief collection to state tax collection in cases where at least one assigned state collector lived nearby. We define “near” as the maximum distance between a chief’s house and the neighborhood in which they taxed, which is 1.59 km in the data. Columns 3 and 4 compare chief collection to state tax collection in cases where no assigned state collector lived nearby. All regressions include house type and the time fixed effects described in Section ?? and cluster standard errors at the neighborhood level. We do not include fixed effects for randomization strata as a large share of strata do not contain a neighborhood from each comparison group (49% of strata include only one treatment when comparing Local to Central near home, 30% include only one when comparing Local to Central and CLI near home). We discuss these results in Section ??.

**TABLE A26: LOCAL V. CENTRAL: COLLECTION DURING PROPERTY REGISTRATION**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Amount (4)	Tax Amount (5)	Tax Amount (6)
Local	-0.001 (0.002)	-0.001 (0.002)	-0.000 (0.001)	-2.564 (4.278)	-2.850 (4.334)	-1.593 (4.059)
Month FE	No	No	Yes	No	No	Yes
House FE	No	Yes	Yes	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	28872	28872	27764	28872	28872	27764
Clusters	221	221	213	221	221	213
Mean	.006	.006	.006	16.116	16.116	15.657

*Notes:* This table estimates Equation ?? using as the dependent variable whether households paid the property tax during the property registration (Columns 1–3) and the revenue collected (Columns 4–6). As described in the text, collectors were instructed to solicit the tax at the end of each registration visit with households. During property registration, collectors followed a linear property-by-property route through neighborhoods, as demonstrated in Figure A8, meaning that collectors could not selectively target taxpayers at this stage of the campaign. All regressions include randomization stratum fixed effects and cluster standard errors at the neighborhood level. Columns 2, 3, 5, and 6 include house type fixed effects. Columns 3 and 6 include time fixed effects described in Section ???. We discuss these results in Section ??.

**TABLE A26 → REPLICATED USING RI APPROACH**

	Tax Compliance (1) b/p/pvalues	Tax Compliance (2) b/p/pvalues	Tax Compliance (3) b/p/pvalues	Tax Amount (4) b/p/pvalues	Tax Amount (5) b/p/pvalues	Tax Amount (6) b/p/pvalues
Local	-0.00103935 (0.498) [0.551000]	-0.000913881 (0.552) [0.612000]	-0.000213033 (0.878) [0.888000]	-2.563678 (0.550) [0.633000]	-2.849856 (0.512) [0.598000]	-1.592757 (0.695) [0.762000]
Month FE	No	No	Yes	No	No	Yes
House FE	No	Yes	Yes	No	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	28872	28872	27764	28872	28872	27764
Clusters	221	221	213	221	221	213
Mean	.006	.006	.006	16.116	16.116	15.657

*Notes:* Table A26 Replicated

**FIGURE A8: COLLECTORS' ROUTE THROUGH SAMPLE NEIGHBORHOOD DURING PROPERTY REGISTRATION.**



*Notes:* This map shows the linear, property-by-property route taken by collectors in a sample neighborhood in the Quartier of Malanji. Due to error in GPS measures, some points appear slightly outside of the neighborhood (or across the street). This figure is discussed in Section ??.

**TABLE A27: HETEROGENEITY BY CHIEF CHARACTERISTICS**

	beta1	SE1	beta2	SE2	beta3	SE3	N	Depvarmean
Age	0.038	0.012	-0.011	0.015	-0.005	0.012	27764.000	0.064
Wealth (possessions)	0.036	0.008	-0.017	0.020	0.014	0.014	27764.000	0.064
Years of education	0.017	0.011	0.036	0.015	-0.023	0.012	27764.000	0.073
Minority ethnic	0.042	0.009	-0.041	0.021	0.012	0.018	27453.000	0.059
Locality chief	0.043	0.012	-0.005	0.016	0.002	0.013	24695.000	0.057
Chief for over 10 years	0.021	0.009	0.023	0.016	0.002	0.011	27453.000	0.051
Dynastic succession	0.044	0.008	-0.047	0.024	0.046	0.021	27323.000	0.056
Remote neighborhood	0.028	0.010	0.009	0.015	-0.013	0.012	27764.000	0.069
Customary chief	0.041	0.007	-0.043	0.026	0.024	0.025	27764.000	0.061
Political party member	0.030	0.010	0.009	0.017	-0.014	0.012	27453.000	0.070
Ruling party member	0.028	0.008	0.023	0.019	-0.026	0.014	27453.000	0.068
Opposition party member	0.034	0.008	-0.008	0.025	0.003	0.019	27453.000	0.064
Has other gov position	0.036	0.008	-0.011	0.016	0.012	0.014	27453.000	0.066
Trust in government	0.031	0.009	0.005	0.017	-0.006	0.013	27764.000	0.061
Trust in tax ministry	0.037	0.009	-0.010	0.017	0.002	0.012	27764.000	0.062
View of government	0.038	0.009	-0.017	0.016	0.009	0.013	27764.000	0.061
View of gov responsiveness	0.031	0.011	0.010	0.017	-0.030	0.013	27764.000	0.063
View of gov integrity	0.040	0.010	-0.012	0.015	-0.020	0.011	27764.000	0.070
Knows fired chiefs	0.029	0.011	0.010	0.017	-0.016	0.013	27453.000	0.059
Knows 2016 campaign	0.035	0.016	-0.003	0.019	0.025	0.014	27323.000	0.052
Neighborhood in 2016 campaign	0.027	0.013	0.011	0.016	0.047	0.046	27626.000	0.065
Trusted by citizens	0.033	0.009	-0.001	0.014	0.014	0.011	27764.000	0.056
Accessible to citizens	0.025	0.011	0.016	0.016	0.006	0.013	27764.000	0.062
Active in chief role	0.024	0.009	0.027	0.016	0.017	0.012	27764.000	0.057

*Notes:* This table shows heterogeneous treatment effects by a range of chief characteristics measured before the tax campaign. Specifically, each row summarizes the results from estimating the equation  $y_{ijkt} = \beta_0 + \beta_1 Local_{jkt} + \beta_2 Local_{jkt} * Z_{jk}^{Chief} + \beta_3 Z_{jk}^{Chief} + \alpha_k + \theta_t + \varepsilon_{ijkt}$ , where  $Z_{jk}^{Chief}$  indicates the corresponding characteristic of the neighborhood chief shown in the first cell of each row.  $y_{ijkt}$  is tax compliance,  $\alpha_k$  are stratum fixed effects, and  $\theta_t$  are time fixed effects. Standard errors are clustered at the neighborhood level (213 in total). All chief characteristics are 0-1 to maximize power for estimating heterogeneous treatment effects. Continuous variables are transformed into indicators to report above-median values of the characteristics (denoted by  $> p50$ ). Panel A includes variables derived from household baseline survey questions about the neighborhood chief. Panels B–F include variables derived from pre-campaign surveys with chiefs as well as administrative data (on customary zones, remoteness, and the 2016 tax campaign). This table is discussed in Section ??.

**TABLE A28: FLIER MESSAGE EFFECTS ON TAX COMPLIANCE**

	Central Vs Local (1)	Messages vs Controls (2)	Messages vs Controls (3)	Central Vs Local (4)	Messages vs Controls (5)	Messages vs Controls (6)
Local	0.036*** (0.008)			107.822*** (31.185)		
central_deterrence		0.013* (0.007)	0.014* (0.007)		42.705 (25.976)	43.318* (25.713)
local_deterrence		0.010 (0.007)	0.012* (0.007)		12.997 (20.260)	16.819 (20.118)
central_pub_goods		0.005 (0.007)	0.005 (0.007)		7.552 (20.788)	7.263 (20.351)
local_pub_goods		0.006 (0.007)	0.008 (0.007)		30.102 (25.280)	34.208 (24.843)
trust_message		0.010 (0.007)	0.011 (0.007)		28.547 (22.949)	30.866 (22.850)
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	No	Yes	No	No
Strata FE	Yes	No	No	Yes	No	No
Neighborhood FE	No	No	Yes	No	No	Yes
Observations	4783	6796	6796	4783	6796	6796
Mean	.012	.024	.024	30.326	59.64	59.64

*Notes:* This table reports estimates from a regression of tax compliance (Columns 1–3) and tax revenue (Columns 4–6) on indicators for assignment to the Local treatment or the Central arm (Columns 1 and 4), or on indicators for the randomized messages printed on the tax letters distributed at registration (Columns 2–3 and 5–6). Section A2.2 provides descriptions of the central deterrence, local deterrence, central public goods, local public goods, and trust treatment messages. The excluded category in all regressions analyzing fliers is the control message “It is important to pay the property tax.” All regressions include type of house fixed effects. Columns 1 and 4 include geographic randomization stratum fixed effects and the time fixed effects described in Section ???. Columns 3 and 6 include neighborhood fixed effects (tax message treatment randomization strata). The data are restricted to the subsample of properties subject to randomized messages on tax letters, which were introduced toward the end of the property tax campaign. We discuss these results in Section ??.

**TABLE A28 → REPLICATED USING RANDOMIZED INFERENCE**

	Central Vs Local (1) b/p/pvalues	Messages vs Controls (2) b/p/pvalues	Messages vs Controls (3) b/p/pvalues	Central Vs Local (4) b/p/pvalues	Messages vs Controls (5) b/p/pvalues	Messages vs Controls (6) b/p/pvalues
Local	0.0362711 (0.00000217) [0.041000]			107.8223 (0.000550) [0.037000]		
central_deterrence		0.0131553 (0.0718)	0.0135378 (0.0624)		42.70535 (0.100)	43.31774 (0.0921)
local_deterrence		0.0103139 (0.148)	0.0115659 (0.0999)		12.99692 (0.521)	16.81899 (0.403)
central_pub_goods		0.00484337 (0.476)	0.00486123 (0.469)		7.552377 (0.716)	7.263276 (0.721)
local_pub_goods		0.00591652 (0.389)	0.00766749 (0.262)		30.10159 (0.234)	34.20801 (0.169)
trust_message		0.0102362 (0.148)	0.0111269 (0.110)		28.54663 (0.214)	30.86646 (0.177)
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	No	Yes	No	No
Strata FE	Yes	No	No	Yes	No	No
Neighborhood FE	No	No	Yes	No	No	Yes
Observations	4783	6796	6796	4783	6796	6796
Mean	.012	.024	.024	30.326	59.64	59.64

*Notes:* Replicated.

**TABLE A29: LOCAL V. CENTRAL: INTERACTIONS WITH FLIER MESSAGES**

	All properties (1)	All properties (2)	Received Flier (3)	Message Read (4)
Local	0.052** (0.017)	0.054** (0.018)	179.273** (53.603)	196.565** (60.449)
central_deterrence	0.008 (0.007)	0.008 (0.007)	17.214 (13.942)	16.158 (14.137)
LocalXcentral_deterrence	0.008 (0.015)	0.010 (0.016)	44.815 (66.115)	51.255 (71.207)
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1675	1580	1675	1580
Mean	.034	.035	95.343	98.544

	All properties (1)	All properties (2)	Received Flier (3)	Message Read (4)
Local	0.034** (0.016)	0.032* (0.018)	69.613** (30.153)	66.327* (32.933)
local_deterrence	0.008 (0.008)	0.008 (0.008)	14.513 (13.338)	14.541 (13.326)
LocalXlocal_deterrence	0.007 (0.015)	0.010 (0.016)	0.444 (34.416)	6.039 (36.918)
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1682	1585	1682	1585
Mean	.033	.035	77.17	80.631

	All properties (1)	All properties (2)	Received Flier (3)	Message Read (4)
Local	0.043** (0.013)	0.043** (0.015)	89.392** (25.733)	89.044** (28.054)
central_pub_goods	0.008 (0.005)	0.008 (0.005)	21.771** (9.730)	21.797** (9.695)
LocalXcentral_pub_goods	-0.011 (0.013)	-0.010 (0.014)	-45.274 (35.695)	-43.619 (38.435)
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1674	1581	1674	1581
Mean	.027	.028	64.69500000000001	67.236

	All properties (1)	All properties (2)	Received Flier (3)	Message Read (4)
Local	0.035** (0.014)	0.037** (0.015)	65.192* (35.734)	81.790** (37.007)
local_pub_goods	0.012 (0.008)	0.012 (0.008)	66.663 (47.133)	65.890 (47.163)
LocalXlocal_pub_goods	-0.010 (0.017)	-0.008 (0.018)	-53.038 (65.423)	-48.424 (68.030)
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1674	1579	1674	1579
Mean	.03	.031	87.336	91.324

	All properties (1)	All properties (2)	Received Flier (3)	Message Read (4)
Local	0.041** (0.017)	0.040** (0.018)	95.835** (33.016)	95.705** (35.821)
trust_message	0.011 (0.009)	0.011 (0.009)	29.969 (21.096)	30.158 (21.255)
LocalXtrust.message	-0.004 (0.020)	-0.002 (0.021)	-13.603 (50.680)	-9.882 (53.911)
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1689	1598	1689	1598
Mean	.032	.033	80.40300000000001	83.73

*Notes:* This table reports estimates from a version of Equation ??, comparing the Local to the Central arm, including interactions with indicators for flier messages printed on tax letters distributed at registration. Section A2.2 provides descriptions of the central deterrence, local deterrence, central public goods, local public goods, and trust treatment messages. The excluded flier message category is the control message “It is important to pay the property tax.” The dependent variable is tax compliance in Columns 1 and 2 and tax revenue in Columns 3 and 4. All columns include house fixed effects and randomization stratum fixed effects and Columns 2 and 4 also include the time fixed effects described in Section ?? . The data is restricted to the sample of properties subject to randomized messages on tax letters. We estimate the effects of flier messages within the Local arm in Table A30. This table is discussed in Section ??.

**TABLE A29 → REPLICATED USING RANDOMIZED INFERENCE**

	All properties (1) b/p/pvalues/pvalues1	All properties (2) b/p/pvalues/pvalues1	Received Flier (3) b/p/pvalues/pvalues1	Message Read (4) b/p/pvalues/pvalues1
Local	0.0523213 (0.00319) [0.030000]	0.0543657 (0.00502) [0.078000]	179.2727 (0.00198) [0.063000]	196.5646 (0.00264) [0.071000]
central.deterrence	0.00774490 (0.290)	0.00759348 (0.298)	17.21384 (0.225)	16.15787 (0.261)
LocalXcentral.deterrence	0.00785686 (0.614)	0.00962584 (0.557)	44.81482 (0.502)	51.25471 (0.477)
House FE	[1.000000]	[1.000000]	[1.000000]	[1.000000]
Time FE	Yes	Yes	Yes	Yes
Strata FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1675	1580	1675	1580
Mean	.034	.035	95.343	98.544
	All properties (1) b/p/pvalues	All properties (2) b/p/pvalues	Received Flier (3) b/p/pvalues	Message Read (4) b/p/pvalues
Local	0.0338516 (0.0442) [0.108000]	0.0322298 (0.0780) [0.205000]	69.61272 (0.0270) [0.077000]	66.32651 (0.0522) [0.160000]
local_deterrence	0.00828917 (0.317)	0.00827798 (0.318)	14.51349 (0.284)	14.54051 (0.283)
LocalXlocal_deterrence	0.00653635 (0.672)	0.0100258 (0.539)	0.443988 (0.990)	6.039005 (0.871)
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1682	1585	1682	1585
Mean	.033	.035	77.17	80.631
	All properties (1) b/p/pvalues	All properties (2) b/p/pvalues	Received Flier (3) b/p/pvalues	Message Read (4) b/p/pvalues
Local	0.0434020 (0.00268) [0.003000]	0.0429208 (0.00647) [0.030000]	89.39158 (0.00139) [0.003000]	89.04354 (0.00325) [0.011000]
central_pub_goods	0.00779852 (0.108)	0.00780286 (0.107)	21.77079 (0.0317)	21.79680 (0.0314)
LocalXcentral_pub_goods	-0.0111657 (0.401)	-0.00954985 (0.502)	-45.27393 (0.213)	-43.61937 (0.265)
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1674	1581	1674	1581
Mean	.027	.028	64.69500000000001	67.236
	All properties (1) b/p/pvalues	All properties (2) b/p/pvalues	Received Flier (3) b/p/pvalues	Message Read (4) b/p/pvalues
Local	0.0349986 (0.0172) [0.035000]	0.0365844 (0.0227) [0.067000]	65.19190 (0.0766) [0.081000]	81.78969 (0.0341) [0.034000]
local_pub_goods	0.0116161 (0.176)	0.0115102 (0.182)	66.66337 (0.166)	65.89006 (0.172)
LocalXlocal_pub_goods	-0.00997679 (0.564)	-0.00782719 (0.670)	-53.03782 (0.423)	-48.42358 (0.482)
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1674	1579	1674	1579
Mean	.03	.031	87.336	91.324
	All properties (1) b/p/pvalues	All properties (2) b/p/pvalues	Received Flier (3) b/p/pvalues	Message Read (4) b/p/pvalues
Local	0.0411338 (0.0181) [0.050000]	0.0401879 (0.0337) [0.087000]	95.83482 (0.00636) [0.045000]	95.70476 (0.0116) [0.087000]
trust_message	0.0112353 (0.230)	0.0112592 (0.231)	29.96940 (0.164)	30.15844 (0.165)
LocalXtrust_message	-0.00429978 (0.829)	-0.00188474 (0.929)	-13.60277 (0.790)	-9.882266 (0.856)
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1689	1598	1689	1598
Mean	.032	.033	80.40300000000001	83.73

Notes: Replicated.

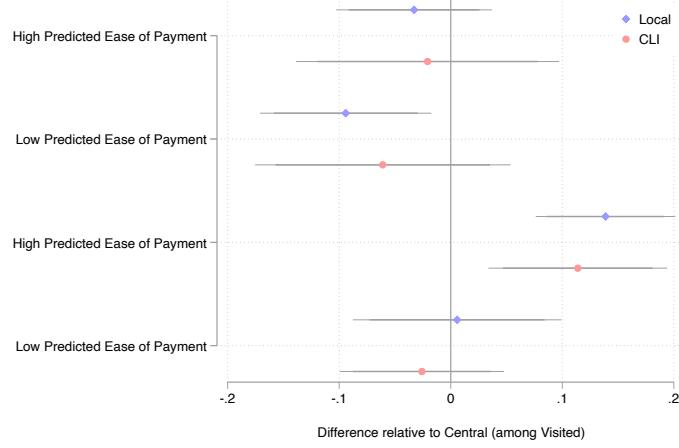
**TABLE A30: LOCAL: INTERACTIONS WITH FLIER MESSAGES**

	All properties (1)	All properties (2)	Received Flier (3)	Message Read (4)
Local				
central_deterrence	0.016 (0.014)	0.018 (0.015)	62.332 (63.495)	66.948 (67.708)
LocalXcentral_deterrence				
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1159	1064	1159	1064
Mean	.046	.048	130.889	138.816
	All properties (1)	All properties (2)	Received Flier (3)	Message Read (4)
Local				
local_deterrence	0.016 (0.013)	0.020 (0.014)	18.070 (32.611)	24.478 (35.518)
LocalXlocal_deterrence				
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1164	1067	1164	1067
Mean	.045	.048	105.928	113.683
	All properties (1)	All properties (2)	Received Flier (3)	Message Read (4)
Local				
central_pub_goods	-0.003 (0.012)	-0.001 (0.013)	-23.547 (34.274)	-22.095 (37.016)
LocalXcentral_pub_goods				
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1155	1062	1155	1062
Mean	.036	.039	86.407	92.09
	All properties (1)	All properties (2)	Received Flier (3)	Message Read (4)
Local				
local_pub_goods	0.002 (0.015)	0.004 (0.016)	14.950 (44.532)	18.376 (47.726)
LocalXlocal_pub_goods				
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1152	1057	1152	1057
Mean	.039	.042	109.635	117.597
	All properties (1)	All properties (2)	Received Flier (3)	Message Read (4)
Local				
trust_message	0.007 (0.018)	0.010 (0.019)	16.087 (46.870)	19.426 (50.043)
LocalXtrust_message				
House FE	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes
Strata FE	Yes	Yes	Yes	Yes
Observations	1173	1082	1173	1082
Mean	.042	.044	106.82	113.956

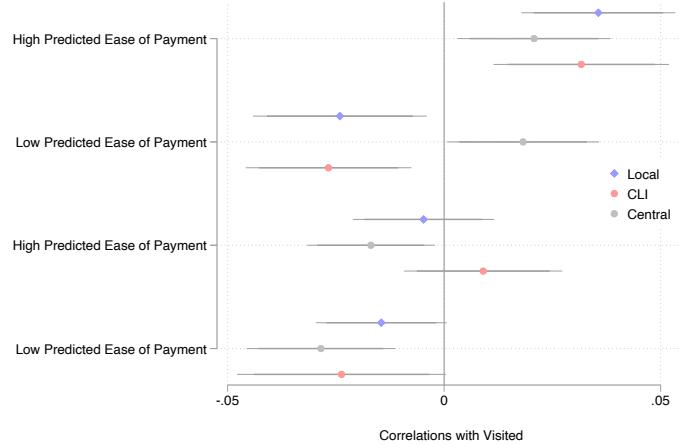
*Notes:* This table reports estimates from regressions of compliance and revenues on indicators for flier messages printed on tax letters distributed at registration, restricted to the Local arm only. Section A2.2 provides descriptions of the central deterrence, local deterrence, central public goods, local public goods, and trust treatment messages. The excluded flier message category is the control message “It is important to pay the property tax.” The dependent variable is tax compliance in Columns 1 and 2 and tax revenue in Columns 3 and 4. All columns include house fixed effects and randomization stratum fixed effects and Columns 2 and 4 also include the time fixed effects described in Section ???. The data contain only properties subject to randomized messages on tax letters. Table A29 reports estimates from comparisons with the Central arm by flier message.

**FIGURE A9: CHARACTERISTICS OF HOUSEHOLDS VISITED BY TAX COLLECTORS AFTER REGISTRATION WITHIN TREATMENTS**

A: Visible and Non-Visible Characteristics



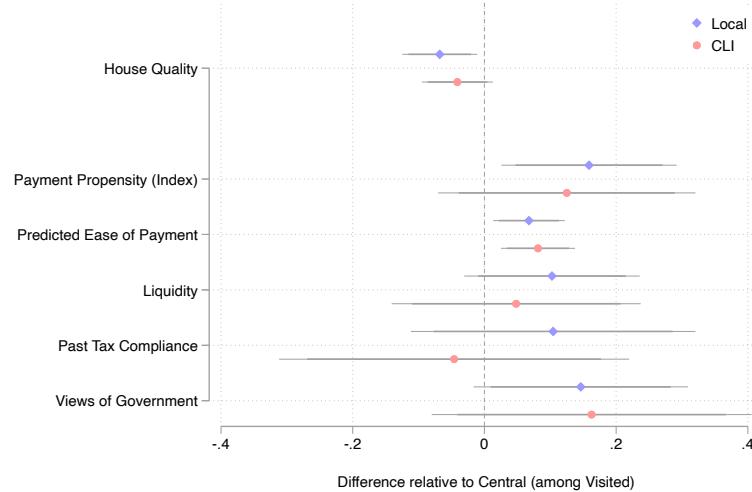
B: Predicted Ease of Payment and House Quality



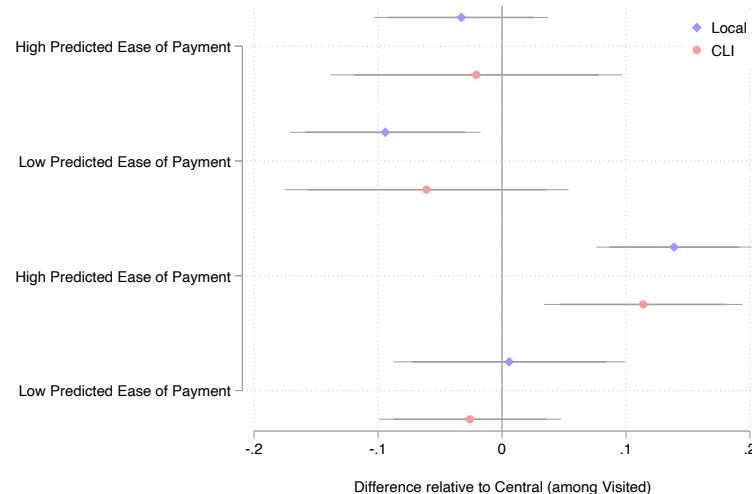
*Notes:* This figure reports correlations by treatment arm in the characteristics of properties visited by collectors after registration. It therefore supplements the analysis in Figure 1, which examines *differences by treatment* in the characteristics of households that received tax visits after registration. Panel A shows correlations with visible and non-visible characteristics for indices described in Section ???. Panel B shows correlations with tax visits in the four cells indicated (defined by interactions of high/low dummies for household house quality and predicted ease of payment). Correlations are estimated through separate regressions of characteristics on a treatment indicator among visited properties, controlling for the leave-one-out neighborhood mean of the outcome (Panel A) or the neighborhood mean of house quality and ease of payment (Panel B). We include time period, house type, and stratum fixed effects. We cluster standard errors at the neighborhood level. Households that paid at registration are dropped. This figure is discussed in Section ??.

**FIGURE A10: CHARACTERISTICS OF HOUSEHOLDS VISITED BY COLLECTORS AFTER REGISTRATION ACROSS TREATMENTS — NO HOUSE FIXED EFFECTS**

A: Visible and Non-Visible Characteristics



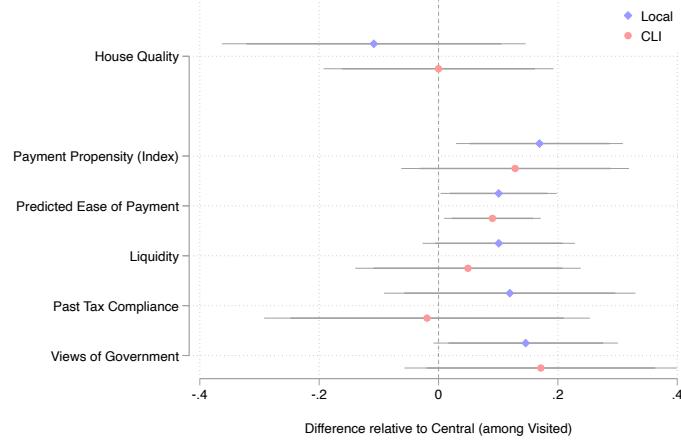
B: Willingness to Pay and House Quality



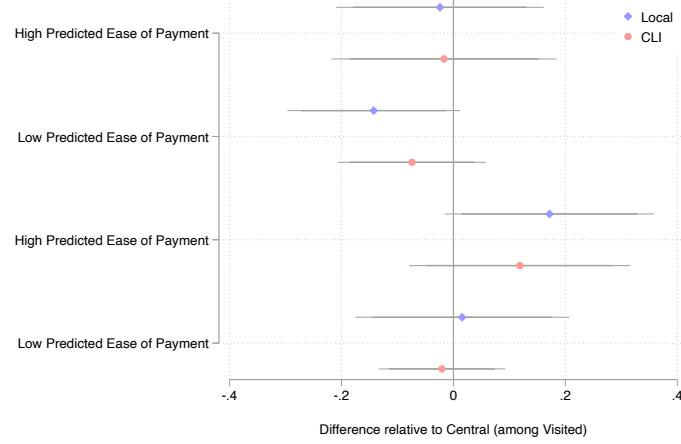
*Notes:* This figure reproduces the results from Figure 1 but excludes house fixed effects as a robustness check. Specifically, it reports differences by treatment arm in the characteristics of properties visited by collectors after registration, showing differences in characteristics of visited properties in the Local and CLI arms relative to the Central arm. Panel A shows differences in visible and non-visible characteristics for indices described in Section ???. Panel B shows differences in the probability of receiving a visit in the four cells indicated (defined by interactions of high/low dummies for household house quality and predicted ease of payment). Differences are estimated through separate regressions of characteristics on a treatment indicator among visited properties, controlling for the leave-one-out neighborhood mean of the outcome (Panel A) or the neighborhood mean of house quality and ease of payment (Panel B). We include time period, house type, and stratum fixed effects. We cluster standard errors at the neighborhood level. Households that paid during registration are dropped. We discuss these results in Section ??.

**FIGURE A11: CHARACTERISTICS OF HOUSEHOLDS VISITED BY TAX COLLECTORS AFTER REGISTRATION ACROSS TREATMENTS — OMITTING NEIGHBORHOOD MEAN CONTROLS**

A: Visible and Non-Visible Characteristics



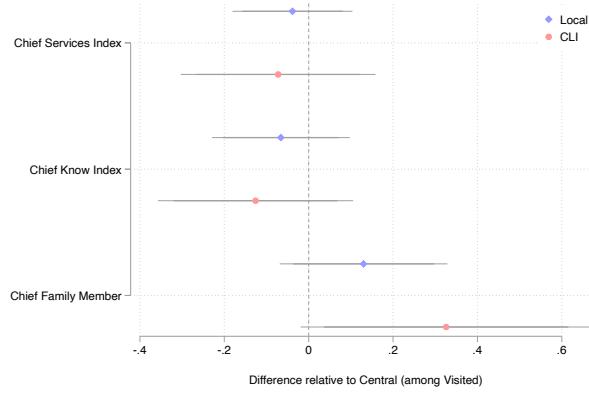
B: Willingness to Pay and House Quality



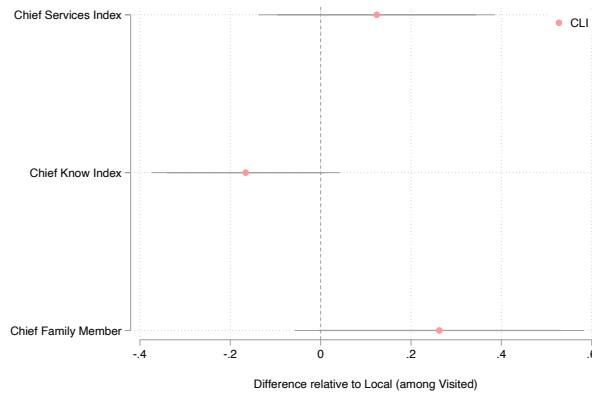
*Notes:* This figure reproduces the results from Figure 1 but omits the neighborhood mean controls as a robustness check. Specifically, it reports differences by treatment arm in the characteristics of properties visited by collectors after registration, showing differences in characteristics of visited properties in the Local and CLI arms relative to the Central arm. Panel A shows differences in visible and non-visible characteristics for indices described in Section ???. Panel B shows differences in the probability of receiving a visit in the four cells indicated (defined by interactions of high/low dummies for household house quality and predicted ease of payment). Differences are estimated through separate regressions of characteristics on a treatment indicator among visited properties, controlling for the leave-one-out neighborhood mean of the outcome (Panel A) or the neighborhood mean of house quality and ease of payment (Panel B). We include time period, house type, and stratum fixed effects. We cluster standard errors at the neighborhood level. Households that paid during registration are dropped. We discuss these results in Section ??.

**FIGURE A12: CORRELATIONS BETWEEN TAX VISITS AND CHIEF CONNECTIONS**

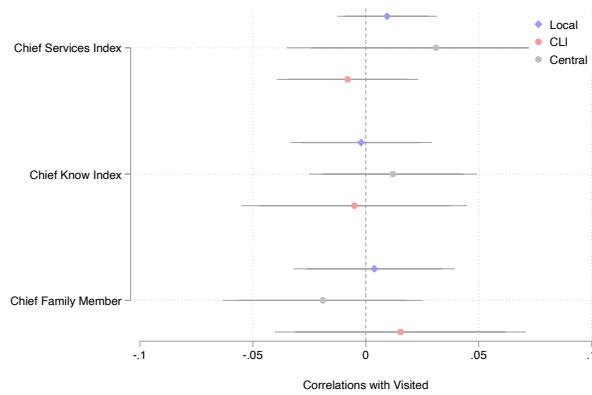
A: Local and CLI v. Central



B: CLI v. Local



C: Correlations by Treatment



*Notes:* This figure reports differences and correlations by treatment arm in the probability of receiving tax visits after registration and households' connections to the chief. Panel A shows differences in terms of the indices described in Section ??, comparing Local and CLI to Central. Panel B shows differences comparing CLI to Local. Panel C shows correlations with tax visits by treatment. Differences are estimated through separate regressions of the connection variable on a treatment indicator, controlling for the leave-one-out neighborhood mean. Correlations are estimated through separate regressions of an indicator for receiving a tax visit on a characteristic separately by treatment groups. All regressions control for the leave-one-out neighborhood mean of the connection variable and include time period, house type, and stratum fixed effects and clustering standard errors at the neighborhood level. Households that paid at registration are dropped. We discuss these results in Section ??.

**TABLE A31: LOCAL V. CENTRAL: TAX VISITS AND COMPLIANCE BY COETHNICITY**

	Tribe (1)	Subtribe (2)	Lang. Maj. (3)	Tribe (4)	Subtribe (5)	Lang. Maj. (6)
Local	-0.002 (0.031)	0.063 (0.044)	-0.016 (0.039)	0.050*** (0.011)	0.026 (0.019)	0.049** (0.017)
hetXt_l	0.007 (0.040)	-0.117** (0.058)	0.020 (0.045)	-0.015 (0.016)	-0.035 (0.044)	-0.003 (0.019)
het	-0.010 (0.035)	0.143** (0.054)	-0.004 (0.035)	0.011 (0.013)	0.051 (0.041)	-0.009 (0.012)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	13628	6457	13628	13752	6491	13752
Mean	.438	.297	.432	.072	.052	.074
Polygons	210	114	210	210	114	210

*Notes:* This table reports estimates from a version of Equation ??, comparing tax visits and compliance in Local and Central (the excluded category) by whether the collector and property owner are coethnics along a specific dimension. The outcome in Columns 1–3 is whether households reported any tax visits after registration. The outcome in Columns 4–6 is compliance according to administrative data. Match corresponds to an indicator for the chief's or at least one state collector's coethnicity characteristic matching that of the property owner for the characteristics at the top of each column. Columns 1 and 5 show estimates for including an interaction with an indicator for a collector's and property owner's tribe matching, Columns 2 and 6 for subtribe, Columns 3 and 7 for both being members of the language majority, and Columns 4 and 8 for families originating from the same territory. All regressions include fixed effects for time periods described in Section ??, house type, and randomization strata. We cluster standard errors at the neighborhood level. These results are discussed in Section ??.

**TABLE A32: LOCAL V. CENTRAL: THE DISTRIBUTION OF THE TAX BURDEN — NO HOUSE FIXED EFFECTS**

	Paid - Periph (1)	Paid - MM (2)	HQ - Visited (3)	HQ - Paid (4)	Income - Visited (5)
Local	0.037*** (0.008)	0.002 (0.013)	-0.142** (0.056)	-0.003 (0.038)	-0.079 (0.161)
Month FE	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes
Observations	24105	3265	1296	224	224
Clusters	206	147	156	120	120
Mean	.064	.063	.099	.007	.118

*Notes:* This table re-estimates the results reported in Table 9 while excluding house fixed effects. Specifically, it reports estimates from a version of Equation ??, comparing property tax compliance in Local and Central (the excluded category). We include fixed effects for randomization strata and time periods, as described in Section ??, and we cluster standard errors at the neighborhood level. Columns 1 and 2 report estimates of the impact of local collection on compliance for low- and high-band households, respectively. Column 3 reports differences in an index of house quality conditional on the property paying the tax. Column 4 reports differences in monthly household income of properties, averaged across baseline and endline values, in Congolese Francs, conditional on paying the tax. Column 5 reports differences in an index of liquidity measures drawn from baseline (excepting income, which is also included, and uses information from endline) among payers. Columns 3–5 control for the leave-one-out neighborhood mean of the outcome. We discuss the interpretation of these results in Section ??.

**TABLE A33: LOCAL AND CLI V. CENTRAL: INCIDENCE BY COMPLIER CHARACTERISTICS — NO NEIGHBORHOOD MEAN CONTROLS**

	HQ - Paid (1)	Income - Paid (2)	Liquidity - Paid (3)	HQ - Paid (4)	Income - Paid (5)	Liquidity - Paid (6)
Local	-0.216 (0.156)	0.002 (0.041)	-0.053 (0.174)			
CLI				0.133 (0.127)	0.015 (0.053)	0.183 (0.211)
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1310	228	228	832	141	141
Clusters	157	121	121	118	87	87
Mean	.099	.007	.118	.096	.02	.193

*Notes:* This table re-estimates the results reported in Columns 3–5 of Table 9 while excluding controls for the neighborhood mean. Columns 1–3 examine the distribution of the noted characteristics among taxpayers in a comparison of Local v. Central, while Columns 4–6 compare CLI v. Central. Column 1 and 4 report differences in an index of house quality conditional on the property paying the tax. Columns 2 and 5 report differences in monthly household income of properties, averaged across baseline and endline values, in Congolese Francs, conditional on paying the tax. Columns 3 and 6 report differences in an index of liquidity measures drawn from baseline (except income, which is also included, and uses information from endline) among payers. We include fixed effects for house type, randomization strata, and time periods, as described in Section ??, and we cluster standard errors at the neighborhood level. We discuss the interpretation of these results in Section ??.

**TABLE A34: LOCAL V. CENTRAL: THE DISTRIBUTION OF THE TAX BURDEN — PROPERTY VALUE BAND INTERACTIONS**

	Compliance (1)	Revenues (2)
Local	0.037*** (0.008)	77.607*** (17.844)
Local X High-Value Band	-0.029** (0.013)	-73.065 (96.963)
High-Value Band	-0.014 (0.009)	398.778*** (69.284)
Month FE	Yes	Yes
Stratum FE	Yes	Yes
Observations	27764	27764
Clusters	213	213
Mean	.064	133.152

*Notes:* This figure reports estimates from a version of Equation ??, showing differences in tax payment in the Local arm relative to the Central arm by heterogeneity in property value band assessed at registration — an interaction version of the specification in Table 9, Columns 1–2. We include time period and stratum fixed effects and cluster standard errors at the neighborhood level. We discuss the interpretation of these results in Section ??.

**TABLE A35: LOCAL V. CENTRAL: THE DISTRIBUTION OF THE TAX BURDEN — COMPLIER CHARACTERISTICS INTERACTIONS**

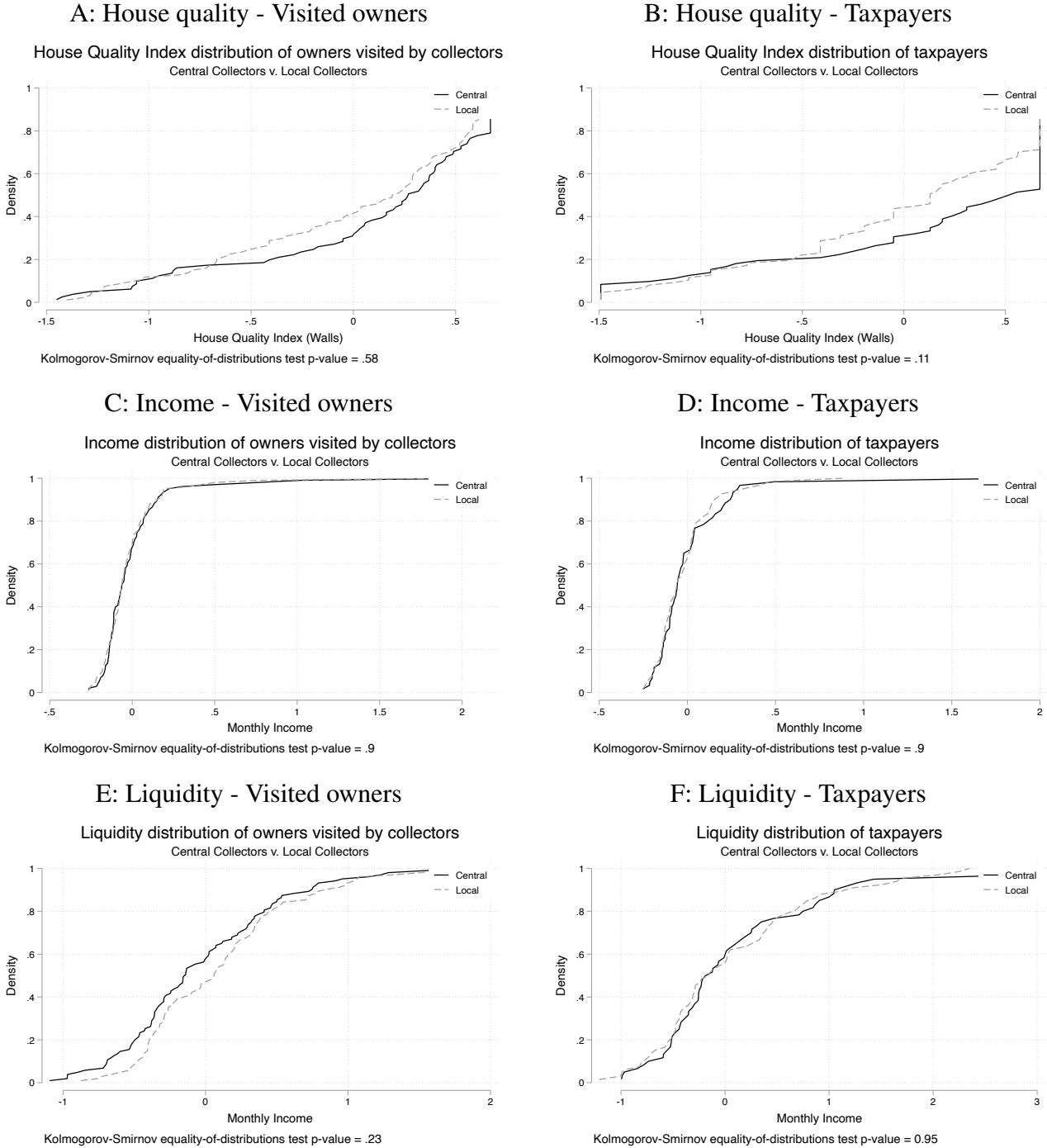
	HQ Compliance	Inc Compliance	Liq Compliance
	(1)	(2)	(3)
Local	0.053*** (0.009)	0.017 (0.031)	0.019 (0.031)
Local X Above Median	-0.004 (0.011)	0.013 (0.036)	0.011 (0.036)
Above Median	0.034*** (0.006)	0.022 (0.025)	0.023 (0.025)
Month FE	Yes	Yes	Yes
House FE	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes
Observations	17519	2236	2238
Clusters	174	212	212
Mean	.045	.06	.06

	HQ Revenues	Inc Revenues	Liq Revenues
	(1)	(2)	(3)
Local	121.651*** (23.516)	90.690 (75.542)	106.947 (81.553)
t_lXhetmargin	-24.687 (28.456)	-38.534 (87.068)	-57.080 (92.835)
hetmargin	87.670*** (20.038)	92.759 (57.610)	102.466* (56.979)
Month FE	Yes	Yes	Yes
House FE	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes
Observations	17519	2236	2238
Clusters	174	212	212
Mean	96.541	115.385	115.385

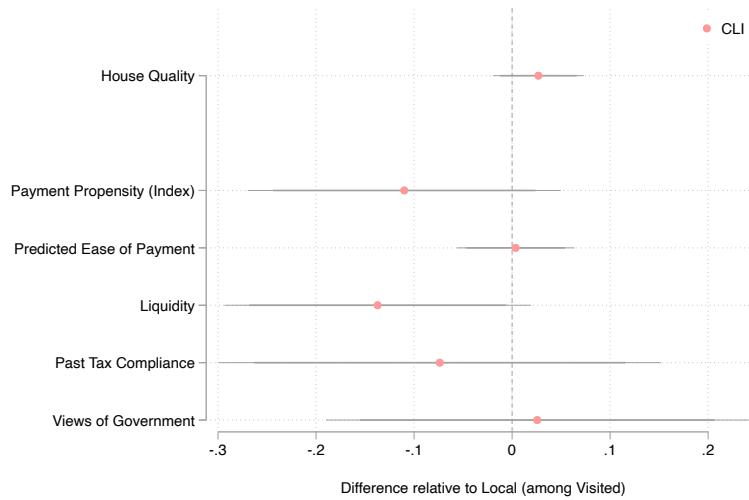
*Notes:* This figure reports estimates from a version of Equation ??, showing differences in tax payment in the Local arm relative to the Central arm by heterogeneity in the incidence measures described in Table 9, Columns 3–5: house quality, average monthly income, and an index of liquidity, interacting an indicator for the Local arm with indicators for having above-median values for each measure. We include time period, house type, and stratum fixed effects and cluster standard errors at the neighborhood level. We also include controls for the leave-one-out neighborhood means of the relevant heterogeneity measure. We discuss the interpretation of these results in Section ??.

**FIGURE A13: HOUSE QUALITY, INCOME, AND LIQUIDITY DISTRIBUTIONS AMONG VISITED AND PAYING HOUSEHOLDS BY TREATMENT**



*Notes:* This figure shows cumulative distribution functions of house quality and income by treatment and separately among households that received tax visits after registration (Panels A, C, and E) and that paid the tax (Panels B, D, and F). In Panel B, the taxpayer distribution has considerable mass at the maximum value of the house quality index in Central, making the CDF somewhat difficult to read. Kolmogorov-Smirnov equality of distributions test *p*-values are reported at the bottom. We discuss these results in Section ??.

**FIGURE A14: LOCAL v. CENTRAL + LOCAL INFO: DIFFERENCES IN TARGETING OF TAX VISITS BY HOUSEHOLD CHARACTERISTICS**



*Notes:* This figure reports correlations by treatment arm in the characteristics of properties visited by collectors after registration. The figure shows differences in visible and non-visible characteristics for indices described in Section ???. Correlations are estimated through separate regressions of an indicator for receiving a tax visit on a characteristic separately by treatment groups, controlling for the leave-one-out neighborhood mean of the outcome, including time period, house type, and stratum fixed effects and clustering standard errors at the neighborhood level. Households that paid at registration are dropped. We discuss these results in Section A3.6.

**TABLE A36: LOCAL V. CENTRAL: IMPACTS ON HOUSEHOLD WELL-BEING**

	Monthly Income (1)	Weekly Transport (2)	Bed Hungry Last month Yes/No (3)	Bed Hungry Last month Nb of days (4)	3000 CF in cash today (5)	lacks 3000 CF in cash this month (6)	lacks 3000 CF in cash this month NB of days (7)
Local	-2300.525 (7800.918)	-37.852 (438.961)	-0.015 (0.023)	-0.017 (0.077)	-0.014 (0.023)	-0.003 (0.027)	0.105 (0.176)
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2277	2329	2330	2330	2330	2330	2330
Mean	144788.859	4455.783	.516	.993	.675	.652	1.29
	Monthly Income (1)	Weekly Transport (2)	Bed Hungry Last month Yes/No (3)	Bed Hungry Last month Nb of days (4)	3000 CF in cash today (5)	lacks 3000 CF in cash this month (6)	lacks 3000 CF in cash this month NB of days (7)
taxes-paid	-1.34e+05 (4.86e+05)	-2574.310 (30047.563)	-1.054 (1.954)	-1.181 (5.270)	-0.942 (1.802)	-0.180 (1.827)	7.147 (12.946)
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2277	2329	2330	2330	2330	2330	2330
Mean	144788.859	4455.783	.516	.993	.675	.652	1.29
	Monthly Income (1)	Weekly Transport (2)	Bed Hungry Last month Yes/No (3)	Bed Hungry Last month Nb of days (4)	3000 CF in cash today (5)	lacks 3000 CF in cash this month (6)	lacks 3000 CF in cash this month NB of days (7)
taxbribe	33221.221 (1.90e+05)	-1.49e+04 (19209.285)	-0.366 (0.603)	0.770 (1.615)	-0.079 (0.529)	-0.115 (0.634)	3.098 (3.169)
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1260	1287	1287	1287	1287	1287	1287
Mean	150899.013	5173.794	.482	.863	.67	.63	1.1

*Notes:* This table reports estimates from a version of Equation ??, endline measures of well-being in Local and Central (the excluded category). We include fixed effects for house type and randomization strata and cluster standard errors at the neighborhood level. Columns 1 and 2 report differences in monthly household income and weekly transport (a measure of spending). Columns 3 and 4 report differences in whether the household went to bed hungry at least one day in the last month and how many days, respectively. Columns 5, 6, and 7 report differences in whether the household lacked 3,000 Congolese Francs to be able to make a payment at the date of survey, sometime in the last month, and how many times in the last month, respectively. Panel A reports the reduced form results of a regression of outcomes on an indicator for the Local treatment. Panel B regresses outcomes on an indicator for tax payment instrumented by an indicator for the Local treatment. Panel C regresses outcomes on an indicator for paying a tax or bribe with an indicator for the Local treatment. We discuss these results in Section ??.

**TABLE A37: LOCAL V. CENTRAL: VIEWS OF GOVERNMENT AND CHIEFS BY TAX AND BRIBE PAYMENT**

	Views of govt (index) (1)	Trust in govt (2)	Resp. of govt. (3)	Perf. of govt. (4)	Views of chief (index) (5)	Trust in chief (6)	Resp. of chief. (7)	Perf. of chief. (8)
Local	0.036 (0.052)	0.153** (0.060)	-0.057 (0.046)	-0.036 (0.055)	0.070 (0.053)	0.057 (0.056)	-0.039 (0.059)	0.085 (0.063)
Local X Taxes Paid	-0.090 (0.118)	-0.288* (0.151)	0.148 (0.137)	-0.184 (0.138)	-0.155 (0.132)	-0.143 (0.136)	-0.326** (0.150)	0.057 (0.120)
Taxes Paid	0.082 (0.089)	0.065 (0.109)	-0.101 (0.108)	0.173 (0.107)	0.116 (0.095)	0.028 (0.100)	0.261** (0.115)	-0.123 (0.085)
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2329	2207	2205	2102	2303	2291	1637	1302
Mean	-.009	.004	-.009	.009	-.01	-.016	.029	-.013

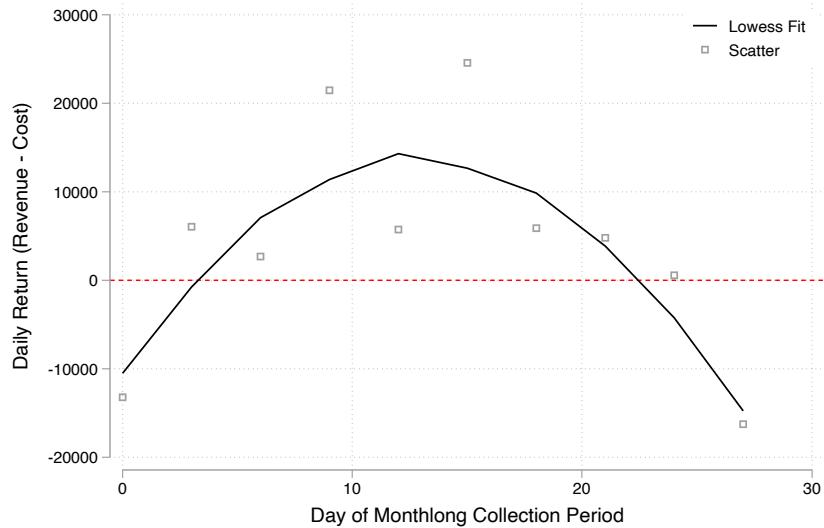
  

	Views of govt (index) (1)	Trust in govt (2)	Resp. of govt. (3)	Perf. of govt. (4)	Views of chief (index) (5)	Trust in chief (6)	Resp. of chief. (7)	Perf. of chief. (8)
Local	0.082 (0.065)	0.227** (0.088)	-0.010 (0.064)	-0.121* (0.064)	0.113* (0.067)	0.137* (0.079)	-0.067 (0.080)	0.108 (0.087)
Local X Bribe Paid	0.321 (0.461)	-0.531 (0.405)	0.842* (0.487)	0.287 (0.497)	0.154 (0.490)	-0.428 (0.506)	-0.246 (0.473)	0.805 (0.539)
Bribe Paid	-0.466 (0.391)	0.522* (0.308)	-0.500 (0.375)	-0.689* (0.411)	-0.236 (0.390)	0.112 (0.413)	0.235 (0.282)	-0.097 (0.179)
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1124	1073	1063	1021	1121	1114	789	645
Mean	-.081	-.052	-.06	-.047	-.062	-.075	-.021	.01

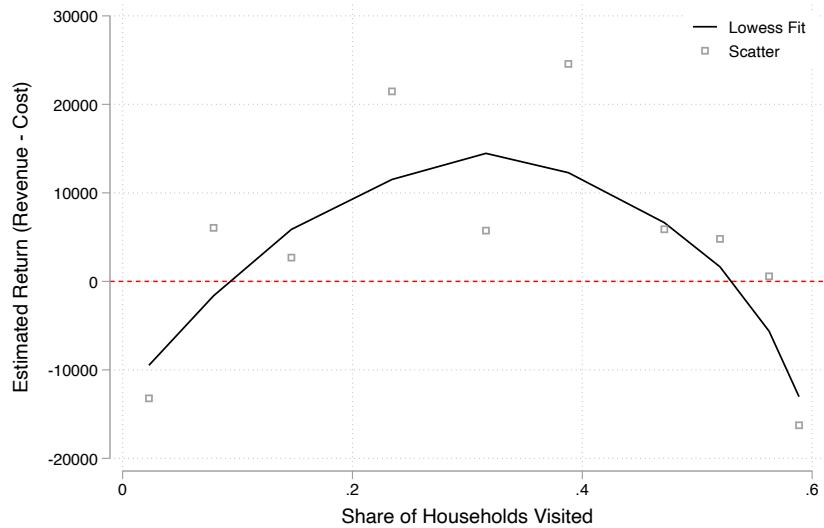
*Notes:* This table shows estimates from versions of Equation ??, comparing the Local arm to the Central arm (the excluded category). The outcomes are views of chiefs and government as defined in Table 5. Panel A shows estimates by interactions with and indicator for paying the tax according to the administrative data. Panel B shows estimates by interactions with an indicator for paying a bribe to the collector at endline (self-reported). All regressions include fixed effects for house type and randomization strata and cluster standard errors at the neighborhood level. We discuss these results in Section ??.

**FIGURE A15: RETURN ON ADDITIONAL VISITS IN CENTRAL**

A: Return to Additional Days Worked

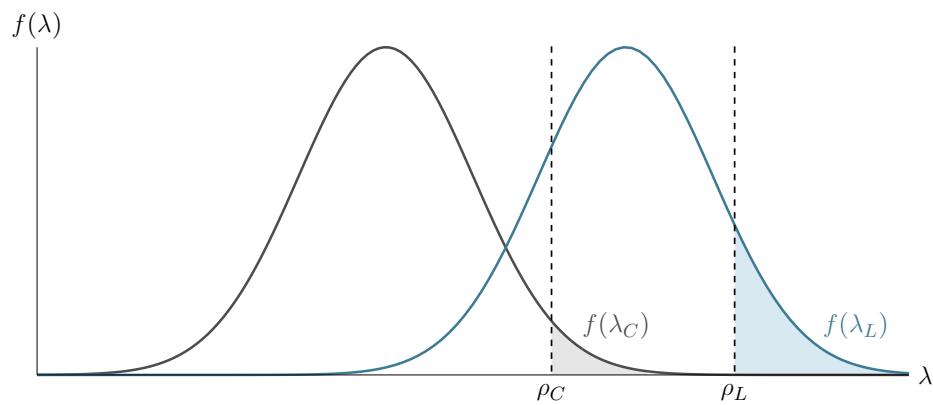


B: Return to Additional Visits



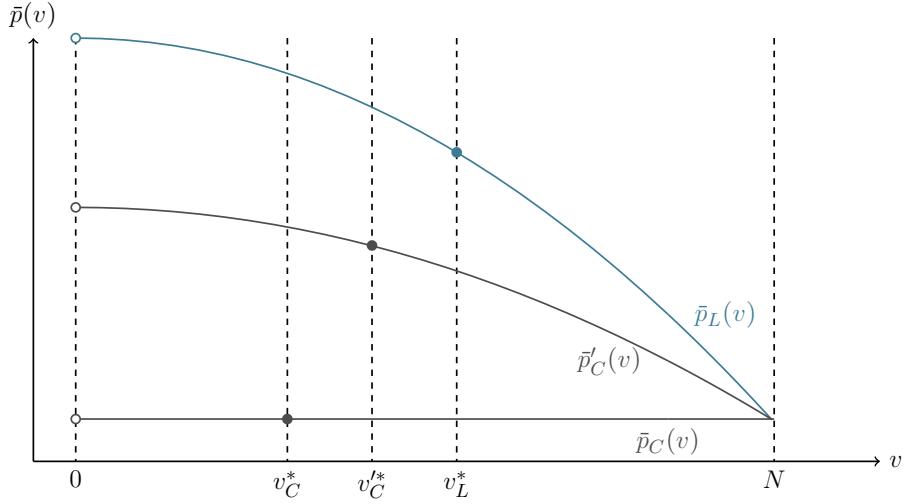
*Notes:* This figure shows the estimated daily return on tax collection in Central (i) over the course of the month in which collectors were assigned to a given neighborhood, and (ii) as a function of the share of the total households in the neighborhood that were visited. The revenue data come from the handheld receipt printers and the timestamp recorded for each transaction. The cost data come from tax campaign records concerning transportation costs incurred by collectors. We discuss these results in Section ??.

**FIGURE A16: EXAMPLE OF POTENTIAL TAXPAYERS BY COLLECTOR TYPE**



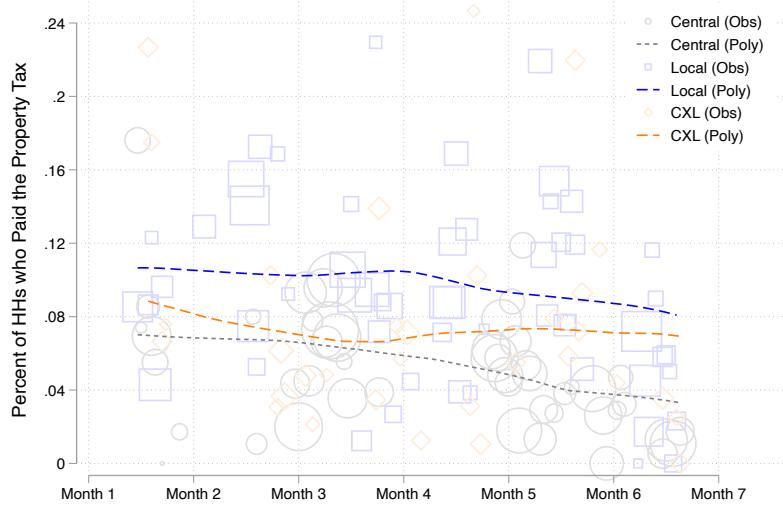
*Notes:* Curves  $f(\lambda_L)$  and  $f(\lambda_C)$  are the distribution of intrinsic willingness,  $\rho_L$  and  $\rho_C$  the cost of non-compliance, and shaded areas proportion of potential payers by collector type  $L$  and  $C$ . This figure is discussed in Section ?? and [A3.1.1](#).

**FIGURE A17: AVERAGE PROBABILITY OF PAYMENT BY VISITS AND COLLECTOR TYPE**



Notes: Curves  $\bar{p}_L(v)$ ,  $\bar{p}_C(v)$ , and  $\bar{p}'_C(v)$  are the average probability of payment among visited property owners by collector type and informedness.  $v_k^*$  are the optimal number of visits selected by collectors,  $N$  is the total number of property owners. This figure displays the case where  $E[\lambda_L] = E[\lambda_C]$  and  $\rho_L = \rho_C$ : the only difference across collector types in average payment probability derives from the level of information about  $\lambda_i$ 's of property owners and number of properties visited. We discuss this figure in Section ?? and A3.1.1.

**FIGURE A18: DECREASING COMPLIANCE OVER TIME — CENTRAL, LOCAL, CXL**



*Notes:* This figure shows the decrease in compliance for Central, Local, and CLI over the tax campaign. Blue squares represent Local observations, gray circles represent Central observations, and orange diamonds represent CXL observations, with size indicating number of observations. Lines — dashed blue for Local, dotted gray for Central, and dashed orange for CXL (Panel B) — are local linear polynomials estimated using the displayed data, separately by treatment.

**TABLE A38: CENTRAL v. CENTRAL X LOCAL**

	Tax Compliance		Tax Amount			
	(1)	(2)	(3)	(4)	(5)	(6)
Central X Local	0.018*	-10.647	0.019	0.065	0.029**	0.013
	(0.010)	(27.683)	(0.037)	(0.061)	(0.014)	(0.010)
Local					0.044***	(0.007)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	18211	18211	12476	12464	5030	32496
Clusters	142	142	141	141	140	252
Mean	.053	156.773	.396	.518	.102	.053
CXLvC_p						

*Notes:* This table compares the Central X Local (CXL) arm to the Central arm, which is the excluded category. Columns 1, 5, and 6 report impacts on compliance. Column 2 reports impacts on revenues. Columns 3 and 4 report differences in tax visits by collectors after registration by the extensive and intensive margins, respectively. All regressions include fixed effects for house type, randomization strata, and time periods and cluster standard errors at the neighborhood level. All specifications include time fixed effects defined to maximize overlap between the treatments under comparison, as discussed in Section ???. Column 5 restricts to the subsample of properties that received any tax visits after registration. Column 6 includes a dummy for the Local treatment in the regression. The bottom row reports the *p*-value from a test for equality between the CXL and Local. We discuss these results in Section A3.2.

**TABLE A39: STATE COLLECTOR PERFORMANCE BY TEAM COMPOSITION**

	Tax Compliance - Similarity			Tax Compliance - Distance			Tax Revenue - Similarity			Tax Revenue - Distance		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(max) age_similar	0.029** (0.011)						40.800 (33.746)					
(max) educ_similar		-0.004 (0.013)						8.346 (33.983)				
(max) inc_mo_similar			0.014 (0.012)						-5.483 (37.411)			
(max) age_dist				-0.001 (0.001)						-0.658 (2.702)		
(max) educ_dist					0.001 (0.002)						1.102 (5.607)	
(max) inc_mo_dist						0.000 (0.000)						-0.094 (0.334)
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	187	187	187	187	187	187	187	187	187	187	187	187

*Notes:* This table examines the relationship between state collector team structure and tax compliance (Columns 1–6) or tax revenue (Columns 7–12) at the neighborhood level. The variable *Similarity* is a dummy for the two randomly assigned collectors both lying either above or below the median in the collector trait noted in the column titles. *Distance* is the absolute value of the difference between both collectors' traits, measured in years for age and level of education (Columns 1–2, 4–5, 7–8, and 10–11) and in dollars for income (Columns 3, 6, 9, and 12). All regressions include stratum fixed effects, and robust standard errors. In addition, we control for the average level of the corresponding trait for the assigned collectors in each neighborhood. The sample includes all neighborhoods assigned to Central and CLI, i.e., where state collectors were randomly assigned.

**TABLE A40: LOCAL V. CENTRAL: VISITS OVER TIME**

	Visited	N Visits
	(1)	(2)
Local	-0.165** (0.052)	-0.187** (0.093)
Local X Time Decile	0.029*** (0.009)	0.036** (0.015)
Time Decile	-0.031*** (0.005)	-0.042*** (0.009)
House FE	Yes	Yes
Stratum FE	Yes	Yes
Observations	18382	18371
Clusters	212	212
Mean	.417	.552

*Notes:* This table examines visits from tax collector on the extensive (Column 1) and intensive (Column 2) margin across treatments and over time. Specifically, we take deciles of the time distribution of the tax campaign, and interact these with the Local treatment dummy. All regressions include stratum and house type fixed effects, and cluster standard errors at the neighborhood level.

**TABLE A41: INVESTIGATING COLLECTOR DEMORALIZATION AND EXHAUSTION**

	Tax Compliance (1)	Tax Compliance (2)	Tax Compliance (3)	Tax Compliance (4)	Tax Compliance (5)	Tax Compliance (6)
Local	0.035*** (0.008)	0.032*** (0.009)	0.047** (0.016)	0.051*** (0.013)	0.051*** (0.011)	0.056*** (0.013)
CLI		0.024** (0.009)		0.023** (0.009)		0.034** (0.013)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
House FE	Yes	Yes	Yes	Yes	Yes	Yes
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	16642	26064	13049	22471	16505	25927
Clusters	130	210	100	180	129	209
Mean	.052	.052	.052	.052	.057	.057

*Notes:* This table reports estimates from Equation 1, comparing property tax compliance in Local and CLI to Central (the excluded category). All regressions include fixed effects for randomization strata, house type, and time period fixed effects and cluster standard errors at the neighborhood level. Columns 1–2 restrict the Local sample to neighborhoods where chiefs in charge of collection worked in multiple neighborhoods. Columns 3–4 restrict the Local sample to neighborhoods with chiefs who worked in multiple months (in different neighborhoods), keeping only neighborhoods in their second collection period. Columns 5–6 restrict the Central sample to neighborhoods with state agents collecting for the first time. The data include all properties registered by tax collectors merged with the government's property tax database.

**TABLE A42: CENTRAL: EXPOSURE TO CENTRAL + LOCAL INFORMATION**

	Compliance (1)	Compliance (2)	Revenues (3)	Revenues (4)
Post CLI Exposure	-0.017 (0.075)	0.012 (0.018)	-126.423 (168.455)	8.685 (36.417)
Local Trend (Compliance)	1.293 (2.258)	2.032** (0.920)		
Local Trend (Revenues)			0.148 (2.029)	1.510** (0.755)
House FE	Yes	Yes	Yes	Yes
Period FE	No	Yes	No	Yes
Observations	6447	14164	6447	14164
Clusters	52	84	52	84
Mean	.12	.085	319.104	234.09

*Notes:* This table reports changes in compliance and revenues within the Central treatment arm, comparing outcomes before Central agents engaged in consultation with chiefs in the CLI arm with those after consultations took place, for the same set of Central agents. We examine two periods: changes in outcomes between months 1 and 3 (for collectors working in the CLI arm in month 2), and between months 3 and 5 (for collectors working in the CLI arm in month 4). We exclude the period straddling the final month of CLI (months 5 and 7), as there are few neighborhoods assigned to the Local treatment arm in month 7. In each period, we estimate the compliance trend in the Local treatment arm and control for it when comparing the pre- and post-periods in the Central treatment arm. All regressions include house type fixed effects. When considering multiple periods we include period fixed effects corresponding to the above-described periods. We do not include fixed effects for stratum or collectors as collectors rotate (due to random assignment to neighborhoods) to different strata and collection partners and thus including these fixed effects would result in a severely restricted sample.

**TABLE A43: LOCAL V. CENTRAL: ENDLINE DIFFERENCES IN COLLECTOR CHARACTERISTICS**

	beta	SE	R2	N
Extrinsic motivation	-0.092	0.222	0.002	111.000
Intrinsic motivation	-0.308	0.225	0.017	111.000
Introjection	0.089	0.218	0.002	111.000
Goal orientation	-0.235	0.212	0.011	111.000
Amotivation	0.486	0.218	0.044	111.000
Conscientiousness (big 5)	-0.132	0.239	0.003	111.000
Extroverted (big 5)	-0.384	0.226	0.026	111.000
Discount factor	-0.106	0.215	0.002	111.000
Optimism	0.205	0.216	0.008	111.000
Locus of Control	0.232	0.195	0.013	111.000
Persistence (maze)	0.727	0.209	0.122	89.000
Dishonesty/cheating (RAG)	-0.222	0.213	0.010	111.000

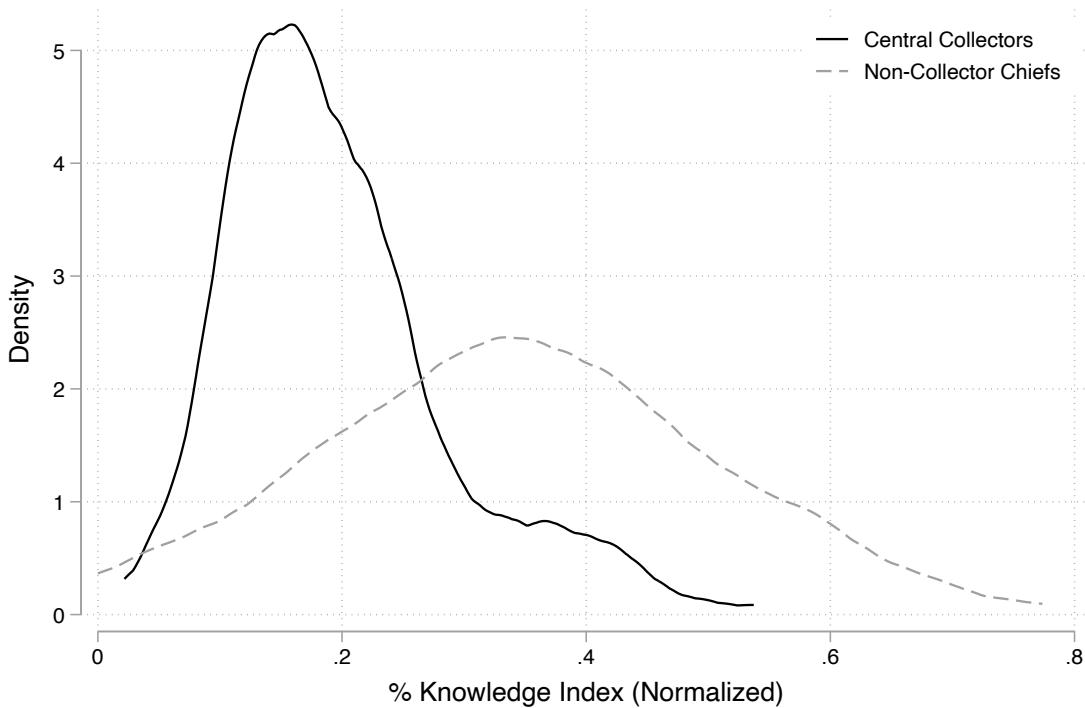
*Notes:* This table examines endline differences in collector motivation and personality traits using data from a survey conducted with all collectors after the tax campaign. Each row summarizes a regression of the variable noted on an indicator for chiefs who worked in Local (with the omitted category of state collectors who worked in Central). All dependent variables are standardized to facilitate interpretation of magnitudes. The motivation indices in Panel A come from the psychology literature (Tremblay et al., 2009). The Big 5 indices come from Borghans et al. (2008). Locus of control questions come from the World Values Survey. The persistence measure is the total number of minutes the collector worked on an impossible maze. The dishonesty/cheating measure involves allocating money between oneself and a payoff to the government according to die rolls, as explained in detail in Lowes et al. (2017).

**TABLE A44: LOCAL V. CENTRAL: ENDLINE AMOTIVATION**

	(1)	(2)	(3)	(4)
Local	0.187 (0.214)	0.136 (0.217)	0.651** (0.212)	0.486** (0.218)
Observations	111	111	111	111
Mean	.161	.094	.484	.369

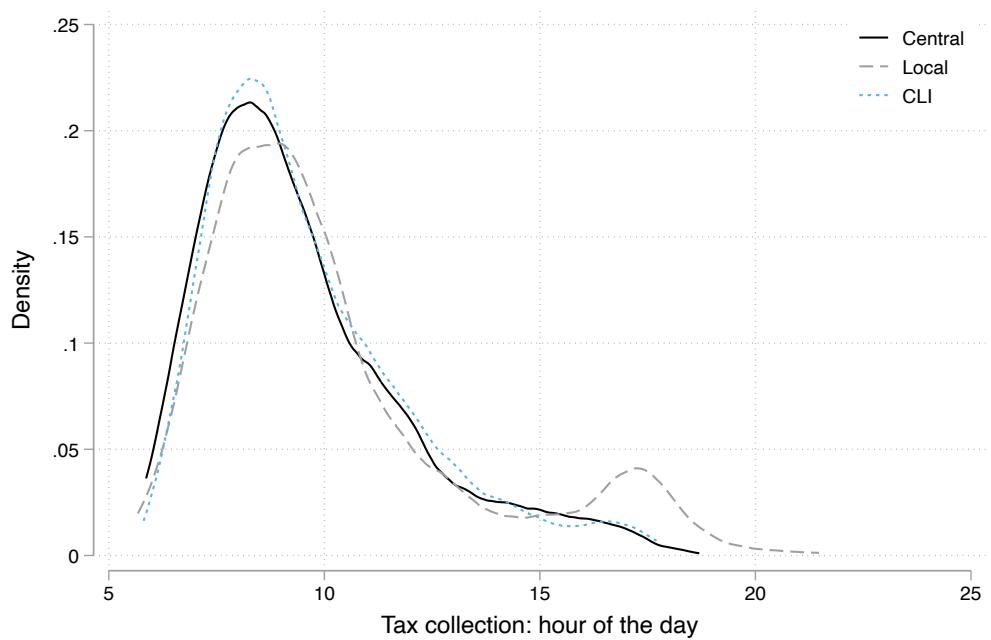
*Notes:* This table examines endline differences in collector amotivation using data from a survey conducted with all collectors after the tax campaign. The survey questions were drawn from Tremblay et al. (2009).

**FIGURE A19: KNOWLEDGE QUIZ: STATE COLLECTORS V. NON-COLLECTOR CHIEFS**



*Notes:* This figure shows the distributions of knowledge about citizens for chiefs compared to state collectors. Knowledge of the inhabitants of the neighborhood is measured by the percentage of correct answers regarding a random sample of property owners in a short quiz-type survey module conducted after tax collection. Questions included the owner's name, education level, and occupation. Chiefs took quizzes for their own neighborhoods, but we restrict the sample to chiefs who did not collect taxes (since the quiz was administered after the campaign); central agents took quizzes for randomly selected neighborhoods to simulate the knowledge they would have if assigned to a location before collecting taxes there. We discuss these results in Section ??.

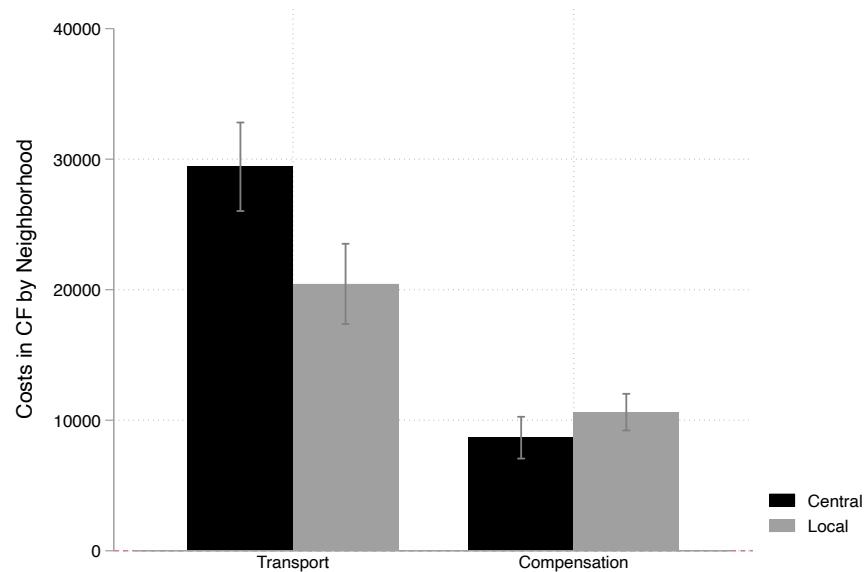
**FIGURE A20: TIMING OF TAX COLLECTIONS BY TREATMENT**



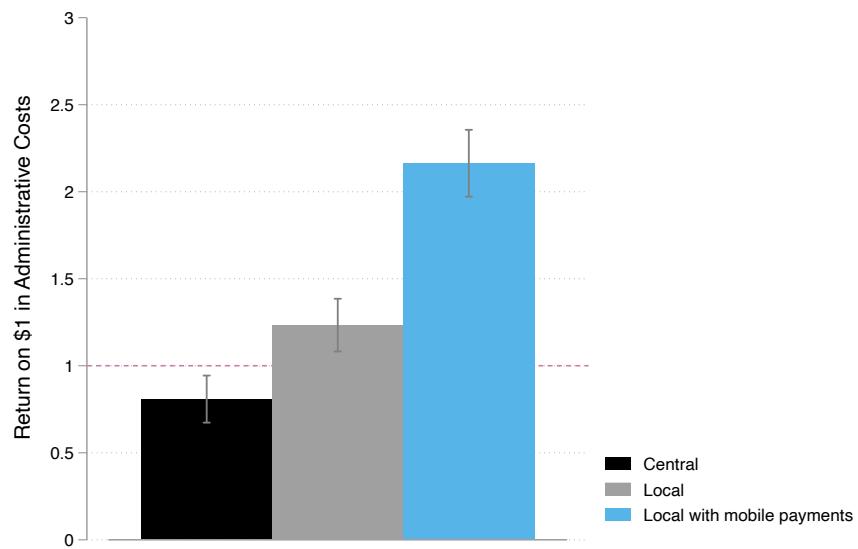
*Notes:* This figure shows the distribution of tax payments according to the receipt data. We discuss these findings in Section ??.

**FIGURE A21: COSTS AND COST-EFFECTIVENESS ACROSS TREATMENTS**

A: Costs of Tax Collection Methods



B: Cost-Effectiveness of Tax Collection Methods



*Notes:* This figure reports estimated costs (Panel A) and cost-effectiveness (Panel B) for the Central and Local treatments. In Panel A, costs are broken down by transport and compensation. In Panel B, cost-effectiveness is the return of an additional \$1 spent on collection in particular treatment, and the hypothetical cost-effectiveness of Local with mobile payments is shown at far right. Estimates are the mean value of each measure averaging across neighborhoods. Confidence intervals are shown by the vertical bars. We discuss these results in Section A3.7.

**FIGURE A22: COST-EFFECTIVENESS OF LOCAL AND CENTRAL BY REMOTENESS**



*Notes:* This figure reports estimated cost-effectiveness for the Central and Local treatments as a function of the distance from downtown Kananga. We discuss these results in Section A3.7.

**TABLE A45: LOCAL V. CENTRAL: BRIBE MULTIPLIER**

type	tot`benefitC	tot`costC	tot`el`bribesC	tot`benefitL	tot`costL	tot`el`bribesL	mult`bribes
"Campaign Amounts"	2812400	4207300	117997.7	3514500	3197900	228487.5	15.49012
"With Mobile Money Payment"		4207300			1086950		34.59549

*Notes:* This table reports measures from the tax campaign of total revenues collected and costs incurred for the Central and Local treatment arms. Columns 1 and 4 report revenues collected by treatment arm. Columns 2 and 5 report costs, which include bonuses paid to tax collectors and compensation for transportation. The second row reports costs under a hypothetical system in which chief collectors were paid (and remit tax collections) via mobile money rather than visiting the tax ministry to receive bonuses (and deposit collections). Costs for Central under this alternative system would remain the same. Columns 3 and 6 show the amounts of bribes collecting according to the measure at endline, scaled by the number of individuals surveyed at endline relative to the neighborhood population of households. All amounts are in Congolese Francs. Column 7 reports the implied multiplier on bribe payments that would be required for the government to weakly prefer employing state collectors instead of chief collectors:  $\Gamma = ((R_L - R_C) - (C_L - C_C)) / (B_L - B_C)$ . This formula is discussed in more detail in Section A3.1.1. We discuss these results in Section A3.7.

- Acemoglu, Daron, Ali Cheema, Asim I Khwaja, and James A Robinson**, “Trust in State and Non-State Actors: Evidence from Dispute Resolution in Pakistan,” *Journal of Political Economy*, 2019.
- and **James A Robinson**, *The Narrow Corridor: States, Societies, and the Fate of Liberty*, Penguin Books, 2019.
- , **Philippe Aghion, Claire Lelarge, John Van Reenen, and Fabrizio Zilibotti**, “Technology, Information, and the Decentralization of the Firm,” *The Quarterly Journal of Economics*, 2007, 122 (4), 1759–1799.
- , **Tristan Reed, and James A Robinson**, “Chiefs: Economic Development and Elite Control of Civil Society in Sierra Leone,” *Journal of Political Economy*, 2014, 122 (2), 319–368.
- Aghion, Philippe and Jean Tirole**, “Formal and real authority in organizations,” *Journal of political economy*, 1997, 105 (1), 1–29.
- Alatas, Vivi, Abhijit Banerjee, Rema Hanna, Benjamin A Olken, and Julia Tobias**, “Targeting the poor: evidence from a field experiment in Indonesia,” *American Economic Review*, 2012, 102 (4), 1206–40.
- , —, —, —, **Ririn Purnamasari, and Matthew Wai-Poi**, “Does elite capture matter? Local elites and targeted welfare programs in Indonesia,” *AEA Papers and Proceedings*, 2019, 109, 334–39.
- Alchian, Armen A and Harold Demsetz**, “Production, information costs, and economic organization,” *The American Economic Review*, 1972, 62 (5), 777–795.
- Allingham, Michael and Agnar Sandmo**, “Income Tax Evasion: A Theoretical Analysis,” *Journal of Public Economics*, 1972, 1 (3-4), 323–338.
- Anderson, Siwan, Patrick Francois, and Ashok Kotwal**, “Clientelism in Indian villages,” *American Economic Review*, 2015, 105 (6), 1780–1816.
- Azabou, Mongi and Jeffrey B Nugent**, “Contractual Choice in Tax Collection Activities: Some Implications of the Experience with Tax Farming,” *Journal of Institutional and Theoretical Economics*, 1988, pp. 684–705.
- Baland, Jean-Marie and James A Robinson**, “Land and power: Theory and evidence from Chile,” *American Economic Review*, 2008, 98 (5), 1737–65.
- Baldwin, Kate**, *The Paradox of Traditional Chiefs in Democratic Africa*, Cambridge University Press, 2016.
- Bandiera, Oriana, Iwan Barankay, and Imran Rasul**, “Social incentives in the workplace,” *The Review of Economic Studies*, 2010, 77 (2), 417–458.
- Banerjee, Abhijit and Lakshmi Iyer**, “History, institutions, and economic performance: The legacy of colonial land tenure systems in India,” *American economic review*, 2005, 95 (4), 1190–1213.
- Banerjee, Abhijit V., Sylvain Chassang, Sergio Montero, and Erik Snowberg**, “A Theory of Experimenters,” *Working Paper*, 2017.
- Barkey, Karen**, *Bandits and bureaucrats: The Ottoman route to state centralization*, Cornell University Press, 1994.
- Basurto, Maria Pia, Pascaline Dupas, and Jonathan Robinson**, “Decentralization and efficiency of subsidy targeting: Evidence from chiefs in rural Malawi,” *Journal of Public Economics*, 2019, p. 4047.
- Bergeron, Augustin, Arnaud Fournier, Gabriel Tourek, and Jonathan Weigel**, “Using Machine Learning to Improve Property Tax Collection in the DRC,” *Working Paper*, 2020.
- , **Gabriel Tourek, and Jonathan Weigel**, “The State Capacity Ceiling on Tax Rates: Evidence from Randomized Tax Abatements in the DRC,” *Working Paper*, 2020.
- , **Pedro Bessone, Gabriel Tourek, and Jonathan Weigel**, “Bureaucrat Quality, Peer Effects and Optimal Matching: Evidence from Tax Collection,” *Working Paper*, 2020.

- Besley, Timothy**, “State capacity, reciprocity, and the social contract,” *Econometrica*, 2020, 88 (4), 1307–1335.
- and **Stephen Coate**, “Group lending, repayment incentives and social collateral,” *Journal of Development Economics*, 1995, 46 (1), 1–18.
- and **Torsten Persson**, “The Origins of State Capacity: Property Rights, Taxation and Politics,” *American Economic Review*, 2009, 99 (4), 1218–1244.
- and —, *Pillars of Prosperity: The Political Economics of Development Clusters*, Princeton University Press, 2011.
- Best, Michael Carlos, Anne Brockmeyer, Henrik Jacobsen Kleven, Johannes Spinnewijn, and Mazhar Waseem**, “Production versus Revenue Efficiency with Limited Tax Capacity: Theory and Evidence from Pakistan,” *Journal of Political Economy*, 2015, 123 (6), 1311–1355.
- Blumenthal, Marsha, Charles Christian, Joel Slemrod, and Matthew G Smith**, “Do normative appeals affect tax compliance? Evidence from a controlled experiment in Minnesota,” *National Tax Journal*, 2001, pp. 125–138.
- Bodea, Cristina and Adrienne LeBas**, “The origins of voluntary compliance: Attitudes toward taxation in urban Nigeria,” *British Journal of Political Science*, 2016, 46, 215–238.
- Bonney, Richard (Ed.)**, *The Rise of the Fiscal State in Europe, 1200–1815*, Clarendon Press, Oxford University Press, Oxford, 1995.
- Boone, Catherine**, *Political Topographies of the African State: Territorial Authority and Institutional Choice*, Cambridge University Press, 2003.
- , *Property and political order in Africa: Land rights and the structure of politics*, Cambridge University Press, 2014.
- Borghans, Lex, Angela Lee Duckworth, James J Heckman, and Bas Ter Weel**, “The economics and psychology of personality traits,” *Journal of human Resources*, 2008, 43 (4), 972–1059.
- Braddick, Michael J**, *The nerves of state: taxation and the financing of the English state, 1558–1714*, Manchester University Press, 1996.
- , *State formation in early modern England, c. 1550–1700*, Cambridge University Press, 2000.
- Brewer, John**, *The sinews of power: War, money, and the English state, 1688–1783*, Harvard University Press, 1990.
- Brockmeyer, Anne, Alejandro Estefan, Juan Carlos Suárez Serrato, and Karina Ramirez**, “Taxing Property in Developing Countries: Theory and Evidence from Mexico,” *Working Paper*, 2019.
- and **Marco Hernandez**, “Taxation, information, and withholding: Evidence from Costa Rica,” *Working Paper*, 2016.
- Cantoni, Davide, Jeremiah Dittmar, and Noam Yuchtman**, “Religious competition and reallocation: The political economy of secularization in the protestant reformation,” *The Quarterly Journal of Economics*, 2018, 133 (4), 2037–2096.
- Casey, Katherine, Rachel Glennerster, Edward Miguel, and Maarten Voors**, “Skill versus voice in local development,” *Working Paper*, 2018.
- Chaney, Eric**, “Revolt on the Nile: Economic shocks, religion, and political power,” *Econometrica*, 2013, 81 (5), 2033–2053.
- Cogneau, Denis, Marc Gurgand, Justine Knebelmann, Victor Pouliquen, and Bassirou Sarr**, “Bringing property owners into the tax net: Evidence from Dakar, Senegal,” *Working Paper*, 2020.
- Collier, Paul, Timothy Besley, and Adnan Khan**, “Escaping the Fragility Trap,” *Report of the Commission on State Fragility, Growth and Development*, 2018.
- Cui, Wei**, *The Administrative Foundations of the Chinese Fiscal State*, Mimeo, 2021.
- Dal Bó, Ernesto, Frederico Finan, Nicholas Y Li, and Laura Schechter**, “Government decentralization under changing state capacity: Experimental evidence from Paraguay,” *Econometrica*, 2020.
- de Russel, Dominique Soulas**, “Niveaux et degrés d’intégration des modernités chez les chefs traditionnels: l’exemple du Niger,” *Africa Spectrum*, 1998, pp. 99–116.

- de Sardan, Jean-Pierre Olivier, Mahaman Tidjani Alou et al.**, *Les pouvoirs locaux au Niger*, Vol. 1, Codesria, 2009.
- der Windt, Peter Van, Macartan Humphreys, Lily Medina, Jeffrey F Timmons, and Maarten Voors**, “Citizen Attitudes Toward Traditional and State Authorities: Substitutes or Complements?”, *Comparative Political Studies*, 2019, 52 (12), 1810–1840.
- Dobkin, Carlos, Amy Finkelstein, Raymond Kluender, and Matthew Notowidigdo**, “The Economic Consequences of Hospital Admissions,” *American Economic Review*, 2018, 108 (2), 308–532.
- Duflo, Esther, Michael Greenstone, Rohini Pande, and Nicholas Ryan**, “The value of regulatory discretion: Estimates from environmental inspections in India,” *Econometrica*, 2018, 86 (6), 2123–2160.
- Dunning, Thad, Felipe Monestier, Rafael Piñeiro, Fernando Rosenblatt, and Guadalupe Tuñón**, “Is Paying Taxes Habit Forming? Theory and Evidence from Uruguay,” *Working Paper*, 2017.
- Dwenger, Nadja, Henrik Kleven, Imran Rasul, and Johannes Rincke**, “Extrinsic and intrinsic motivations for tax compliance: Evidence from a field experiment in Germany,” *American Economic Journal: Economic Policy*, 2016, 8 (3), 203–32.
- Dzansi, James, Anders Jensen, David Lagakos, and Henry Telli**, “Technology and Tax Capacity: Evidence from Local Taxes in Ghana,” *Working Paper*, 2020.
- Ertman, Thomas**, *Birth of the Leviathan: Building states and regimes in medieval and early modern Europe*, Cambridge University Press, 1997.
- Fafchamps, Marcel and Susan Lund**, “Risk-sharing networks in rural Philippines,” *Journal of Development Economics*, 2003, 71 (2), 261–287.
- Fjeldstad, Odd-Helge, Merima Ali, and Tom Goodfellow**, “Taxing the urban boom: Property taxation in Africa,” *CMI Policy Paper*, 2017.
- Franzsen, Riel and William McCluskey**, *Property Tax in Africa: Status, Challenge, and Prospects*, Lincoln Institute of Land Policy, 2017.
- Freyaldenhoven, Simon, Christian Hansen, and Jesse Shapiro**, “Pre-Event Trends in the Panel Event-Study Design,” *American Economic Review*, 2019, 109 (9), 3307–3338.
- Gibbons, Charles E, Juan Carlos Suárez Serrato, and Michael B Urbancic**, “Broken or fixed effects?”, *Journal of Econometric Methods*, 2018, 8 (1).
- Glennerster, Rachel, Edward Miguel, and Alexander D Rothenberg**, “Collective action in diverse Sierra Leone communities,” *The Economic Journal*, 2013, 123 (568), 285–316.
- Goldstein, Markus and Christopher Udry**, “The Profits of Power: Land Rights and Agricultural Investment in Ghana,” *Journal of Political Economy*, 2008, 116 (6), 981–1022.
- Gordon, Roger and Wei Li**, “Tax structures in developing countries: Many puzzles and a possible explanation,” *Journal of Public Economics*, 2009, 93 (7), 855–866.
- Gottlieb, Jessica, Adrienne LeBas, and Janica Magat**, “Formalization, Tax Appeals, and Social Intermediaries: Evidence from a Field Experiment in Lagos, Nigeria,” *Working Paper*, 2020.
- Groot, Hans De**, “Decentralization decisions in bureaucracies as a principal-agent problem,” *Journal of Public Economics*, 1988, 36 (3), 323–337.
- Harriss, Gerald**, “Political society and the growth of government in late medieval England,” *Past & Present*, 1993, 138, 28–57.
- Henn, Soeren**, “Complements or Substitutes? How Institutional Arrangements Bind Chiefs and the State in Africa,” *Working Paper*, 2020.
- Herdt, Tom De and Kristof Titeca**, *Negotiating public services in the Congo: State, society and governance*, Zed Books Ltd., 2019.
- Honig, Lauren**, “Selecting the State or Choosing the Chief? The Political Determinants of Smallholder Land Titling,” *World Development*, 2017, 100, 94–107.
- Hussam, Reshmaan, Natalia Rigol, and Benjamin Roth**, “Targeting high ability entrepreneurs using community information: Mechanism design in the field,” *American Economic Review*, 2021.

- Iacus, Stefano M, Gary King, and Giuseppe Porro**, “Causal inference without balance checking: Coarsened exact matching,” *Political analysis*, 2012, 20 (1), 1–24.
- Imai, Kosuke, Gary King, and Clayton Nall**, “The Essential Role of Pair Matching in Cluster-Randomized Experiments, with Application to the Mexican Universal Health Insurance Evaluation,” *Statistical Science*, 2009, 24 (1), 29–53.
- Iversen, Vegard, Odd-Helge Fjeldstad, Godfrey Bahiigwa, Frank Ellis, and Robert James**, “Private tax collection, remnant of the past or a way forward? Evidence from rural Uganda,” *Public Administration and Development*, 2006, 26 (4), 317–328.
- Jensen, Anders**, “Employment Structure and the Rise of the Modern Tax system,” *Working Paper*, 2020.
- Jibao, Samuel S, Wilson Prichard, and Vanessa Van den Boogaard**, “Informal Taxation in Post-Conflict Sierra Leone: Taxpayers’ Experiences and Perceptions,” *Working Paper*, 2017.
- Johnson, Noel D and Mark Koyama**, “Tax farming and the origins of state capacity in England and France,” *Explorations in Economic History*, 2014, 51, 1–20.
- Kandel, Eugene and Edward P Lazear**, “Peer pressure and partnerships,” *Journal of Political Economy*, 1992, 100 (4), 801–817.
- Khan, Adnan Q, Asim I Khwaja, and Benjamin A Olken**, “Tax Farming Redux: Experimental Evidence on Performance Pay for Tax Collectors,” *The Quarterly Journal of Economics*, 2015, 131 (1), 219–271.
- Kiser, Edgar**, “Markets and Hierarchies in Early Modern Tax Systems: A Principal-Agent Analysis,” *Politics & Society*, 1994, 22 (3), 284–315.
- and Steven Karceski, “Political Economy of Taxation,” *Annual Review of Political Science*, 2017, 20, 75–92.
- Kleven, Henrik Jacobsen, Martin B Knudsen, Claus Thustrup Kreiner, Søren Pedersen, and Emmanuel Saez**, “Unwilling or Unable to Cheat? Evidence From a Tax Audit Experiment in Denmark,” *Econometrica*, 2011, 79 (3), 651–692.
- Krause, Benjamin**, “Taxation Toward Representation: Public Goods, Tax Collection, Social Norms, and Democratic Accountability,” *Working Paper*, 2020.
- Levi, Margaret**, *Of Rule and Revenue*, University of California Press, 1989.
- Lowes, Sara, Nathan Nunn, James A Robinson, and Jonathan Weigel**, “The evolution of culture and institutions: Evidence from the Kuba Kingdom,” *Econometrica*, 2017.
- Lust, Ellen and Lise Rakner**, “The Other Side of Taxation: Extraction and Social Institutions in the Developing World,” *Annual Review of Political Science*, 2018, 21, 277–294.
- Luttmer, Erzo and Monica Singhal**, “Tax Morale,” *The Journal of Economic Perspectives*, 2014, 28 (4), 149–168.
- Mamdani, Mahmood**, *Citizen and Subject*, Princeton University Press, 1996.
- Marchais, Gauthier, Soeren Henn, and Raul Sanchez de la Sierra**, “The Political Economy Of Indirect Rule: Armed Groups And Traditional Chiefs In Eastern Congo,” *Working Paper*, 2019.
- Michalopoulos, Stelios and Elias Papaioannou**, “Pre-colonial ethnic institutions and contemporary African development,” *Econometrica*, 2013, 81 (1), 113–152.
- and —, “On the ethnic origins of African development: Chiefs and precolonial political centralization,” *Academy of Management Perspectives*, 2015, 29 (1), 32–71.
- Miguel, Edward and Michael Kremer**, “Worms: Identifying impacts on education and health in the presence of treatment externalities,” *Econometrica*, 2004, 72 (1), 159–217.
- Mookherjee, Dilip**, “Decentralization, hierarchies, and incentives: A mechanism design perspective,” *Journal of Economic Literature*, 2006, 44 (2), 367–390.
- Mukhopadhyay, Dipali**, *Warlords, strongman governors, and the state in Afghanistan*, Cambridge University Press, 2014.

- Mustasilta, Katarina**, "Including chiefs, maintaining peace? Examining the effects of state-traditional governance interaction on civil peace in sub-Saharan Africa," *Journal of Peace Research*, 2019, 56 (2), 203–219.
- Naritomi, Joana**, "Consumers as Tax Auditors," *American Economic Review*, 2019.
- Nguema, Rano-Michel**, "Développement de la ville, découpage et appropriation des territoires urbains au Gabon," *Revue belge de géographie*, 2005, 4, 481–498.
- Nzongola-Ntalaja, Georges**, "Urban Administration in Zaire: A Study of Kananga, 1971–1973," *Unpublished Ph. D. diss., University of Wisconsin-Madison*, 1975, 263.
- Ober, Josiah**, *Democracy and knowledge: Innovation and learning in classical Athens*, Princeton University Press, 2008.
- Okunogbe, Oyebola Olabisi**, "Becoming Legible to the State: Evidence from Property Taxes in Liberia," *Working Paper*, 2019.
- Olken, Benjamin A and Monica Singhal**, "Informal taxation," *American Economic Journal: Applied Economics*, 2011, 3 (4), 1–28.
- Olson, Mancur**, "Dictatorship, Democracy, and Development," *American Political Science Review*, 1993, 87 (03), 567–576.
- Paler, Laura, Wilson Prichard, Raul Sanchez de la Sierra, and Cyrus Samii**, "Survey on total tax burden in the DRC," *DFID Report*, 2016.
- Polanyi, Michael**, *Personal Knowledge: Towards a Post-Critical Philosophy* 1958.
- Pomeranz, Dina**, "No Taxation Without Information: Deterrence and Self-Enforcement in the Value Added Tax," *The American Economic Review*, 2015, 105 (8), 2539–2569.
- Reid, Otis and Jonathan Weigel**, "The Supply of Bribes: Evidence from Roadway Tolls in the D.R. Congo," *Working Paper*, 2017.
- Sanchez de la Sierra, Raul**, "On the origin of states: Stationary bandits and taxation in Eastern Congo," *Journal of Political Economy*, 2019.
- Scartascini, Carlos and Lucio Castro**, "Tax Compliance and Enforcement in the Pampas: Evidence from a Field Experiment," *Journal of Economic Behavior and Organization*, 2007, 115, 65–82.
- Schumpeter, Joseph A**, *The Crisis of the Tax State* 1918.
- Scott, James C**, *Seeing Like a State: How Certain Schemes to Improve the Human Condition have Failed*, Yale University Press, 1998.
- Stasavage, David**, *The Decline and Rise of Democracy: A Global History from Antiquity to Today*, Princeton University Press, 2020.
- Tocqueville, Alexis De**, *L'ancien régime et la révolution*, Michel Lévy, 1866.
- Tremblay, Maxime A, Céline M Blanchard, Sara Taylor, Luc G Pelletier, and Martin Villeneuve**, "Work Extrinsic and Intrinsic Motivation Scale: Its value for organizational psychology research," *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 2009, 41 (4), 213.
- Van den Boogaard, Vanessa**, *Informal revenue generation and the state: Evidence from Sierra Leone*, Mimeo, 2021.
- Voors, Maarten, Ty Turley, Erwin Bulte, Andreas Kontoleon, and John A List**, "Chief for a day: Elite capture and management performance in a field experiment in Sierra Leone," *Management Science*, 2018, 64 (12), 5855–5876.
- Weber, Max**, *Economy and society: An outline of interpretive sociology*, Vol. 1, University of California Press, 1922.
- Weigel, Jonathan**, "The Participation Dividend of Taxation: How Citizens in Congo Engage More with the State when it Tries to Tax Them," *Quarterly Journal of Economics*, 2020.
- Williamson, Oliver E**, "Transaction-cost economics: the governance of contractual relations," *The Journal of Law and Economics*, 1979, 22 (2), 233–261.
- World Bank**, "List of Fragile and Conflict-affected Situations," <http://pubdocs.worldbank.org/en/888211594267968803/FCSList-FY21.pdf> 2021. [Online; accessed May 15, 2021].