Online Appendix to Accompany "Motivating bureaucrats with behavioral insights when state capacity is weak: Evidence from large-scale field experiments in Peru"

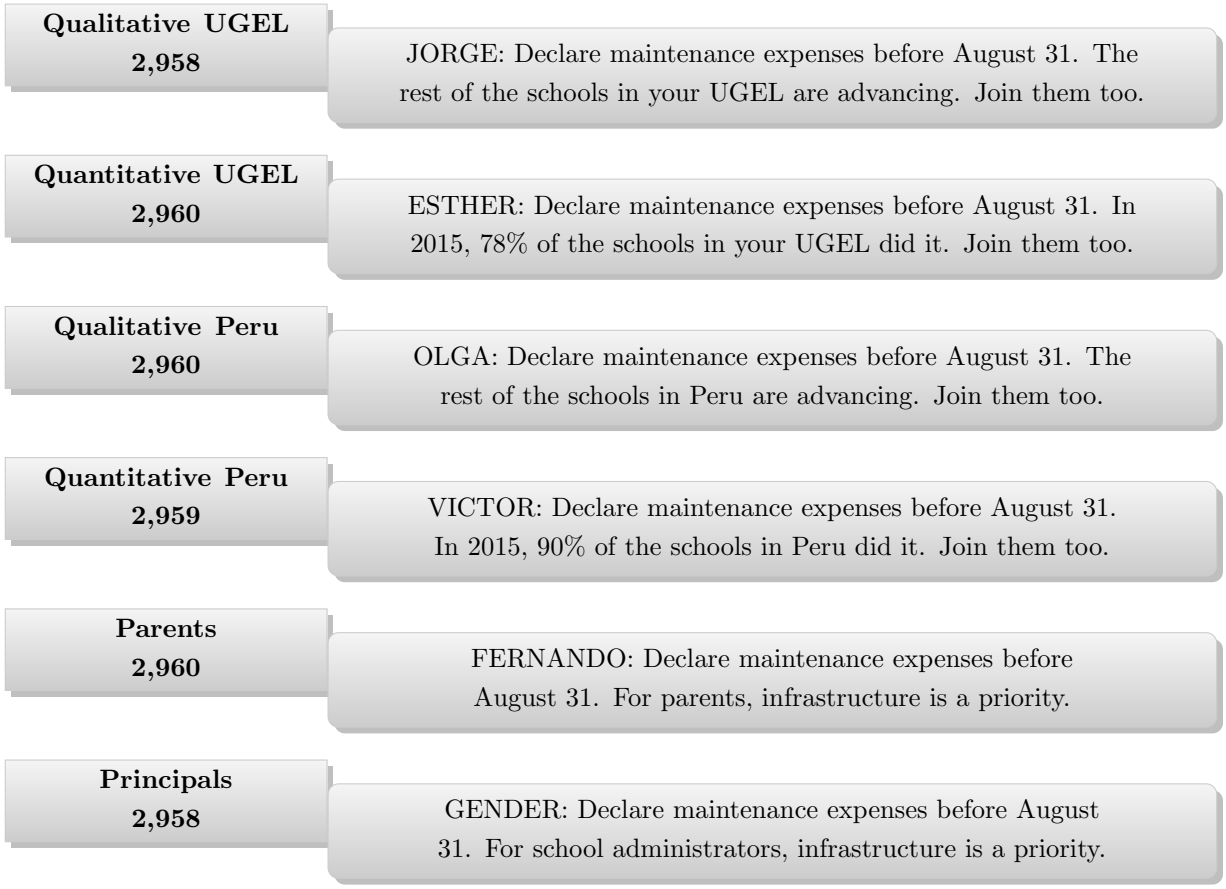
Andrew Dustan
Vanderbilt University

Stanislao Maldonado
Universidad del Rosario

Juan Manuel Hernandez-Agramonte
Innovations for Poverty Action

This version: August 10, 2020
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Figure S1: SMS Content in Follow-Up Experiment in 2016



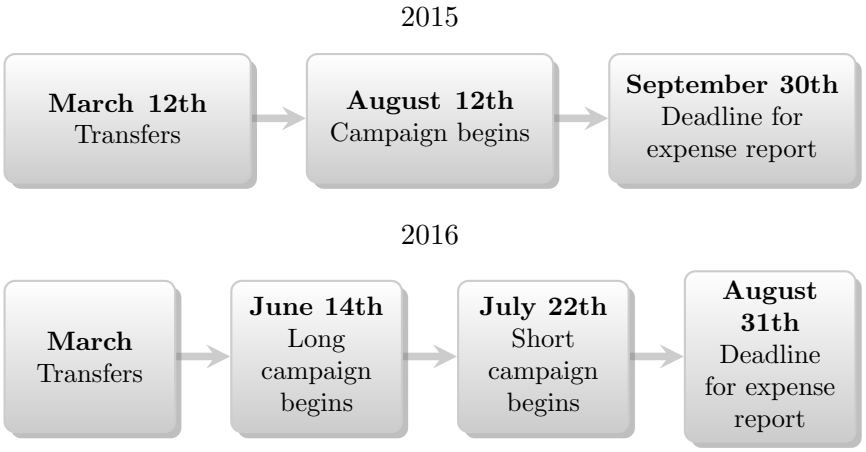
Note: Number is the sample size of civil servants assigned to the corresponding treatment. Maintenance activity portion of message corresponds to the point in the cycle when the message was sent, as in the Benchmark Experiment (general activities, funds withdrawal, and expense report filing).

Figure S3: Timing of the External Validity Experiment. CUNA MAS Intervention



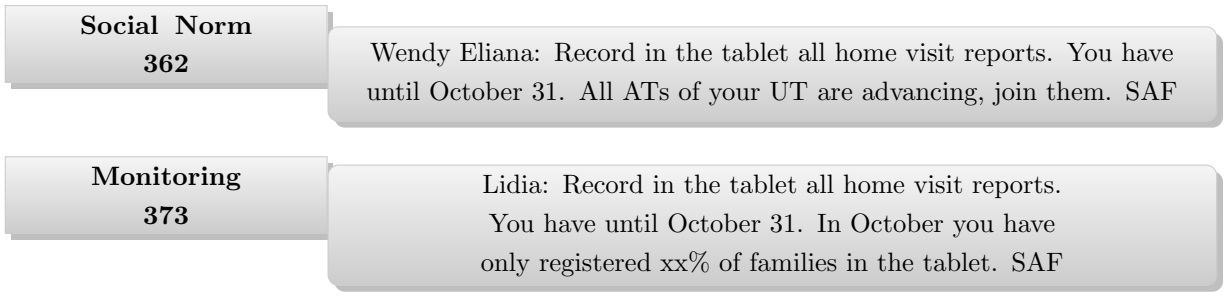
Note: Authors' elaboration. Each square represents a relevant date in the intervention cycle.

Figure S2: Comparison of Intervention Cycles for Benchmark and Follow-Up Experiments



Note: Authors' elaboration. Each square represents a relevant date in the intervention cycle.

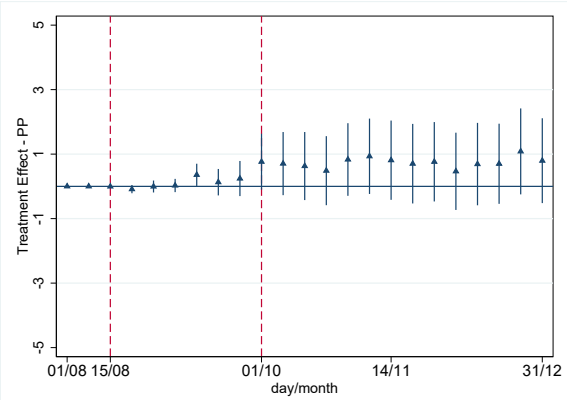
Figure S4: SMS Content in External Validity Experiment. Monthly Messages CUNA MAS



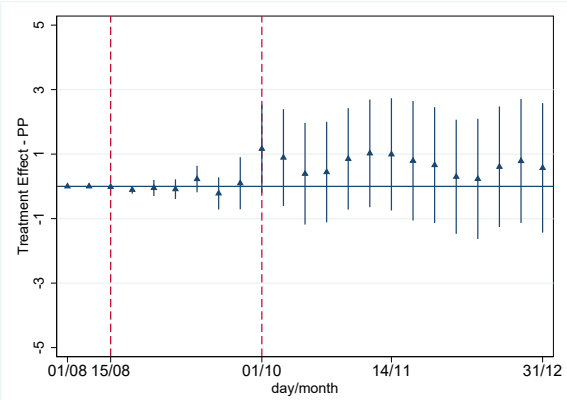
Note: Authors' elaboration. Each message includes the person's name and the deadline to comply with the activity. The rest of the content varies according to the behavioral principle to be emphasized. This example corresponds to the 2nd month of the campaign. All of the messages delivered are described in the Online Appendix (Table S4). Number is the sample size of civil servants (ATs) assigned to the corresponding treatment.

Figure S5: Oversight Report-Benchmark Experiment

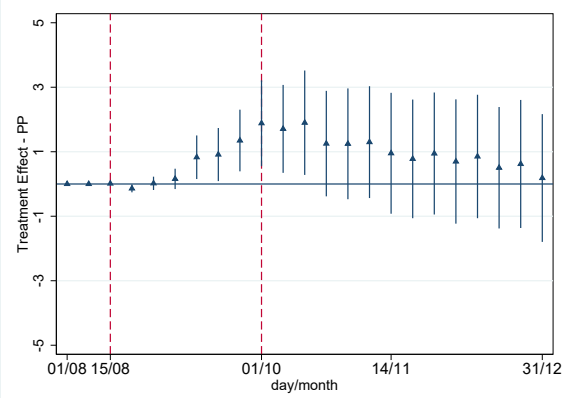
(a) SMS



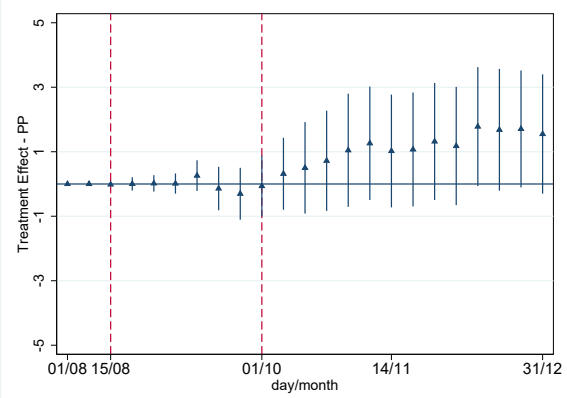
(b) Reminder/Warning



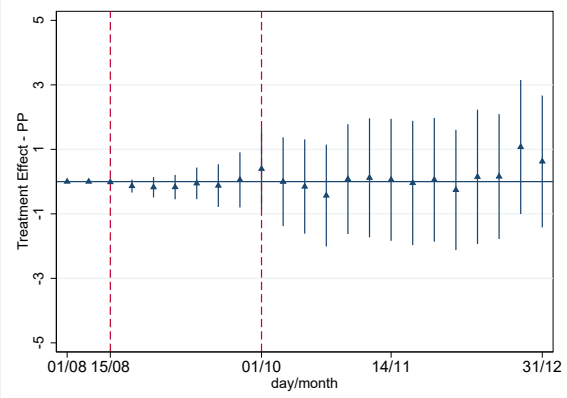
(c) Monitoring



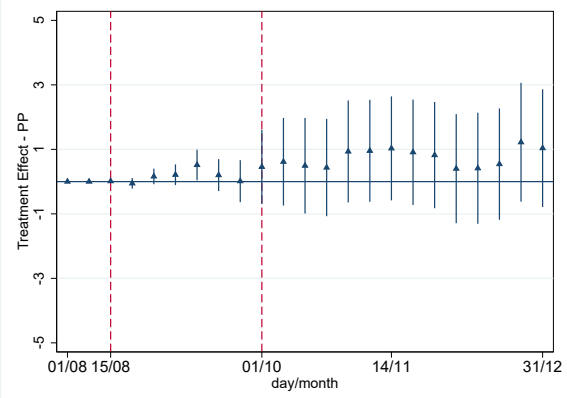
(d) Social Norm



(e) Shaming



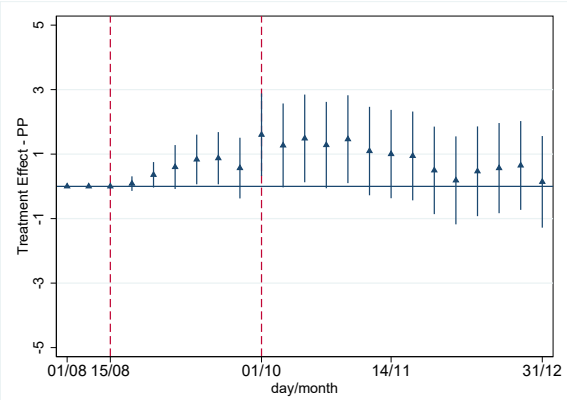
(f) Auditing Threat



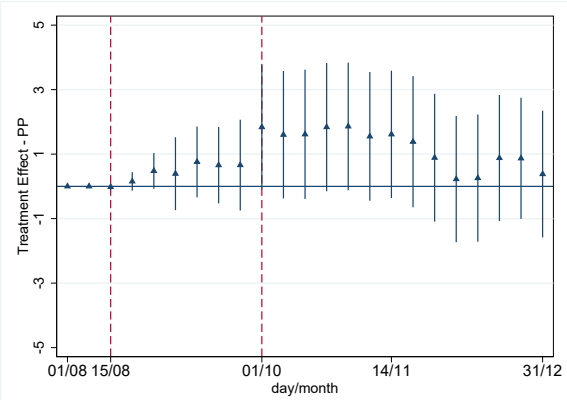
Note: Horizontal axis gives date at which the outcome was measured. Vertical axis is the treatment effect in percentage points, estimated by pooling data from all outcome periods, estimating Equation 1 with period dummy variables and one treatment dummy per period. Vertical bars represent 95% confidence intervals, where standard errors are clustered at the UGEL level. Dashed vertical lines indicate dates that SMS campaign began and ended.

Figure S6: Approved Expense Report-Benchmark Experiment

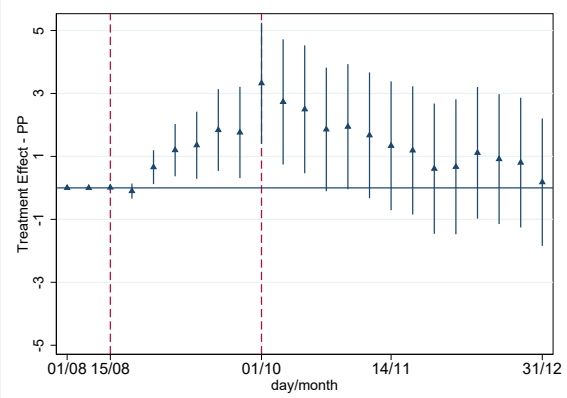
(a) SMS



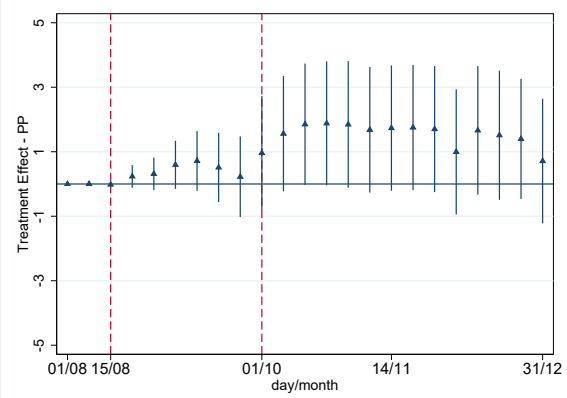
(b) Reminder/Warning



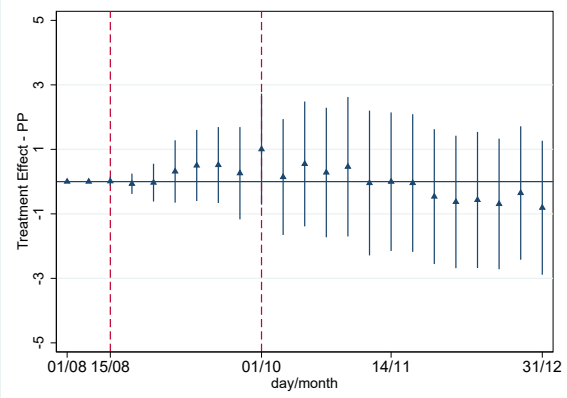
(c) Monitoring



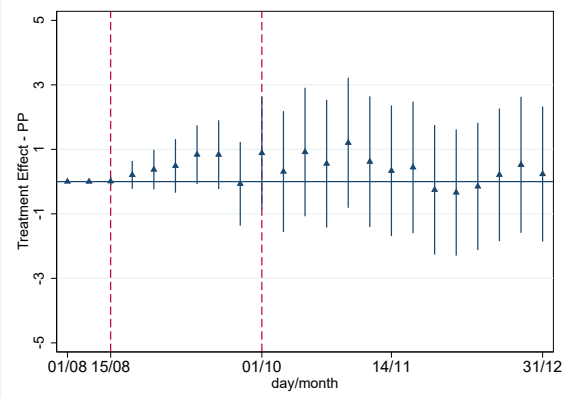
(d) Social Norm



(e) Shaming



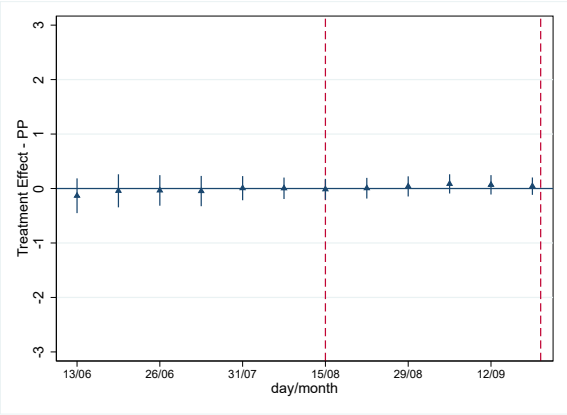
(f) Auditing Threat



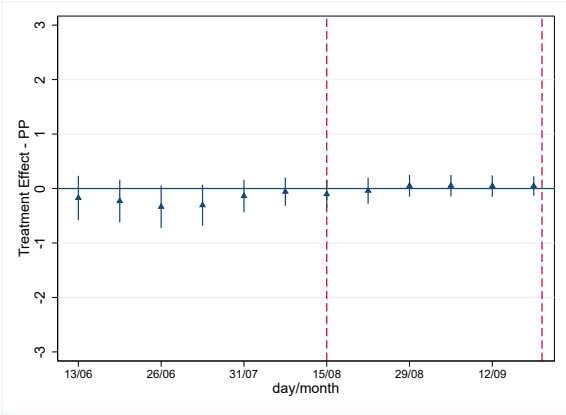
Note: Horizontal axis gives date at which the outcome was measured. Vertical axis is the treatment effect in percentage points, estimated by pooling data from all outcome periods, estimating Equation 1 with period dummy variables and one treatment dummy per period. Vertical bars represent 95% confidence intervals, where standard errors are clustered at the UGEL level. Dashed vertical lines indicate dates that SMS campaign began and ended.

Figure S7: Withdrew Something -Benchmark Experiment

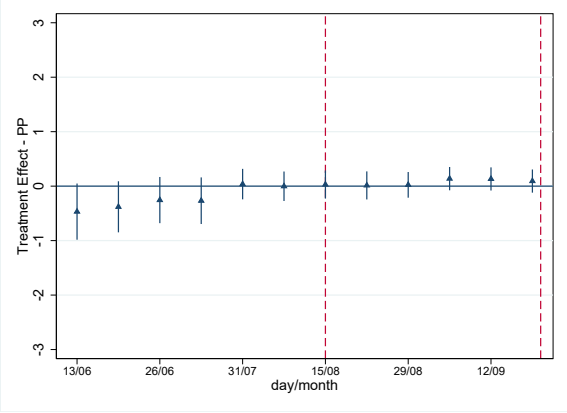
(a) SMS



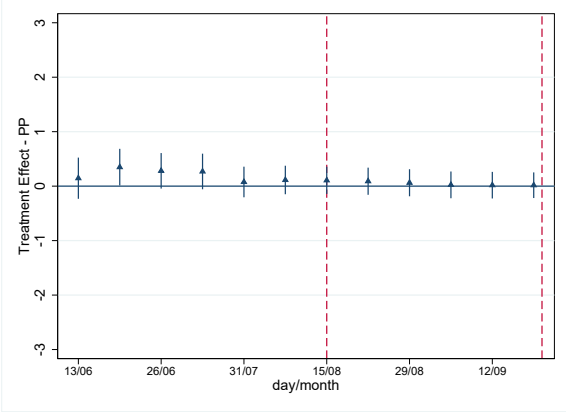
(b) Reminder/Warning



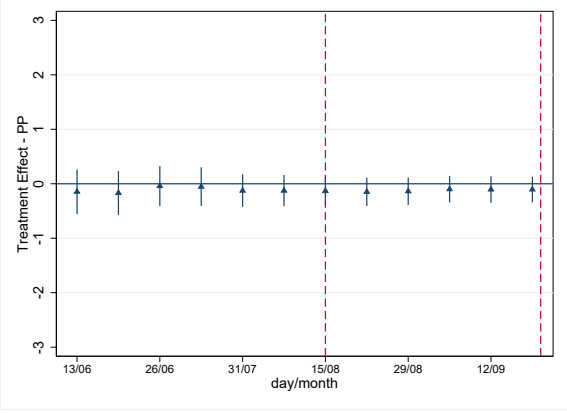
(c) Monitoring



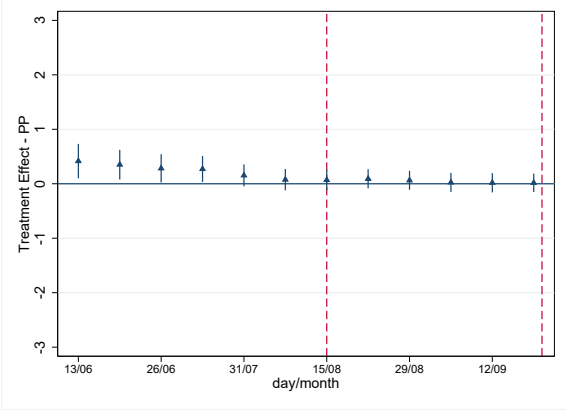
(d) Social Norm



(e) Shaming



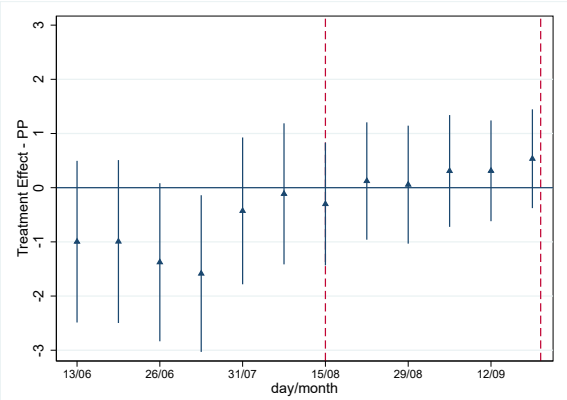
(f) Auditing Threat



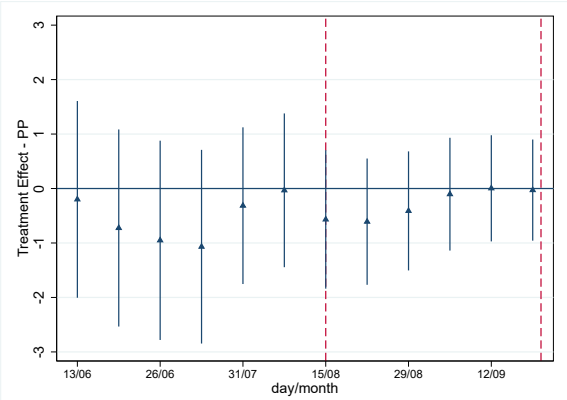
Note: Horizontal axis gives date at which the outcome was measured. Vertical axis is the treatment effect in percentage points, estimated by pooling data from all outcome periods, estimating Equation 1 with period dummy variables and one treatment dummy per period. Vertical bars represent 95% confidence intervals, where standard errors are clustered at the UGEL level. Dashed vertical lines indicate dates that SMS campaign began and ended.

Figure S8: Withdrew 50% -Benchmark Experiment

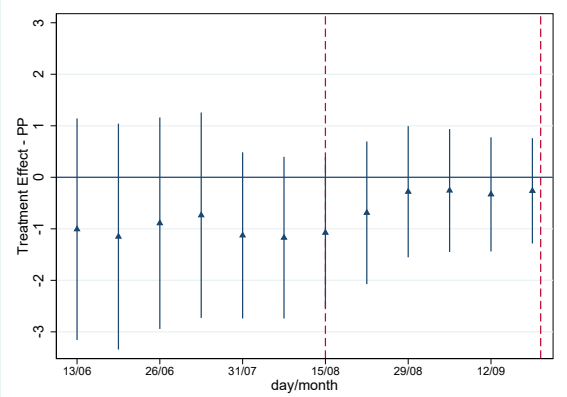
(a) SMS



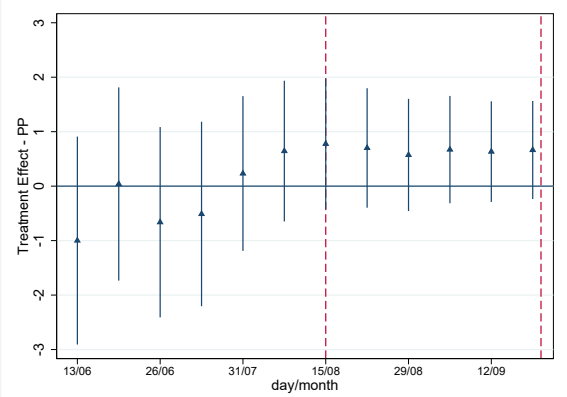
(b) Reminder/Warning



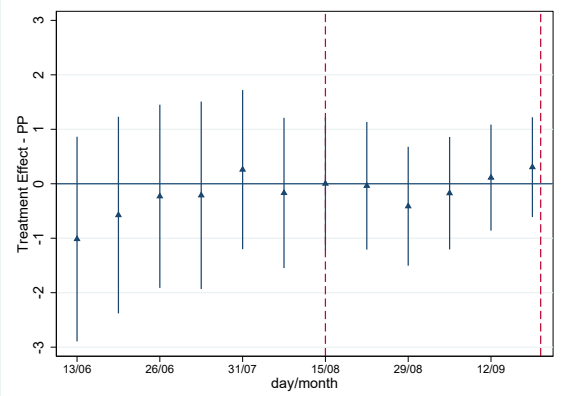
(c) Monitoring



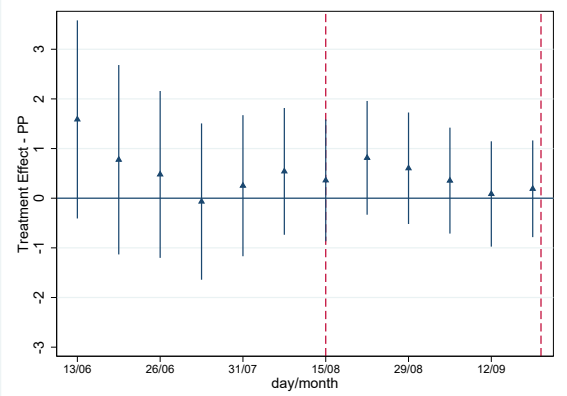
(d) Social Norm



(e) Shaming



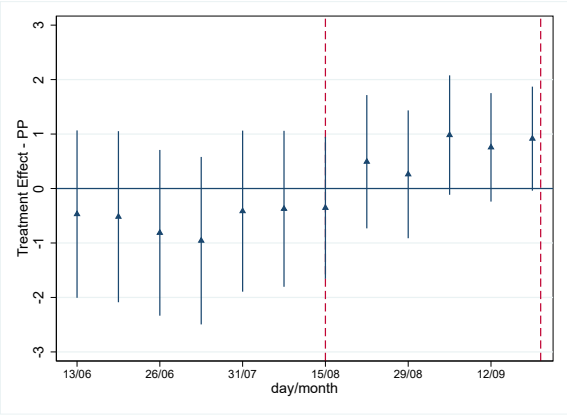
(f) Auditing Threat



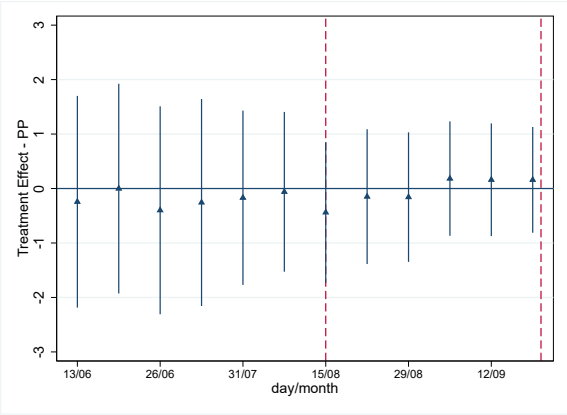
Note: Horizontal axis gives date at which the outcome was measured. Vertical axis is the treatment effect in percentage points, estimated by pooling data from all outcome periods, estimating Equation 1 with period dummy variables and one treatment dummy per period. Vertical bars represent 95% confidence intervals, where standard errors are clustered at the UGEL level. Dashed vertical lines indicate dates that SMS campaign began and ended.

Figure S9: Withdrew 80% -Benchmark Experiment

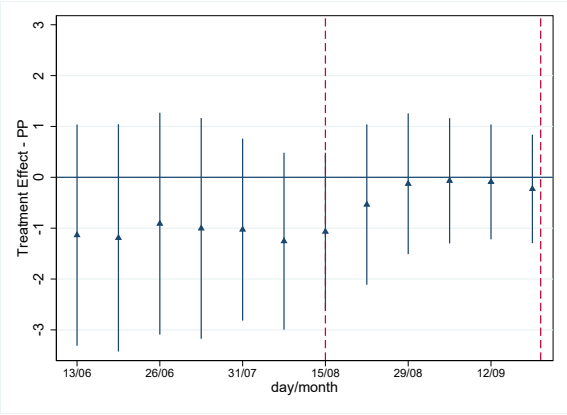
(a) SMS



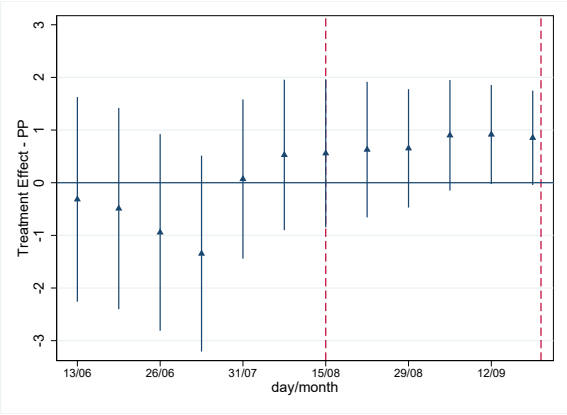
(b) Reminder/Warning



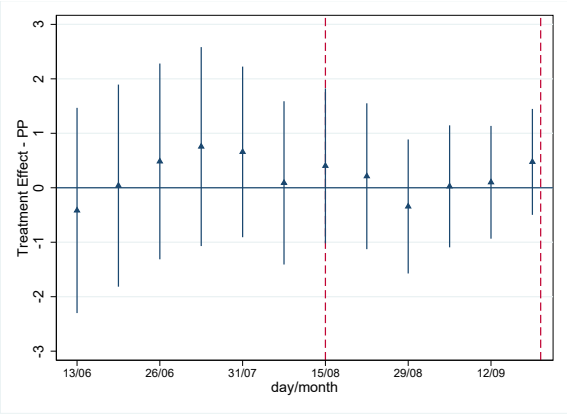
(c) Monitoring



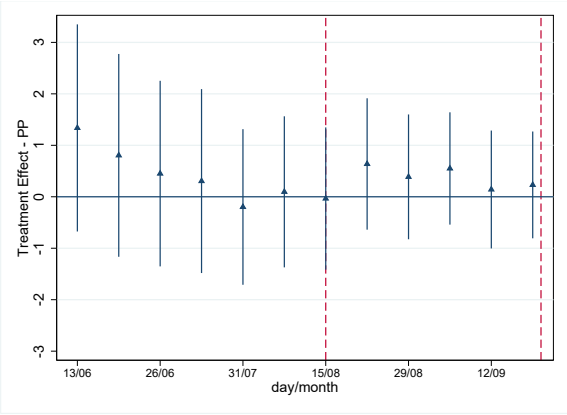
(d) Social Norm



(e) Shaming



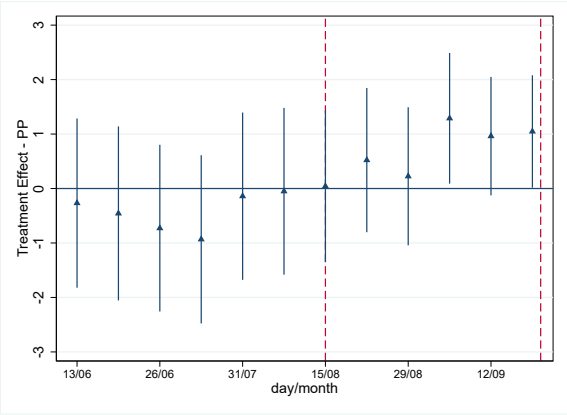
(f) Auditing Threat



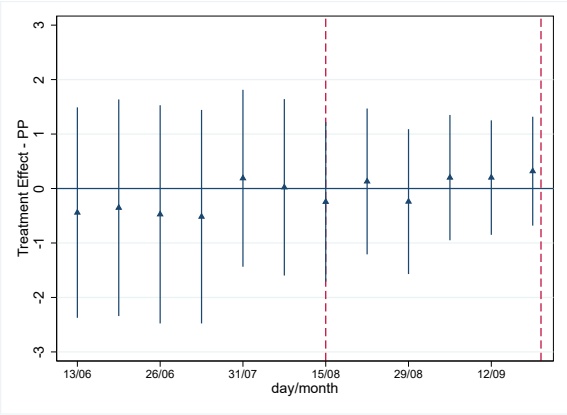
Note: Horizontal axis gives date at which the outcome was measured. Vertical axis is the treatment effect in percentage points, estimated by pooling data from all outcome periods, estimating Equation 1 with period dummy variables and one treatment dummy per period. Vertical bars represent 95% confidence intervals, where standard errors are clustered at the UGEL level. Dashed vertical lines indicate dates that SMS campaign began and ended.

Figure S10: Withdrew 95% -Benchmark Experiment

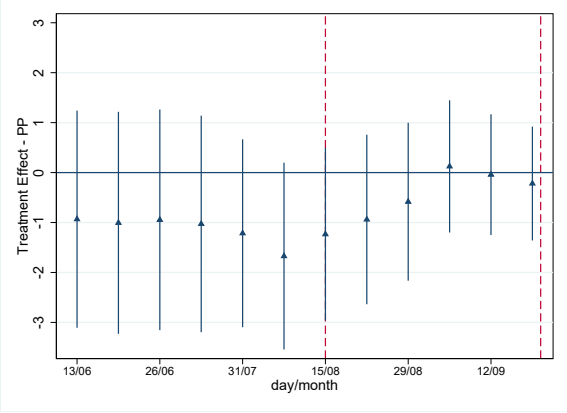
(a) SMS



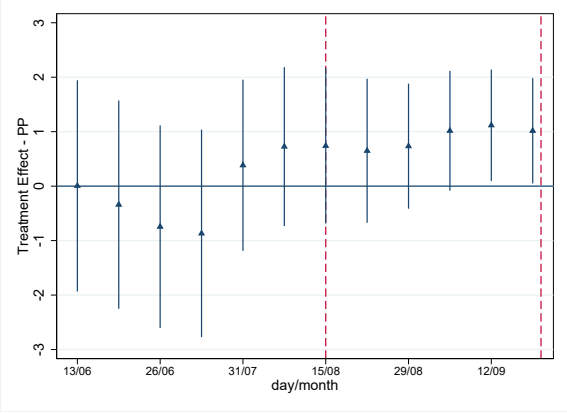
(b) Reminder/Warning



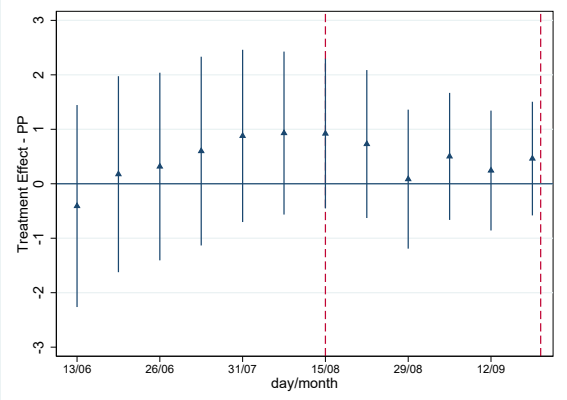
(c) Monitoring



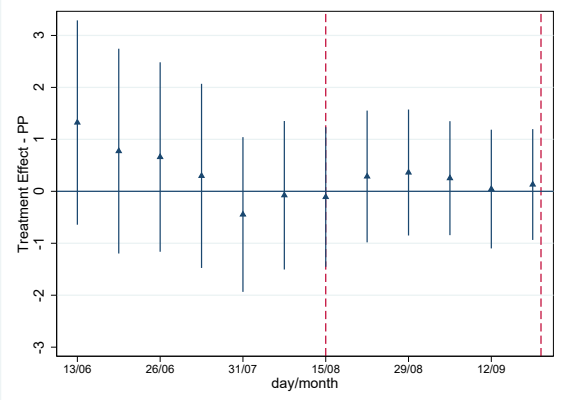
(d) Social Norm



(e) Shaming



(f) Auditing Threat



Note: Horizontal axis gives date at which the outcome was measured. Vertical axis is the treatment effect in percentage points, estimated by pooling data from all outcome periods, estimating Equation 1 with period dummy variables and one treatment dummy per period. Vertical bars represent 95% confidence intervals, where standard errors are clustered at the UGEL level. Dashed vertical lines indicate dates that SMS campaign began and ended.

Table S1. Full List of Variable Definitions

Variable	Definition
Panel A: Pre-treatment Outcomes	
Submitted to Maintenance Committee at Week 20	Percentage of schools that had formed a maintenance comittee at week 20 after the maintance funds had been assigned.
Submitted to Oversight Committee at Week 20	Percentage of schools that had formed an oversight committee at week 20 after the maintenance funds had been assigned.
Submitted Technical Form at Week 20	Percentage of schools that had submitted a technical form to their corresponding UGEL at week 20 after the maintenance funds had been assigned.
Submitted Commitment Act at Week 20	Percentage of schools that had submitted a commitment act at week 20 after the maintenance funds had been assigned.
Submitted Expense Report at Week 20	Percentage of schools that had submitted an expense report at week 20 after the maintenance funds had been assigned.
Submitted Oversight Report at Week 20	Percentage of schools that had submitted an oversight report at week 20 after the maintenance funds had been assigned.
With Approved Expense Report at Week 20	Percentage of schools that had their expenses report approved by their corresponding UGEL at week 20 after the maintenance funds had been assigned.
Bank Balance at 26/06/2016	Bank Balance at 26/06/2016.
Panel B: Outcomes	
Submitted Commitment Act at Week 30	Percentage of schools that had submitted a commitment act at week 30 after the maintenance funds had been assigned.
Submitted Expense Report at Week 30	Percentage of schools that had submitted an expense report at week 30 after the maintenance funds had been assigned.
Submitted Oversight Report at Week 30	Percentage of schools that had submitted an oversight report at week 30 after the maintenance funds had been assigned.
With Approved Expense Report at Week 30	Percentage of schools that had their expense report approved by their corresponding UGEL at week 30 after the maintenance funds had been assigned.
Withdrew Something	Percentage of maintenance civil servants who withdrew any positive amount from the assigned funds.
Withdrew 50%	Percentage of maintenance civil servants who withdrew at least 50% from the assigned funds.
Withdrew 80%	Percentage of maintenance civil servants who withdrew at least 80% from the assigned funds.
Withdrew 95%	Percentage of maintenance civil servants who withdrew at least 95% from the assigned funds.
Withdrew 99%	Percentage of maintenance civil servants who withdrew at least 99% from the assigned funds.

Table S1. Full List of Variable Definitions (Continued)

Variable	Definition
Panel C: Maintenance CS Characteristics	
Sex	Dummy that takes the value of 1 if the chosen maintenance civil servant is male and 0 otherwise.
Age	Age of the chosen maintenance civil servant.
Appointed Maintenance CS	Dummy that takes the value of 1 if the maintenance civil servant was appointed and 0 otherwise.
Hired Maintenance CS	Dummy that takes the value of 1 if the maintenance civil servant was hired and 0 otherwise.
Allocation Transfer	Total amount of money that was allocated to the maintenance civil servant.
Panel D: School Characteristics	
Classrooms	Total number of classrooms in the school.
Students	Total number of students in the school.
Bathroom Connected to Public Drainage System	Dummy that takes the value of 1 if the school's bathrooms were connected to the public drainage system and 0 otherwise.
Bathroom Connected to Septic Tank	Dummy that takes the value of 1 if the school's bathrooms were connected to a septic tank and 0 otherwise.
Bathroom Connected to a Black Well	Dummy that takes the value of 1 if the school's bathrooms were connected to a black well and 0 otherwise.
Bathroom Connected to River, Ditch or Canal	Dummy that takes the value of 1 if the school's bathrooms were connected to a river, ditch or canal and 0 otherwise.
No Bathroom	Dummy that takes the value of 1 if the school didn't have bathrooms and 0 otherwise.
Total Land Area	Total school area in squared meters.
Fully fenced	Dummy that takes the value of 1 if the school was fully fenced and 0 otherwise.
Partially Fenced	Dummy that takes the value of 1 if the school had a partial fence and 0 otherwise.
Unfenced	Dummy that takes the value of 1 if the school was unfenced and 0 otherwise.
Number Educ-Admin Spaces	Total number of educative/administrative spaces (classrooms, computer rooms, laboratories, workshops, libraries, teacher's rooms and gyms).
Number of Buildings	Total number of independent buildings or pavilions in the school where an independent building or pavilion is defined to be an edification with one or more classrooms with common walls and/or roofs distributed among one or more floors.
Average Leaks in Pavilions	Average number of leaks, fissures and cracks in the classrooms.
Average Leaks	Average number of leaks in the classrooms.

Table S1. Full List of Variable Definitions (Continued)

Variable	Definition
Panel E: District Characteristics	
Altitude	Altitude of the district measured in meters above the sea level.
Area	Dummy that takes the value of 1 if the district is located in a rural area and 0 otherwise.
Electricity	Dummy that takes the value of 1 if the district has access to electricity.
Public Drinking Water Network	Dummy that takes the value of 1 if the district has a drinking water network.
Public Drainage Network	Dummy that takes the value of 1 if the district has a drainage network.
Internet Cafe	Dummy that takes the value of 1 if the district has access to internet.
Bank Branch	Dummy that takes the value of 1 if there is a banking institution in the district.
Panel F: Treatments	
SMS	Dummy that takes the value of 1 if the maintenance civil servant received any kind of SMS message.
Reminder/Warning	Dummy that takes the value of 1 if the maintenance civil servant received an SMS message of the Reminder/Warning type.
Social Norm	Dummy that takes the value of 1 if the maintenance civil servant received an SMS message of the Social Norm type.
Monitoring	Dummy that takes the value of 1 if the maintenance civil servant received an SMS message of the Monitoring type.
Shaming	Dummy that takes the value of 1 if the maintenance civil servant received an SMS message of the Shaming type.
Auditing Threat	Dummy that takes the value of 1 if the maintenance civil servant received an SMS message of the Auditing Threat type.

Table S2. SMS in the Benchmark Experiment

	Treatment	SMS
Maintenance Activities	Reminder/Warning	YRMA: REMEMBER, perform maintenance activities according to the file registered in Wasichay. For more details, visit www.pronied.gob.pe.
	Monitoring	LUCILA: Perform maintenance activities according to the file registered in Wasichay. You have pending activities.
	Social Norm	BENJAMIN: Perform maintenance activities according to the file registered in Wasichay. The rest of schools in your UGEL are advancing. You are behind.
	Shaming	ADRIAN: Perform maintenance activities according to the file registered in Wasichay. We will publish the names of schools and civil servants that do not comply.
	Auditing Threat	KARINA: Perform maintenance activities according to the file registered in Wasichay.We will visit your school to supervise activities.
Withdrawal of Allocation Transfer	Reminder/Warning	YRMA: REMEMBER, withdraw the allocated transfer for maintenance. For more details consult the specialist of your UGEL.
	Monitoring	LUCILA: Withdraw the allocated transfer for maintenance.
	Social Norm	BENJAMIN: Withdraw the allocated transfer for maintenance. 89% of schools in your UGEL have already withdrawn the allocated amount. You are behind.
	Shaming	ADRIAN: Withdraw the allocated transfer for maintenance. We will publish the names of schools and civil servants that do not comply.
	Auditing Threat	KARINA: Withdraw the allocated transfer for maintenance. We will visit your school to supervise activities.
Declare Expenditure	Reminder/Warning	YRMA: ALERT! Declare maintenance expenses before September 30th. For more details consult the specialist of your UGEL.
	Monitoring	LUCILA: Declare maintenance expenses before September 30th. You have S/.2000 still undeclared in the Wasichay system.
	Social Norm	BENJAMIN: Declare maintenance expenses before September 30th. The rest of the schools in your UGEL are advancing. You are behind.
	Shaming	ADRIAN: Declare maintenance expenses before September 30th. We will publish the names of schools and civil servants that do not.
	Auditing Threat	KARINA: Declare maintenance expenses before September 30th. We will visit your school to supervise activities.
Declare all the Allocated Transfer	Reminder/Warning	YRMA: URGENT! Declare all the allocated transfer before September 30th. For more details consult the specialist of your UGEL.
	Monitoring	LUCILA: Declare all the allocated transfer before September 30th. You have S/.2000 without declaring in the Wasichay system.
	Social Norm	BENJAMIN: Declare all the allocated transfer before September 30th. The rest of schools in your UGEL are advancing. You are behind.
	Shaming	ADRIAN: Declare all the allocated transfer before September 30th. We will publish the names of schools and civil servants that do not comply.
	Auditing Threat	KARINA: Declare all the allocated transfer before September 30th. We will visit your school to supervise activities.

Note: The compliance percentages and bank balance amounts are examples. Actual messages corresponded to each civil servant's case.

Table S3. SMS in External Validity (CUNA MAS) Experiment

	Treatment	SMS
Planning Meeting Sep/Oct/Nov/Jun 12th	Social Norm	Wendy Eliana: At the planning meeting, record in the tablet the visit reports to date. All ATs in your UT are advancing, join them. SAF
	Monitoring	Lidia: At the planning meeting, record in the tablet the visit reports to date. In October you only registered xx% of families in the tablet. SAF
Reminder Deadline Sep/Oct/Nov/Jun 21st	Social Norm	Wendy Eliana: Record in the tablet all home visit reports. You have until October 31. All ATs in your UT are advancing, join them. SAF
	Monitoring	Lidia: Record in the tablet all home visit reports. You have until October 31. In October you only registered xx% of families in the tablet. SAF
Reminder Deadline Sep/Oct/Nov/Jun 26th	Social Norm	Wendy Eliana: Record in the tablet all home visit reports. You have until October 31. All ATs in your UT are advancing, join them. SAF
	Monitoring	Lidia: Record in the tablet all home visit reports. You have until October 31. In October you only registered xx% of families in the tablet. SAF

Note: Authors' elaboration.

Table S4. Descriptive Statistics for Follow-Up Experiment 2016

Variables	Mean	Std. Dev.	N
Pre-treatment Outcomes			
Submitted to Maintenance Committee at Week 15	0.884	0.321	23,074
Submitted to Oversight Committee at Week 15	0.882	0.322	23,074
Submitted Technical Form at Week 15	0.769	0.421	23,074
Submitted Commitment Act at week 15	0.744	0.436	23,074
Submitted Expense Report at Week 15	0.108	0.311	23,074
Submitted Oversight Report at Week 15	0.005	0.073	23,074
With Approved Expense Report at Week 15	0.012	0.110	23,074
Bank Balance at 14/05/2016	2,685.443	3,908.561	21,640
Bank Balance at 11/06/2016	1,558.316	3,165.641	22,933
Outcomes			
Submitted Commitment Act at Week 43	0.925	0.264	23,074
Submitted Expense Report at Week 43	0.894	0.308	23,074
Submitted Oversight Report at Week 43	0.260	0.439	23,074
With Approved Expense Report at Week 43	0.536	0.499	23,074
Withdrew Something	0.965	0.184	23,069
Withdrew 50%	0.938	0.241	23,069
Withdrew 80%	0.922	0.269	23,069
Withdrew 95%	0.911	0.285	23,069
Withdrew 99%	0.907	0.291	23,069
Maintenance CS Characteristics			
Sex (% Men)	0.462	0.499	21,873
Age	43.906	12.529	23,074
Allocation Transfer	6,974.593	3,769.738	23,074
School Characteristics			
Classrooms	4.870	5.474	23,074
Students	85.402	602.726	23,072
Bathroom Connected to Public Drainage System	0.340	0.474	23,074
Bathroom Connected to Septic Tank	0.241	0.428	23,074
Bathroom Connected to a Black Well	0.272	0.445	23,074
Bathroom Connected to River, Ditch or Canal	0.030	0.169	23,074
No Bathroom	0.068	0.252	23,074
Total Land Area	6,305.087	37,170.460	23,074
Fully Fenced	0.299	0.458	23,074
Partially Fenced	0.239	0.427	23,074
Unfenced	0.412	0.492	23,074
Number Educ-Admin Spaces	7.109	8.426	23,074
Number of Buildings	2.020	2.124	23,074
Average Leaks in Pavilions	1.101	1.427	23,074
Average Leaks	1.017	1.312	23,074
District Characteristics			
Altitude	2,041.917	1,462.186	23,074
Area (% Rural)	0.348	0.476	23,074
Electricity	0.808	0.394	21,930
Public Drinking Water Network	0.643	0.479	21,930
Public Drainage Network	0.364	0.481	21,923
Internet Cafe	0.207	0.405	21,928
Bank Branch	0.099	0.298	21,929

Note: Author's elaboration based on MINEDU's administrative records. The table reports the means, standard deviations, minimum and maximum values, and the sample size. Sample includes all maintenance civil servants who had not submitted their expense report at the beginning of the SMS campaign.

Table S5. Descriptive Statistics for External Validity experiment

Variables	Mean	Std. Dev.	N
Panel A: Pre-treatment Outcomes			
Compliance - August	0.669	0.369	1,113
Panel B: Outcomes			
Compliance - September	0.663	0.367	1,090
Compliance - October	0.660	0.394	1,075
Compliance - November	0.697	0.361	1,075
Compliance - December	0.730	0.376	1,075
Compliance - January	0.759	0.326	1,058
Panel C: Civil Servant Characteristics			
Sex (% Men)	0.432	0.496	1,116
Experience at CUNA MAS (years)	0.583	0.493	1,116
Postgraduate	0.192	0.394	1,116
Graduate	0.635	0.482	1,116
Technician	0.051	0.220	1,116
Another level of study	0.069	0.254	1,116
Language - Aimara	0.010	0.099	1,116
Language - Spanish	0.665	0.472	1,116
Amazonian language	0.004	0.067	1,116
Language -Quechua	0.264	0.441	1,116
Identified - Province	0.279	0.449	1,116
Identified - Coast	0.036	0.186	1,116
Identified - Jungle	0.111	0.314	1,116
Identified -Sierra	0.518	0.500	1,116
Not Peruvian	0.004	0.060	1,116
Panel D: Living Conditions			
Stereo	0.675	0.469	1,116
Television	0.874	0.332	1,116
Computer	0.748	0.434	1,116
Washing machine	0.252	0.434	1,116
Bicycle	0.211	0.409	1,116
Panel E: CUNA MAS Program			
How many CS record the information?	7.1	2.6	1,057
Has SAF delivered you a tablet?	0.905	0.293	1,116
Functional tablet	0.877	0.328	1,116

Note: Author's elaboration based on CUNA MAS's administrative records and a survey designed for this study. The table reports the means, standard deviations, minimum and maximum values, and the sample size.

Table S6. Randomization Balance Analysis for External Validity Experiment

	(1)	(2)	(3)	(4)
Variable	**Control**	**Social Norm**	**Monitoring**	**Joint Hypothesis**
Panel A: Pre-treatment Outcomes				
Compliance - August	0.683	0.664	0.657	0.739
	(0.024)	(0.024)	(0.025)	
Panel B: Civil Servant Characteristics				
Sex (% Men)	0.410	0.433	0.453	0.688
	(0.035)	(0.035)	(0.035)	
Experience at CUNA MAS (years)	0.595	0.576	0.579	0.916
	(0.035)	(0.035)	(0.034)	
Postgraduate	0.195	0.219	0.163	0.318
	(0.028)	(0.029)	(0.025)	
Graduate	0.608	0.652	0.648	0.598
	(0.034)	(0.033)	(0.033)	
Technician	0.062	0.028	0.061	0.100
	(0.016)	(0.011)	(0.016)	
Another level of study	0.065	0.076	0.067	0.902
	(0.017)	(0.019)	(0.018)	
Language - Aimara	0.010	0.008	0.011	0.968
	(0.008)	(0.006)	(0.008)	
Language - Spanish	0.639	0.697	0.661	0.467
	(0.034)	(0.033)	(0.034)	
Amazonian language	0.005	0.003	0.005	0.841
	(0.004)	(0.003)	(0.005)	
Language -Quechua	0.270	0.261	0.261	0.974
	(0.031)	(0.032)	(0.031)	
Identified - Province	0.252	0.287	0.299	0.541
	(0.030)	(0.032)	(0.032)	
Identified - Coast	0.026	0.039	0.043	0.562
	(0.010)	(0.014)	(0.014)	
Identified - Jungle	0.094	0.129	0.112	0.480
	(0.019)	(0.023)	(0.021)	
Identified -Sierra	0.553	0.514	0.485	0.387
	(0.035)	(0.035)	(0.035)	
Not Peruvian	0.005	0.006	0.000	0.367
	(0.005)	(0.006)	(0.000)	
Panel C: Living Conditions				
Stereo	0.691	0.646	0.685	0.574
	(0.032)	(0.033)	(0.033)	
Television	0.857	0.893	0.872	0.527
	(0.024)	(0.021)	(0.024)	
Computer	0.706	0.764	0.776	0.237
	(0.032)	(0.030)	(0.030)	
Washing machine	0.255	0.264	0.237	0.811
	(0.031)	(0.030)	(0.029)	
Bicycle	0.216	0.222	0.197	0.814
	(0.030)	(0.029)	(0.027)	
Panel D: CUNA MAS Program				
How many CS record the information?	7.316	7.000	7.011	0.390
	(0.183)	(0.182)	(0.193)	
Has SAF delivered you a tablet?	0.875	0.930	0.912	0.196
	(0.024)	(0.019)	(0.020)	
Functional tablet	0.834	0.919	0.883	0.034
	(0.026)	(0.020)	(0.022)	
Observations	385	356	375	

Note: Authors' elaboration. For each treatment arm, means and standard errors are reported for each pre-treatment variable. Final column is the p-value for the test of equality of means across all groups.

Table S7. Lee (2009) Bounds-Withdrawal of Maintenance Funds in the Benchmark Experiment

	(1)	(2)	(3)	(4)	(5)
Variable	**Withdraw Something**	**Withdraw 50%**	**Withdraw 80%**	**Withdraw 95%**	**Withdraw 99%**
SMS	0.043	0.534	0.916*	1.048**	1.458**
	(0.081)	(0.463)	(0.485)	(0.523)	(0.572)
Lower	0.043	0.531	0.911**	1.037**	1.463***
	(0.083)	(0.400)	(0.432)	(0.460)	(0.478)
Upper	0.092	0.579	0.960**	1.085**	1.512***
	(0.091)	(0.402)	(0.434)	(0.461)	(0.479)
Control mean	99.693	92.546	91.097	89.783	88.743
Controls	No	No	No	No	No
Observations	21.012	21.012	21.012	21.012	21.012

Note: Bounds are for outcomes indicated in each column and give Lee bounds under extreme assumptions about excess attrition in the National Bank data. Robust standard errors clustered at the UGEL level in parentheses. ***, ** and * indicate statistical significance at the 1%, 5% and 10% respectively.

Table S8. Heterogeneous Effects - Expense Report in the Benchmark Experiment

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
SMS	3.855***	4.815***	4.358***	3.286***	2.980***	2.730***	4.235***	4.947***	4.429***	4.082***	3.909***	3.155***
	(0.710)	(1.098)	(0.971)	(1.176)	(0.974)	(0.938)	(0.668)	(0.983)	(0.902)	(1.150)	(0.969)	(0.830)
School size > median X SMS		-1.704						-1.275				
		(1.286)						(1.205)				
Assigned budget > median X SMS			-1.254						-0.486			
			(1.367)						(1.297)			
Assigned budget per student > median X SMS				0.821						0.216		
				(1.310)						(1.309)		
Rurality X SMS					1.427						0.530	
					(1.232)						(1.239)	
Male X SMS						2.452*						2.359*
						(1.363)						(1.231)
Controls	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Observations	24,257	24,257	24,257	24,257	24,257	24,257	24,257	24,257	24,257	24,257	24,257	24,257

Note: Treatment effects and means are reported in percentage points. "SMS" pools all treatment arms. Rows below are from specifications that estimate interactions between treatment and pre-treatment covariates, controlling for the uninteracted covariate. Columns 7 to 12 include controls for personal characteristics (age, gender, type of contract), school characteristics (number of classrooms, number of buildings, land area, number of students, bathroom characteristics, distance to UGEL) and municipality characteristics (altitude, access to electricity, access to drinking water network, access to internet, availability of a bank branch), including dummies for missing observations. Table S1 in the Online Appendix contains the outcome, treatment and control variables' full definitions. Robust standard errors clustered at the UGEL level in parentheses. ***, ** and * indicate statistical significance at the 1%, 5% and 10% respectively.

Table S9. Heterogeneous Effect - Withdrew 99% in the Benchmark Experiment

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
SMS	1.458**	1.368*	1.167*	1.443*	1.137	1.249*	1.565***	1.372**	1.133**	1.798**	1.509	1.393**
	(0.572)	(0.711)	(0.620)	(0.857)	(1.038)	(0.664)	(0.519)	(0.637)	(0.553)	(0.800)	(1.011)	(0.609)
School size > median X SMS		0.170						0.385				
		(1.018)						(0.987)				
Assigned budget > median X SMS			0.660						1.095			
			(1.083)						(1.063)			
Assigned budget per student > median X SMS				0.018						-0.457		
				(1.036)						(1.014)		
Rurality X SMS					0.501						0.091	
					(1.248)						(1.227)	
Male X SMS						0.463						0.380
						(0.983)						(0.953)
Controls	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Observations	21,012	21,012	21,012	21,012	21,012	21,012	21,012	21,012	21,012	21,012	21,012	21,012

Note: Treatment effects and means are reported in percentage points. "SMS" pools all treatment arms. Rows below are from specifications that estimate interactions between treatment and pre-treatment covariates, controlling for the uninteracted covariate. Columns 7 to 12 include controls for personal characteristics (age, gender, type of contract), school characteristics (number of classrooms, number of buildings, land area, number of students, bathroom characteristics, distance to UGEL) and municipality characteristics (altitude, access to electricity, access to drinking water network, access to internet, availability of a bank branch), including dummies for missing observations. Table S1 in the Online Appendix contains the outcome, treatment and control variables' full definitions. Robust standard errors clustered at the UGEL level in parentheses. ***, ** and * indicate statistical significance at the 1%, 5% and 10% respectively.