

Online Appendix

HOW EFFECTIVE ARE MONETARY INCENTIVES TO VOTE? EVIDENCE FROM A NATIONWIDE POLICY

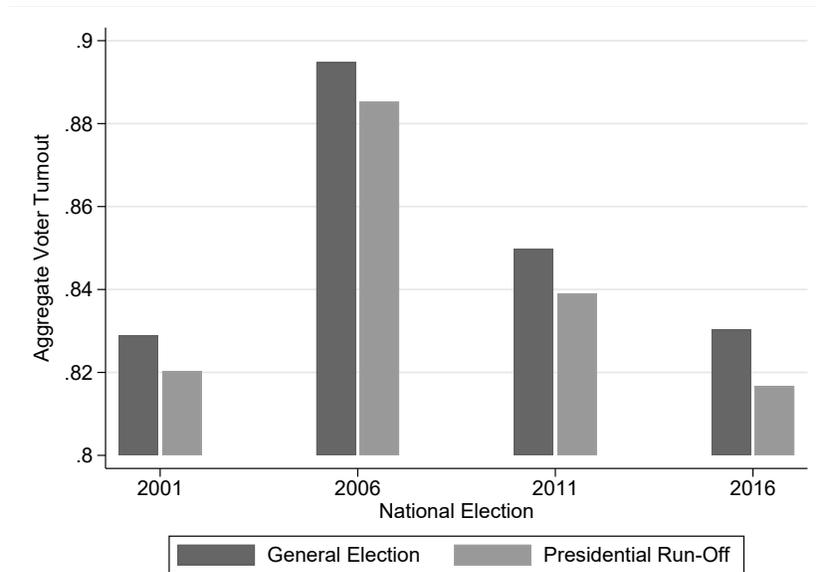
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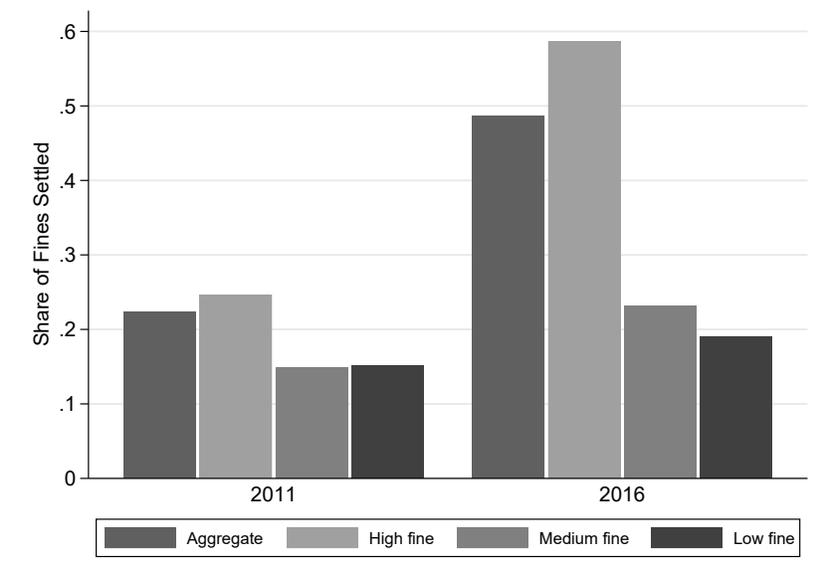
A Additional Background Information

Figure A1: Voter Turnout in National Elections



Note: Figure shows aggregate voter turnout for each national election in Peru between 2001 and 2016. The general election includes the first round of the presidential election and the legislative election.

Figure A2: Share of Fines Settled for the 2011 and 2016 Elections



Notes: The graph shows the share of abstention fines settled in each category, as well as the countrywide aggregate, for the national elections of 2011 and 2016 (general and run-off combined). Settled fines include paid fines and valid excuses. Data from June 2018.

Table A1: Assignment of Districts to Poverty Categories in 2006 and 2010

2010 assignment	2006 assignment			Total
	High fine	Medium fine	Low fine	
High fine	182	570	165	917
Medium fine	0	119	195	314
Low fine	0	73	451	524
Total	182	762	811	1,755

Notes: Districts with incomplete election data (including newly created ones) or with inconsistencies in the assignment are dropped. Final sample of 1,755 districts corresponds to 94.7% of the total number of districts in Peru.

B Voter Turnout: Additional Results

Table B1: Main Results Clustering by Region (Wild Cluster Bootstrap)

Dependent variable:	Voter Turnout $_{i,t}$			
	level	log	ln Voters $_{i,t}$	Spoiled Votes $_{i,t}$
	(1)	(2)	(3)	(4)
Fine value $_{i,t}$ (S/ x 100)	0.049*** [0.007] (0.000)			0.037*** [0.007] (0.001)
ln Fine value $_{i,t}$		0.030*** [0.005] (0.000)	-0.046*** [0.015] (0.015)	
Observations	13,536	13,536	6,768	6,768
Districts	1692	1692	1692	1692
R-squared	0.0180	0.0180	0.00161	0.0117
Mean of dependent variable	0.845	-0.171	10.68	0.122
District FE	Yes	Yes	Yes	Yes
Election x Province x '06 Category FE	Yes	Yes	Yes	Yes

Notes: ln Voters is the natural log of the number of registered voters for the election cycle (same for general and run-off elections). Blank votes and invalid votes in columns 4-5 are measured as shares of the number of registered voters. Columns 1-2 use data from national elections (general and presidential run-off) in 2001, 2006, 2011 and 2016. Columns 3-4 use data from the first round of the presidential elections in 2001, 2006, 2011 and 2016. The value of the fine is measured in 100s of current Peruvian Soles (S/). All columns are weighted by the number of registered voters in 2001. Standard errors clustered by region in brackets (25 units). Cluster-robust wild-bootstrap p-value in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table B2: Event-study estimates of the effect of the reform on turnout and registration

Dependent Variable:	Turnout _{<i>i,t</i>}	ln Voters _{<i>i,t</i>}
	(1)	(2)
$\mathbb{1}(2001 \text{ General})_t \times \mathbb{1}(c_{10} = \text{High fine})_i$	0.005 [0.006]	-0.002 [0.015]
$\mathbb{1}(2001 \text{ Run-Off})_t \times \mathbb{1}(c_{10} = \text{High fine})_i$	0.007 [0.006]	
$\mathbb{1}(2006 \text{ General})_t \times \mathbb{1}(c_{10} = \text{High fine})_i$	-0.003 [0.002]	
$\mathbb{1}(2011 \text{ General})_t \times \mathbb{1}(c_{10} = \text{High fine})_i$	0.012*** [0.004]	-0.007 [0.010]
$\mathbb{1}(2011 \text{ Run-Off})_t \times \mathbb{1}(c_{10} = \text{High fine})_i$	0.014*** [0.004]	
$\mathbb{1}(2016 \text{ General})_t \times \mathbb{1}(c_{10} = \text{High fine})_i$	0.024*** [0.005]	-0.021 [0.016]
$\mathbb{1}(2016 \text{ Run-Off})_t \times \mathbb{1}(c_{10} = \text{High fine})_i$	0.030*** [0.005]	
$\mathbb{1}(2001 \text{ General})_t \times \mathbb{1}(c_{10} = \text{Low fine})_i$	-0.001 [0.005]	0.000 [0.017]
$\mathbb{1}(2001 \text{ Run-Off})_t \times \mathbb{1}(c_{10} = \text{Low fine})_i$	-0.004 [0.005]	
$\mathbb{1}(2006 \text{ General})_t \times \mathbb{1}(c_{10} = \text{Low fine})_i$	0.002 [0.002]	
$\mathbb{1}(2011 \text{ General})_t \times \mathbb{1}(c_{10} = \text{Low fine})_i$	0.004 [0.005]	0.044*** [0.010]
$\mathbb{1}(2011 \text{ Run-Off})_t \times \mathbb{1}(c_{10} = \text{Low fine})_i$	-0.003 [0.005]	
$\mathbb{1}(2016 \text{ General})_t \times \mathbb{1}(c_{10} = \text{Low fine})_i$	-0.015** [0.006]	0.061*** [0.017]
$\mathbb{1}(2016 \text{ Run-Off})_t \times \mathbb{1}(c_{10} = \text{Low fine})_i$	-0.025*** [0.007]	
Observations	13,536	6,768
Districts	1692	1692
District FE	Yes	Yes
Election x Province x 2006-Poverty-Category FE	Yes	Yes

Notes: Column 1 corresponds to Figure 2 in the text, while column 2 corresponds to Figure 3. In column 1, the dependent variable is turnout and the omitted election is the 2006 presidential run-off. In column 2, the dependent variable is the natural log of the number of registered voters and the omitted election cycle is 2006. Voter registration is constant within an election cycle (i.e. general election and run-off). Regressions include district and province-election-category fixed effects (using 2006 classification). Observations are weighted by the number of registered voters for the 2001 elections. Standard errors are clustered by province (192 clusters). *** p<0.01, ** p<0.05, * p<0.1

Table B3: The Marginal Effect of the Abstention Fine on Voter Turnout in Run-Off elections

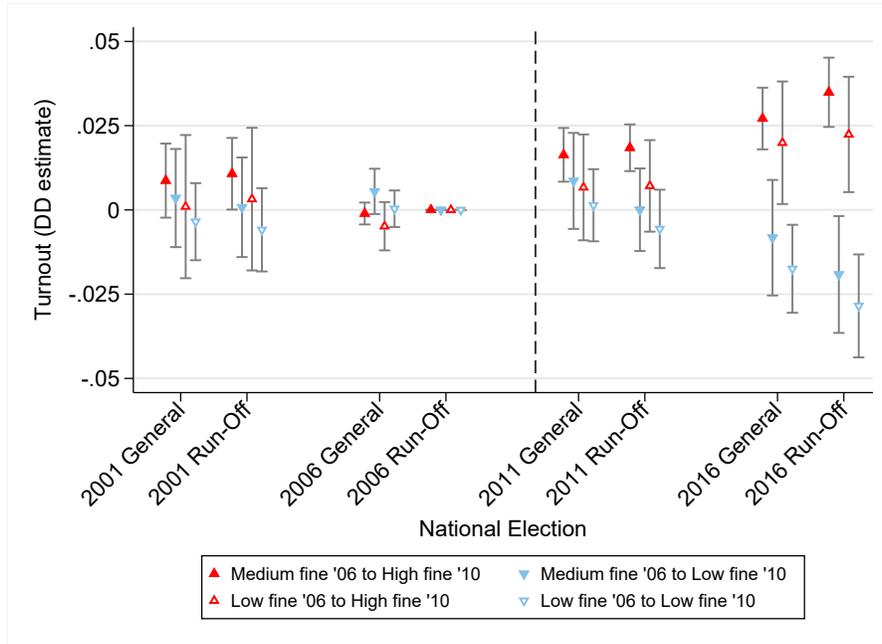
	Dependent variable: Turnout _{<i>i,t</i>} (Mean: 0.84)			
	(1)	(2)	(3)	(4)
Fine value _{<i>i,t</i>} (S/ x 100)	0.055*** [0.009]		0.055*** [0.009]	0.054*** [0.014]
Vote share of run-off candidates _{<i>i,t-1</i>}		0.003 [0.014]	0.003 [0.013]	0.001 [0.036]
Vote share of run-off candidates _{<i>i,t-1</i>} × Fine value _{<i>i,t</i>}				0.002 [0.026]
Observations	6,768	6,768	6,768	6,768
Districts	1692	1692	1692	1692
R-squared	0.0233	0.000138	0.0235	0.0235
District FE	Yes	Yes	Yes	Yes
Election-Province-Category '06 FE	Yes	Yes	Yes	Yes

Notes: Dependent variable is voter turnout (0-1). Vote share of run-off candidates_{*i,t-1*} is the sum of the vote shares in the first round of the presidential election for the two candidates that progressed to the run-off (top two candidates in the aggregate). All regressions only use data from presidential run-off elections for the years 2001, 2006, 2011 and 2016. The abstention fine is the same for all districts until the 2006 elections. All regressions include district fixed effects and election-date by province by 2006 poverty category fixed effects. All regressions are weighted by the number of registered voters for the elections in 2001. Standard errors clustered by province (192 units). *** p<0.01, ** p<0.05, * p<0.1

Table B4: Heterogeneous effects by Age of the Electorate

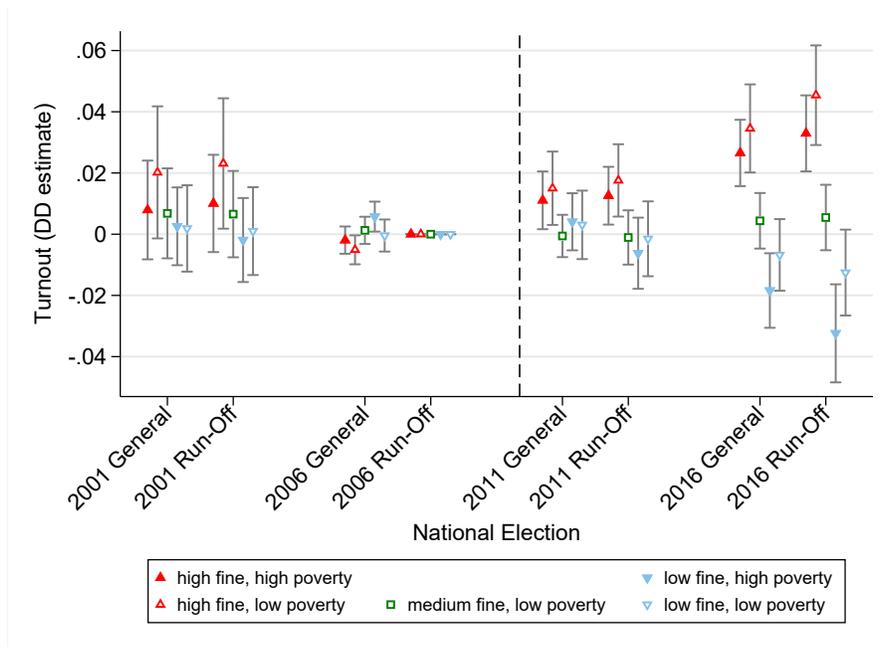
	(1)	(2)	(3)	(4)
Panel A - Dependent variable: Voter Turnout _{i,t} (Mean: 0.845)				
Fine value _{i,t} (S/ x 100)	0.145*** [0.044]	0.057 [0.045]	0.056*** [0.009]	0.004 [0.015]
Fine value _{i,t} × Avg. age of voters _i	-0.002** [0.001]	-0.001 [0.001]		
Fine value _{i,t} × Share poor _i		0.050*** [0.012]		0.050*** [0.012]
Fine value _{i,t} × D(Average age: second tercile) _i			-0.007** [0.003]	-0.005* [0.003]
Fine value _{i,t} × D(Average age: top tercile) _i			-0.014** [0.006]	-0.009* [0.004]
R-squared	0.03	0.03	0.03	0.03
Panel B - Dependent variable: ln Voter Turnout _{i,t} (Mean: -0.17)				
ln Fine value _{i,t} (S/ x 100)	0.090 [0.054]	0.019 [0.047]	0.033*** [0.006]	-0.010 [0.016]
ln Fine value _{i,t} × Avg. age of voters _i	-0.001 [0.001]	-0.001 [0.001]		
ln Fine value _{i,t} × Share poor _i		0.048*** [0.016]		0.047*** [0.017]
ln Fine value _{i,t} × D(Average age: second tercile) _i			-0.004 [0.004]	-0.003 [0.003]
ln Fine value _{i,t} × D(Average age: top tercile) _i			-0.009 [0.007]	-0.005 [0.005]
R-squared	0.02	0.02	0.02	0.02
Observations	13,536	13,536	13,536	13,536
Districts	1692	1692	1692	1692
District FE	Yes	Yes	Yes	Yes
Election x Province x Category '06 FE	Yes	Yes	Yes	Yes
Notes: All regressions use data from national elections in 2001, 2006, 2011 and 2016. Columns 1 and 2 include the interaction of the fine with the average age of registered voters in 2016. Columns 3 and 4 include similar interactions for the top two terciles of the age distribution. Columns 2 and 4 include an additional interaction of the fine with the share of poor population (non-extreme and extreme) in the district. All columns are weighted by the number of registered voters in 2001. Standard errors clustered by province (192 units). *** p<0.01, ** p<0.05, * p<0.1				

Figure B1: The Reform to the Abstention Fine and Turnout by 2006 Poverty Category



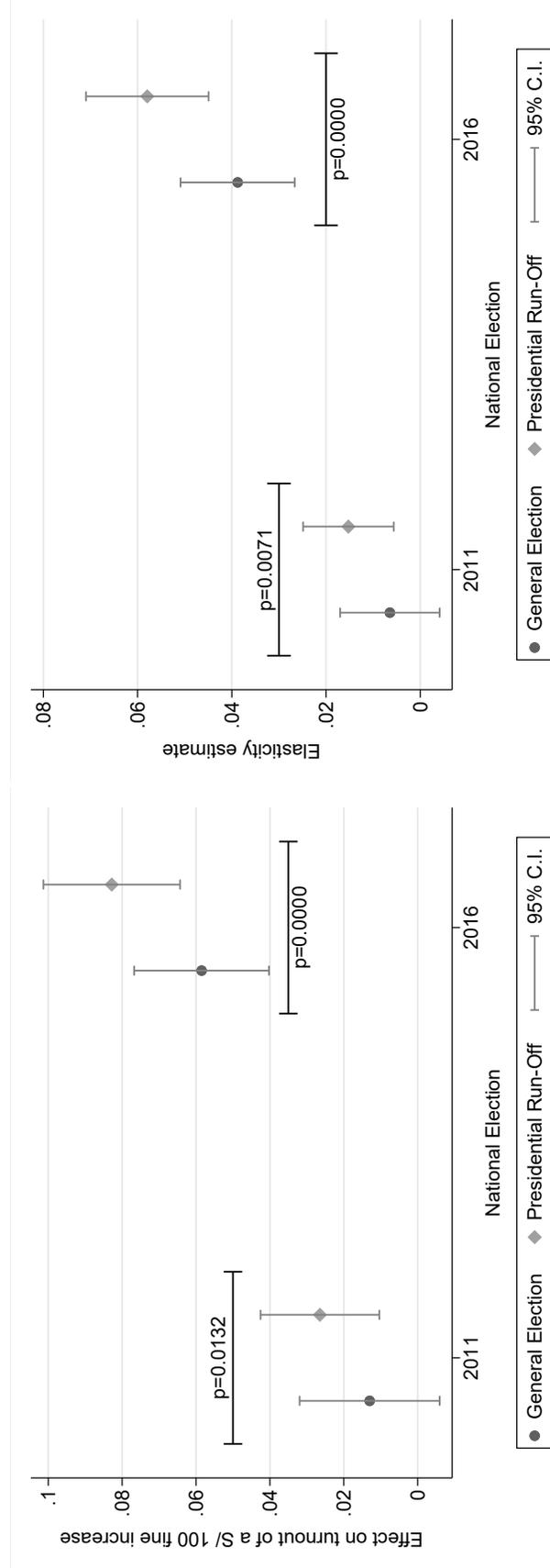
Notes: The graph shows point estimates and 95% confidence intervals of a regression of district-level turnout on a full set of election dummies interacted with dummies for each combination of poverty categories in 2006 and 2010. All districts classified as high fine in 2006, remained in that category in 2010 and are absorbed by the time fixed effects. There is one omitted combination for each of the remaining 2006 poverty categories (medium fine and low fine), which corresponds in both cases to districts classified as medium fine in 2010. The omitted election is the 2006 presidential run-off. Regression includes district and province-election-category fixed effects (using 2006 classification). Regression includes 13,536 observations from 1,692 districts. Districts are weighted by the number of registered voters for the 2001 elections. Standard errors are clustered by province (192 clusters). The dotted line corresponds to October 2010, when districts were re-classified with regards to the abstention fine.

Figure B2: The Reform to the Abstention Fine and Turnout: Heterogeneous Effects by Share of Poor



Notes: The graph shows point estimates and 95% confidence intervals of a regression of district-level turnout on a full set of election dummies interacted with dummies for each combination of fine category and level of poverty. Poverty levels are defined as above or below the median for the respective category. These medians are 40.5%, 70.7% and 82.2% in high-, medium- and low-fine districts, respectively. The omitted category includes districts assigned a medium fine (poor) in 2010 and having high poverty (i.e. above median). The omitted election is the 2006 presidential run-off. Regression includes district and province x election x 2006-category fixed effects. Regression includes 13,536 observations from 1,692 districts. Districts are weighted by the number of registered voters in 2001. Standard errors are clustered by province (192 clusters). The dashed line indicates the date of adjusted district assignment (October 2010).

Figure B3: Election-specific Estimates of the Marginal Effect of the Abstention Fine on Turnout and the Elasticity



(a) Level effect

(b) Elasticity

Notes: Panel (a) shows point estimates and 95% confidence intervals of a regression of district-level turnout on the value of the fine for abstention interacted with a full set of election-date dummies. Panel (b) shows point estimates and 95% confidence intervals of the equivalent regression replacing turnout and the value of the fine for their natural logs. Regressions use data from national elections (General, Legislative and Presidential Run-Off) for the years 2001, 2006, 2011 and 2016: 13,536 observations from 1,692 districts. The abstention fine is the same for all districts until the 2006 elections. Regressions include district and province x election x 2006-poverty-category fixed effects. Districts are weighted by the number of registered voters for the 2001 elections. Standard errors are clustered by province (192 clusters).

C Enforcement: Additional Results

Table C1: Effects of Expected Fine on Turnout

Dependent variable:	Turnout _{i,t} (Mean=0.845)			ln Turnout _{i,t} (Mean=-0.171)		
	(1)	(2)	(3)	(4)	(5)	(6)
(ln) Expected Fine value _{i,t} (S/ x 100)	0.054*** [0.012]	0.058*** [0.015]	0.064*** [0.011]	0.023*** [0.004]	0.028*** [0.004]	0.022*** [0.003]
Observations	12,848	12,848	12,848	12,848	12,848	12,848
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Election-Province-Category '06 FE	Yes	Yes	Yes	Yes	Yes	Yes
Enforcement 2001 & 2006	06/10 avg.		06	06/10 avg.		06
Enforcement 2011	11	10	10	11	10	10
Enforcement 2016	16	14	14	16	14	14

Notes: Dependent variable is voter turnout (0-1) in columns 1-3 and the natural log of voter turnout in columns 4-6. All columns use data from national elections (general and presidential run-off) in 2001, 2006, 2011 and 2016, but we restrict the sample to districts with complete information on fine settlement. The expected fine in columns 1-3 is equal to the value of the fine in 100s of current Peruvian Soles (S/) multiplied by the probability of enforcement. In columns 4-6, we use the natural log of the expected value of the fine (plus 0.01). Probability of enforcement is proxied by the share of fines paid. In columns 1,2, 4 and 5, we use the average share of fines paid in the subnational elections of 2006 and 2010 as the probability of enforcement for 2001 and 2006. In columns 3 and 6, we just use the value from the the subnational elections of 2006. In columns 1 and 4, we use the actual shares from 2011 and 2016 for these elections. In columns 2, 3, 5 and 6, we use the subnational elections from 2010 for 2011 and those from 2014 for 2016. All columns include district fixed effects and province x election x 2006 poverty category (high fine, medium fine, low fine) fixed effects. All columns are weighted by the number of registered voters in 2001. Standard errors clustered by province (192 units). *** p<0.01, ** p<0.05, * p<0.1

Table C2: The Marginal Effect of the Abstention Fine on Settlement of Outstanding Fines

Dependent variable: Share of fines	Settled _{i,t}		Paid _{i,t}		Excused _{i,t}	
	(1)	(2)	(3)	(4)	(5)	(6)
Fine value _{i,t} (S/ x 100) [a]	0.231*** [0.024]	-0.003 [0.008]	-0.020*** [0.007]	-0.026*** [0.007]	0.252*** [0.021]	0.023*** [0.005]
Fine value _{i,t} × 1(2014/16) _t [b]		0.353*** [0.031]		0.009 [0.007]		0.344*** [0.031]
Observations	11,727	11,727	11,727	11,727	11,727	11,727
Districts	1692	1692	1692	1692	1692	1692
R-squared	0.03	0.13	0.001	0.001	0.03	0.13
Mean of dependent variable	0.37	0.37	0.20	0.20	0.17	0.17
p-value H ₀ : a+b=0		0.000		0.036		0.000
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Election x Province x '06 Category FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Sample includes national elections from the years 2011 and 2016 and sub-national elections from 2006, 2010 and 2014. The value of the fine is measured in 100s of current Peruvian Soles (S/). Even-numbered columns include the interaction of the value of the fine with a dummy for the elections of 2014 and 2016. All columns weighted by the number of registered voters in 2001. Standard errors clustered by province (192 units). *** p<0.01, ** p<0.05, * p<0.1

Table C3: Improved Enforcement and the Long-run Effect of the Fine on Turnout

	Dependent variable: Turnout _{<i>i,t</i>}					
	Targeted districts	Drop Lima & Callao	Province capitals	Drop capitals	Δ fines settled	All
	(1)	(2)	(3)	(4)	(5)	(6)
Fine value _{<i>i,t</i>} (S/ x 100)	0.020** [0.008]	0.017** [0.009]	0.020** [0.008]	0.018** [0.009]	0.020** [0.008]	0.020** [0.008]
Fine value _{<i>i,t</i>} × 1(2016) _{<i>t</i>}	0.051*** [0.005]	0.051*** [0.005]	0.046*** [0.005]	0.051*** [0.005]	0.041*** [0.006]	0.037*** [0.006]
1(Targeted District) _{<i>i</i>} × 1(2016) _{<i>t</i>}	0.006 [0.004]					0.011** [0.005]
1(Province capital) _{<i>i</i>} × 1(2016) _{<i>t</i>}			0.008*** [0.002]			0.008*** [0.002]
Δ fines settled _{<i>i</i>} × 1(2016) _{<i>t</i>}					0.024*** [0.008]	0.021*** [0.007]
Observations	13,515	12,221	13,515	12,038	13,375	13,375
Districts	1,692	1,530	1,692	1,506	1,692	1,692
R-squared	0.03	0.03	0.04	0.03	0.03	0.04
Mean of dependent variable	0.85	0.83	0.85	0.85	0.85	0.85
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Election x Province x Category '06 FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Dependent variable is voter turnout (0-1). Data includes national elections (general and presidential run-off) for the years 2001, 2006, 2011 and 2016. The abstention fine is the same for all districts until the 2006 elections. The value of the fine is measured in 100s of current Peruvian Soles (S/). Column 1 includes the interaction of the 2016 dummy with an indicator for the districts in Lima and Callao that were targeted for coercive collection after 2012. Column 2 excludes the entire department of Lima and the province of Callao. Column 3 includes the interaction of a dummy for provincial capitals with the 2016 indicator. Column 4 excludes all provincial capitals. Column 5 includes the interaction of the 2016 dummy with the change in the share of fines settled between the municipal elections of 2006 and the municipal elections of 2014. Column 6 simultaneously includes all three interactions. All columns include district fixed effects and election x province x 2006 poverty category fixed effects. All regressions are weighted by the number of registered voters for the elections in 2001. Standard errors clustered by province (181 units in column 2, 186 units in column 4, 192 units in all others). *** p<0.01, ** p<0.05, * p<0.1

D Voter Registration: Additional Results

Table D1: The Value of the Abstention Fine and Voter Registration: Heterogeneous Effects by Distance to Districts with Lower Fine

Dependent variable:	ln Voters _{<i>i,t</i>}	
	(1)	(2)
ln Fine value _{<i>i,t</i>} [a]	-0.047*** [0.015]	
ln Fine value _{<i>i,t</i>} × Distance to district w/ lower fine _{<i>i</i>} [b]	0.001* [0.000]	
ln Fine value _{<i>i,t</i>} × $\mathbb{1}(\text{Distance to district w/ lower fine: } 0\text{-}5\text{km})_i$		-0.040** [0.016]
ln Fine value _{<i>i,t</i>} × $\mathbb{1}(\text{Distance to district w/ lower fine: } 5\text{-}10\text{km})_i$		-0.005 [0.032]
ln Fine value _{<i>i,t</i>} × $\mathbb{1}(\text{Distance to district w/ lower fine: } >10\text{km})_i$		-0.026 [0.024]
Observations	6,768	6,768
Districts	1692	1692
R-squared	0.003	0.002
District FE	Yes	Yes
Election-Province-Category '06 FE	Yes	Yes
p-value H ₀ : a+b=0	0.002	
Mean of dep. var	10.68	10.68

Notes: ln Voters is the natural log of the number of registered voters for the election cycle (same for general and run-off elections). Sample includes national elections (general and presidential run-off) in 2001, 2006, 2011 and 2016. Column 1 includes the interaction of the fine with the distance between the district and the nearest district with a lower fine. Column 2 includes the interaction of the fine with a set of dummies that take the value of 1 if the nearest district with a lower fine is located less than 5 km away, between 5-10 km, and more than 10 km away. Regressions are weighted by the number of registered voters in 2001. Standard errors clustered by province (192 units). *** p<0.01, ** p<0.05, * p<0.1

Table D2: The Value of the Abstention Fine and Age-specific Voter Registration, controlling for predicted voters

	Dependent variable: $\ln \text{Voters}_{i,t}$ in age-group					
	18-20	21-29	30-35	36-50	51-75	75+
	(1)	(2)	(3)	(4)	(5)	(6)
$\ln \text{Fine value}_{i,t}$	-0.214*** [0.051]	-0.022 [0.027]	-0.046** [0.020]	-0.055*** [0.020]	-0.051 [0.031]	-0.062 [0.057]
$\ln \widehat{\text{Voters}}_{i,t}$	0.584*** [0.187]	0.846*** [0.296]	1.126*** [0.205]	1.640*** [0.100]	1.389*** [0.102]	1.319*** [0.196]
Observations	5,076	5,076	5,076	5,076	5,076	5,076
Districts	1692	1692	1692	1692	1692	1692
R-squared	0.11	0.11	0.15	0.35	0.41	0.15
Mean of dep. var.	8.00	9.28	8.77	9.43	9.20	7.32
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Election x Province x '06 Category FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: $\ln \text{Voters}$ is the natural log of the number of registered voters for the election cycle. Sample includes national elections for the years 2001, 2011 and 2016. $\ln \widehat{\text{Voters}}_{i,t}$ is the natural log of the number of predicted voters in that age group, according to the 2007 population census. All columns include district fixed effects and election x province x 2006-poverty-category fixed effects. All regressions weighted by the number of registered voters for the 2001 elections. Standard errors clustered by province (192 units). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table D3: The Value of the Abstention Fine, Nighttime lights and Migration

Dependent variable:	ln Lights DN _{<i>i,t</i>}	ln Voters _{<i>i,t</i>}		Share born in district _{<i>i,t</i>}	ln Voters _{<i>i,t</i>}	
	(1)	(2)	(3)	(4)	(5)	(6)
Fine value _{<i>i,t</i>} (S/ x 100)	0.056 [0.064]	-0.076** [0.031]	-0.085** [0.035]	-0.074 [0.085]	-0.152*** [0.047]	-0.160*** [0.047]
ln Night lights DN _{<i>i,t</i>}			0.170* [0.090]			
Share born in district _{<i>i,t</i>}						-0.113** [0.049]
Observations	5,076	5,076	5,076	2,319	2,319	2,319
Districts	1692	1692	1692	913	913	913
R-squared	0.0007	0.0008	0.02	0.001	0.01	0.02
Mean of dependent variable	2.36	10.62	10.62	0.33	11.08	11.08
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Year x Province x Category '06 FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Dependent variable in the header. ln Night lights digital number (0-63) in column 1; natural log of the number of registered voters in columns 2,3,5,6; the share of population that reports being born in the district in the ENAHO national survey in column 4. The sample in columns 1-3 includes the national election years 2001, 2006 and 2011. The sample in columns 4-6 includes the national election years 2006, 2011 and 2016. The value of the fine is measured in 100s of current Peruvian Soles (S/). All columns include district fixed effects and year by province by 2006 poverty category fixed effects. Regressions are weighted by the number of registered voters for the elections in 2001. Standard errors clustered by province (192 units in columns 1-3, 175 units in columns 4-6). *** p<0.01, ** p<0.05, * p<0.1

Table D4: The Value of the Abstention Fine and Age-specific Voter Registration, controlling for access to DNI

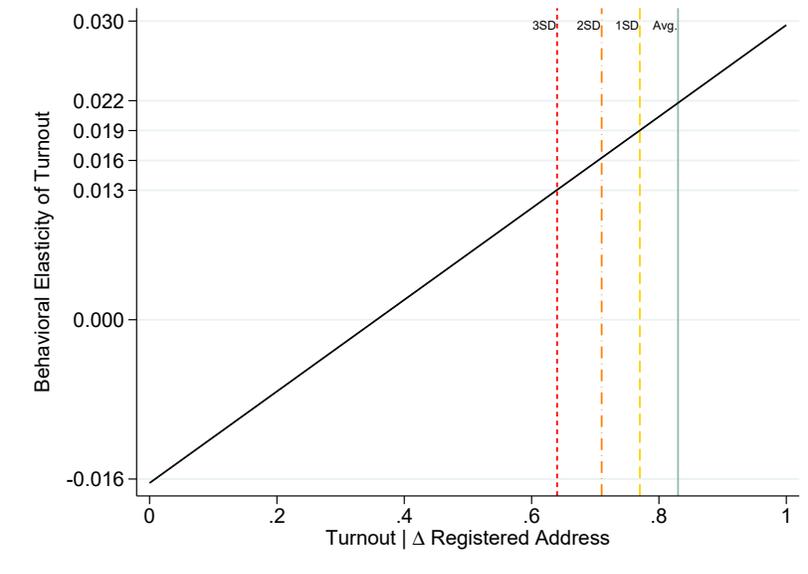
	Dependent Variable: $\ln \text{Voters}_{i,t}$					
	18-20	21-29	30-35	36-50	51-75	75+
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A - Baseline in reduced sample						
$\ln \text{Fine value}_{i,t}$	-0.372*** [0.058]	-0.083*** [0.025]	-0.059* [0.030]	-0.044* [0.026]	-0.025 [0.036]	-0.039 [0.079]
R-squared	0.04	0.002	0.001	0.001	0.0002	0.0002
Panel B - Controlling for change in access to DNI						
$\ln \text{Fine value}_{i,t}$	-0.348*** [0.055]	-0.063** [0.026]	-0.036 [0.033]	-0.021 [0.029]	-0.003 [0.036]	-0.018 [0.078]
$\Delta \text{Share w/ DNI}_i \times \mathbb{1}(2011)_t$	1.183** [0.498]	1.053*** [0.362]	1.078** [0.439]	1.123** [0.500]	0.999** [0.502]	0.684 [0.576]
$\Delta \text{Share w/ DNI}_i \times \mathbb{1}(2016)_t$	1.688*** [0.604]	1.339*** [0.420]	1.591*** [0.526]	1.563*** [0.598]	1.593*** [0.612]	1.758*** [0.632]
R-squared	0.06	0.01	0.01	0.01	0.01	0.01
Observations	2,460	2,460	2,460	2,460	2,460	2,460
Districts	820	820	820	820	820	820
Mean of dependent variable	8.35	9.63	9.12	9.78	9.53	7.64
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Election x Province x Category '06 FE	Yes	Yes	Yes	Yes	Yes	Yes
Notes: $\ln \text{Voters}$ is the natural log of the number of registered voters for the election cycle. Sample includes election years 2001, 2011 and 2016. $\Delta \text{Share w/ DNI}_i$ is the change in the share of ENAHO respondents that have a national identification document (DNI) between the post-reform years (post-2010) and the pre-reform years. All columns include district fixed effects and election x province x 2006-poverty-category fixed effects. All regressions weighted by the number of registered voters for the 2001 elections. Standard errors clustered by province (192 units). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$						

Table D5: The Value of the Fine and Voter Turnout controlling for Registration

Dependent variable:	ln Turnout _{<i>i,t</i>}		Turnout _{<i>i,t</i>}	
	(1)	(2)	(3)	(4)
(ln) Fine value _{<i>i,t</i>} (S/ x 100) [a]	0.027*** [0.005]	0.009* [0.005]	0.044*** [0.009]	0.016* [0.009]
(ln) Fine value _{<i>i,t</i>} × 1(2016) _{<i>t</i>} [b]		0.036*** [0.003]		0.049*** [0.005]
ln Voters _{<i>i,t</i>}	-0.062*** [0.005]	-0.061*** [0.005]	-0.049*** [0.004]	-0.049*** [0.004]
Observations	13,536	13,536	13,536	13,536
Districts	1692	1692	1692	1692
R-squared	0.12	0.13	0.16	0.16
Mean of dep. var	-0.17	-0.17	0.85	0.85
p-value H ₀ : a+b=0		0.000		0.000
District FE	Yes	Yes	Yes	Yes
Election x Province x Category '06 FE	Yes	Yes	Yes	Yes

Notes: ln Voters is the natural log of the number of registered voters for the election cycle; Sample includes national elections (general and presidential run-off) in 2001, 2006, 2011 and 2016. Regressions are weighted by the number of registered voters in 2001. Standard errors clustered by province (192 units). *** p<0.01, ** p<0.05, * p<0.1

Figure D1: Disentangling the Behavioral Elasticity of Turnout from the Registration Effect



Notes: The graph shows the implied behavioral elasticity of turnout corresponding to different values of the probability of voting (i.e., turnout) for those that changed the address on their DNI to districts with a lower fine for abstention. Calculation based on estimates in Table 4 (columns 1 and 3) and equation (4). Solid vertical line shows average turnout in 2011/16. Dashed, dash-dot and dotted lines display turnout rates that are respectively one, two and three standard deviations below the average.

E Web searches: Additional Results

This section provides detailed information on the construction of the dataset on the popularity of various search terms in the Google search engine. For this purpose, we used the Google Trends online application, which we consulted in April 2018 (<https://trends.google.com/trends>). The search terms in the sample include three terms related to the abstention fine, which roughly translate to “election fine”, “ONPE fine” and “fine for not voting.” We also include several search terms related to elections (e.g., “candidates”), others associated with government and politics (e.g., “president”), the names or nicknames of former presidents and important political figures (e.g., “Fujimori”), as well as generally popular search terms (e.g., “soccer”). Appendix table E1 provides the full list of search terms used in the analysis. For each search term, we have monthly-level data between January 2005 and December 2016. We limited the geographic scope to the country of Peru and collected monthly data from January 2005 to December 2016. We used double quotation marks (“ ”) to avoid capturing Google searches for segments of multi-word search terms (e.g. “fine for not voting”). All queries were done in Spanish, in lower case and without any diacritics.

The Google Trends application allows queries on as many as five search terms simultaneously. The output is a relative search interest measure available at monthly intervals. This measure ranges from zero to 100, with the latter corresponding to the search term-month with the largest number of searches among those considered. These characteristics provided several complications. We had to search in batches of no more than five search terms at a time. In this regard, putting together very popular search terms with not-to-popular ones led to the latter being squashed against the lower bound of zero and presenting very little variation. Furthermore, we also needed to have common search terms included in different queries in order for the different relative scales to be made compatible. Once we delimited the set of search terms that we wanted to include in the sample, we tested with various combinations to determine the relative maximum popularity of each search term and created groups based on this criterion, in an attempt to lose as little variation as possible. Consecutive groups always had a common search term that allowed us to chain them and express all values in a common scale. The resulting search interest measure, which we refer to as the Google Trends index, takes a value of 100 for the search term “vicepresident” in April, 2016.

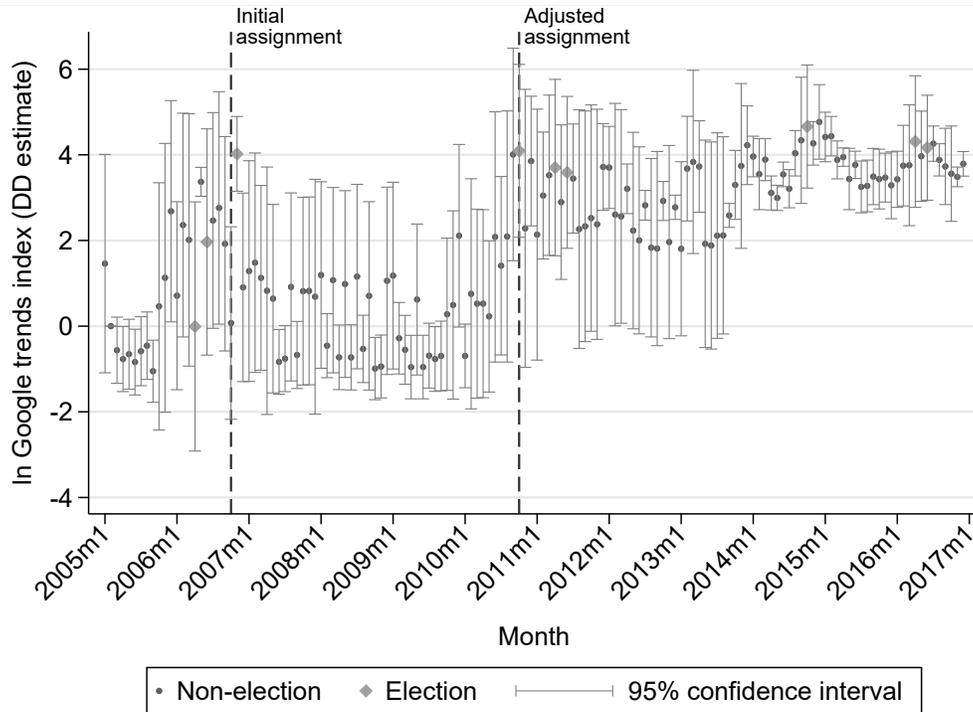
Roughly one third of Peruvians used the internet in 2007, almost one half in 2016, making internet searches a meaningful measure of information acquisition for a sizable share of the population (INEI, 2018). We used the Internet Archive to verify that the ONPE website provided information about the value of the fine and outstanding fines at the start of our sample period on web searches in early 2005.

Table E1: Search Terms included in Google Trends Analysis

ID	search term	English translation	Fine-related	Comments
1	alcalde	mayor		
2	candidatos	candidates		
3	canon minero	mining canon		Mining royalty system
4	congreso	congress		
5	constitucion	constitution		
6	corrupcion	corruption		
7	corte suprema	supreme court		
8	departamento	department		Highest level of subnational government (See region).
9	desempleo	unemployment		
10	distrito	district		Lowest level of subnational government
11	dni	DNI		National identification number
12	elecciones	elections		
13	encuesta	opinion poll		
14	fujimori	Fujimori		Surname of former president (Alberto) and former presidential candidate (Keiko)
15	futbol	soccer		
16	gobierno	government		
17	impuesto	tax		
18	inflacion	inflation		
19	infracciones de transito	traffic violation		
20	jne	JNE		Government agency in charge of electoral regulation and oversight
21	keiko	Keiko		Fujimori, presidential candidate in 2011 and 2016
22	local de votacion	polling place		
23	mesa de votacion	voting table/booth		
24	miembro de mesa	election judge		
25	multa electoral	election fine	Yes	
26	multa onpe	ONPE fine	Yes	See ONPE
27	multa por no votar	fine for not voting	Yes	
28	noticias	news		
29	ollanta	Ollanta		First name of former president Ollanta Humala
30	onpe	ONPE		Government agency in charge of electoral organization
31	pbi	GDP		
32	pelicula	movie		
33	poder judicial	judiciary		
34	politica	politics		
35	porno	porn		
36	ppk	PPK		Initials of former president Pedro Pablo Kuczynski
37	presidente	president		
38	provincia	province		Intermediate level of subnational government
39	region	region		Highest level of subnational government (23 departments and 2 special provinces)
40	reniec	RENIEC		Government agency in charge of registry and identification
41	segunda vuelta	second round (run-off)		
42	television	television		
43	vicepresidente	vicepresident		
44	votar	vote (verb)		

Notes: All queries in Google trends used double quotations (“ ”) to avoid capturing Google searches for segments of multi-word search terms. All queries were done in lower case and without dyacritics. Queries were done with geographic scope limited to the country of Peru for the time period between January 2005 and December 2016.

Figure E1: The Reform to the Abstention Fine and Information Acquisition (monthly level)



Notes: The graph shows point estimates and 95% confidence intervals of a regression of the natural log of a search-term popularity index from Google trends on a full set of month dummies interacted with an indicator for search terms related to the fine for abstention. Regression includes search-term and month fixed effects. The omitted month is February 2005. Regression includes 6,336 observations from 44 search terms. See Online Appendix for list of search terms and details on construction of dataset. Standard errors are clustered two-way by search term and by month. The dotted lines indicate the months in which the initial reform to the abstention fine and district classification took place (August 2006) and in which districts were reassigned to the poverty categories (October 2010).

F Political Outcomes: Additional Results

Overview of Peruvian Politics

Background: Alberto Fujimori was elected for a third term as President of Peru in May of 2000, having won previous elections in 1990 and 1995. His government took an authoritarian turn in 1992, when he shut down Congress and took control of the judiciary through an ‘auto-coup’. There were strong allegations of fraud in the presidential election of the year 2000, in which he defeated Alejandro Toledo of “Peru Posible”. At the end of that year, Fujimori resigned and fled the country following a series of high-profile corruption scandals involving his inner circle.

Elections before fine reform: Fujimori’s resignation prompted the 2001 election won by Toledo, who defeated Alan García in the run-off. Toledo had lost to Fujimori in the 2000 elections and was one of his staunchest opponents. He campaigned on a center-left platform focused on inclusive growth, inspired by Tony Blair’s New Labour. García was a former president who had governed between 1985 and 1990. He represented APRA, a party founded on radical left-wing principles in the 1920s and rebranded by García in the 1980s as a center-left party in the spirit of the Spanish PSOE, but with a strong populist undertone. In the first round, third place went to Lourdes Flores, who represented a conservative coalition known as “Unidad Nacional” (UN).

A reform in 2001 eliminated immediate presidential re-election, so Toledo did not participate in 2006. This election was won by García, who defeated outsider candidate Ollanta Humala in the run-off. Humala had created a new party called PNP in 2005, but failed to secure enough signatures to participate in the election, running instead as a ‘guest candidate’ for party “Unión por el Perú” (UPP). This party supports the ‘ethnocacerist’ movement that aims to return the descendants of the Incas to power. It combines strong left-wing views on the role of the state in the economy with far-right views around race. Humala was a former military and had strong support from Venezuelan President Hugo Chávez. In the first round, third place went again to Lourdes Flores from UN. Fujimori, who was under arrest and awaiting extradition in Chile, was barred from running. Martha Chavez, one of his strongest supporters in Congress, ran under a new party called “Alianza por el Futuro” and finished fourth, with 7% of the votes. For the run-off, García received endorsements from different segments of the political spectrum that were concerned by the leftist threat posed by Humala.

Elections after fine reform: In 2011, Humala ran again and won the run-off against Keiko Fujimori, the former president’s daughter. This time, Humala ran under PNP and presented himself as a more moderate candidate, distancing himself from Hugo Chávez. Fuji-

mori ran under a new party called Fuerza Popular. Both candidates had populist platforms, with Fujimori supporting the right-wing policies of his father and Humala still espousing an eclectic combination of elements from the right and the left. In the first round, the centrist vote was split between former President Toledo, who ran under a coalition of “Peru Posible” with two other parties, Pedro Pablo Kuczynski, his former Finance minister who ran under another coalition called “Alianza por el Gran Cambio”, and former Mayor of Lima Luis Castañeda, who represented “Solidaridad Nacional”. The latter had been part of Lourdes Flores’ UN coalition in the previous elections, which ceased to exist in 2008. APRA (the incumbent’s party) did not present a candidate for this election.

Keiko Fujimori would be defeated again in the 2016 run-off, this time by Pedro Pablo Kuczynski, who represented yet another new party called PPK. This time, Fujimori moved towards the center and distanced herself from the image of her father. Kuczynski ran under a center-right platform. Both Alan García and Alejandro Toledo ran again in 2016, under APRA and “Peru Posible” respectively, but failed to gain more than 6% of the first round votes each. Lourdes Flores, the conservative presidential candidate in 2001 and 2006, was García’s running mate. Coming in third in the first round was Veronika Mendoza, who represented a new coalition of leftist and environmental movements called “Frente Amplio”.

Table F1: Vote Share for Winner and Runner-up in First Round

Dependent variable:	Winner	Runner-up	Top 2 candidates
	(1)	(2)	(3)
Fine value _{<i>i,t</i>} (S/ x 100) [a]	0.003 [0.010]	0.009 [0.021]	0.012 [0.025]
Observations	6,768	6,768	6,768
Districts	1692	1692	1692
R-squared	7.01e-06	0.000126	0.000100
District FE	Yes	Yes	Yes
Election-Province-Category '06 FE	Yes	Yes	Yes
Mean of dep. var	0.209	0.213	0.422

Notes: Dependent variable correspond to the votes for the winner in the run-off in column 1, the votes for the runner-up in column 2 and the sum of votes for the winner and the runner-up in column 3. Dependent variable in columns 1-3 are expressed as a share of the number of registered voters. Sample includes first round of the presidential elections in 2001, 2006, 2011 and 2016. The value of the fine is measured in 100s of current Peruvian Soles (S/). All columns are weighted by the number of registered voters in 2001. Standard errors clustered by province (192 units). *** p<0.01, ** p<0.05, * p<0.1

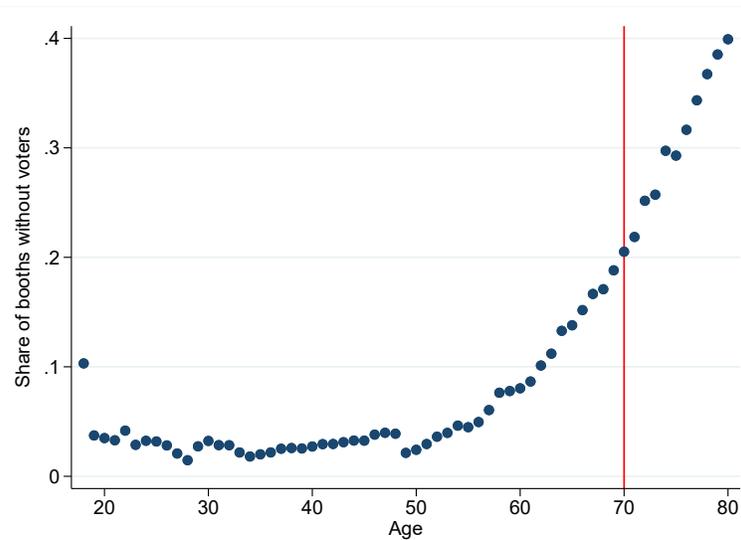
Table F2: The Marginal Effect of the Abstention Fine on Invalid and Blank Votes: Full sample

Dependent variable:	Voter Turnout _{<i>i,t</i>}		Spoiled Votes _{<i>i,t</i>}	
	(1)	(2)	(3)	(4)
Fine value _{<i>i,t</i>} (S/ x 100) [a]	0.049*** [0.008]	0.020** [0.008]	0.019*** [0.006]	0.014** [0.007]
Fine value _{<i>i,t</i>} × 1(2016) _{<i>t</i>} [b]		0.051*** [0.005]		0.009*** [0.003]
Observations	13,536	13,536	13,536	13,536
Districts	1692	1692	1692	1692
R-squared	0.0180	0.0277	0.0023	0.0026
Mean of dependent variable	0.845	0.845	0.0975	0.0975
p-value H ₀ : a+b=0		0.000		0.000
District FE	Yes	Yes	Yes	Yes
Election x Province x Category '06 FE	Yes	Yes	Yes	Yes

Notes: Dependent variable in columns 3-4 is the sum of blank and invalid votes, as a share of the number of registered voters. Sample includes first and second rounds of the presidential elections in 2001, 2006, 2011 and 2016. The value of the fine is measured in 100s of current Peruvian Soles (S/). All columns are weighted by the number of registered voters in 2001. Standard errors clustered by province (192 units). *** p<0.01, ** p<0.05, * p<0.1

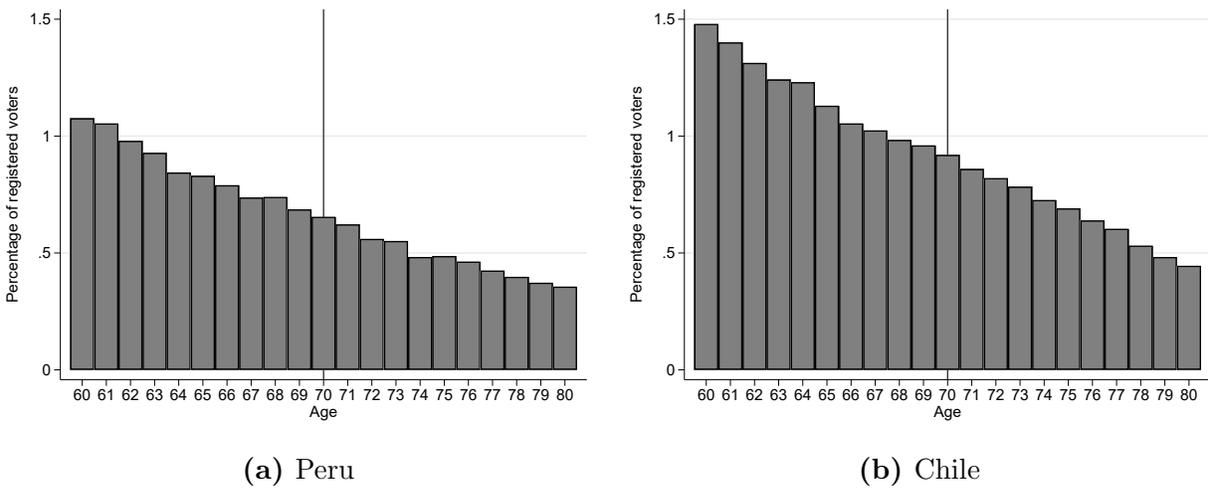
G Senior Exemption: Additional Results

Figure G1: Share of Booths without Voters from each Age



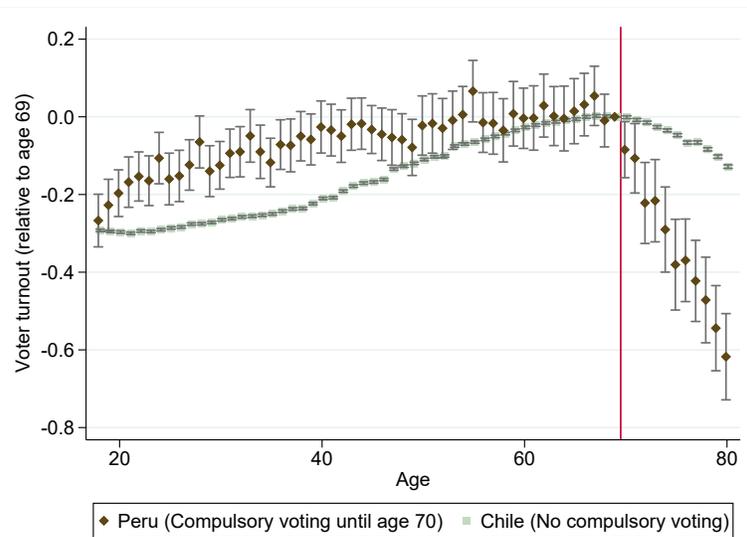
Notes: Figure shows the share of voting booths in the 2016 election that do not have any registered voters for each one-year age group from 18 to 80.

Figure G2: Distribution of Registered voters by age in Peru and Chile



Notes: The graph in panel (a) shows the distribution of registered voters by age in the 2016 national election in Peru. The graph in panel (b) shows the distribution of registered voters by age in the 2017 national election in Chile. The total number of registered voters in Peru in 2016 was 22,901,954. The total number of registered voters in Chile in 2017 was 14,347,288.

Figure G3: Voter Turnout by Age in Peru and Chile: Full Distribution



Notes: Figure shows estimates for all ages between 20 and 80 from the voting-booth-level regression in Peru and the individual-level regression in Chile. See text for further details.