Online Appendix

A Tables

Table A1: Baseline Difference Between Women and Men (May/Jun)

	Diff.: Men		Women		N
Paid before 1st due date	-0.029***	(0.006)	0.236***	(0.005)	21,312
Paid before 2nd due date	-0.042***	(0.007)	0.362***	(0.006)	21,312
Paid	-0.055***	(0.007)	0.441***	(0.006)	21,310
Number street lights	-0.148***	(0.017)	2.840***	(0.014)	21,312
Paid monthly	-0.001	(0.002)	0.011***	(0.001)	21,304
Log(Number of Properties)	0.046***	(0.004)	0.783***	(0.003)	21,312
Log(Lineal Front m)	0.031***	(0.007)	2.568***	(0.006)	21,312
Unrecoverable Debtor	0.045***	(0.007)	0.274***	(0.005)	21,205
Paid all the liabilities	-0.055***	(0.007)	0.441***	(0.006)	21,310
Owes at least one outstanding bill	0.055***	(0.007)	0.541***	(0.006)	21,341
Log(Mean Property Val.)	-0.099***	(0.016)	9.151***	(0.013)	21,466
Public Services Index	-0.142***	(0.014)	0.456***	(0.011)	21,312

Each row shows a regression of the pre-treatment variable in question on gender and a constant term. Observations are presented for the bimonthly period prior to treatment (May/June). The constant captures the value for the women. Monetary amounts are in Argentine Pesos (AR$).
Robust standard errors are in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A2: Baseline Difference Between Treatment Groups (May/Jun)

	Diff.: Deterrence-T1		Diff.: Reciprocity-T2		Diff.: Peer-effect-T3		Control		N
Paid before 1st due date	-0.0112	(0.0090)	0.0136	(0.0095)	-0.0034	(0.0083)	0.2126***	(0.0234)	23,195
Paid before 2nd due date	-0.0142	(0.0103)	-0.0027	(0.0097)	-0.0076	(0.0104)	0.3316***	(0.0350)	23,195
Paid	-0.0159	(0.0099)	0.0022	(0.0088)	-0.0039	(0.0107)	0.4037***	(0.0401)	23,192
Number street lights	-0.0250	(0.0157)	-0.0116	(0.0216)	-0.0413	(0.0276)	2.7548***	(0.1192)	23,195
Paid monthly	0.0020	(0.0026)	0.0055*	(0.0029)	-0.0019	(0.0020)	0.0100***	(0.0019)	23,186
Log(Number of Properties)	0.0052	(0.0037)	-0.0088**	(0.0044)	-0.0036	(0.0057)	0.8101***	(0.0117)	23,195
Log(Lineal Front m)	-0.0032	(0.0070)	-0.0034	(0.0109)	-0.0020	(0.0114)	2.5968***	(0.0269)	23,195
Unrecoverable Debtor	0.0039	(0.0092)	-0.0020	(0.0098)	-0.0085	(0.0095)	0.3041***	(0.0384)	22,900
Paid all the liabilities	-0.0159	(0.0099)	0.0022	(0.0088)	-0.0039	(0.0107)	0.4037***	(0.0401)	23,192
Owes at least one outstanding bill	0.0121	(0.0093)	0.0059	(0.0094)	0.0017	(0.0109)	0.5763***	(0.0404)	23,329
Log(Mean Property Val.)	-0.0216	(0.0215)	-0.0024	(0.0174)	0.0101	(0.0215)	9.0990***	(0.1677)	23,470
Public Services Index	-0.0268**	(0.0132)	0.0002	(0.0166)	-0.0167	(0.0206)	0.3710***	(0.1336)	23,195
Men	-0.0016	(0.0088)	0.0016	(0.0086)	-0.0194	(0.0140)	0.6589***	(0.0104)	21,476

Each row shows a regression of the pre-treatment variable in question on treatment and a constant term. Observations are presented for the bimonthly period prior to treatment (May/June). The constant captures the value for the control group. Unrecoverable Debtor: Taxpayers who have never paid their tax bill. Monetary amounts are in Argentine Pesos (AR$).
Standard errors are cluster by the block level.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A3: Difference in Resources between Male- and Female-Headed Households

Urban Household Survey (EAHU-2011)

	Diff.: Men		Women		N
Num. individuals in the household	0.641***	(0.004)	2.447***	(0.004)	1,023,748
Num. members household younger 10 years old	0.149***	(0.002)	0.288***	(0.001)	1,023,748
Members household 10 years old or older	0.492***	(0.003)	2.159***	(0.003)	1,023,748
Monthly income	1,513.940***	(9.027)	4,092.824***	(7.016)	1,023,748
Monthly income per capita	215.264***	(4.468)	1,971.834***	(3.599)	1,023,748
Number of rooms in the house	0.089***	(0.003)	2.999***	(0.002)	1,023,748
Pr. receiving a wage	0.133***	(0.001)	0.673***	(0.001)	1,023,748
Num. years of education of the household head	0.274***	(0.028)	7.498***	(0.026)	990,495
Pr. spouse/parner is part of the household	0.619***	(0.001)	0.154***	(0.001)	1,023,748

Each row shows a regression of the pre-treatment variable in question on gender and a constant term. The constant captures the value for the households where the head is female. Monetary amounts are in Argentine Pesos (AR$). Robust standard errors are in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A4: Average treatment effects - Paid by the 1st due date (Sep/Oct)

	No Controls			Controls		
	Men	Women	Int.	Men	Women	Int.
Men			-0.041***			-0.009
			(0.014)			(0.009)
T1: Deterrence	-0.010	0.029*	0.029*	0.006	0.036**	0.037**
	(0.010)	(0.017)	(0.017)	(0.008)	(0.016)	(0.016)
T1: Deterrence × Men			-0.038*			-0.031
			(0.021)			(0.019)
T2: Reciprocity	0.021	-0.029**	-0.029**	0.006	-0.024*	-0.023*
	(0.017)	(0.014)	(0.014)	(0.011)	(0.012)	(0.012)
T2: Reciprocity × Men			0.050**			0.030*
			(0.024)			(0.017)
T3: Peer-effect	-0.003	-0.001	-0.001	0.005	0.000	0.000
	(0.011)	(0.015)	(0.015)	(0.006)	(0.014)	(0.014)
T3: Peer-effect × Men			-0.002			0.005
			(0.019)			(0.016)
N	14,006	7,306	21,312	14,003	7,301	21,304
Gender	Men	Women	Both	Men	Women	Both
Controls	No	No	No	Yes	Yes	Yes
$F(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			7.024			5.780
$p(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			0.001			0.004
$F(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			3.003			1.347
$p(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			0.050			0.283
$F(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			3.132			0.497
$p(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.044			0.688
Pr of paying for each category						
T1: Men	0.245		0.245	0.260		0.260
T1: Women		0.324	0.324		0.329	0.330
T2: Men	0.276		0.276	0.260		0.260
T2: Women		0.266	0.266		0.270	0.270
T3: Men	0.252		0.252	0.259		0.259
T3: Women		0.295	0.295		0.294	0.294
C : Men	0.255		0.255	0.254		0.254
C : Women		0.295	0.295		0.294	0.293

Notes: All regressions include as controls the lagged variable, block fixed effects, variables for public service provision (trash collection and street lighting services during the period), the (log of the) number of properties that each taxpayer has, the (log of the) average linear front size of the properties, and a dummy that indicates taxpayers who elected to pay monthly.
Standard errors in parentheses are clustered by randomization blocks.
* p < 0.10, ** p < 0.05, *** p < 0.01

Table A5: Average treatment effects controlling for property value (Sep/Oct)

	Paid 1st due Date			Paid 2nd due Date			Paid		
	Men	Women	Int.	Men	Women	Int.	Men	Women	Int.
Men			-0.009			-0.009			-0.008
			(0.008)			(0.006)			(0.007)
T1: Deterrence	0.006	0.036**	0.036**	0.013*	0.028**	0.029**	0.020**	0.011	0.012
	(0.008)	(0.016)	(0.016)	(0.007)	(0.012)	(0.012)	(0.008)	(0.010)	(0.010)
T1: Deterrence × Men			-0.030			-0.016			0.008
			(0.019)			(0.015)			(0.012)
T2: Reciprocity	0.006	-0.024*	-0.023*	0.005	-0.016	-0.014	0.006	-0.014	-0.013
	(0.011)	(0.012)	(0.012)	(0.009)	(0.012)	(0.011)	(0.009)	(0.011)	(0.011)
T2: Reciprocity × Men			0.030*			0.020			0.020*
			(0.017)			(0.013)			(0.011)
T3: Peer-effect	0.004	0.001	0.001	0.005	0.002	0.003	0.001	-0.001	-0.000
	(0.006)	(0.014)	(0.014)	(0.007)	(0.011)	(0.012)	(0.009)	(0.011)	(0.011)
T3: Peer-effect × Men			0.003			0.002			0.001
			(0.016)			(0.011)			(0.014)
N	13,998	7,299	21,297	13,998	7,299	21,297	13,990	7,290	21,280
Gender	Men	Women	Both	Men	Women	Both	Men	Women	Both
$F(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			5.642			5.327			2.509
$p(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			0.005			0.006			0.084
$F(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			1.288			0.967			1.066
$p(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			0.302			0.425			0.383
$F(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.461			0.780			0.554
$p(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.712			0.517			0.651
Pr of paying for each category									
T1: Men	0.260		0.260	0.348		0.348	0.417		0.417
T1: Women		0.329	0.330		0.412	0.413		0.467	0.468
T2: Men	0.260		0.260	0.340		0.340	0.403		0.404
T2: Women		0.270	0.270		0.368	0.369		0.442	0.442
T3: Men	0.258		0.258	0.340		0.340	0.398		0.398
T3: Women		0.295	0.295		0.386	0.386		0.455	0.456
C : Men	0.254		0.254	0.335		0.335	0.398		0.398
C : Women		0.294	0.293		0.384	0.384		0.456	0.456

Notes: All regressions include as controls the lagged variable, block fixed effects, variables for public service provision (trash collection and street lighting services during the period), the (log of the) property value, the (log of the) number of properties that each taxpayer has, the (log of the) average linear front size of the properties, and a dummy that indicates taxpayers who elected to pay monthly.
Standard errors in parentheses are clustered by randomization blocks.
* p < 0.10, ** p < 0.05, *** p < 0.01

Table A6: Average treatment effects - At least 60% paid (Sep/Oct)

	Paid 1st due Date			Paid 2nd due Date			Paid		
	Men	Women	Int.	Men	Women	Int.	Men	Women	Int.
Men			-0.010			-0.011			-0.011
			(0.009)			(0.007)			(0.007)
T1: Deterrence	0.009	0.035**	0.036**	0.016**	0.024*	0.025*	0.016**	0.024*	0.025*
	(0.008)	(0.017)	(0.016)	(0.007)	(0.012)	(0.012)	(0.007)	(0.012)	(0.012)
T1: Deterrence × Men			-0.027			-0.009			-0.009
			(0.019)			(0.016)			(0.016)
T2: Reciprocity	0.012	-0.025*	-0.024*	0.008	-0.019	-0.017	0.008	-0.019*	-0.018
	(0.011)	(0.013)	(0.013)	(0.010)	(0.011)	(0.011)	(0.010)	(0.011)	(0.011)
T2: Reciprocity × Men			0.036*			0.026*			0.027*
			(0.018)			(0.013)			(0.013)
T3: Peer-effect	0.008	0.003	0.003	0.003	0.005	0.006	0.003	0.004	0.005
	(0.007)	(0.014)	(0.014)	(0.007)	(0.009)	(0.010)	(0.007)	(0.009)	(0.010)
T3: Peer-effect × Men			0.004			-0.003			-0.002
			(0.017)			(0.010)			(0.010)
N	14,003	7,301	21,304	14,003	7,301	21,304	14,003	7,301	21,304
Gender	Men	Women	Both	Men	Women	Both	Men	Women	Both
$F(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			6.238			6.624			6.638
$p(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			0.003			0.002			0.002
$F(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			1.470			1.498			1.518
$p(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			0.248			0.241			0.235
$F(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.729			0.899			0.899
$p(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.545			0.456			0.456
Pr of paying for each category									
T1: Men	0.275		0.275	0.366		0.366	0.366		0.366
T1: Women		0.339	0.340		0.419	0.420		0.420	0.420
T2: Men	0.278		0.278	0.358		0.359	0.358		0.359
T2: Women		0.279	0.279		0.377	0.378		0.376	0.377
T3: Men	0.274		0.274	0.353		0.353	0.353		0.353
T3: Women		0.307	0.307		0.401	0.401		0.400	0.400
C : Men	0.266		0.266	0.350		0.350	0.350		0.350
C : Women		0.304	0.303		0.396	0.395		0.396	0.395

Notes: All regressions include as controls the lagged variable, block fixed effects, variables for public service provision (trash collection and street lighting services during the period), the (log of the) property value, the (log of the) number of properties that each taxpayer has, the (log of the) average linear front size of the properties, and a dummy that indicates taxpayers who elected to pay monthly.
Standard errors in parentheses are clustered by randomization blocks.
* p < 0.10, ** p < 0.05, *** p < 0.01

Table A7: Average treatment effects — Paid all bills (Sep/Oct)

	Paid 1st due Date			Paid 2nd due Date			Paid		
	Men	Women	Int.	Men	Women	Int.	Men	Women	Int.
Men			-0.009			-0.009			-0.009
			(0.009)			(0.007)			(0.007)
T1: Deterrence	0.007	0.036**	0.036**	0.014**	0.028**	0.029**	0.014**	0.028**	0.029**
	(0.008)	(0.016)	(0.016)	(0.007)	(0.013)	(0.013)	(0.006)	(0.013)	(0.013)
T1: Deterrence × Men			-0.029			-0.015			-0.015
			(0.020)			(0.017)			(0.016)
T2: Reciprocity	0.009	-0.022*	-0.022*	0.008	-0.014	-0.013	0.007	-0.015	-0.013
	(0.012)	(0.012)	(0.012)	(0.010)	(0.011)	(0.011)	(0.010)	(0.011)	(0.011)
T2: Reciprocity × Men			0.031			0.021			0.021
			(0.018)			(0.014)			(0.014)
T3: Peer-effect	0.006	0.004	0.004	0.006	0.005	0.006	0.006	0.004	0.005
	(0.007)	(0.014)	(0.014)	(0.007)	(0.010)	(0.011)	(0.007)	(0.010)	(0.011)
T3: Peer-effect × Men			0.002			0.000			0.001
			(0.017)			(0.010)			(0.010)
N	14,003	7,301	21,304	14,003	7,301	21,304	14,003	7,301	21,304
Gender	Men	Women	Both	Men	Women	Both	Men	Women	Both
$F(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			6.438			6.122			6.125
$p(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			0.002			0.003			0.003
$F(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			1.170			0.883			0.898
$p(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			0.342			0.464			0.457
$F(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.563			0.818			0.825
$p(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.644			0.497			0.493
Pr of paying for each category									
T1: Men	0.265		0.266	0.353		0.353	0.353		0.353
T1: Women		0.334	0.335		0.417	0.417		0.417	0.418
T2: Men	0.267		0.268	0.347		0.347	0.347		0.347
T2: Women		0.276	0.277		0.375	0.376		0.374	0.375
T3: Men	0.264		0.264	0.345		0.345	0.345		0.345
T3: Women		0.302	0.302		0.394	0.394		0.393	0.394
C : Men	0.258		0.258	0.339		0.339	0.339		0.339
C : Women		0.299	0.299		0.389	0.388		0.389	0.389

Notes: The dependent variable equals 1 if the taxpayer paid the bill on every property they own; 0 otherwise. This is the strictest of three coding rules used as robustness checks for multi-property taxpayers. All regressions include as controls the lagged variable, block fixed effects, variables for public service provision (trash collection and street lighting services during the period), the (log of the) property value, the (log of the) number of properties that each taxpayer has, the (log of the) average linear front size of the properties, and a dummy that indicates taxpayers who elected to pay monthly.
Standard errors in parentheses are clustered by randomization blocks.
* p < 0.10, ** p < 0.05, *** p < 0.01

Table A8: Average treatment effects Residential Properties (Sep/Oct)

	Paid 1st due Date			Paid 2nd due Date			Paid		
	Men	Women	Int.	Men	Women	Int.	Men	Women	Int.
Men			-0.010			-0.008			-0.006
			(0.009)			(0.007)			(0.007)
T1: Deterrence	0.009	0.041**	0.042**	0.013*	0.026**	0.028**	0.021**	0.013	0.015
	(0.009)	(0.017)	(0.017)	(0.007)	(0.012)	(0.012)	(0.009)	(0.010)	(0.010)
T1: Deterrence × Men			-0.033			-0.014			0.006
			(0.020)			(0.015)			(0.013)
T2: Reciprocity	0.005	-0.024*	-0.023*	0.005	-0.015	-0.014	0.006	-0.011	-0.010
	(0.010)	(0.012)	(0.012)	(0.009)	(0.012)	(0.012)	(0.008)	(0.012)	(0.012)
T2: Reciprocity × Men			0.029*			0.020			0.016
			(0.016)			(0.012)			(0.012)
T3: Peer-effect	0.006	0.002	0.002	0.003	0.003	0.004	-0.002	0.002	0.003
	(0.007)	(0.014)	(0.014)	(0.007)	(0.011)	(0.011)	(0.008)	(0.011)	(0.011)
T3: Peer-effect × Men			0.004			-0.001			-0.004
			(0.017)			(0.012)			(0.014)
N	13,350	7,069	20,419	13,350	7,069	20,419	13,342	7,060	20,402
Gender	Men	Women	Both	Men	Women	Both	Men	Women	Both
$F(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			6.495			4.547			2.460
$p(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			0.002			0.012			0.087
$F(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			1.352			0.899			0.711
$p(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			0.281			0.456			0.555
$F(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.556			0.522			0.390
$p(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.649			0.671			0.761
Pr of paying for each category									
T1: Men	0.261		0.261	0.345		0.346	0.415		0.415
T1: Women		0.336	0.337		0.411	0.412		0.467	0.468
T2: Men	0.258		0.258	0.338		0.338	0.399		0.400
T2: Women		0.271	0.272		0.369	0.370		0.443	0.443
T3: Men	0.259		0.258	0.336		0.335	0.392		0.392
T3: Women		0.297	0.297		0.388	0.388		0.456	0.456
C : Men	0.252		0.252	0.332		0.332	0.394		0.394
C : Women		0.295	0.295		0.384	0.384		0.454	0.453

Notes: All regressions include as controls the lagged variable, block fixed effects, variables for public service provision (trash collection and street lighting services during the period), the (log of the) number of properties that each taxpayer has, the (log of the) average linear front size of the properties, and a dummy that indicates taxpayers who elected to pay monthly.
Standard errors in parentheses are clustered by randomization blocks.
* p < 0.10, ** p < 0.05, *** p < 0.01

Table A9: Average treatment effects Commercial Properties (Sep/Oct)

	Paid 1st due Date			Paid 2nd due Date			Paid		
	Men	Women	Int.	Men	Women	Int.	Men	Women	Int.
Men			0.004			-0.033			-0.075*
			(0.048)			(0.030)			(0.039)
T1: Deterrence	-0.059	-0.075	-0.106**	0.013	0.076	0.062	0.002	0.004	-0.039
	(0.042)	(0.047)	(0.046)	(0.034)	(0.096)	(0.082)	(0.036)	(0.086)	(0.081)
T1: Deterrence × Men			0.050			-0.052			0.045
			(0.069)			(0.088)			(0.084)
T2: Reciprocity	0.039	-0.001	0.004	0.004	0.006	-0.018	0.010	-0.146	-0.152*
	(0.061)	(0.110)	(0.109)	(0.051)	(0.108)	(0.103)	(0.061)	(0.097)	(0.088)
T2: Reciprocity × Men			0.035			0.023			0.161
			(0.150)			(0.128)			(0.112)
T3: Peer-effect	-0.009	-0.069	-0.037	0.049	-0.063	-0.041	0.060	-0.087	-0.085
	(0.035)	(0.093)	(0.097)	(0.043)	(0.073)	(0.071)	(0.053)	(0.070)	(0.062)
T3: Peer-effect × Men			0.029			0.085			0.138*
			(0.104)			(0.079)			(0.080)
N	653	232	885	653	232	885	653	232	885
Gender	Men	Women	Both	Men	Women	Both	Men	Women	Both
$F(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			3.289			2.036			1.383
$p(\beta_{T1}=0, \beta_{gender}=0, \beta_{T1\times gender}=0)$			0.039			0.137			0.273
$F(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			0.246			0.481			1.384
$p(\beta_{T2}=0, \beta_{gender}=0, \beta_{T2\times gender}=0)$			0.863			0.699			0.273
$F(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.083			0.751			1.504
$p(\beta_{T3}=0, \beta_{gender}=0, \beta_{T3\times gender}=0)$			0.968			0.533			0.240
Pr of paying for each category									
T1: Men	0.225		0.228	0.398		0.397	0.474		0.478
T1: Women		0.162	0.132		0.438	0.426		0.523	0.486
T2: Men	0.323		0.322	0.389		0.391	0.482		0.482
T2: Women		0.236	0.241		0.369	0.345		0.374	0.373
T3: Men	0.275		0.276	0.435		0.430	0.533		0.526
T3: Women		0.168	0.200		0.299	0.323		0.432	0.440
C : Men	0.284		0.283	0.386		0.386	0.472		0.473
C : Women		0.237	0.238		0.362	0.364		0.519	0.525

Notes: All regressions include as controls the lagged variable, block fixed effects, variables for public service provision (trash collection and street lighting services during the period), the (log of the) number of properties that each taxpayer has, the (log of the) average linear front size of the properties, and a dummy that indicates taxpayers who elected to pay monthly.
Standard errors in parentheses are clustered by randomization blocks.
* p < 0.10, ** p < 0.05, *** p < 0.01

B Figures

Figure A1: Sample Tax Bills with Treatment Messages (in Spanish)

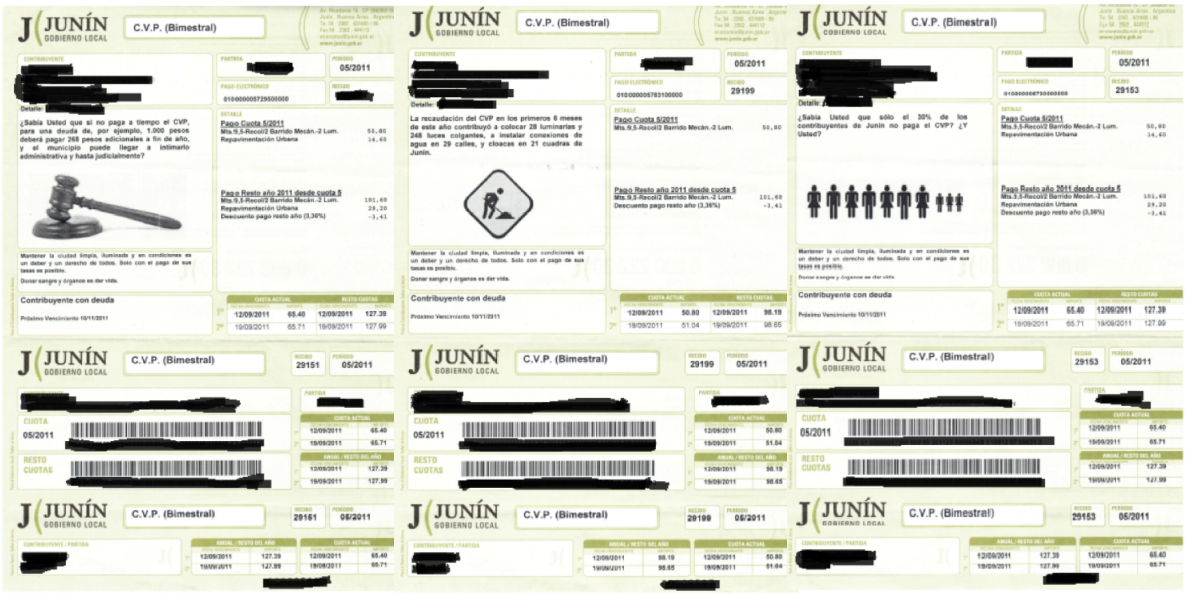
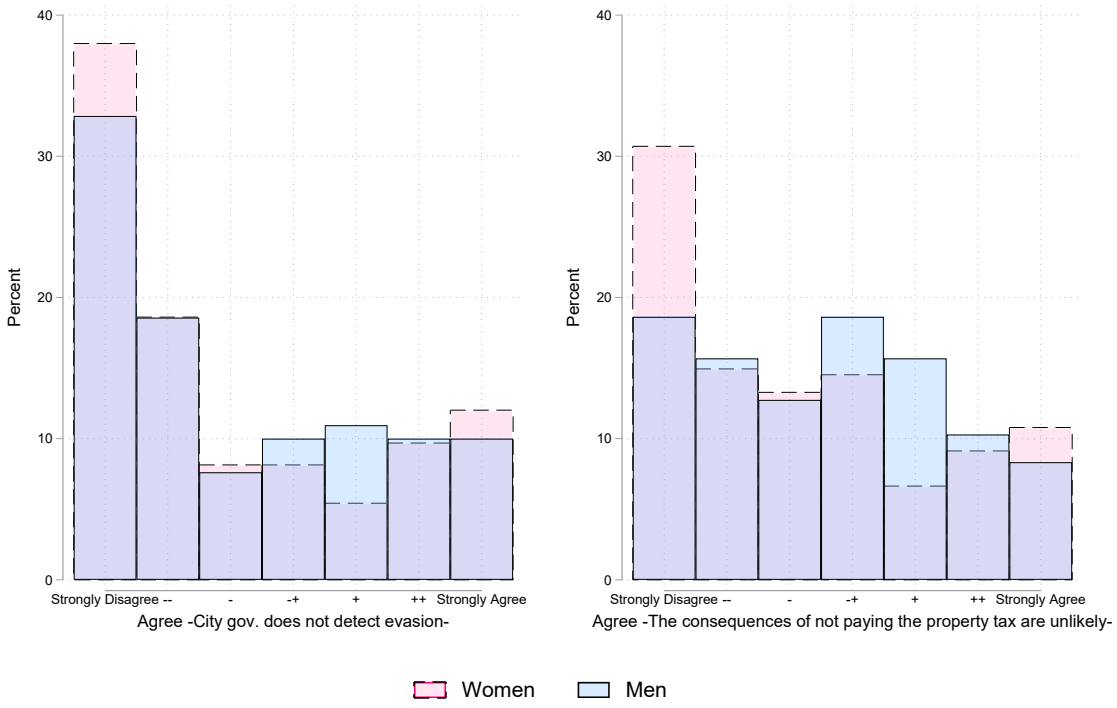


Figure A2: Perception of the Tax Enforcement

Survey: City government Junín

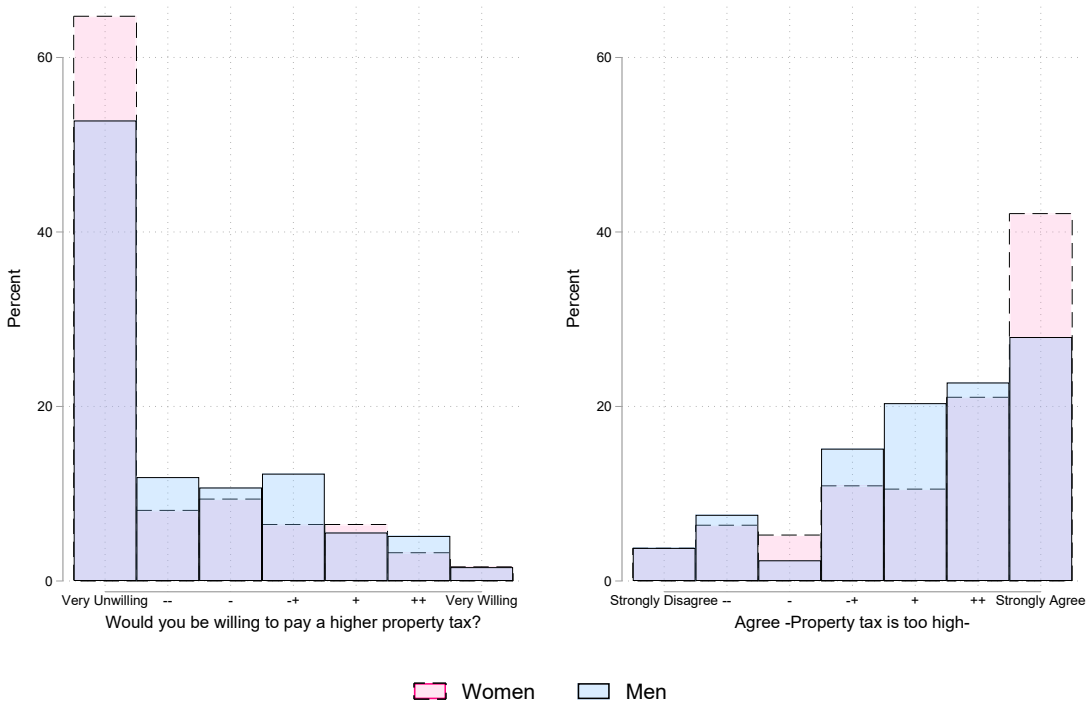


Question:
If you think of reasons people do not pay the property tax, use a scale of 1 to 7 where one means "strongly disagree" and seven means "strongly agree." How much do you agree with the following affirmations?
Left: The risk that the city government becomes aware of the property tax evasion is low.
Right: The consequences of being discovered not paying the property tax are unlikely.
The City government of Junín sponsored the survey. It targeted the individuals in charge of paying the property tax and was made on December 2015.

The bars represent the percentage of individuals who chose each answer.

Figure A3: Perception of the Tax Burden

Survey: City government Junín

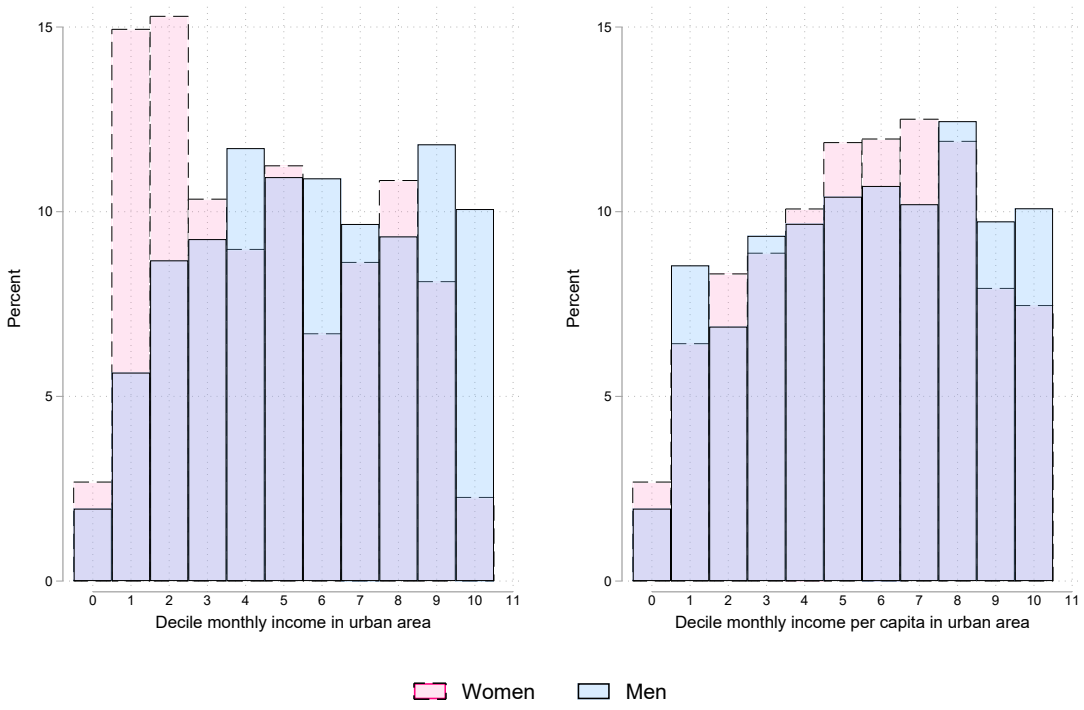


Question left:
Using a scale from 1 to 7, one means "very unwilling" and 7 "very willing." Would you be willing to pay higher property tax so that the services of the municipality of Junín would improve?
Question right:
If you think of reasons people do not pay the property tax, use a scale of 1 to 7 where one means "strongly disagree" and seven means "strongly agree." How much do you agree with the following affirmations?
People believe that the property tax is too high.
The City government of Junín sponsored the survey. It targeted the individuals in charge of paying the property tax and was made on December 2015.

The bars represent the percentage of individuals who chose each answer.

Figure A4: Income Deciles

Urban Household Survey (EAHU-2011)



The bars represent the percentage of individuals who belong to each percentile. Urban Household Survey - Third Quarter 2011

EAHU-2011

C Model

This appendix provides the formal derivation of the analytical framework summarized in Section 4. We model a taxpayer's binary pay/no-pay decision under tax morale, risk aversion, and a binding minimum-consumption constraint, and derive the comparative statics that underlie the predictions in the main text. The model is intentionally minimal and extends the canonical Allingham–Sandmo problem with the tax-morale specification of Dwenger et al. (2016); we make no claim of theoretical novelty.

The Unconstrained Problem

A taxpayer has income Y and faces a property tax T assessed by the city government on the basis of property characteristics. There is no information asymmetry between the city government and the taxpayer: the government observes all the inputs used to compute the tax liability. The taxpayer's only choice is whether or not to pay the bill. Following Dwenger et al. (2016), we model tax morale as an intrinsic motivation to comply, captured by a preference parameter $S \geq 0$ with $\partial U(\cdot)/\partial S > 0$ and $\partial^2 U(\cdot)/\partial S^2 < 0$. The premium S enters the utility function only when the taxpayer pays, so the utility from paying is $U(Y - T + S)$.

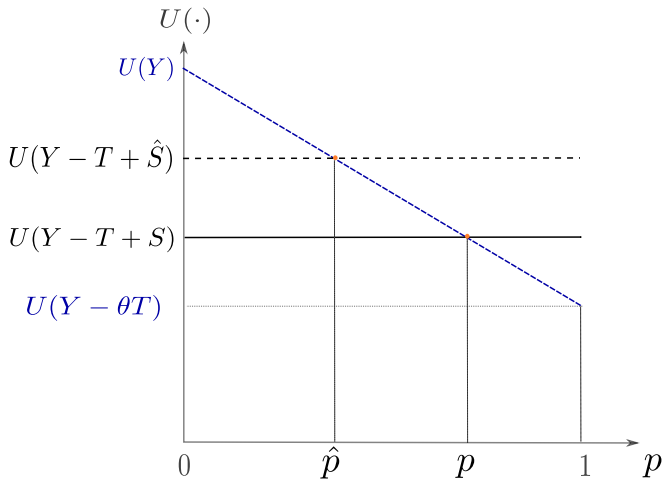
If the taxpayer chooses not to pay, she enters a lottery. With probability p the city government enforces the penalty and she pays a fine proportional to the unpaid tax, θT with $\theta > 1$; with probability $1 - p$ she keeps her full income Y. The expected utility of not paying is $(1 - p)U(Y) + pU(Y - \theta T)$. The taxpayer's problem is:

$$\max \{U(Y - T + S),\ (1 - p)U(Y) + pU(Y - \theta T)\}. \tag{2}$$

A taxpayer with parameters (Y, T, S, θ) facing a perceived enforcement probability p chooses not to pay whenever p is below the indifference probability p^* and chooses to pay whenever p is above it, where:

$$p^* = \frac{U(Y) - U(Y - T + S)}{U(Y) - U(Y - \theta T)}. \tag{3}$$

Figure A5: Model with an Increase in Intrinsic Motivation



Comparative Statics

The comparative statics determine how taxpayer types respond to interventions that shift perceived enforcement upward. The indifference probability p^* decreases with the intrinsic-motivation parameter S and with the coefficient of absolute risk aversion $R_A(Y)$. The first relation follows directly from the definition of p^*:

$$\frac{\partial p^*}{\partial S} = \frac{-U'(Y - T + S)}{U(Y) - U(Y - \theta T)} < 0.$$

The relation between p^* and $R_A(Y)$ is less immediate and requires rewriting p^* via a second-order Taylor expansion of $U(Y - T + S)$ and $U(Y - \theta T)$ around Y. As shown in detail at the end of this appendix, the rewritten expression is:

$$p^* = \frac{(T - S) + \frac{(T-S)^2}{2} R_A(Y)}{\theta T + \frac{(\theta T)^2}{2} R_A(Y)}. \tag{4}$$

From equation (4) it follows that

$$\frac{\partial p^*}{\partial R_A(Y)} = \frac{\theta T \frac{(T-S)}{2} \left[(T-S) - \theta T\right]}{\left[\theta T + \frac{(\theta T)^2}{2} R_A(Y)\right]^2} < 0,$$

where the inequality uses $0 < T - S < \theta T$, which holds because $U(Y) > U(Y - T + S) > U(Y - \theta T)$ and $U(\cdot)$ is strictly increasing.

The intuition for both comparative statics is the same: taxpayer types with higher tax morale or higher risk aversion are willing to pay even when the perceived probability of enforcement is low, because the cost of the lottery (in either utility or expected-utility terms) is higher for them. Such types are also more likely to be brought into compliance by an intervention that shifts perceived enforcement upward, since they sit closer to the indifference threshold.

The Constrained Problem

The unconstrained problem assumes that the taxpayer can always afford the tax. In settings where the property tax is calculated from property characteristics rather than current income—and where mortgages and other liquid claims on housing wealth are unavailable—the assessed tax can exceed what the taxpayer can pay out of current income while still meeting basic consumption needs. To capture this, we add a minimum-consumption constraint. Let $\bar{C}$ denote the minimum consumption level the taxpayer requires, with associated utility $U(\bar{C})$. The constrained problem is:

$$\begin{aligned} \max \quad & \{U(Y - T + S),\ (1-p)U(Y) + pU(Y - \theta T)\} \\ \text{s.t.} \quad & \\ & U^* > U(\bar{C}), \end{aligned} \tag{5}$$

where U^* is the utility level achieved at the maximum.

Three regions of the parameter space arise, illustrated in Figure A6.

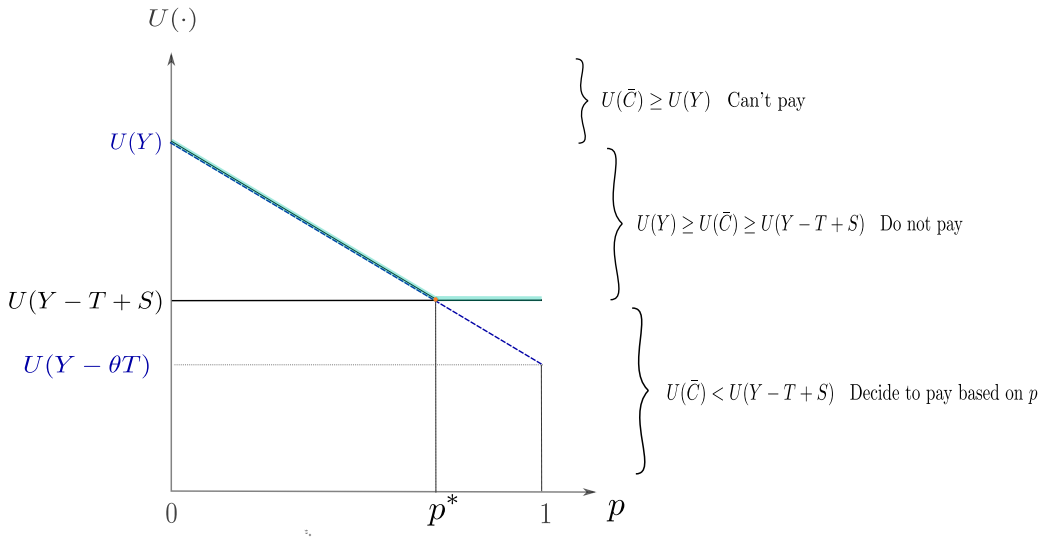
- $U(\bar{C}) \geq U(Y)$: The taxpayer's income is insufficient to meet the minimum-consumption

requirement even before paying the tax. She cannot pay. *Corner solution; no response to enforcement.*

- $U(Y) \geq U(\bar{C}) \geq U(Y-T+S)$: Paying the tax—even with the tax-morale premium—would push consumption below the minimum. She does not pay. *Corner solution; no response to enforcement.*

- $U(\bar{C}) < U(Y-T+S)$: The constraint does not bind. The decision reduces to the unconstrained problem characterized by the indifference probability p^*, and the taxpayer's response to enforcement is determined by the comparative statics above.

Figure A6: Model with Intrinsic Motivation and a Minimum Consumption Constraint



Implications for Taxpayer Types

Combining the unconstrained and constrained cases, the model partitions taxpayers into three behavioral types according to their position in the parameter space:

1. Taxpayers with high S or high $R_A(Y)$ and slack liquidity constraint pay at baseline. An enforcement message can shift the timing of payment but does not change the extensive-margin outcome.

2. Taxpayers with low S and low $R_A(Y)$ but slack liquidity constraint do not pay at baseline. An enforcement message can move them across p^* and into compliance.

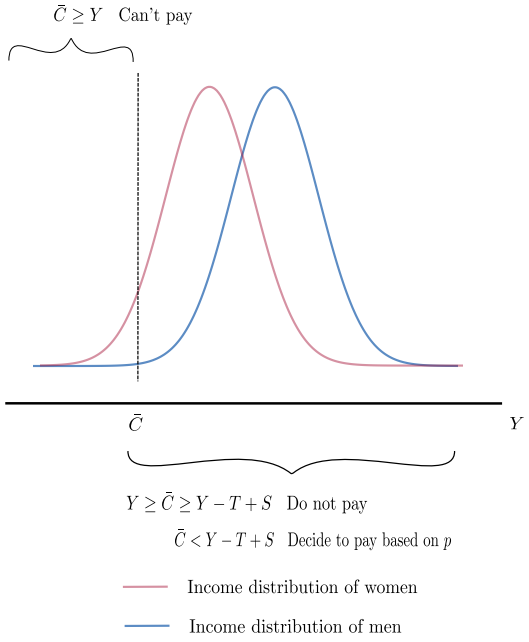
3. Taxpayers with binding liquidity constraint do not pay at baseline. An enforcement message does not change behavior, since the corner solution is determined by $\bar{C}$ rather than by p.

The model's predictions for the female–male contrast follow as a special case, given the documented differences across women and men in tax morale, risk aversion, and income (Section 2). If female-led households have higher tax morale, are more risk-averse, and face lower and less stable income on average, then they will (i) comply more at baseline, (ii) respond on the timing margin to a deterrence intervention because more of them are in Type 1, and (iii) fail to respond on the extensive margin to the same intervention to the extent that more of them are in Type 3—particularly when the tax bill is large relative to current income. We emphasize, as in the main text, that these predictions follow from the joint distribution of $(S, R_A(Y), Y, \bar{C})$ across the two groups, not from gender as an isolated parameter; any subgroup with similar systematic differences along these dimensions would generate analogous patterns.

To illustrate the role of the income distribution in particular, Figure A7 shows two stylized income distributions and a single liquidity threshold $\bar{C}$. The figure is meant as a conceptual illustration of how a common minimum-consumption threshold generates different shares of corner-solution taxpayers across two groups whose income distributions

differ; it is not intended to depict the actual income distributions of female- and male-led households in our setting, which are documented empirically in Table A3 and Figure A4.

Figure A7: Effect of the Liquidity Constraint on Different Income Distributions



Derivation of the Comparative Statics in $R_A(Y)$

To obtain equation (4) from the expression for p^*, we rewrite $U(Y-T+S)$ and $U(Y-\theta T)$ as second-order Taylor expansions around Y:

$$\begin{aligned} U(Y-T+S) &= U(Y)-(T-S)U'(Y)+(T-S)^2\tfrac{U''(Y)}{2} \\ U(Y-\theta T) &= U(Y)-\theta T\,U'(Y)+(\theta T)^2\tfrac{U''(Y)}{2}. \end{aligned}$$

Substituting into the definition of p^*:

$$\begin{aligned} p^* &= \frac{U(Y)-U(Y-T+S)}{U(Y)-U(Y-\theta T)} \\ &= \frac{(T-S)U'(Y)-(T-S)^2\frac{U''(Y)}{2}}{\theta T\,U'(Y)-(\theta T)^2\frac{U''(Y)}{2}} \\ &= \frac{(T-S)-\frac{(T-S)^2}{2}\frac{U''(Y)}{U'(Y)}}{\theta T-\frac{(\theta T)^2}{2}\frac{U''(Y)}{U'(Y)}}. \end{aligned}$$

Equation (4) follows by replacing $-U''(Y)/U'(Y)$ with the coefficient of absolute risk aversion $R_A(Y)$.

Additional Comparative Statics

For completeness, we also report the derivatives of p^* with respect to the penalty parameter θ:

$$\frac{\partial p^*}{\partial \theta}=\frac{-T\,U'(Y-\theta T)\,[U(Y)-U(Y-T+S)]}{[U(Y)-U(Y-\theta T)]^2}<0,$$

$$\frac{\partial^2 p^*}{\partial \theta\,\partial S}=\frac{T\,U'(Y-T+S)\,U'(Y-\theta T)}{[U(Y)-U(Y-\theta T)]^2}>0.$$

A higher penalty rate lowers the indifference probability for any given taxpayer, and the marginal effect of the penalty on the threshold is amplified for taxpayers with higher tax morale.