

Casting a Wider Tax Net: Experimental Evidence from Costa Rica

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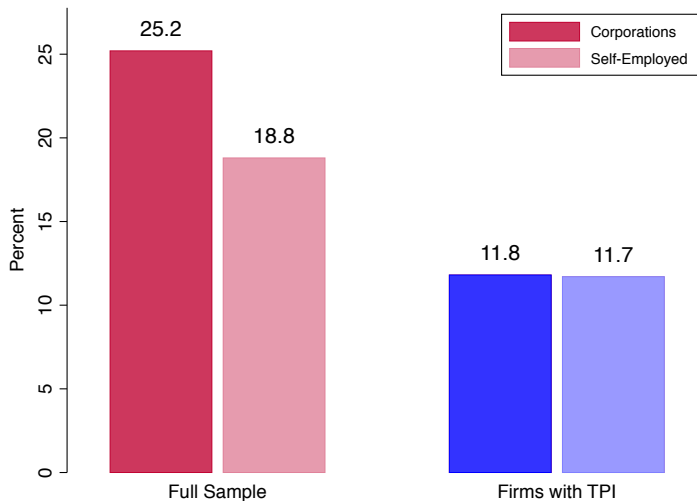
IEN Meeting
March 24, 2017

Tax Compliance and Development

- ▶ **Developing countries have lower tax/GDP than high income countries**
 - ▶ Largely explained by low tax compliance
- ▶ **Compliance gaps generate horizontal inequity**
 - ▶ Factor misallocation - lower productivity
 - ▶ Loss of tax morale
- ▶ **Non-filing of taxes is significant part of compliance gaps**
 - ▶ Informality, but also non-filing among tax-registered firms
 - ▶ Pervasive, especially in low/middle income countries

Costa Rica: Share of Non-Filers

Figure 1: Share of Income Tax Non-Filers, 2014



Tax Compliance and Development

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⇒ **By how much and how cost-effectively can we increase tax filing?**

An Experiment to Increase Tax Filing

- ▶ **Target registered firms that don't file (regularly)**
 - ▶ Higher benefit from compliance
 - ▶ Address and (sometimes) third-party information available
- ▶ **Email communication:** instant, free
- ▶ **Deterrence + behavioral insights + third-party information**
 - ▶ **Deterrence:** audits, shop closure, publication of name
 - ▶ **Behavioral insights:** simplified, personalized, social norm
 - ▶ **Third-party information:** supplier/client/financial reports
 - ▶ Works on intensive margin (at least for VAT - Pomeranz 2015, Naritomi 2015)
 - ▶ Does it work on extensive margin?

Preview of Results

- ▶ Emails triple filing rate and double payment rate:
 - ▶ Listing specific examples of third-party reports has an additional effect
 - ▶ Return on email USD 19, cost-effectiveness $\approx 1:5$
- ▶ Positive effects on other compliance margins:
 - ▶ Third-party reporting (firm-to-firm), past tax returns
 - ▶ No negative effects on sales tax compliance
- ▶ Effect persists until next fiscal year

- **High cost-effectiveness, persistence & dynamic effects**
- **Potentially improvements in horizontal equity, tax morale**

1. **Introduction**
2. **Context & Data**
3. **Experiment Design**
4. **Results**
 - 4.1 Income Tax Compliance
 - 4.2 Other Compliance Outcomes
 - 4.3 Persistence
5. **Cost-Benefit Analysis**

Context & Data

Income tax filing deadline: December 15 for self-employed and corporations

- ▶ Firms file income tax and third-party reports about suppliers/client
- ▶ Sales tax filed monthly

Data set:

- ▶ **Tax register and income tax returns**
 - ▶ 350,000 firms, including 80,000 *non-filers* for 2014
- ▶ **Payment receipts**
- ▶ **Third-party reports**
 - ▶ **Firms** report transactions w/ other firms (83% of experiment sample)
 - ▶ **Credit/debit card companies** report card sales (12%)
 - ▶ **State institutions** report purchases from firms (7%)

Experiment Design

- ▶ **Target population: ~50,000 firms**

- ▶ Registered but did not file income tax for 2014
- ▶ Have an email address on file (either firm or tax accountant)
- ▶ 25% covered by third-party information (TPI)

- ▶ **Treatments:**

- ▶ Control: no email
- ▶ T1: baseline email
- ▶ T2: baseline email + emphasis on third-party information

Baseline Email

SUBJECT: Urgent: Please submit your tax return now

Attention: NAME,

PLEASE FILE YOUR INCOME TAX RETURN IN THE NEXT 10 DAYS

Declare now by visiting:

<https://www.haciendadigital.go.cr/tribunet/loginDeclaraciones.jsp>

According to our records, you have not filed your tax return (Form D101). 8 out of 10 Costa Ricans have already filed their 2014 income tax return. You are part of a small minority of citizens who have not.

It is a serious offense to not file your taxes.

We have third-party information confirming that you or your client performed activities in 2014 which require you to pay taxes.

If you do not file, you could be audited and your business may be closed. Furthermore, [your name may be published on our website](#) as someone who did not contribute.

If you have any questions, you can contact me by PHONE or E-MAIL. I'll be checking whether you respond to this message.

Sincerely,

NAME OF OFFICIAL
POSITION

Third-Party Information Email

Standard email:

We have third-party information confirming that you or your client performed activities in 2014 which require you to pay taxes.

Third-party information email:

We have third-party information confirming that you or your client performed activities in 2014 which require you to pay taxes. From third-party returns (D150, D151 and D153), we know about your operations, for example:

- **Revenues of at least XXX reported by COMPANY,**
- **Revenues from credit/debit cards of at least ZZZ repoted by BANK,**
- **Sales or contracts with state entities of at least WWW.**

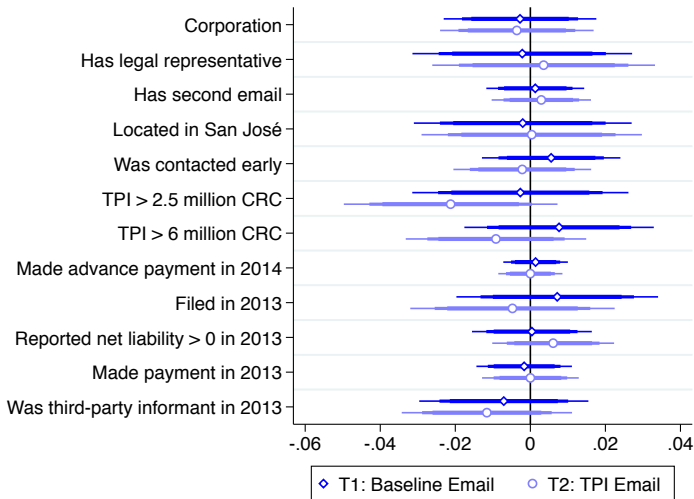
Emails to Firms without Third-Party Information

Standard email:

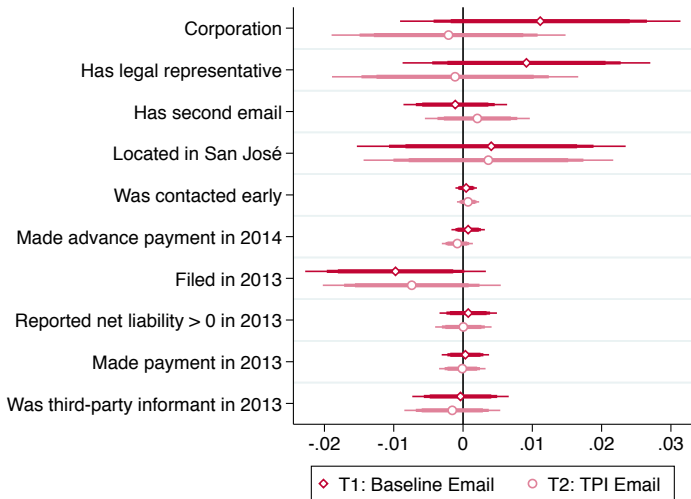
Third-party information email:

The DGT uses information from third-party returns (D150, D151 and D153) to identify economic activity and sources of income.

Covariate Balance: Firms with Third-Party Information



Covariate Balance: Firms without Third-Party Information



Extraction of non-filer listFeb 15

Emails to taxpayers with TPI ($N = 12,515$)

Mar 4-10

T1: Baseline email

T2: Information email: amount of largest third-party record

Emails to taxpayers w/o TPI ($N = 37,242$)

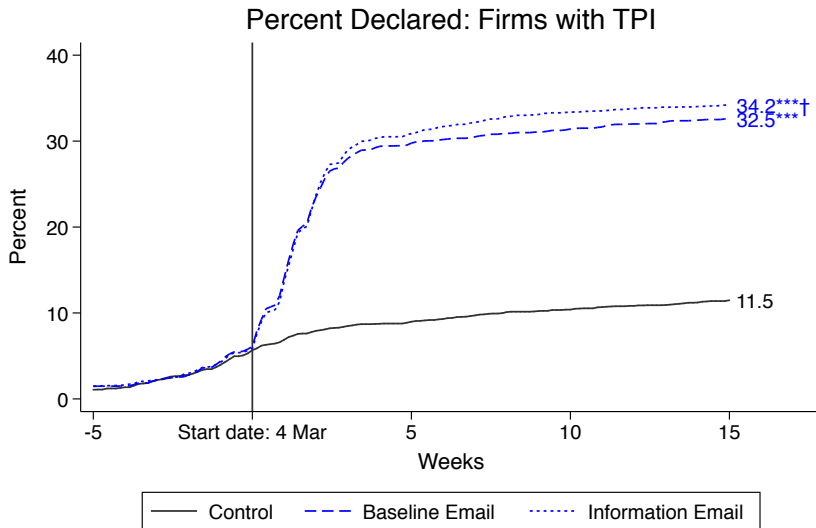
Apr 7-23

T1: Baseline email

T2: Information email: emphasizes tax authority's use of TPI

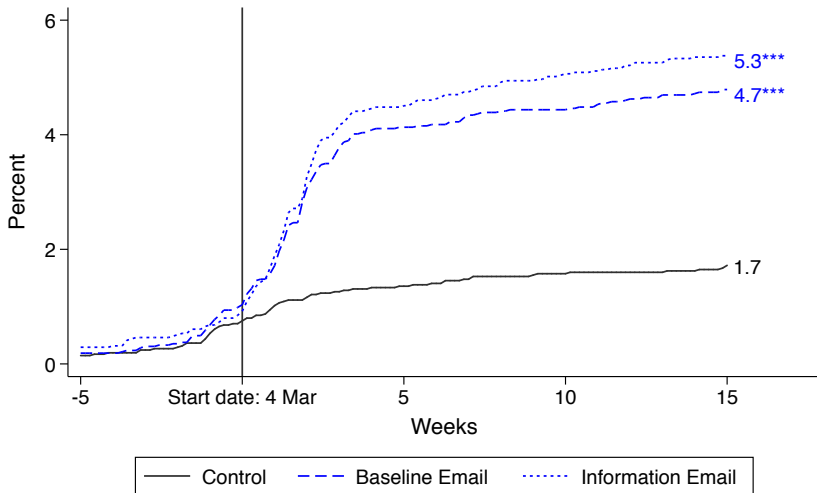
Results: Income Tax Compliance

Filing Rate

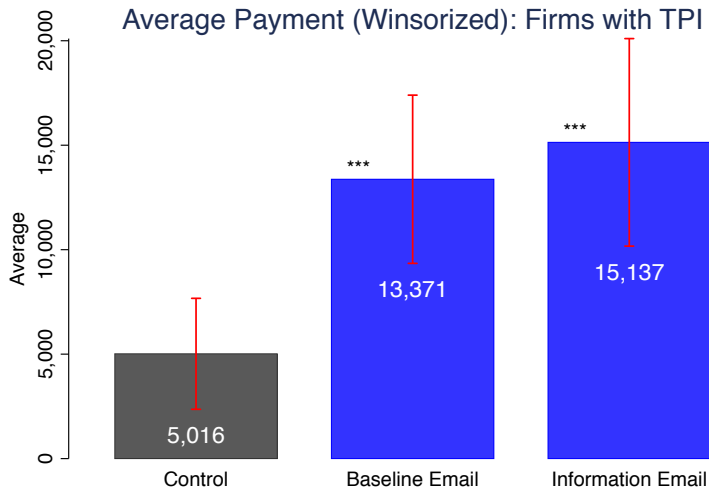


Payment

Percent Positive declaration payment: Firms with TPI



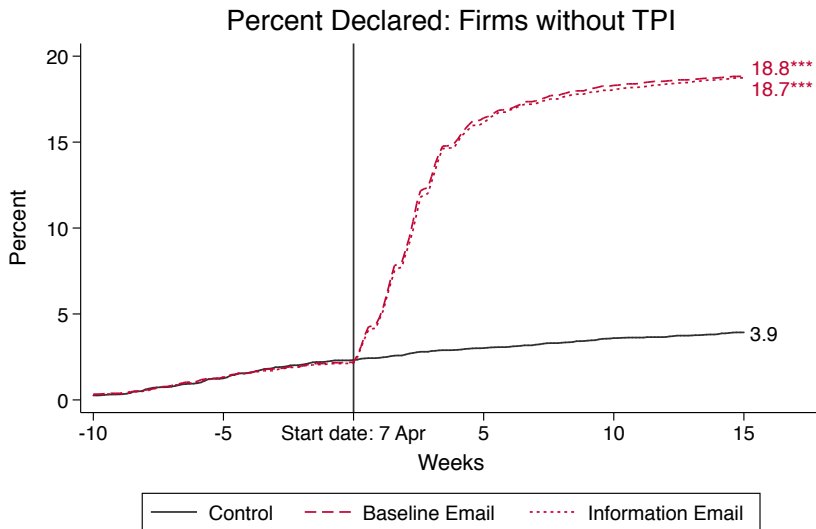
Payment Amount



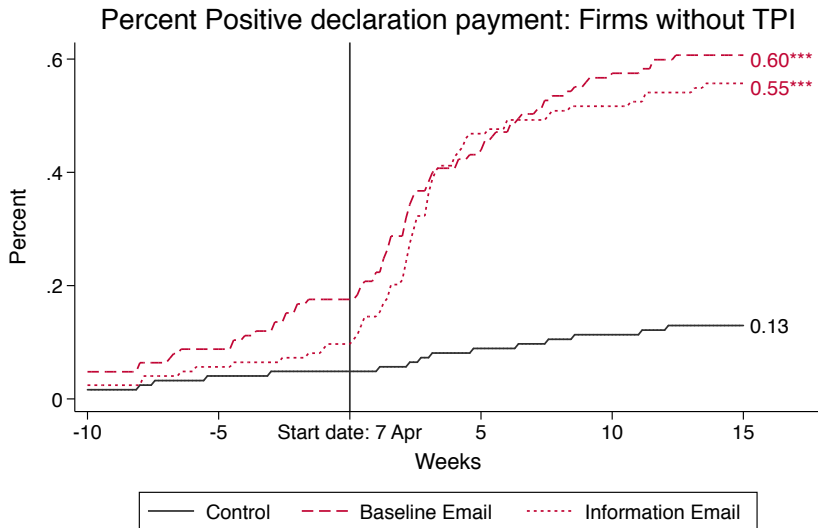
Payment amounts winsorized at the top 0.1% to reduce the influence of outliers.

Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

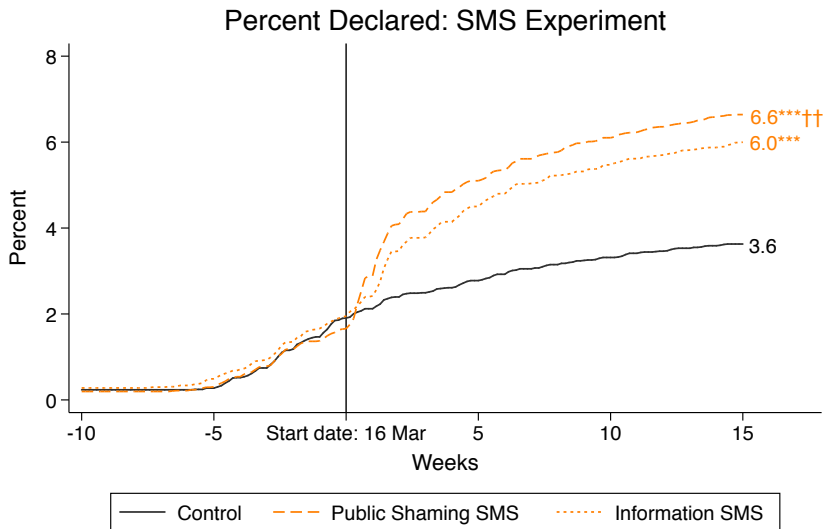
Filing Rate (Firms without TPI)



Payment Rate (Firms without TPI)



Filing Rate (SMS Experiment)

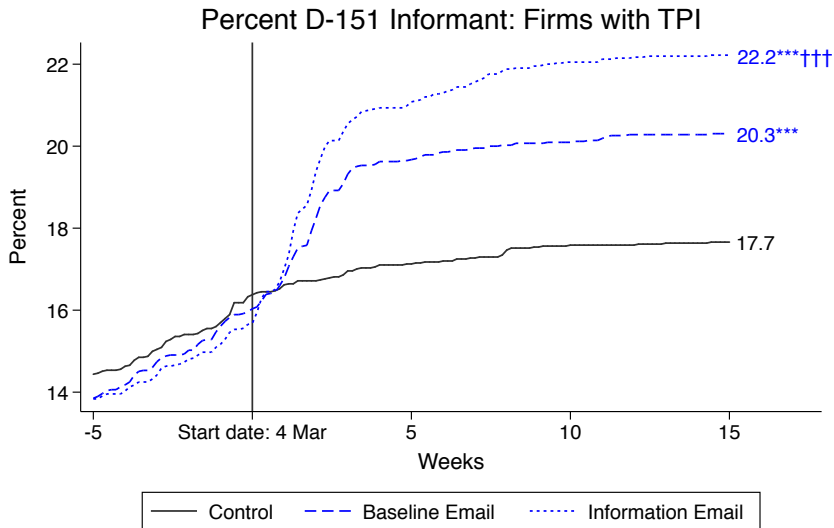


Other compliance determinants

- ▶ + **Amount of third-party information**, potentially non-linear
- ▶ + **Past tax filing** and/or payment, advance payments
- ▶ + **Third-party informant**
- ▶ + **Firm type (corporation) and location in San Jose**, but only for payment (amount)
- ▶ Irrelevant: **legal representative**

Results: Other Compliance Outcomes

Presentation of D-151 Third-Party Report

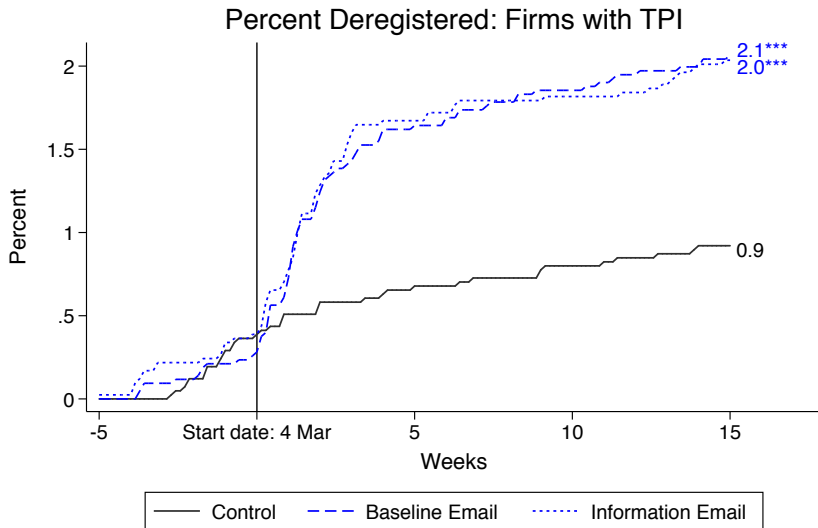


Other Effects of Email

Table 1: Other Effects of Email

	Probit			OLS		PPML	Probit				
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Baseline email	0.029*** (0.008)	0.004 (0.006)	0.028*** (0.007)	-0.038 (0.050)	-0.023 (0.021)	-9,902.181 (7,588.325)	0.011*** (0.003)	0.000 (0.001)	0.000 (0.000)	0.031***† (0.004)	0.002 (0.001)
T2: Information email	0.055***††† (0.008)	0.010* (0.006)	0.048***†† (0.008)	-0.040 (0.049)	-0.022 (0.020)	-4,894.750 (8,276.246)	0.011*** (0.003)	-0.000 (0.001)	0.000 (0.000)	0.023*** (0.004)	0.003* (0.002)
TPI > 2.5 million CRC	0.087*** (0.010)	0.024*** (0.007)	0.080*** (0.009)	-0.060 (0.052)	-0.021 (0.019)	4,616.031 (14,514.704)	0.003 (0.003)	-0.000 (0.001)	0.000 (0.000)	0.017*** (0.005)	-0.000 (0.002)
TPI > 6 million CRC	0.067*** (0.012)	0.061*** (0.009)	0.072*** (0.011)	0.551*** (0.088)	0.166*** (0.035)	25,176.254*** (9,631.292)	-0.012*** (0.003)	-0.002 (0.001)	-0.001** (0.000)	0.007 (0.006)	0.006* (0.003)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.177	0.0928	0.128	0.637	0.133	29095.0	0.00921	0.00218	0.000242	0.350	0.0572
T1=T2 p-value (Wald test)	0.003	0.274	0.013	0.969	0.989	0.461	0.830	0.563	0.975	0.061	0.690
Observations	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515

Deregistration



Results: Persistence

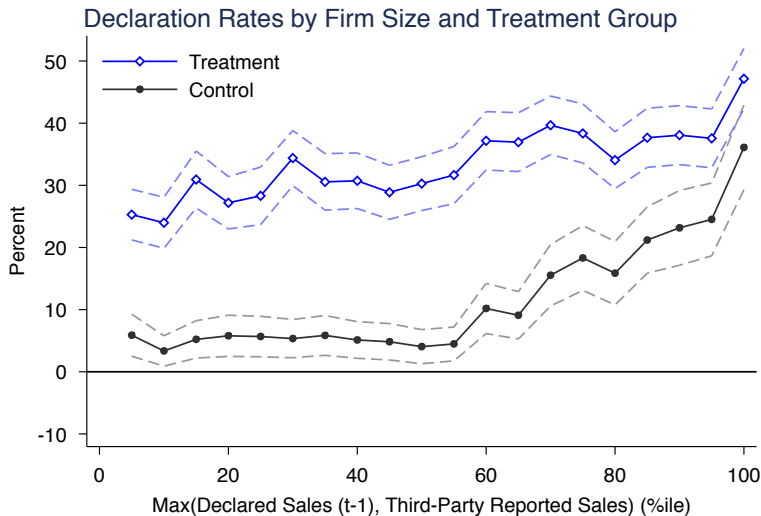
Persistence of Effect One Year Later

Table 2: Medium-Term Impact on Compliance Outcomes in 2015

	(1) Filed income tax	(2) Paid income tax	(3) Reported client or supplier	(4) Reported by state institution	(5) Reported by private client or supplier	(6) Reported by card company
T: Any email	0.0649*** (0.00893)	0.00963** (0.00417)	0.0225*** (0.00716)			
T1: Baseline email				-0.00290 (0.00419)	-0.00927 (0.0101)	0.00615 (0.00640)
T2: Information email				-0.00265 (0.00423)	-0.00435 (0.0103)	0.000659 (0.00634)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.351	0.0523	0.203	0.0407	0.691	0.0916
T1=T2 p-value (Wald test)				0.952	0.631	0.393
Observations	12,515	12,515	12,515	12,515	12,515	12,515

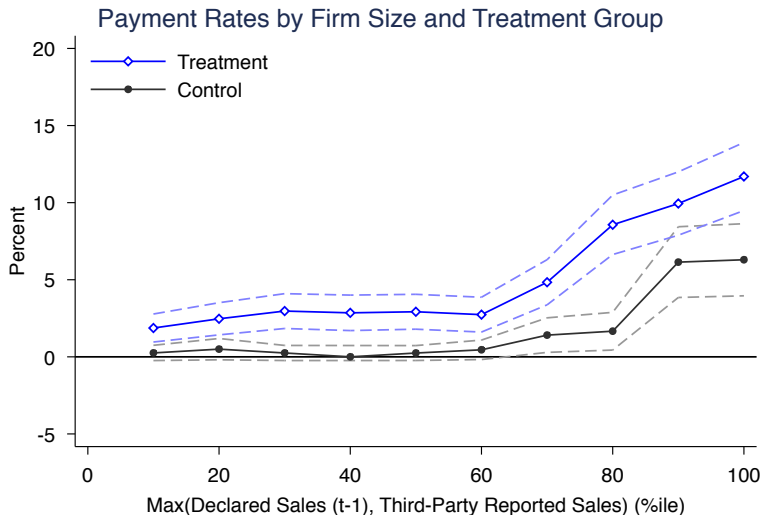
Results: Heterogeneity & Mechanisms

Filing Rates by Revenue Ventile



Note: Averages calculated using ventile bins. Dashed lines indicate 95% confidence intervals.

Payment Rates by Revenue Decile



Note: Averages calculated using decile bins. Dashed lines indicate 95% confidence intervals.

Cost-Benefit Analysis and Conclusion

- ▶ **Emails increase filing, payment, third-party reporting**

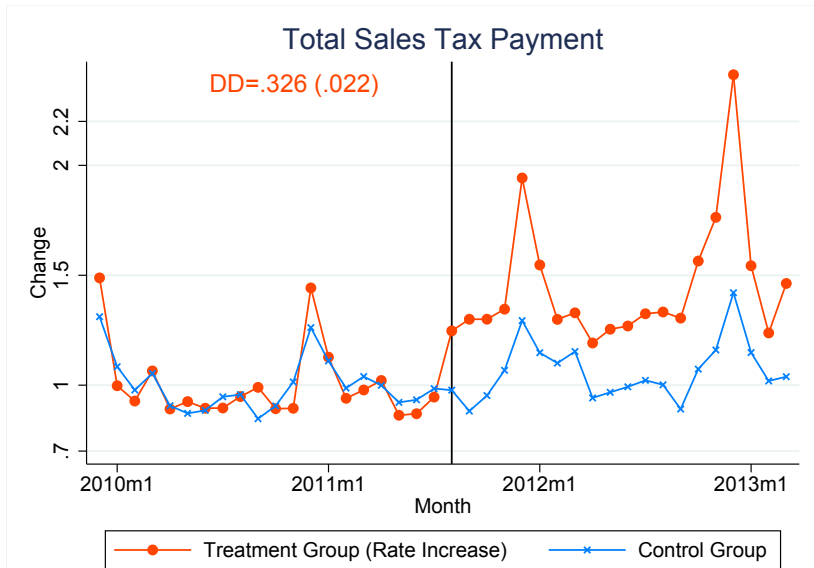
- ▶ In short and medium term
 - ▶ Cost effectiveness $\approx 1:5$
 - ▶ Dynamic implication for tax capacity

- ▶ **What to make of this?**

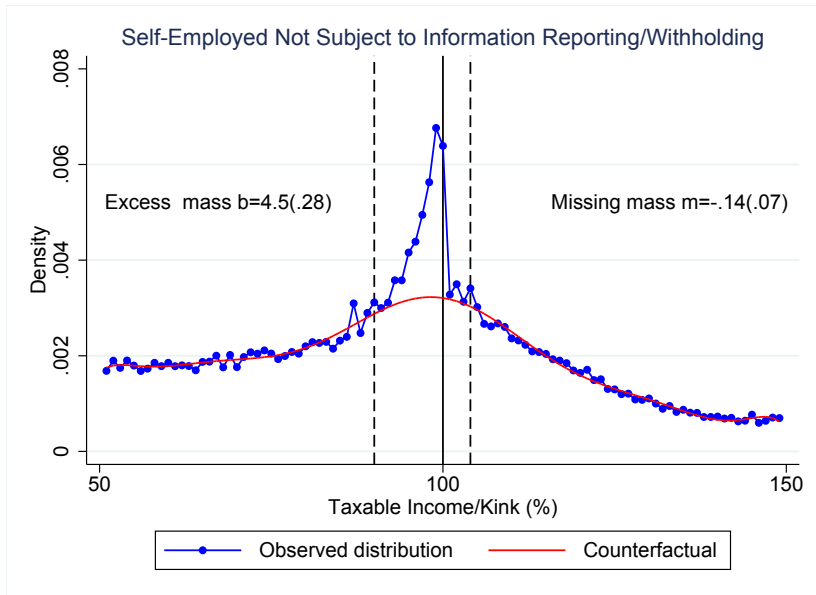
- ▶ Enforcement works to sustain/increase voluntary compliance
- ▶ Automate but stop tweaking messages?
- ▶ Or consider policy changes (rate/base/remittance)?

Thank you!

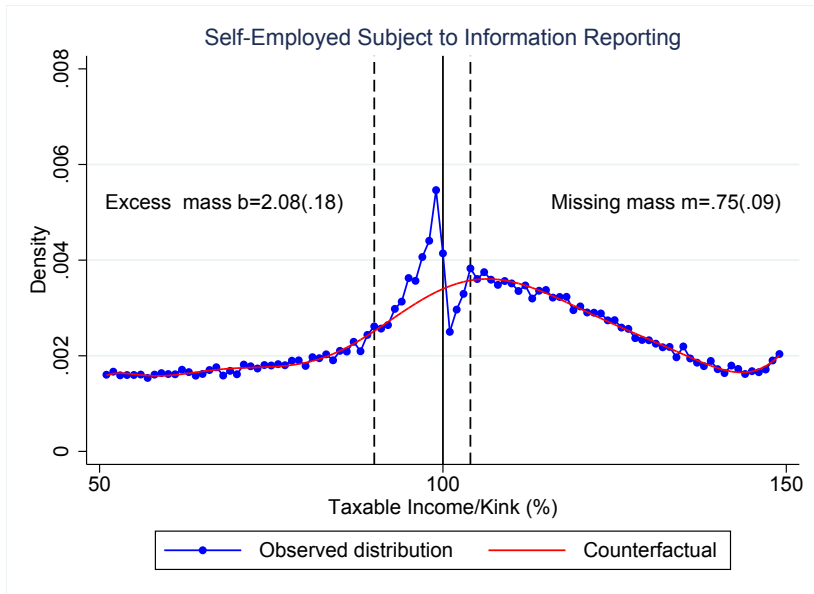
Impact of Tax Withholding: Brockmeyer & Hernandez 2016



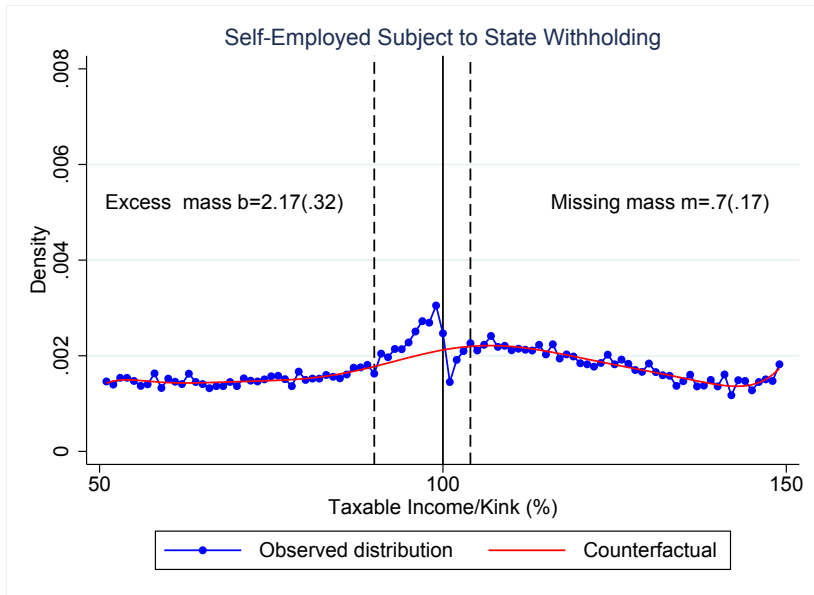
Bunching and Information Reporting



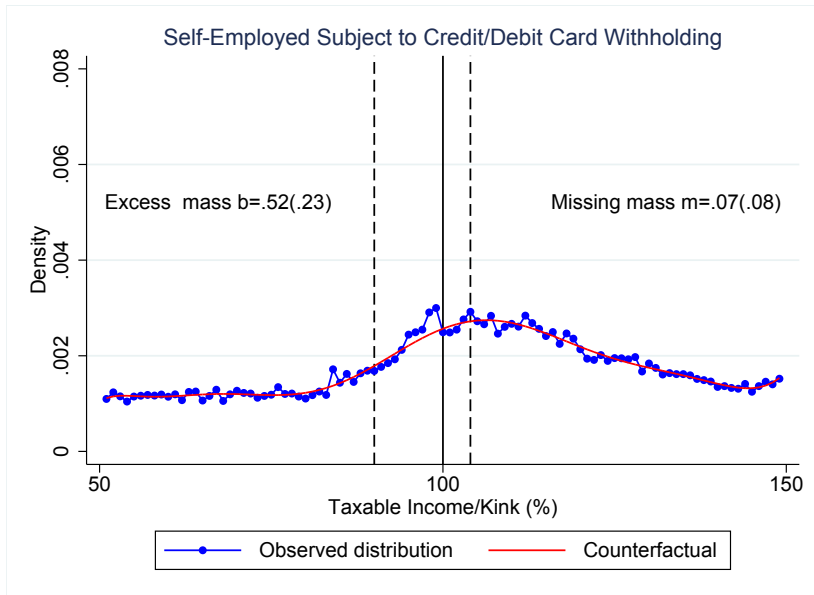
Bunching and Information Reporting



Bunching and Information Reporting



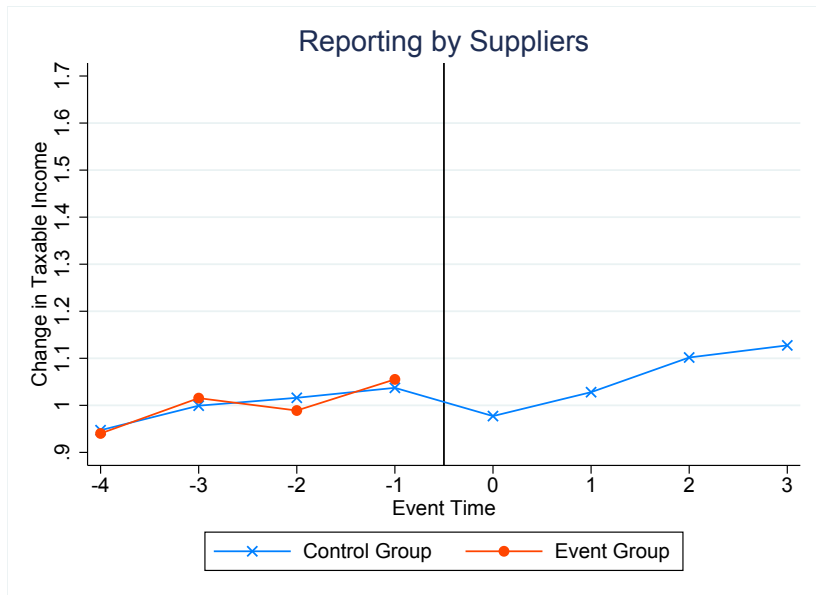
Bunching and Information Reporting



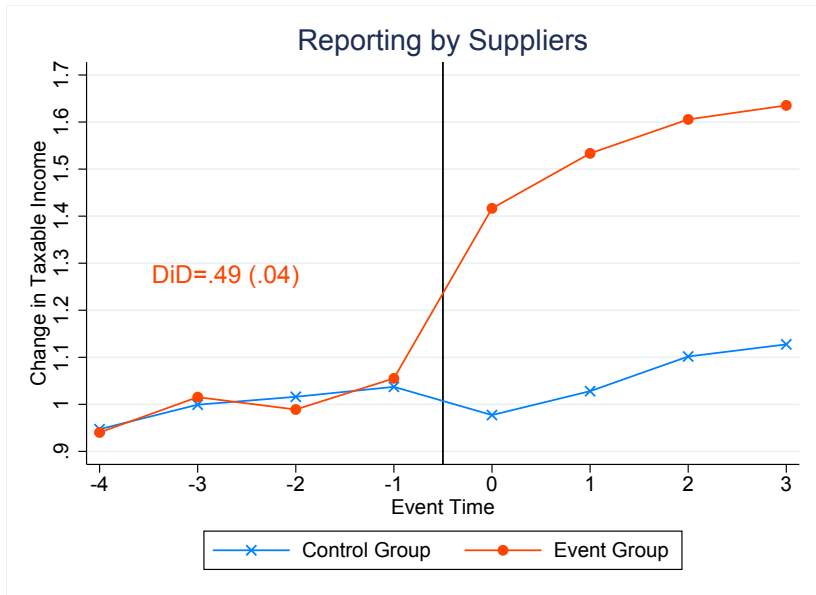
Event Study



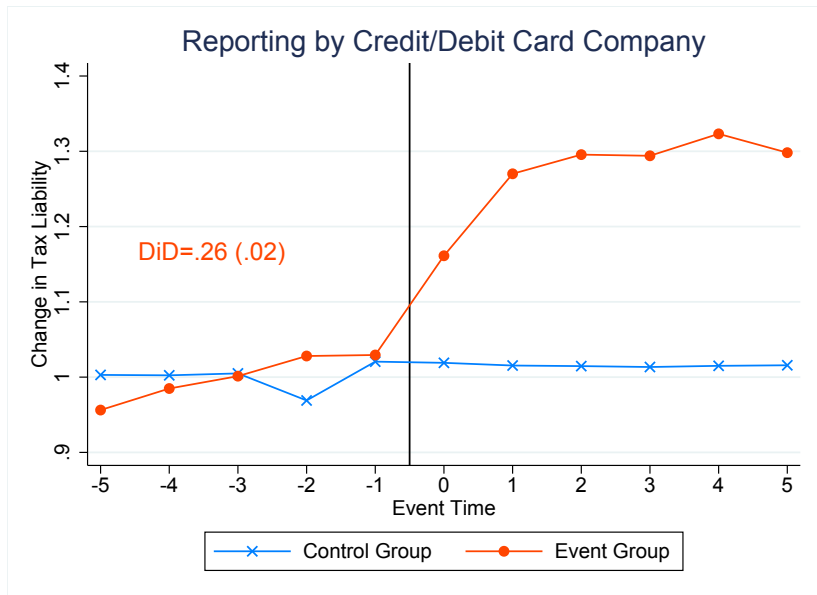
Event Study



Event Study



Event Study



Appendix

Experiment Timing

Extraction of omisos list ($N = 80,599$)

Feb 15

Emails to taxpayers with TPI ($N = 12,515$)

March 4-10

- Standard reminder
 - TPI reminder: amount of largest third-party record
-

Emails to taxpayers without TPI ($N = 37,242$)

April 7-23

- Standard reminder
 - TPI reminder: emphasizes tax authority's use of TPI
-

SMS to taxpayers w/o email, with+w/o TPI ($N = 30,842$) March 16-26

- Behavioral reminder: public shaming + call to action
- TPI reminder: emphasizes tax authority's use of TPI

Sample Size

Table 3: Sample Size by Experiment and Treatment Group

Experiment	Treatment Group			Total
	Control (%)	Treatment 1	Treatment 2	
Email 1	4,128 (33.0)	4,260 (34.0)	4,127 (33.0)	12,515 (100.0)
Email 2	12,350 (33.1)	12,523 (33.6)	12,386 (33.2)	37,259 (100.0)
SMS	10,227 (33.2)	10,195 (33.1)	10,420 (33.8)	30,842 (100.0)
Total				80,616

Row percentage in parentheses.

Public shaming SMS:

You have not filed your 2014 income tax return. If you do not file, your name may be published on our website. Questions XXXX-XXXX extXXX

Third-party information SMS:

You have not filed your 2014 income tax return. The DGT uses third-party information to identify taxable income. Questions XXXX-XXXX extXXX

Summary: Covariates

Table 4: Covariate Summary Statistics

	Obs.	Mean	Std. Dev.	Min.	Max.
<i>Persona juridica</i>	80,616	0.267	0.442	0	1
Tax representative	49,757	0.648	0.477	0	1
Second email address	49,757	0.055	0.229	0	1
Second phone	30,842	0.176	0.381	0	1
San Jose	80,609	0.454	0.498	0	1
Early contact	80,616	0.024	0.153	0	1
TPI reportee ¹	80,616	0.212	0.409	0	1
Positive partial/advance payment	80,616	0.009	0.092	0	1
Declared 2013	80,616	0.193	0.395	0	1
Positive net liability 2013	80,616	0.033	0.178	0	1
Positive payment 2013	80,616	0.020	0.139	0	1
Third-party informant 2013	80,616	0.072	0.258	0	1

Note: Measured prior to the experiments.

¹TPI reportee refers to whether the firm is covered by D-150, D-151 sales, or D-153 informative declarations.

Summary: Outcomes

Table 5: Outcomes at 15 Weeks: Summary Statistics

	Obs.	Mean	Std. Dev.	Min.	Max.
Declared at 15 weeks	80,616	0.125	0.331	0	1
Positive net liability at 15 weeks	80,616	0.016	0.127	0	1
Positive declaration payment at 15 weeks	80,616	0.010	0.099	0	1
Log declaration payment at 15 weeks	80,616	0.109	1.096	0	14.89
Total declaration payment at 15 weeks	80,616	2,014	52,419	0	2.93e+06
D-151 Informant at 15 weeks	80,616	0.049	0.217	0	1
Deregistered at 15 weeks	80,616	0.020	0.139	0	1

Log payment and payment are unconditional (i.e., include zeros).

Summary: Deregistration

Table 6: Mean Characteristics of Deregistrants: Email Experiments

	Deregistered?		
	No	Yes	Total
Filed	0.216 (0.002)	0.610 (0.014)	0.226 (0.002)
Positive gross liability	0.034 (0.001)	0.022 (0.004)	0.034 (0.001)
Gross liability (CRC) if filed	826,620 (493,467)	5,100 (2,386)	770,810 (459,946)
TPI reportee	0.254 (0.002)	0.197 (0.011)	0.253 (0.002)
Filed 2013	0.268 (0.002)	0.524 (0.014)	0.275 (0.002)
Positive gross liability 2013	0.042 (0.001)	0.047 (0.006)	0.042 (0.001)
Gross liability 2013 (CRC) if filed	656,409 (381,633)	40,101 (18,571)	626,818 (363,312)

Note: Standard errors in parentheses.

Summary: Payment Compliance (Email 1)

Table 7: Payment Compliance at 15 weeks: Email Experiment 1

	Group		
	Control	Treatment	Total
Positive net liability	0.300 (0.021)	0.244 (0.008)	0.252 (0.008)
Paid in full	0.486 (0.042)	0.600 (0.019)	0.581 (0.017)
Paid in part	0.007 (0.007)	0.018 (0.005)	0.016 (0.004)
Zero payment	0.507 (0.042)	0.382 (0.019)	0.404 (0.017)
<i>Total non-compliant</i>	0.154 (0.017)	0.097 (0.006)	0.106 (0.005)

Note: Indentation indicates conditioning on previous row.

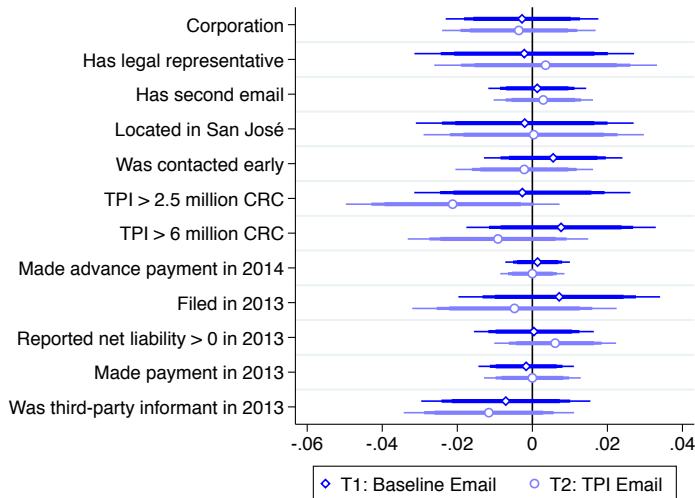
Summary: Payment Compliance (Email 2)

Table 8: Payment Compliance at 15 weeks: Email Experiment 2

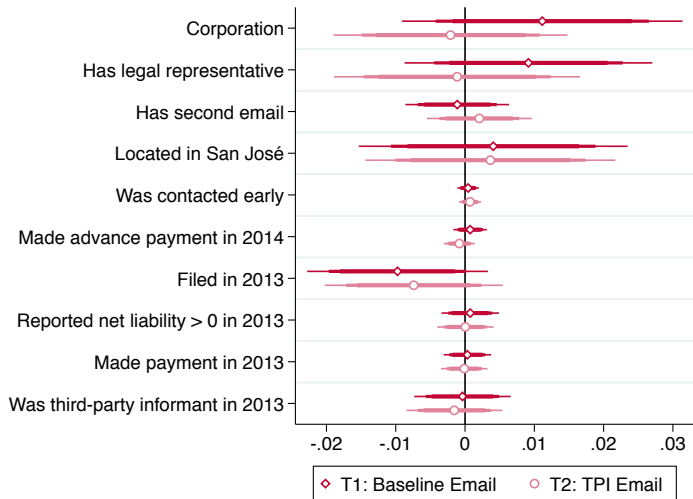
	Group		
	Control	Treatment	Total
Positive net liability	0.045 (0.009)	0.042 (0.003)	0.043 (0.003)
Paid in full	0.591 (0.107)	0.662 (0.034)	0.655 (0.032)
Paid in part	0.000 (0.000)	0.025 (0.011)	0.023 (0.010)
Zero payment	0.409 (0.107)	0.313 (0.033)	0.323 (0.032)
<i>Total non-compliant</i>	0.019 (0.006)	0.014 (0.002)	0.015 (0.002)

Note: Indentation indicates conditioning on previous row.

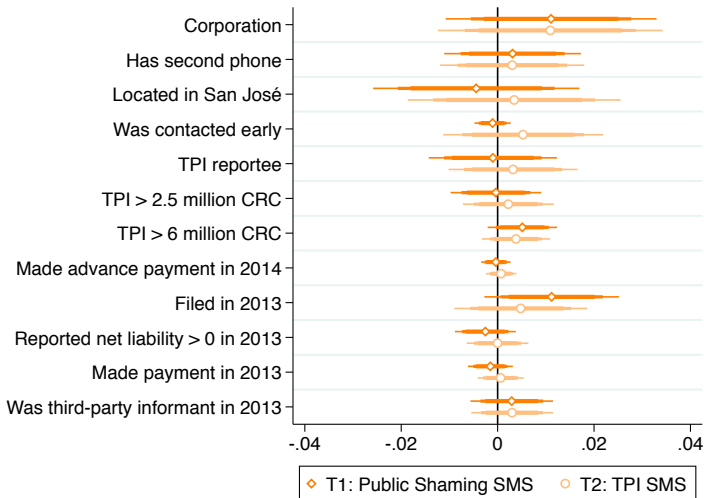
Covariate Balance: Firms with TPI



Covariate Balance: Firms without TPI



Covariate Balance: SMS Experiment



Covariate Balance: Email Experiments

Table 9: Covariate Balance (Email Experiments)

	Firms with Third-Party Information (Experiment 1)				Firms without Third-Party Information (Experiment 2)			
	(1) Control	(2) T1: Baseline email	(3) T2: Information email	(4) T1=T2=0 p-value	(5) Control	(6) T1: Baseline email	(7) T2: Information email	(8) T1=T2=0 p-value
Corporation	0.142 (0.006)	-0.003 (0.008)	-0.004 (0.008)	0.893	0.262 (0.004)	0.011 (0.008)	-0.002 (0.007)	0.238
Has legal representative	0.607 (0.008)	-0.002 (0.011)	0.004 (0.012)	0.882	0.659 (0.005)	0.009 (0.007)	-0.001 (0.007)	0.289
Has second email	0.056 (0.004)	0.001 (0.005)	0.003 (0.005)	0.851	0.054 (0.002)	-0.001 (0.003)	0.002 (0.003)	0.547
Located in San José	0.490 (0.008)	-0.002 (0.011)	0.000 (0.011)	0.975	0.488 (0.005)	0.004 (0.008)	0.004 (0.007)	0.821
Was contacted early	0.117 (0.005)	0.006 (0.007)	-0.002 (0.007)	0.543	0.002 (0.000)	0.000 (0.001)	0.001 (0.001)	0.489
TPI > 2.5 million CRC	0.351 (0.008)	-0.003 (0.011)	-0.021* (0.011)	0.109				
TPI > 6 million CRC	0.185 (0.007)	0.008 (0.010)	-0.009 (0.009)	0.193				
Made advance payment in 2014	0.023 (0.002)	0.001 (0.003)	0.000 (0.003)	0.892	0.005 (0.001)	0.001 (0.001)	-0.001 (0.001)	0.188
Filed in 2013	0.329 (0.007)	0.007 (0.010)	-0.005 (0.011)	0.517	0.174 (0.004)	-0.010* (0.005)	-0.007 (0.005)	0.131
Reported net liability > 0 in 2013	0.085 (0.004)	0.000 (0.006)	0.006 (0.006)	0.561	0.016 (0.001)	0.001 (0.002)	0.000 (0.002)	0.873
Made payment in 2013	0.053 (0.004)	-0.002 (0.005)	0.000 (0.005)	0.927	0.011 (0.001)	0.000 (0.001)	-0.000 (0.001)	0.941
Was third-party informant in 2013	0.190 (0.006)	-0.007 (0.009)	-0.012 (0.009)	0.417	0.046 (0.002)	-0.000 (0.003)	-0.002 (0.003)	0.834
Observations	4,128	4,260	4,127		12,350	12,516	12,376	

Baseline Balance: Email Experiments

Table 10: Baseline Balance (Email Experiments)

	Firms with Third-Party Information (Experiment 1)				Firms without Third-Party Information (Experiment 2)			
	(1) Control	(2) T1: Baseline email	(3) T2: Information email	(4) T1=T2=0 p-value	(5) Control	(6) T1: Baseline email	(7) T2: Information email	(8) T1=T2=0 p-value
Filed	0.057 (0.004)	0.004 (0.005)	0.002 (0.005)	0.742	0.013 (0.001)	0.001 (0.001)	0.000 (0.002)	0.934
Had positive net liability	0.017 (0.002)	0.003 (0.003)	0.002 (0.003)	0.513	0.001 (0.000)	0.001** (0.000)	0.000 (0.000)	0.089
Made payment	0.008 (0.001)	0.003 (0.002)	0.002 (0.002)	0.373	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.377
Log payment	0.086 (0.015)	0.034 (0.024)	0.018 (0.023)	0.348				
Was third-party informant	0.164 (0.006)	-0.003 (0.008)	-0.007 (0.008)	0.710	0.012 (0.001)	0.000 (0.001)	0.001 (0.001)	0.761
No. months decl. sales tax	0.619 (0.038)	-0.040 (0.052)	-0.061 (0.052)	0.501	0.243 (0.013)	-0.025 (0.018)	0.004 (0.019)	0.239
No. months paid sales tax	0.126 (0.015)	-0.023 (0.020)	-0.026 (0.020)	0.390	0.015 (0.002)	0.006 (0.004)	0.004 (0.004)	0.260
Sales tax payment	108900.860 (62816.239)	-75006.413 (64536.416)	-64056.208 (65884.055)	0.489	736.743 (207.981)	1416.450 (1728.289)	245.104 (483.252)	0.641
Deregistered	0.004 (0.001)	-0.001 (0.001)	0.000 (0.001)	0.615	0.004 (0.001)	-0.001 (0.001)	-0.001* (0.001)	0.182
Deregistered (sales tax)	0.001 (0.000)	-0.000 (0.001)	-0.000 (0.001)	0.876	0.001 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.258
Switched to simplified tax regime	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.317				
Observations	4,128	4,260	4,127		12,350	12,516	12,376	

Covariate Balance: SMS Experiment

Table 11: Covariate Balance (SMS Experiment)

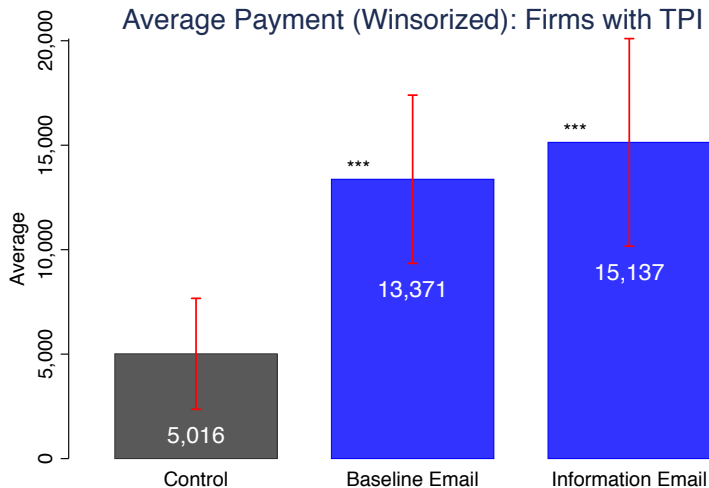
	(1) Control	(2) T1: Public shaming SMS	(3) T2: Information SMS	(4) T1=T2=0 p-value
Corporation	0.312 (0.006)	0.011 (0.008)	0.011 (0.009)	0.356
Has second phone	0.174 (0.004)	0.003 (0.006)	0.003 (0.006)	0.819
Located in San José	0.395 (0.006)	-0.004 (0.008)	0.003 (0.009)	0.618
Was contacted early	0.011 (0.001)	-0.001 (0.001)	0.005 (0.006)	0.509
TPI reporter	0.154 (0.004)	-0.001 (0.005)	0.003 (0.005)	0.697
TPI > 2.5 million CRC	0.071 (0.003)	-0.000 (0.004)	0.002 (0.004)	0.743
TPI > 6 million CRC	0.038 (0.002)	0.005* (0.003)	0.004 (0.003)	0.157
Made advance payment in 2014	0.007 (0.001)	-0.000 (0.001)	0.001 (0.001)	0.656
Filed in 2013	0.161 (0.004)	0.011** (0.005)	0.005 (0.005)	0.116
Reported net liability > 0 in 2013	0.032 (0.002)	-0.003 (0.002)	-0.000 (0.002)	0.486
Made payment 2013	0.018 (0.001)	-0.002 (0.002)	0.001 (0.002)	0.476
Was third-party informant 2013	0.056 (0.002)	0.003 (0.003)	0.003 (0.003)	0.586
Observations	10,227	10,195	10,420	

Baseline Balance: SMS Experiment

Table 12: Baseline Balance (SMS Experiment)

	(1) Control	(2) T1: Public shaming SMS	(3) T2: Information SMS	(4) T1=T2=0 p-value
Filed	0.013 (0.001)	-0.000 (0.002)	0.001 (0.002)	0.554
Had positive net liability	0.004 (0.001)	-0.000 (0.001)	0.000 (0.001)	0.650
Made payment	0.001 (0.000)	-0.000 (0.001)	-0.000 (0.000)	0.702
Log payment	0.014 (0.004)	-0.002 (0.005)	-0.004 (0.005)	0.691
Was third-party informant	0.027 (0.002)	-0.001 (0.002)	0.002 (0.002)	0.414
No. months decl. sales tax	0.269 (0.016)	0.037 (0.023)	0.004 (0.023)	0.224
No. months paid sales tax	0.039 (0.006)	0.004 (0.008)	0.005 (0.008)	0.781
Sales tax payment	1113.920 (259.200)	1126.130* (579.110)	1048.929 (645.096)	0.065
Deregistered	0.003 (0.001)	-0.001 (0.001)	-0.001 (0.001)	0.498
Deregistered (sales tax)	0.001 (0.000)	-0.001 (0.000)	-0.001*** (0.000)	0.008
Observations	10,227	10,195	10,420	

Payment Amount



Payment amounts winsorized at the top 0.1% to reduce the influence of outliers.

Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Estimating Treatment Effects

Table 13: Effect of Email on Compliance (Firms with TPI)

	Probit			OLS	PPML
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.213*** (0.009)	0.046*** (0.005)	0.031*** (0.004)	0.340*** (0.043)	8,167.736*** (2,394.801)
T2: Information email	0.232***† (0.009)	0.054*** (0.005)	0.038*** (0.004)	0.411*** (0.044)	10,191.998*** (2,712.887)
TPI > 2.5 million CRC	0.065*** (0.011)	0.052*** (0.006)	0.032*** (0.005)	0.294*** (0.056)	6,911.006*** (2,639.431)
TPI > 6 million CRC	0.013 (0.014)	0.042*** (0.008)	0.016*** (0.006)	0.365*** (0.093)	14,807.488*** (3,628.608)
Other controls	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.115	0.0339	0.0172	0.194	5015.8
T1=T2 p-value (Wald test)	0.062	0.135	0.145	0.177	0.510
Observations	12,515	12,515	12,515	12,515	12,515

Estimating Treatment Effects (Firms without TPI)

Table 14: Effect of Email on Compliance (Firms without TPI)

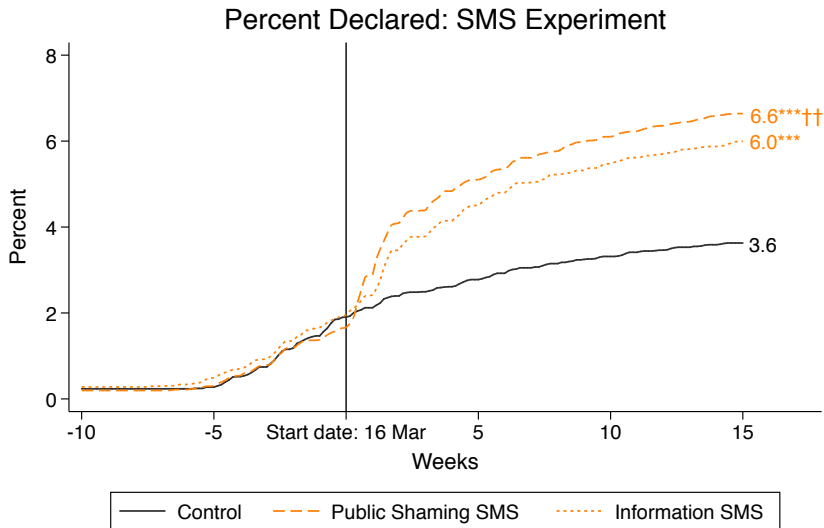
	Probit			OLS	PPML
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.150*** (0.004)	0.006*** (0.001)	0.005*** (0.001)	0.050*** (0.008)	262.430*** (59.096)
T2: Information email	0.149*** (0.004)	0.006*** (0.001)	0.004*** (0.001)	0.041*** (0.008)	166.064*** (52.392)
Other controls	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.0393	0.00178	0.00130	0.0142	96.15
T1=T2 p-value (Wald test)	0.807	0.617	0.613	0.397	0.160
Observations	37,242	37,242	37,242	37,242	37,242

Effect of SMS is Smaller

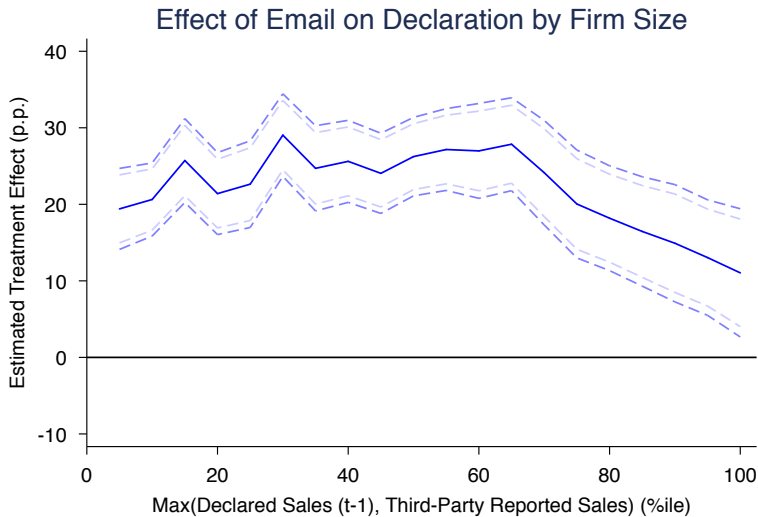
Table 15: Effect of Any SMS on Compliance

	Probit			OLS	PPML
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T: Any SMS	0.027*** (0.002)	0.002* (0.001)	0.001 (0.001)	0.010 (0.008)	116.980 (89.854)
TPI reportee	0.029*** (0.005)	0.008*** (0.002)	0.005*** (0.002)	0.045** (0.019)	474.049*** (159.523)
TPI > 2.5 million CRC	0.029*** (0.009)	0.010*** (0.003)	0.004** (0.002)	0.123** (0.054)	423.823** (204.073)
TPI > 6 million CRC	0.006 (0.007)	0.006*** (0.002)	0.001 (0.002)	0.173** (0.081)	239.766 (154.496)
Other controls	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.0363	0.00743	0.00411	0.0435	339.8
Observations	30,842	30,842	30,842	30,842	30,842

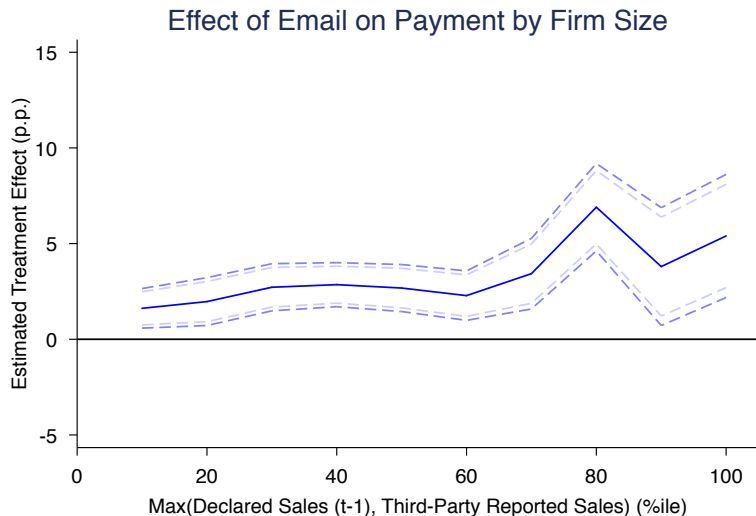
Filing Rate: SMS Experiment



Treatment Effect by Revenue Ventile



Treatment Effect (Payment) by Revenue Decile



Note: Estimates calculated using decile bins. Dashed lines indicate 90% and 95% confidence intervals.

Interaction with Paper Trail

- ▶ **Did firms covered and not covered by third-party reports respond differently to the email messages?**

1. Pool the two samples with and without TPI
2. Limit to comparable treatments

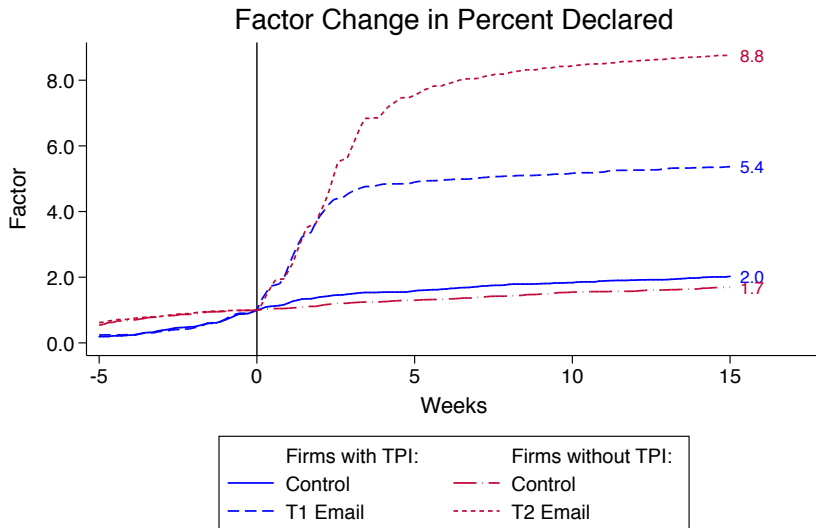
- ▶ Standard email for TPI-covered firms:

We have third-party information confirming that you or your client performed activities in 2014 which require you to pay taxes.

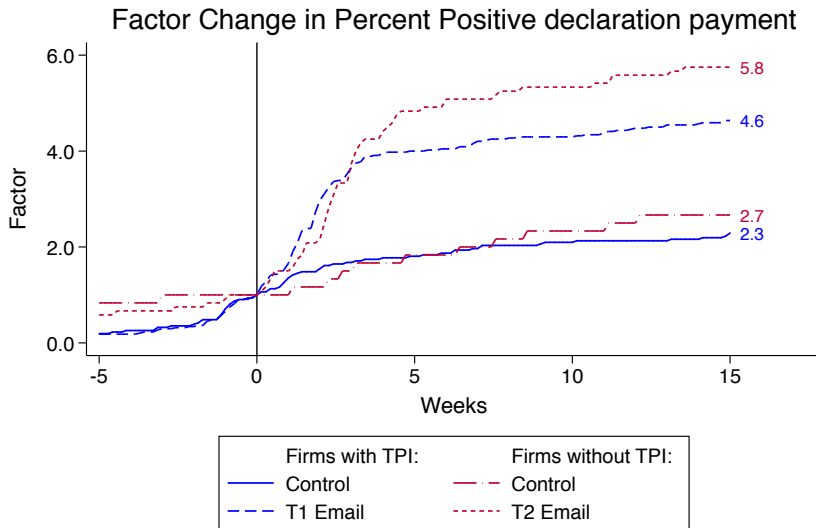
- ▶ TPI email for firms not covered by TPI:

The DGT uses information from third-party returns (D150, D151 and D153) to identify economic activity and sources of income.

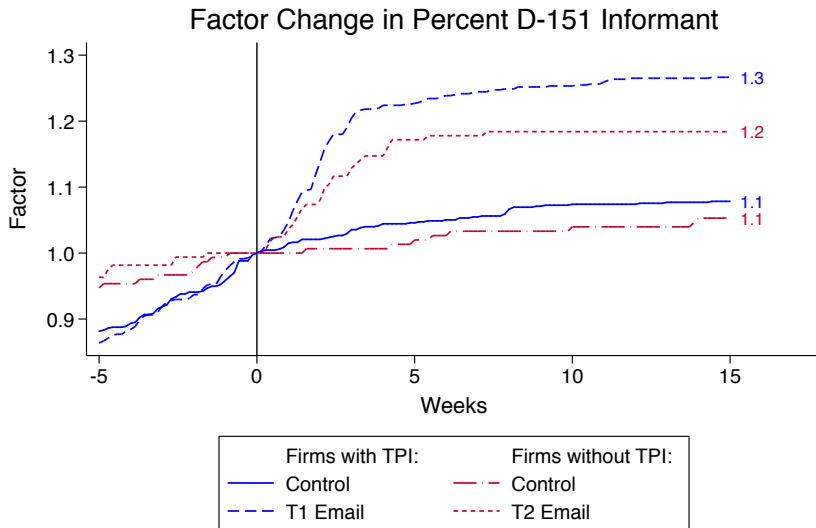
Filing Rate by Firm Group



Payment Rate by Firm Group



Informative Declaration Rate by Firm Group



Spillovers?

1. Use third-party reports to uncover trading network before the experiment began
2. Limit sample to firms with at least one trading partner that was part of the experiment
 - ▶ Then, conditional on number of experiment trading partners, treatment status of experiment trading partners should be exogenous
3. Estimate the indirect effect of communication on compliance by these firms

Preliminary Spillover Estimates

Table 16: Spillover Effects in 2015

	Compliance Outcome: Filed			Paid		
	1 RCT partner	2 RCT partners	1 or more RCT partners	1 RCT partner	2 RCT partners	1 or more RCT partners
Treated partner	-0.003 (0.005)	-0.010 (0.014)		-0.012* (0.007)	0.015 (0.023)	
Share of RCT partners treated			-0.002 (0.004)			-0.010 (0.007)
Compliance last year	0.649*** (0.015)	0.766*** (0.025)	0.720*** (0.010)	0.465*** (0.007)	0.480*** (0.014)	0.480*** (0.005)
Constant	0.277*** (0.015)	0.168*** (0.029)	0.198*** (0.010)	0.176*** (0.006)	0.169*** (0.022)	0.173*** (0.006)
Control group avg.	0.893	0.888	0.893	0.404	0.420	0.405
Observations	17,039	3,746	25,099	17,039	3,746	25,099

Note: Number of RCT partners determined using 2014—the year of the RCT.

* $p < .10$, ** $p < .05$, *** $p < .01$

Effect of Email on Compliance: Email 1 (No Controls)

Table 17: Effect of Email on Compliance (No Controls) (Experiment 1)

	OLS				
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.211*** (0.009)	0.045*** (0.005)	0.031*** (0.004)	0.341*** (0.044)	8,354.757*** (2,521.544)
T2: Information email	0.227*** (0.009)	0.051*** (0.005)	0.037*** (0.004)	0.401*** (0.046)	10,121.575*** (2,873.266)
Constant	0.115*** (0.005)	0.034*** (0.003)	0.017*** (0.002)	0.194*** (0.023)	5,015.796*** (1,354.277)
Control group avg.	0.115	0.0339	0.0172	0.194	5015.8
T1=T2 p-value (Wald test)	0.136	0.292	0.223	0.273	0.593
Observations	12,515	12,515	12,515	12,515	12,515

Other Effects of Email: Email 1 (No Controls)

Table 18: Other Effects of Email (No Controls) (Experiment 1)

	OLS										
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Baseline email	0.026*** (0.009)	0.003 (0.006)	0.026*** (0.008)	-0.030 (0.053)	-0.022 (0.021)	-9,319.000 (8,142.571)	0.011*** (0.003)	0.000 (0.001)	0.000 (0.000)	0.038*** (0.011)	0.000 (0.005)
T2: Information email	0.046*** (0.009)	0.007 (0.007)	0.040*** (0.008)	-0.052 (0.053)	-0.027 (0.021)	-6,488.644 (8,551.043)	0.011*** (0.003)	-0.000 (0.001)	0.000 (0.000)	0.018* (0.011)	0.002 (0.005)
Constant	0.177*** (0.006)	0.093*** (0.005)	0.128*** (0.005)	0.637*** (0.039)	0.133*** (0.016)	29,094.972*** (6,600.265)	0.009*** (0.002)	0.002*** (0.001)	0.000 (0.000)	0.350*** (0.008)	0.057*** (0.004)
Control group avg.	0.177	0.0928	0.128	0.637	0.133	29095.0	0.00921	0.00218	0.000242	0.350	0.0572
T1=T2 p-value (Wald test)	0.040	0.586	0.103	0.670	0.787	0.696	0.922	0.506	0.969	0.059	0.685
Observations	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515

Effect of Email on Compliance

Table 19: Effect of Email on Compliance (Experiment 1)

	OLS				
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.211*** (0.009)	0.044*** (0.005)	0.031*** (0.004)	0.341*** (0.043)	8,360.725*** (2,449.781)
T2: Information email	0.230*** (0.009)	0.052*** (0.005)	0.037*** (0.004)	0.409*** (0.044)	10,447.670*** (2,824.278)
TPI > 2.5 million CRC	0.061*** (0.011)	0.038*** (0.006)	0.029*** (0.005)	0.295*** (0.057)	-1,042.971 (1,841.710)
TPI > 6 million CRC	0.006 (0.015)	0.071*** (0.010)	0.023*** (0.008)	0.334*** (0.093)	28,315.536*** (5,287.007)
Other controls	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.115	0.0339	0.0172	0.194	5015.8
T1=T2 p-value (Wald test)	0.074	0.188	0.158	0.193	0.514
Observations	12,515	12,515	12,515	12,515	12,515

Effect of Email on Compliance (Probit & PPML)

Table 20: Effect of Email on Compliance (Probit & PPML) (Experiment 1)

	Probit			OLS	PPML
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.213*** (0.009)	0.046*** (0.005)	0.031*** (0.004)	0.340*** (0.043)	8,167.736*** (2,394.801)
T2: Information email	0.232***† (0.009)	0.054*** (0.005)	0.038*** (0.004)	0.411*** (0.044)	10,191.998*** (2,712.887)
TPI > 2.5 million CRC	0.065*** (0.011)	0.052*** (0.006)	0.032*** (0.005)	0.294*** (0.056)	6,911.006*** (2,639.431)
TPI > 6 million CRC	0.013 (0.014)	0.042*** (0.008)	0.016*** (0.006)	0.365*** (0.093)	14,807.488*** (3,628.608)
Other controls	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.115	0.0339	0.0172	0.194	5015.8
T1=T2 p-value (Wald test)	0.062	0.135	0.145	0.177	0.510
Observations	12,515	12,515	12,515	12,515	12,515

Other Effects of Email

Table 21: Other Effects of Email (Experiment 1)

	OLS										
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Baseline email	0.028*** (0.008)	0.004 (0.006)	0.026*** (0.007)	-0.039 (0.050)	-0.023 (0.021)	-9,724.458 (7,963.407)	0.012*** (0.003)	0.000 (0.001)	0.000 (0.000)	0.032*** (0.004)	0.002 (0.002)
T2: Information email	0.051*** (0.008)	0.010 (0.006)	0.044*** (0.008)	-0.042 (0.049)	-0.023 (0.020)	-5,556.893 (8,331.565)	0.011*** (0.003)	-0.001 (0.001)	0.000 (0.000)	0.023*** (0.004)	0.002 (0.002)
TPI > 2.5 million CRC	0.082*** (0.010)	0.010 (0.007)	0.075*** (0.009)	-0.107** (0.051)	-0.039** (0.019)	-20,663.410*** (4,186.548)	0.005 (0.004)	0.000 (0.001)	0.000 (0.001)	0.021*** (0.005)	-0.001 (0.002)
TPI > 6 million CRC	0.083*** (0.014)	0.089*** (0.011)	0.097*** (0.014)	0.642*** (0.088)	0.192*** (0.034)	62,030.785*** (11,773.503)	-0.014*** (0.004)	-0.002 (0.002)	-0.001 (0.001)	0.005 (0.007)	0.006** (0.003)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.177	0.0928	0.128	0.637	0.133	29095.0	0.00921	0.00218	0.000242	0.350	0.0572
T1=T2 p-value (Wald test)	0.005	0.305	0.024	0.958	1.000	0.565	0.886	0.481	0.981	0.048	0.837
Observations	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515

Other Effects of Email (Probit & PPML)

Table 22: Other Effects of Email (Probit & PPML) (Experiment 1)

	Probit			OLS		PPML	Probit				
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Baseline email	0.029*** (0.008)	0.004 (0.006)	0.028*** (0.007)	-0.038 (0.050)	-0.023 (0.021)	-9,902.181 (7,588.325)	0.011*** (0.003)	0.000 (0.001)	0.000 (0.000)	0.031***† (0.004)	0.002 (0.001)
T2: Information email	0.055***††† (0.008)	0.010* (0.006)	0.048***†† (0.008)	-0.040 (0.049)	-0.022 (0.020)	-4,894.750 (8,276.246)	0.011*** (0.003)	-0.000 (0.001)	0.000 (0.000)	0.023*** (0.004)	0.003* (0.002)
TPI > 2.5 million CRC	0.087*** (0.010)	0.024*** (0.007)	0.080*** (0.009)	-0.060 (0.052)	-0.021 (0.019)	4,616.031 (14,514.704)	0.003 (0.003)	-0.000 (0.001)	0.000 (0.000)	0.017*** (0.005)	-0.000 (0.002)
TPI > 6 million CRC	0.067*** (0.012)	0.061*** (0.009)	0.072*** (0.011)	0.551*** (0.088)	0.166*** (0.035)	25,176.254*** (9,631.292)	-0.012*** (0.003)	-0.002 (0.001)	-0.001** (0.000)	0.007 (0.006)	0.006* (0.003)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.177	0.0928	0.128	0.637	0.133	29095.0	0.00921	0.00218	0.000242	0.350	0.0572
T1=T2 p-value (Wald test)	0.003	0.274	0.013	0.969	0.989	0.461	0.830	0.563	0.975	0.061	0.690
Observations	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515	12,515

Effect of Email on Compliance (All Controls)

Table 23: Effect of Email on Compliance (All Controls) (Experiment 1)

	OLS				
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.211*** (0.009)	0.044*** (0.005)	0.031*** (0.004)	0.341*** (0.043)	8,360.725*** (2,449.781)
T2: Information email	0.230*** (0.009)	0.052*** (0.005)	0.037*** (0.004)	0.409*** (0.044)	10,447.670*** (2,824.278)
Corporation	-0.004 (0.016)	0.045*** (0.012)	0.007 (0.008)	0.117 (0.100)	11,624.253 (7,275.177)
Has legal representative	-0.001 (0.008)	-0.001 (0.004)	0.003 (0.003)	0.041 (0.038)	2,812.486 (2,083.220)
Has second email	0.050** (0.022)	-0.005 (0.017)	0.013 (0.012)	0.169 (0.151)	13,808.804 (13,278.496)
Located in San José	0.008 (0.008)	-0.002 (0.004)	0.004 (0.003)	0.056 (0.038)	8,157.846*** (2,331.148)
TPI > 2.5 million CRC	0.061*** (0.011)	0.038*** (0.006)	0.029*** (0.005)	0.295*** (0.057)	-1,042.971 (1,841.710)
TPI > 6 million CRC	0.006 (0.015)	0.071*** (0.010)	0.023*** (0.008)	0.334*** (0.093)	28,315.536*** (5,287.007)
Made advance payment for 2014	0.143*** (0.031)	0.126*** (0.029)	0.114*** (0.026)	1.303*** (0.305)	67,220.477** (27,609.421)
Filed in 2013	0.104*** (0.010)	-0.000 (0.006)	0.003 (0.005)	0.001 (0.051)	-7,206.147*** (2,385.074)
Reported net liability > 0 in 2013	-0.068*** (0.025)	0.117*** (0.021)	-0.016 (0.011)	-0.213* (0.126)	-17,869.923*** (4,715.919)
Made payment in 2013	0.107*** (0.031)	0.045* (0.027)	0.137*** (0.019)	1.679*** (0.220)	96,507.450*** (16,721.697)
Was third-party informant in 2013	0.050*** (0.013)	0.007 (0.008)	-0.009 (0.007)	-0.074 (0.075)	8,694.066** (4,034.401)
Constant	0.039*** (0.008)	-0.013*** (0.004)	-0.010*** (0.004)	-0.136*** (0.040)	-12,380.348*** (2,780.425)
Control group avg.	0.115	0.0339	0.0172	0.194	5015.8
T1=T2 p-value (Wald test)	0.074	0.188	0.158	0.193	0.514
Observations	12,515	12,515	12,515	12,515	12,515

Effect of Email on Compliance (Probit & PPML) (All Controls)

Table 24: Effect of Email on Compliance (Probit & PPML) (All Controls) (Experiment 1)

	Probit			OLS	PPML
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.213*** (0.009)	0.046*** (0.005)	0.031*** (0.004)	0.340*** (0.043)	8,167.736*** (2,394.801)
T2: Information email	0.232*** (0.009)	0.054*** (0.005)	0.038*** (0.004)	0.411*** (0.044)	10,191.998*** (2,712.887)
Corporation	-0.005 (0.015)	0.033*** (0.008)	0.007 (0.006)	0.104 (0.099)	6,334.570* (3,392.022)
Has legal representative	-0.000 (0.008)	-0.002 (0.004)	0.002 (0.004)	0.042 (0.038)	3,364.378 (2,530.740)
Has second email	0.045** (0.021)	-0.000 (0.008)	0.007 (0.008)	0.169 (0.151)	2,259.939 (3,425.219)
Located in San José	0.009 (0.008)	-0.003 (0.004)	0.003 (0.003)	0.059 (0.039)	7,366.114*** (2,202.358)
TPI > 2.5 million CRC	0.065*** (0.011)	0.052*** (0.006)	0.032*** (0.005)	0.294*** (0.056)	6,911.006*** (2,639.431)
TPI > 6 million CRC	0.013 (0.014)	0.042*** (0.008)	0.016*** (0.006)	0.365*** (0.093)	14,807.488*** (3,628.608)
Made advance payment for 2014	0.122*** (0.030)	0.051*** (0.016)	0.049*** (0.014)	1.292*** (0.304)	6,384.847* (3,732.480)
Filed in 2013	0.105*** (0.010)	0.004 (0.006)	0.005 (0.005)	0.003 (0.051)	-6,565.205 (5,190.648)
Reported net liability > 0 in 2013	-0.057*** (0.019)	0.072*** (0.015)	-0.008 (0.008)	-0.216* (0.126)	-9,026.498 (7,612.882)
Made payment in 2013	0.095*** (0.029)	0.023* (0.012)	0.106*** (0.026)	1.681*** (0.219)	76,309.211** (31,830.381)
Was third-party informant in 2013	0.046*** (0.012)	0.004 (0.006)	-0.007 (0.005)	-0.075 (0.075)	4,738.215* (2,804.348)
Constant				-0.143*** (0.040)	
Control group avg.	0.115	0.0339	0.0172	0.194	5015.8
T1=T2 p-value (Wald test)	0.062	0.135	0.145	0.177	0.510
Observations	12,515	12,515	12,515	12,515	12,515

Other Effects of Email (Probit & PPML) (All Controls)

Table 26: Other Effects of Email (Probit & PPML) (All Controls)
(Experiment 1)

	Probit			OLS		PPML	Probit				
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Baseline email	0.029*** (0.008)	0.004 (0.006)	0.028*** (0.007)	-0.038 (0.050)	-0.023 (0.021)	-9,902.181 (7,588.325)	0.011*** (0.003)	0.000 (0.001)	0.000 (0.000)	0.031*** (0.004)	0.002 (0.001)
T2: Information email	0.055*** (0.008)	0.010* (0.006)	0.048*** (0.008)	-0.040 (0.049)	-0.022 (0.020)	-4,894.750 (8,276.246)	0.011*** (0.003)	-0.000 (0.001)	0.000 (0.000)	0.023*** (0.004)	0.003* (0.002)
Corporation	0.025** (0.012)	0.084*** (0.010)	-0.011 (0.010)	1.309*** (0.124)	0.287*** (0.052)	49,928.871*** (9,071.818)	-0.008** (0.003)	0.004 (0.002)	-0.000 (0.000)	-0.002 (0.007)	0.003 (0.003)
Has legal representative	0.008 (0.007)	0.004 (0.005)	0.007 (0.007)	0.078** (0.038)	0.009 (0.015)	6,081.778 (7,651.940)	0.001 (0.002)	0.001* (0.001)	0.001 (0.000)	0.009*** (0.003)	-0.000 (0.001)
Has second email	0.055*** (0.017)	0.039*** (0.012)	0.010 (0.014)	-0.101 (0.187)	-0.036 (0.083)	5,092.135 (7,249.698)	-0.005 (0.006)	-0.001 (0.001)	0.003 (0.002)	-0.003 (0.009)	-0.005*** (0.001)
Located in San José	-0.005 (0.007)	-0.002 (0.005)	-0.004 (0.006)	-0.079** (0.040)	-0.056*** (0.016)	-18,843.304*** (6,200.833)	-0.005** (0.002)	-0.001* (0.001)	-0.001* (0.000)	0.004 (0.003)	0.002 (0.001)
TPI > 2.5 million CRC	0.087*** (0.010)	0.024*** (0.007)	0.080*** (0.009)	-0.060 (0.052)	-0.021 (0.019)	4,616.031 (14,514.704)	0.003 (0.003)	-0.000 (0.001)	0.000 (0.000)	0.017*** (0.005)	-0.000 (0.002)
TPI > 6 million CRC	0.067*** (0.012)	0.061*** (0.009)	0.072*** (0.011)	0.551*** (0.088)	0.166*** (0.035)	25,176.254*** (9,631.292)	-0.012*** (0.003)	-0.002 (0.001)	-0.001** (0.000)	0.007 (0.006)	0.006* (0.003)
Made advance payment for 2014	0.195*** (0.031)	0.079*** (0.019)	0.156*** (0.021)	0.740*** (0.272)	0.597*** (0.170)	33,348.791** (14,399.345)	-0.001 (0.009)	-0.002*** (0.000)	-0.001*** (0.000)	0.081 (0.070)	0.028 (0.019)
Filed in 2013	0.055*** (0.009)	0.027*** (0.007)	0.041*** (0.008)	0.826*** (0.066)	0.098*** (0.024)	25,071.474*** (4,737.304)	0.000 (0.003)	0.001 (0.001)	-0.000 (0.000)	0.851*** (0.003)	-0.009*** (0.002)
Reported net liability > 0 in 2013	-0.058*** (0.013)	-0.015 (0.009)	-0.037*** (0.012)	0.475** (0.221)	-0.152** (0.062)	-13,857.169 (11,740.575)	0.006 (0.009)	0.004 (0.004)	-0.001*** (0.000)	0.634*** (0.002)	0.059*** (0.019)
Made payment in 2013	0.055** (0.024)	0.006 (0.013)	0.051** (0.021)	-1.073*** (0.255)	0.239** (0.097)	11,987.317 (13,001.494)	-0.006 (0.006)	-0.002* (0.001)	-0.001*** (0.000)	-0.036*** (0.007)	0.991*** (0.002)
Was third-party informant in 2013	0.242*** (0.014)	0.121*** (0.010)	0.165*** (0.012)	0.242*** (0.092)	0.092** (0.036)	19,946.668*** (5,458.204)	-0.001 (0.004)	-0.001 (0.001)	0.000 (0.001)	0.047*** (0.013)	0.004 (0.003)
Constant				0.049 (0.046)	0.029 (0.019)						
Control group avg.	0.177	0.0928	0.128	0.637	0.133	29095.0	0.00921	0.00218	0.000242	0.350	0.0572
T1-T2 p-value (Wald test)	0.003	0.274	0.013	0.060	0.980	0.461	0.830	0.563	0.975	0.061	0.600

Effect of Email on Compliance: Exp. 2 (No Controls)

Table 27: Effect of Email on Compliance (No Controls) (Experiment 2)

	OLS				
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.149*** (0.004)	0.007*** (0.001)	0.005*** (0.001)	0.050*** (0.008)	270.452*** (60.333)
T2: Information email	0.148*** (0.004)	0.006*** (0.001)	0.004*** (0.001)	0.041*** (0.008)	166.552*** (52.084)
Constant	0.039*** (0.002)	0.002*** (0.000)	0.001*** (0.000)	0.014*** (0.004)	96.154*** (27.294)
Control group avg.	0.0393	0.00178	0.00130	0.0142	96.15
T1=T2 p-value (Wald test)	0.872	0.487	0.611	0.365	0.136
Observations	37,242	37,242	37,242	37,242	37,242

Other Effects of Email: Exp. 2 (No Controls)

Table 28: Other Effects of Email (No Controls) (Experiment 2)

	OLS										
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Baseline email	0.001 (0.001)	-0.000 (0.001)	0.002* (0.001)	-0.021 (0.019)	0.007 (0.004)	7.568 (88.421)	0.020*** (0.002)	0.000 (0.001)	0.000 (0.000)	0.041*** (0.006)	0.002 (0.001)
T2: Information email	0.003* (0.002)	0.001 (0.001)	0.002* (0.001)	0.010 (0.020)	0.005 (0.004)	35.738 (90.622)	0.021*** (0.002)	0.001 (0.001)	0.001** (0.000)	0.042*** (0.005)	0.001 (0.001)
Constant	0.013*** (0.001)	0.009*** (0.001)	0.004*** (0.001)	0.255*** (0.014)	0.016*** (0.003)	357.469*** (63.084)	0.012*** (0.001)	0.003*** (0.001)	0.000 (0.000)	0.189*** (0.004)	0.011*** (0.001)
Control group avg.	0.0129	0.00939	0.00437	0.255	0.0159	357.5	0.0121	0.00316	0.000162	0.189	0.0109
T1=T2 p-value (Wald test)	0.291	0.349	0.991	0.113	0.677	0.754	0.735	0.111	0.190	0.864	0.442
Observations	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242

Effect of Email on Compliance: Exp. 2

Table 29: Effect of Email on Compliance (Experiment 2)

	OLS				
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.151*** (0.004)	0.007*** (0.001)	0.005*** (0.001)	0.050*** (0.008)	265.125*** (59.378)
T2: Information email	0.149*** (0.004)	0.006*** (0.001)	0.004*** (0.001)	0.041*** (0.008)	168.906*** (51.542)
Other controls	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.0393	0.00178	0.00130	0.0142	96.15
T1=T2 p-value (Wald test)	0.809	0.565	0.649	0.397	0.161
Observations	37,242	37,242	37,242	37,242	37,242

Effect of Email on Compliance: Exp. 2 (Probit & PPML)

Table 30: Effect of Email on Compliance (Probit & PPML) (Experiment 2)

	Probit			OLS	PPML
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.150*** (0.004)	0.006*** (0.001)	0.005*** (0.001)	0.050*** (0.008)	262.430*** (59.096)
T2: Information email	0.149*** (0.004)	0.006*** (0.001)	0.004*** (0.001)	0.041*** (0.008)	166.064*** (52.392)
Other controls	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.0393	0.00178	0.00130	0.0142	96.15
T1=T2 p-value (Wald test)	0.807	0.617	0.613	0.397	0.160
Observations	37,242	37,242	37,242	37,242	37,242

Other Effects of Email: Exp. 2

Table 31: Other Effects of Email (Experiment 2)

	OLS										
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Baseline email	0.001 (0.001)	-0.001 (0.001)	0.002** (0.001)	-0.016 (0.018)	0.007 (0.004)	8.135 (87.939)	0.020*** (0.002)	0.000 (0.001)	0.000 (0.000)	0.050*** (0.003)	0.001*** (0.000)
T2: Information email	0.003* (0.002)	0.001 (0.001)	0.002** (0.001)	0.017 (0.019)	0.005 (0.004)	45.882 (90.152)	0.021*** (0.002)	0.001* (0.001)	0.001** (0.000)	0.049*** (0.003)	0.001** (0.000)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.0129	0.00939	0.00437	0.255	0.0159	357.5	0.0121	0.00316	0.000162	0.189	0.0109
T1=T2 p-value (Wald test)	0.200	0.228	0.980	0.086	0.731	0.674	0.745	0.100	0.194	0.703	0.156
Observations	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242

Other Effects of Email: Exp. 2 (Probit & PPML)

Table 32: Other Effects of Email (Probit & PPML) (Experiment 2)

	Probit			OLS		PPML	Probit				
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Baseline email	0.001 (0.001)	-0.000 (0.001)	0.002* (0.001)	-0.016 (0.018)	0.007 (0.004)	6.777 (87.473)	0.020*** (0.002)	0.000 (0.001)	0.000 (0.000)	0.050*** (0.003)	0.001***† (0.000)
T2: Information email	0.003* (0.002)	0.001 (0.001)	0.002** (0.001)	0.017† (0.019)	0.005 (0.004)	43.482 (90.697)	0.021*** (0.002)	0.001*† (0.001)	0.001** (0.000)	0.049*** (0.003)	0.001** (0.000)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.0129	0.00939	0.00437	0.255	0.0159	357.5	0.0121	0.00316	0.000162	0.189	0.0109
T1=T2 p-value (Wald test)	0.174	0.369	0.716	0.086	0.731	0.683	0.755	0.098	0.213	0.685	0.088
Observations	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242

Effect of Email on Compliance: Exp. 2 (All Controls)

Table 33: Effect of Email on Compliance (All Controls) (Experiment 2)

	OLS				
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.151*** (0.004)	0.007*** (0.001)	0.005*** (0.001)	0.050*** (0.008)	265.125*** (59.378)
T2: Information email	0.149*** (0.004)	0.006*** (0.001)	0.004*** (0.001)	0.041*** (0.008)	168.906*** (51.542)
Corporation	-0.013*** (0.005)	0.002 (0.001)	0.001 (0.001)	0.017 (0.010)	195.899** (81.093)
Has legal representative	-0.001 (0.004)	0.001 (0.001)	-0.000 (0.001)	0.003 (0.007)	87.048** (42.996)
Has second email	0.028*** (0.009)	0.002 (0.003)	0.003 (0.002)	0.033 (0.025)	196.916 (191.855)
Located in San José	-0.001 (0.004)	-0.001 (0.001)	-0.001 (0.001)	-0.011 (0.007)	-68.240 (50.738)
Made advance payment for 2014	0.098*** (0.034)	0.048** (0.020)	0.013 (0.014)	0.153 (0.156)	1,627.113 (1,335.720)
Filed in 2013	0.132*** (0.007)	0.001 (0.001)	0.001 (0.001)	0.006 (0.013)	-22.339 (86.755)
Reported net liability > 0 in 2013	-0.009 (0.030)	0.053*** (0.017)	-0.004 (0.007)	-0.048 (0.078)	-564.058 (648.287)
Made payment in 2013	0.043 (0.037)	0.044* (0.023)	0.075*** (0.016)	0.801*** (0.176)	5,627.506*** (1,459.899)
Was third-party informant in 2013	0.016 (0.012)	0.003 (0.004)	0.001 (0.003)	0.016 (0.036)	148.780 (288.932)
Constant	0.018*** (0.004)	-0.001 (0.001)	0.000 (0.001)	0.001 (0.006)	-51.258 (45.241)
Control group avg.	0.0393	0.00178	0.00130	0.0142	96.15
T1=T2 p-value (Wald test)	0.809	0.565	0.649	0.397	0.161
Observations	37,242	37,242	37,242	37,242	37,242

Effect of Email on Compliance: Exp. 2 (Probit & PPML) (All Controls)

Table 34: Effect of Email on Compliance (Probit & PPML) (All Controls)
(Experiment 2)

	Probit			OLS	PPML
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Baseline email	0.150*** (0.004)	0.006*** (0.001)	0.005*** (0.001)	0.050*** (0.008)	262.430*** (59.096)
T2: Information email	0.149*** (0.004)	0.006*** (0.001)	0.004*** (0.001)	0.041*** (0.008)	166.064*** (52.392)
Corporation	-0.013*** (0.005)	0.002* (0.001)	0.002 (0.001)	0.017 (0.010)	177.133** (73.143)
Has legal representative	-0.000 (0.004)	0.001 (0.001)	-0.000 (0.001)	0.003 (0.007)	103.848** (49.538)
Has second email	0.027*** (0.009)	0.001 (0.002)	0.002 (0.002)	0.033 (0.025)	98.140 (105.699)
Located in San José	-0.002 (0.004)	-0.001 (0.001)	-0.001 (0.001)	-0.011 (0.007)	-60.903 (50.039)
Made advance payment for 2014	0.075*** (0.028)	0.014* (0.007)	0.003 (0.004)	0.153 (0.156)	151.766 (171.565)
Filed in 2013	0.132*** (0.006)	0.002* (0.001)	0.001 (0.001)	0.006 (0.013)	-3.763 (92.633)
Reported net liability > 0 in 2013	-0.009 (0.020)	0.032*** (0.012)	-0.003 (0.004)	-0.048 (0.078)	-315.752 (426.717)
Made payment in 2013	0.031 (0.028)	0.006 (0.005)	0.086 (0.082)	0.801*** (0.176)	13.505.357 (21,428.248)
Was third-party informant in 2013	0.015* (0.009)	0.002 (0.002)	0.001 (0.002)	0.016 (0.036)	75.884 (143.009)
Constant				0.001 (0.006)	
Control group avg.	0.0393	0.00178	0.00130	0.0142	96.15
T1=T2 p-value (Wald test)	0.807	0.617	0.613	0.397	0.160
Observations	37,242	37,242	37,242	37,242	37,242

Other Effects of Email: Exp. 2 (All Controls)

Table 35: Other Effects of Email (All Controls) (Experiment 2)

	OLS										
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Baseline email	0.001 (0.001)	-0.001 (0.001)	0.002** (0.001)	-0.016 (0.018)	0.007 (0.004)	8.135 (87.939)	0.020*** (0.002)	0.000 (0.001)	0.000 (0.000)	0.050*** (0.003)	0.001*** (0.000)
T2: Information email	0.003* (0.002)	0.001 (0.001)	0.002** (0.001)	0.017 (0.019)	0.005 (0.004)	45.882 (90.152)	0.021*** (0.002)	0.001* (0.001)	0.001** (0.000)	0.049*** (0.003)	0.001** (0.000)
Corporation	0.007*** (0.002)	0.013*** (0.002)	-0.005*** (0.001)	0.232*** (0.024)	-0.006 (0.004)	60.120 (103.200)	-0.005*** (0.002)	0.002** (0.001)	-0.000** (0.000)	-0.007** (0.003)	0.001* (0.000)
Has legal representative	-0.001 (0.001)	-0.001 (0.001)	0.000 (0.001)	0.043*** (0.015)	0.008** (0.004)	199.903*** (72.540)	0.004** (0.002)	0.001** (0.001)	-0.000 (0.000)	0.007*** (0.002)	-0.000 (0.000)
Has second email	0.008* (0.004)	0.006* (0.004)	0.001 (0.002)	0.077 (0.053)	-0.001 (0.008)	0.021 (210.357)	-0.000 (0.004)	0.002 (0.002)	-0.000 (0.000)	0.017*** (0.006)	0.002* (0.001)
Located in San José	-0.003*** (0.001)	-0.004*** (0.001)	0.000 (0.001)	-0.046*** (0.015)	-0.015*** (0.004)	-226.720*** (70.060)	-0.009*** (0.002)	-0.002*** (0.001)	-0.000 (0.000)	-0.001 (0.002)	-0.001** (0.000)
Made advance payment for 2014	0.059** (0.024)	0.053** (0.021)	0.031* (0.017)	0.181 (0.227)	0.182 (0.117)	2,756.414 (2,137.135)	-0.008 (0.012)	0.009 (0.009)	-0.001 (0.001)	0.012 (0.015)	-0.001*** (0.000)
Filed in 2013	0.003 (0.002)	0.002 (0.002)	0.003 (0.002)	0.856*** (0.042)	0.034*** (0.008)	550.304*** (148.955)	0.001 (0.002)	-0.000 (0.001)	-0.001*** (0.000)	0.936*** (0.002)	-0.001*** (0.000)
Reported net liability > 0 in 2013	-0.040*** (0.016)	-0.030** (0.013)	-0.012 (0.009)	0.851*** (0.281)	0.143 (0.094)	2,607.719 (1,720.499)	0.011 (0.014)	-0.004*** (0.001)	-0.001 (0.001)	0.010 (0.008)	0.019* (0.010)
Made payment in 2013	0.079*** (0.022)	0.043** (0.018)	0.041*** (0.015)	-1.375*** (0.297)	-0.057 (0.107)	-341.234 (2,098.519)	0.001 (0.017)	0.002 (0.003)	0.003 (0.003)	-0.001 (0.011)	0.981*** (0.010)
Was third-party informant in 2013	0.123*** (0.009)	0.092*** (0.008)	0.038*** (0.006)	0.123 (0.080)	0.062*** (0.023)	1,803.489*** (502.992)	0.007 (0.005)	-0.000 (0.001)	0.002 (0.001)	0.015*** (0.005)	0.002* (0.001)
Constant	0.006*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.029* (0.017)	0.008*** (0.004)	92.494 (70.911)	0.015*** (0.002)	0.003*** (0.001)	0.000* (0.000)	0.022*** (0.002)	0.001 (0.000)
Control group avg.	0.0129	0.00939	0.00437	0.255	0.0159	357.5	0.0121	0.00316	0.000162	0.189	0.0109
T1=T2 p-value (Wald test)	0.200	0.228	0.980	0.086	0.731	0.674	0.745	0.100	0.194	0.703	0.156
Observations	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242

Other Effects of Email: Exp. 2 (Probit & PPML) (All Controls)

Table 36: Other Effects of Email (Probit & PPML) (All Controls) (Experiment 2)

	Probit			OLS		PPML	Probit				
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Baseline email	0.001 (0.001)	-0.000 (0.001)	0.002* (0.001)	-0.016 (0.018)	0.007 (0.004)	6.777 (87.473)	0.020*** (0.002)	0.000 (0.001)	0.000 (0.000)	0.050*** (0.003)	0.001*** (0.000)
T2: Information email	0.003* (0.002)	0.001 (0.001)	0.002** (0.001)	0.017 (0.019)	0.005 (0.004)	43.482 (90.697)	0.021*** (0.002)	0.001* (0.001)	0.001** (0.000)	0.049*** (0.003)	0.001** (0.000)
Corporation	0.006*** (0.002)	0.012*** (0.002)	-0.005*** (0.001)	0.232*** (0.024)	-0.006 (0.004)	57.841 (94.716)	-0.005*** (0.002)	0.002** (0.001)	-0.000*** (0.000)	-0.007** (0.003)	0.001* (0.000)
Has legal representative	-0.002 (0.002)	-0.001 (0.001)	-0.000 (0.001)	0.043*** (0.015)	0.008** (0.004)	207.133*** (72.239)	0.004*** (0.002)	0.001** (0.001)	-0.000 (0.000)	0.007*** (0.002)	-0.000 (0.000)
Has second email	0.005* (0.003)	0.003 (0.002)	0.002 (0.003)	0.077 (0.053)	-0.001 (0.008)	-22.140 (132.634)	-0.000 (0.004)	0.002 (0.002)	-0.000*** (0.000)	0.019*** (0.006)	0.002 (0.001)
Located in San José	-0.003*** (0.001)	-0.004*** (0.001)	0.000 (0.001)	-0.046*** (0.015)	-0.015*** (0.004)	-225.495*** (70.283)	-0.009*** (0.002)	-0.002*** (0.001)	-0.000 (0.000)	-0.001 (0.002)	-0.001** (0.000)
Made advance payment for 2014	0.019** (0.009)	0.015** (0.007)	0.012* (0.007)	0.181 (0.227)	0.182 (0.117)	532.146 (471.394)	-0.006 (0.011)	0.010 (0.010)	-0.000*** (0.000)	0.044 (0.035)	-0.001*** (0.000)
Filed in 2013	0.006*** (0.002)	0.004*** (0.002)	0.004*** (0.001)	0.856*** (0.042)	0.034*** (0.008)	652.797*** (141.117)	0.001 (0.002)	-0.000 (0.001)	-0.001*** (0.000)	0.924*** (0.002)	-0.001*** (0.000)
Reported net liability > 0 in 2013	-0.008*** (0.003)	-0.006*** (0.002)	-0.002 (0.002)	0.851*** (0.281)	0.143 (0.094)	379.173 (298.637)	0.009 (0.012)	-0.004*** (0.001)	-0.000*** (0.000)	0.783*** (0.001)	0.034 (0.029)
Made payment in 2013	0.032* (0.017)	0.013 (0.010)	0.017 (0.013)	-1.375*** (0.297)	-0.057 (0.107)	-31.696 (180.099)	0.002 (0.012)	0.012 (0.010)	0.012 (0.008)	-0.029*** (0.011)	0.999*** (0.000)
Was third-party informant in 2013	0.095*** (0.011)	0.070*** (0.009)	0.027*** (0.006)	0.123 (0.080)	0.062*** (0.023)	677.025*** (226.262)	0.006 (0.005)	-0.000 (0.001)	0.005 (0.003)	0.049*** (0.018)	0.003** (0.001)
Constant				0.029* (0.017)	0.008** (0.004)						
Control group avg.	0.0129	0.00939	0.00437	0.255	0.0159	357.5	0.0121	0.00316	0.000162	0.189	0.0109
T1=T2 p-value (Wald test)	0.174	0.369	0.716	0.086	0.731	0.683	0.755	0.098	0.213	0.685	0.088
Observations	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242	37,242

Effect of SMS on Compliance (No Controls)

Table 37: Effect of SMS on Compliance (No Controls)

	OLS				
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Public shaming SMS	0.030*** (0.003)	0.002 (0.001)	0.001 (0.001)	0.015 (0.010)	133.305 (108.847)
T2: Information SMS	0.024*** (0.003)	0.002* (0.001)	0.000 (0.001)	0.007 (0.010)	129.089 (110.032)
Constant	0.036*** (0.002)	0.007*** (0.001)	0.004*** (0.001)	0.043*** (0.007)	339.837*** (70.980)
Control group avg.	0.0363	0.00743	0.00411	0.0435	339.8
T1=T2 p-value (Wald test)	0.062	0.729	0.365	0.422	0.971
Observations	30,842	30,842	30,842	30,842	30,842

Other Effects of SMS (No Controls)

Table 38: Other Effects of SMS (No Controls)

	OLS										
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Public shaming SMS	0.002 (0.002)	0.001 (0.002)	0.002 (0.002)	0.042* (0.024)	0.004 (0.008)	493.933* (282.723)	0.007*** (0.002)	0.000 (0.001)	-0.000 (0.000)	0.021*** (0.006)	-0.001 (0.002)
T2: Information SMS	0.004 (0.002)	0.003 (0.002)	0.002 (0.002)	0.004 (0.023)	0.004 (0.008)	275.571 (265.867)	0.003** (0.002)	-0.001 (0.001)	-0.001** (0.000)	0.012** (0.006)	0.001 (0.002)
Constant	0.029*** (0.002)	0.016*** (0.001)	0.018*** (0.001)	0.276*** (0.016)	0.042*** (0.006)	935.910*** (166.243)	0.010*** (0.001)	0.003*** (0.001)	0.001** (0.000)	0.175*** (0.004)	0.018*** (0.001)
Control group avg.	0.0286	0.0155	0.0182	0.276	0.0416	935.9	0.0104	0.00284	0.000587	0.175	0.0184
T1=T2 p-value (Wald test)	0.457	0.340	0.825	0.105	0.979	0.479	0.042	0.227	0.083	0.142	0.335
Observations	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842

Effect of SMS on Compliance

Table 39: Effect of SMS on Compliance

	OLS				
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Public shaming SMS	0.029*** (0.003)	0.002 (0.001)	0.001 (0.001)	0.016 (0.010)	133.383 (105.867)
T2: Information SMS	0.023*** (0.003)	0.002 (0.001)	0.000 (0.001)	0.004 (0.010)	103.779 (105.960)
TPI reportee	0.026*** (0.006)	0.005** (0.002)	0.004** (0.002)	0.043** (0.019)	142.163 (136.826)
TPI > 2.5 million CRC	0.049*** (0.013)	0.022*** (0.006)	0.012** (0.005)	0.128** (0.054)	1,066.327* (544.590)
TPI > 6 million CRC	0.018 (0.016)	0.050*** (0.010)	0.013* (0.007)	0.168** (0.081)	2,598.967*** (934.073)
Other controls	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.0363	0.00743	0.00411	0.0435	339.8
T1=T2 p-value (Wald test)	0.059	0.912	0.227	0.273	0.795
Observations	30,842	30,842	30,842	30,842	30,842

Effect of SMS on Compliance (Probit & PPML)

Table 40: Effect of SMS on Compliance (Probit & PPML)

	Probit			OLS	PPML
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Public shaming SMS	0.031*** (0.003)	0.002* (0.001)	0.002* (0.001)	0.016 (0.010)	136.070 (108.186)
T2: Information SMS	0.024*** (0.003)	0.002 (0.001)	0.000 (0.001)	0.004 (0.010)	99.784 (103.860)
TPI reportee	0.029*** (0.005)	0.008*** (0.002)	0.005*** (0.002)	0.045** (0.019)	472.924*** (158.965)
TPI > 2.5 million CRC	0.030*** (0.009)	0.010*** (0.003)	0.004** (0.002)	0.123** (0.054)	425.925** (204.018)
TPI > 6 million CRC	0.006 (0.007)	0.006*** (0.002)	0.001 (0.001)	0.172** (0.081)	238.749 (154.156)
Other controls	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.0363	0.00743	0.00411	0.0435	339.8
T1=T2 p-value (Wald test)	0.036	0.745	0.155	0.277	0.747
Observations	30,842	30,842	30,842	30,842	30,842

Other Effects of SMS

Table 41: Other Effects of SMS

	OLS										
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Public shaming SMS	0.001 (0.002)	0.000 (0.002)	0.001 (0.002)	0.026 (0.023)	0.003 (0.008)	447.247 (274.377)	0.007*** (0.002)	-0.000 (0.001)	-0.000 (0.000)	0.010*** (0.002)	0.001* (0.000)
T2: Information SMS	0.002 (0.002)	0.002 (0.002)	0.001 (0.002)	-0.006 (0.022)	0.002 (0.008)	200.232 (261.036)	0.003** (0.002)	-0.001 (0.001)	-0.001** (0.000)	0.008*** (0.002)	0.000 (0.000)
TPI reportee	0.044*** (0.005)	0.019*** (0.004)	0.023*** (0.004)	-0.029 (0.037)	0.015 (0.016)	343.643 (466.052)	-0.003 (0.002)	-0.002*** (0.001)	0.000 (0.000)	0.008*** (0.003)	0.001 (0.001)
TPI > 2.5 million CRC	0.052*** (0.012)	-0.009 (0.007)	0.070*** (0.011)	0.136 (0.088)	0.080* (0.044)	1,671.098 (1,210.793)	-0.005 (0.004)	0.002 (0.002)	0.001 (0.001)	0.022*** (0.007)	0.001 (0.002)
TPI > 6 million CRC	0.098*** (0.016)	0.080*** (0.011)	0.092*** (0.015)	0.193 (0.120)	-0.038 (0.057)	4,886.835** (2,184.422)	-0.002 (0.004)	-0.002 (0.002)	-0.001 (0.001)	0.003 (0.009)	0.005 (0.003)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.0286	0.0155	0.0182	0.276	0.0416	935.9	0.0104	0.00284	0.000587	0.175	0.0184
T1=T2 p-value (Wald test)	0.541	0.349	0.584	0.155	0.893	0.414	0.051	0.248	0.081	0.291	0.520
Observations	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842

Other Effects of SMS (Probit & PPML)

Table 42: Other Effects of SMS (Probit & PPML)

	Probit			OLS		PPML	Probit				
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Public shaming SMS	0.001 (0.002)	0.000 (0.002)	0.001 (0.002)	0.027 (0.023)	0.003 (0.008)	426.698 (280.415)	0.007***† (0.002)	-0.000 (0.001)	-0.000 (0.000)	0.010*** (0.002)	0.001** (0.000)
T2: Information SMS	0.002 (0.002)	0.002 (0.002)	0.000 (0.002)	-0.006 (0.022)	0.002 (0.008)	176.151 (258.053)	0.003** (0.002)	-0.001 (0.001)	-0.001**† (0.000)	0.007*** (0.002)	0.000 (0.000)
TPI reportee	0.049*** (0.004)	0.022*** (0.003)	0.031*** (0.003)	-0.005 (0.038)	0.031* (0.017)	1,370.309*** (457.876)	-0.002 (0.002)	-0.003*** (0.001)	0.000 (0.000)	0.007** (0.003)	0.001 (0.001)
TPI > 2.5 million CRC	0.014*** (0.004)	-0.003 (0.003)	0.018*** (0.003)	0.168* (0.090)	0.072* (0.044)	400.869 (431.705)	-0.005 (0.004)	0.012 (0.012)	0.001 (0.001)	0.021*** (0.008)	0.001 (0.001)
TPI > 6 million CRC	0.015*** (0.004)	0.016*** (0.005)	0.011*** (0.003)	0.129 (0.121)	-0.046 (0.057)	183.805 (372.037)	-0.002 (0.005)	-0.002*** (0.001)	-0.000*** (0.000)	0.000 (0.005)	0.002 (0.002)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control group avg.	0.0286	0.0155	0.0182	0.276	0.0416	935.9	0.0104	0.00284	0.000587	0.175	0.0184
T1=T2 p-value (Wald test)	0.575	0.382	0.684	0.153	0.892	0.399	0.040	0.271	0.076	0.124	0.238
Observations	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842

Effect of SMS on Compliance (All Controls)

Table 43: Effect of SMS on Compliance (All Controls)

	OLS				
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Public Shaming SMS	0.029*** (0.003)	0.002 (0.001)	0.001 (0.001)	0.016 (0.010)	133.383 (105.867)
T2: Information SMS	0.023*** (0.003)	0.002 (0.001)	0.000 (0.001)	0.004 (0.010)	103.779 (105.960)
Corporated	-0.018*** (0.003)	0.001 (0.001)	-0.001 (0.001)	-0.004 (0.010)	116.002 (110.502)
Has second phone	0.003 (0.004)	-0.000 (0.002)	-0.000 (0.001)	-0.004 (0.012)	-55.020 (147.738)
Located in San José	-0.011*** (0.003)	-0.002* (0.001)	-0.001 (0.001)	-0.010 (0.008)	-207.772** (86.382)
TPI reporter	0.026*** (0.006)	0.005** (0.002)	0.004** (0.002)	0.043** (0.019)	142.163 (136.826)
TPI > 2.5 million CRC	0.049*** (0.013)	0.022*** (0.006)	0.012** (0.005)	0.128** (0.054)	1,066.327* (544.590)
TPI > 6 million CRC	0.018 (0.016)	0.050*** (0.010)	0.013* (0.007)	0.168** (0.081)	2,598.967*** (934.073)
Made advance payment for 2014	0.125*** (0.032)	0.084*** (0.026)	0.074*** (0.022)	0.829*** (0.245)	8,792.594*** (3,085.321)
Filed in 2013	0.087*** (0.006)	0.002 (0.002)	0.003 (0.002)	0.027 (0.018)	53.722 (168.662)
Reported net liability > 0 in 2013	0.012 (0.020)	0.084*** (0.016)	0.009 (0.008)	0.085 (0.086)	274.011 (881.277)
Made payment in 2013	0.047* (0.027)	0.011 (0.022)	0.064*** (0.015)	0.709*** (0.161)	7,497.493*** (1,912.740)
Was third-party informant in 2013	0.010 (0.010)	0.005 (0.006)	-0.002 (0.004)	-0.021 (0.044)	51.239 (433.953)
Constant	0.021*** (0.002)	-0.000 (0.001)	0.000 (0.001)	0.003 (0.007)	-16.004 (81.933)
Control group avg.	0.0363	0.00743	0.00411	0.0435	339.8
T1=T2 p-value (Wald test)	0.059	0.912	0.227	0.273	0.795
Observations	30,842	30,842	30,842	30,842	30,842

Effect of SMS on Compliance (Probit & PPML) (All Controls)

Table 44: Effect of SMS on Compliance (Probit & PPML) (All Controls)

	Probit			OLS	PPML
	(1) Filed	(2) Positive net liability	(3) Positive payment	(4) Log payment	(5) Payment
T1: Public Shaming SMS	0.031*** (0.003)	0.002* (0.001)	0.002* (0.001)	0.016 (0.010)	136.070 (108.186)
T2: Information SMS	0.024*** (0.003)	0.002 (0.001)	0.000 (0.001)	0.004 (0.010)	99.784 (103.860)
Corporated	-0.018*** (0.003)	0.001 (0.001)	-0.001 (0.001)	-0.003 (0.010)	300.539 (114.204)
Has second phone	0.004 (0.004)	0.000 (0.001)	-0.000 (0.001)	-0.004 (0.012)	-45.322 (111.178)
Located in San José	-0.011*** (0.003)	-0.002* (0.001)	-0.000 (0.001)	-0.010 (0.009)	-203.961** (84.752)
TPI reporter	0.029*** (0.005)	0.008*** (0.002)	0.005*** (0.002)	0.046** (0.019)	472.924*** (158.965)
TPI > 2.5 million CRC	0.030*** (0.009)	0.010*** (0.003)	0.004** (0.002)	0.123** (0.054)	426.925** (204.018)
TPI > 6 million CRC	0.006 (0.007)	0.006*** (0.002)	0.001 (0.001)	0.172** (0.081)	238.749 (154.156)
Made advance payment for 2014	0.061*** (0.019)	0.012** (0.005)	0.011** (0.005)	0.831*** (0.245)	533.082** (271.232)
Filed in 2013	0.084*** (0.006)	0.005*** (0.002)	0.004*** (0.001)	0.027 (0.018)	251.788 (157.196)
Reported net liability > 0 in 2013	0.004 (0.009)	0.021*** (0.006)	0.003 (0.003)	0.083 (0.086)	211.891 (243.252)
Made payment in 2013	0.018 (0.013)	0.002 (0.003)	0.013** (0.006)	0.711*** (0.161)	932.340** (452.038)
Was third-party informant in 2013	0.003 (0.005)	0.000 (0.002)	-0.001 (0.001)	-0.021 (0.044)	-74.626 (123.444)
Constant				0.003 (0.007)	
Control group avg.	0.0363	0.00743	0.00411	0.0435	339.8
T1 – T2 p-value (Wald test)	0.036	0.745	0.155	0.277	0.747
Observations	30,842	30,842	30,842	30,842	30,842

Other Effects of SMS (All Controls)

Table 45: Other Effects of SMS (All Controls)

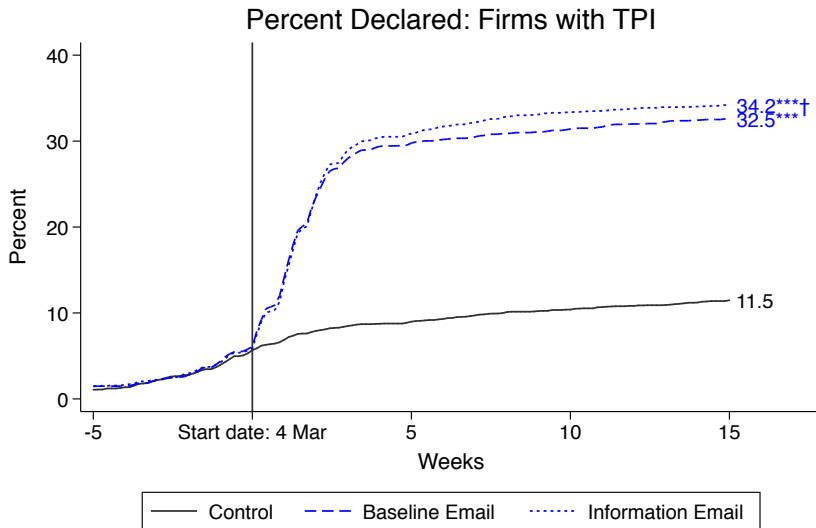
	OLS										
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Public Shaming SMS	0.001 (0.002)	0.000 (0.002)	0.001 (0.002)	0.026 (0.023)	0.003 (0.008)	447.247 (274.377)	0.007*** (0.002)	-0.000 (0.001)	-0.000 (0.000)	0.010*** (0.002)	0.001* (0.000)
T2: Information SMS	0.002 (0.002)	0.002 (0.002)	0.001 (0.002)	-0.006 (0.022)	0.002 (0.008)	200.232 (261.036)	0.003** (0.002)	-0.001 (0.001)	-0.001** (0.000)	0.008*** (0.002)	0.000 (0.000)
Corporated	0.006*** (0.002)	0.013*** (0.002)	-0.003 (0.002)	0.154*** (0.024)	-0.000 (0.007)	1,100.602*** (327.172)	0.001 (0.002)	0.002** (0.001)	-0.000*** (0.000)	-0.005*** (0.002)	0.000 (0.000)
Has second phone	-0.003 (0.003)	-0.003 (0.002)	-0.001 (0.002)	0.050 (0.031)	-0.007 (0.009)	-193.605 (454.912)	-0.002 (0.002)	-0.001 (0.001)	-0.000*** (0.000)	0.004 (0.002)	-0.000 (0.001)
Located in San José	-0.005*** (0.002)	-0.005*** (0.001)	-0.001 (0.001)	-0.021 (0.019)	-0.020*** (0.006)	-112.957 (247.656)	-0.007*** (0.001)	-0.002*** (0.001)	-0.000 (0.000)	-0.006*** (0.002)	-0.001* (0.000)
TPI reportee	0.044*** (0.005)	0.019*** (0.004)	0.023*** (0.004)	-0.029 (0.037)	0.015 (0.016)	343.643 (466.052)	-0.003 (0.002)	-0.002*** (0.001)	0.000 (0.000)	0.008*** (0.003)	0.001 (0.001)
TPI > 2.5 million CRC	0.052*** (0.012)	-0.009 (0.007)	0.070*** (0.011)	0.136 (0.088)	0.080* (0.044)	1,671.098 (1,210.793)	-0.005 (0.004)	0.002 (0.002)	0.001 (0.001)	0.022*** (0.007)	0.001 (0.002)
TPI > 6 million CRC	0.096*** (0.016)	0.080*** (0.011)	0.092*** (0.015)	0.193 (0.120)	-0.038 (0.057)	4,886.835** (2,184.422)	-0.002 (0.004)	-0.002 (0.002)	-0.001 (0.001)	0.003 (0.009)	0.005 (0.003)
Made advance payment for 2014	0.240*** (0.030)	0.154*** (0.028)	0.182*** (0.029)	0.838*** (0.291)	0.863*** (0.213)	25,174.083*** (7,998.440)	-0.002 (0.008)	0.003 (0.005)	-0.000 (0.000)	-0.003 (0.012)	0.003 (0.005)
Filed in 2013	-0.003 (0.004)	-0.007** (0.003)	0.001 (0.003)	0.909*** (0.052)	0.074*** (0.017)	1,228.223** (487.057)	0.009*** (0.002)	0.002* (0.001)	-0.000 (0.000)	0.960*** (0.002)	-0.001 (0.001)
Reported net liability > 0 in 2013	-0.000 (0.020)	0.003 (0.018)	0.015 (0.018)	0.524** (0.215)	0.163* (0.093)	6,521.143* (3,597.096)	0.000 (0.007)	0.004 (0.005)	-0.000 (0.000)	0.032*** (0.011)	0.026*** (0.008)
Made payment in 2013	0.020 (0.026)	0.016 (0.023)	0.033 (0.023)	-1.213*** (0.244)	-0.115 (0.119)	-3,706.024 (5,058.608)	-0.004 (0.009)	-0.010** (0.005)	0.000 (0.000)	-0.016 (0.012)	0.973*** (0.008)
Was third-party informant in 2013	0.228*** (0.012)	0.165*** (0.010)	0.110*** (0.009)	0.752*** (0.106)	0.162*** (0.043)	6,049.383*** (1,398.306)	0.005 (0.004)	0.003 (0.002)	-0.000 (0.000)	0.021*** (0.005)	-0.003** (0.001)
Constant	0.000 (0.002)	-0.001 (0.001)	-0.001 (0.001)	0.024 (0.018)	0.014** (0.006)	-547.405*** (203.395)	0.012*** (0.001)	0.003*** (0.001)	0.001*** (0.000)	0.019*** (0.002)	0.001 (0.000)
Control group avg.	0.0286	0.0155	0.0182	0.276	0.0416	935.9	0.0104	0.00284	0.000587	0.175	0.0184
T1=T2 p-value (Wald test)	0.541	0.584	0.155	0.349	0.893	0.414	0.248	0.081	0.291	0.520	
Observations	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842

Other Effects of SMS (Probit & PPML) (All Controls)

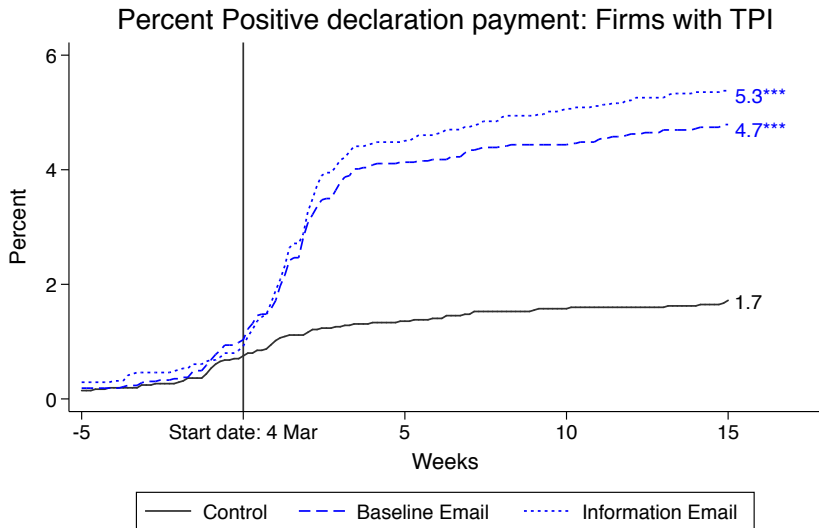
Table 46: Other Effects of SMS (Probit & PPML) (All Controls)

	Probit			OLS		PPML	Probit				
	(1) Presented informative declaration	(2) Reported supplier	(3) Reported client	(4) No. months decl. sales tax	(5) No. months paid sales tax	(6) Sales tax payment	(7) Deregistered	(8) Deregistered (sales tax)	(9) Switched to simplified regime	(10) Filed income tax for 2013	(11) Paid income tax for 2013
T1: Public Shaming SMS	0.001 (0.002)	0.000 (0.002)	0.001 (0.002)	0.027 (0.023)	0.003 (0.008)	426.698 (280.415)	0.007*** (0.002)	-0.000 (0.001)	-0.000 (0.000)	0.010*** (0.002)	0.001** (0.000)
T2: Information SMS	0.002 (0.002)	0.002 (0.002)	0.000 (0.002)	-0.006 (0.022)	0.002 (0.008)	176.151 (258.053)	0.003** (0.002)	-0.001 (0.001)	-0.001** (0.000)	0.007*** (0.002)	0.000 (0.000)
Corporated	0.006*** (0.002)	0.012*** (0.002)	-0.004*** (0.002)	0.157*** (0.024)	0.001 (0.007)	1,152.048*** (323.730)	0.001 (0.002)	0.002** (0.001)	-0.000*** (0.000)	-0.004* (0.002)	0.000 (0.001)
Has second phone	-0.003 (0.002)	-0.002 (0.002)	-0.000 (0.002)	0.050 (0.031)	-0.007 (0.009)	-149.977 (286.010)	-0.001 (0.002)	-0.001 (0.001)	-0.000*** (0.000)	0.003 (0.003)	-0.000 (0.001)
Located in San José	-0.005*** (0.002)	-0.005*** (0.001)	-0.001 (0.001)	-0.022 (0.019)	-0.020*** (0.006)	-108.219 (244.474)	-0.007*** (0.001)	-0.002*** (0.001)	-0.000 (0.000)	-0.006*** (0.002)	-0.001** (0.000)
TPI reportee	0.049*** (0.004)	0.022*** (0.003)	0.031*** (0.003)	-0.005 (0.038)	0.031* (0.017)	1,370.309*** (457.876)	-0.002 (0.002)	-0.003*** (0.001)	0.000 (0.000)	0.007*** (0.003)	0.001 (0.001)
TPI > 2.5 million CRC	0.014*** (0.004)	-0.003 (0.003)	0.018*** (0.003)	0.168* (0.090)	0.072* (0.044)	400.869 (431.705)	-0.005 (0.004)	0.012 (0.012)	0.001 (0.001)	0.021*** (0.008)	0.001 (0.001)
TPI > 6 million CRC	0.015*** (0.004)	0.016*** (0.005)	0.011*** (0.003)	0.129 (0.121)	-0.046 (0.057)	183.805 (372.037)	-0.002 (0.005)	-0.002*** (0.001)	-0.000*** (0.000)	0.000 (0.005)	0.002 (0.002)
Made advance payment for 2014	0.068*** (0.015)	0.027*** (0.008)	0.034*** (0.009)	0.839*** (0.292)	0.862*** (0.213)	2,805.716* (1,529.611)	-0.003 (0.007)	0.005 (0.007)	-0.000*** (0.000)	0.003 (0.015)	0.003 (0.005)
Filed in 2013	0.007*** (0.003)	0.001 (0.002)	0.008*** (0.002)	0.907*** (0.052)	0.073*** (0.017)	1,729.406*** (415.484)	0.009*** (0.002)	0.002* (0.001)	-0.000 (0.000)	0.943*** (0.001)	-0.001 (0.001)
Reported net liability > 0 in 2013	-0.006* (0.003)	-0.003 (0.003)	-0.002 (0.003)	0.523** (0.214)	0.162* (0.093)	372.557 (400.753)	0.001 (0.006)	0.002 (0.003)	-0.000*** (0.000)	0.815*** (0.001)	0.041 (0.027)
Made payment in 2013	0.006 (0.006)	0.003 (0.004)	0.007* (0.005)	-1.211*** (0.244)	-0.114 (0.119)	-474.473 (450.797)	-0.003 (0.006)	-0.003*** (0.000)	0.000 (0.000)	-0.021*** (0.004)	0.998*** (0.001)
Was third-party informant in 2013	0.129*** (0.011)	0.105*** (0.012)	0.040*** (0.005)	0.749*** (0.106)	0.161*** (0.043)	1,497.391*** (509.277)	0.005 (0.004)	0.003 (0.002)	-0.000*** (0.000)	0.067*** (0.016)	-0.001*** (0.000)
Constant				0.021 (0.018)	0.012* (0.006)						
Control group avg.	0.0286	0.0155	0.0182	0.276	0.0416	935.9	0.0104	0.00284	0.000587	0.175	0.0184
T1=T2 p-value (Wald test)	0.575	0.382	0.684	0.153	0.892	0.399	0.040	0.271	0.076	0.124	0.238
Observations	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842	30,842

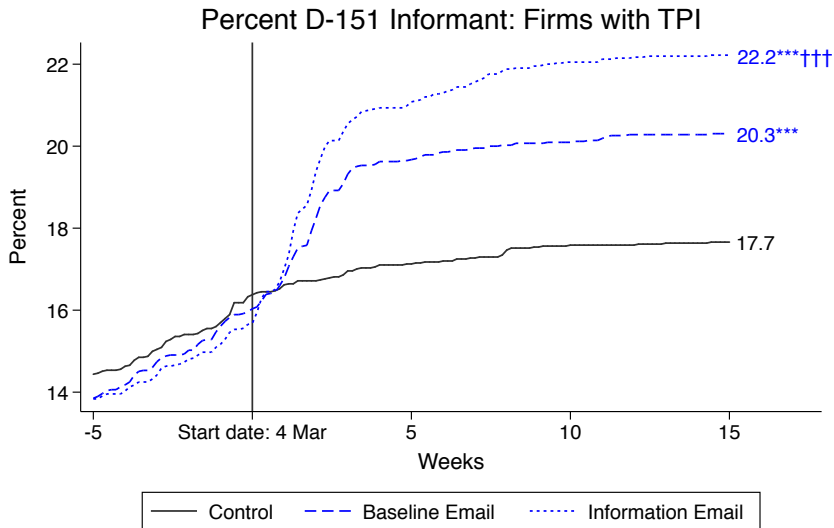
Figures: Email Experiment 1



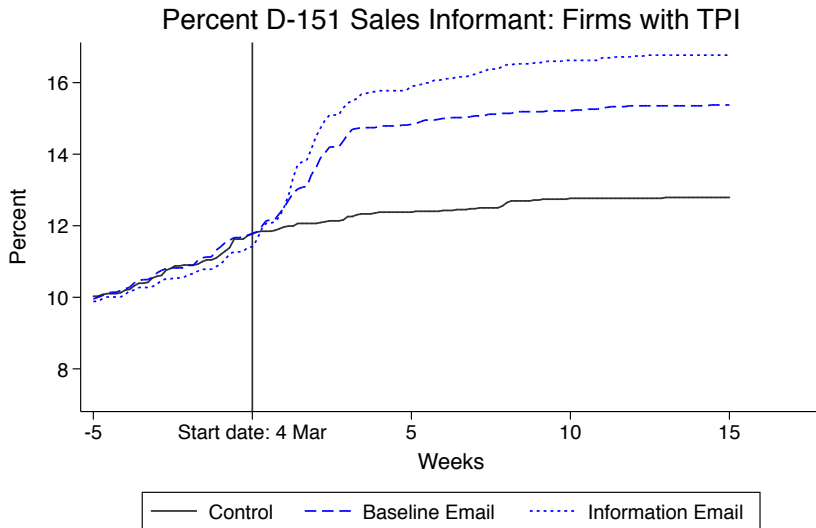
Figures: Email Experiment 1



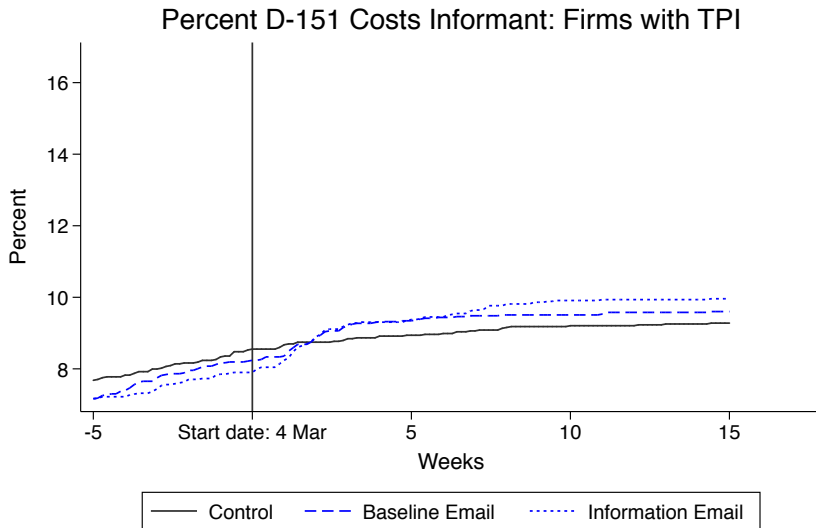
Figures: Email Experiment 1



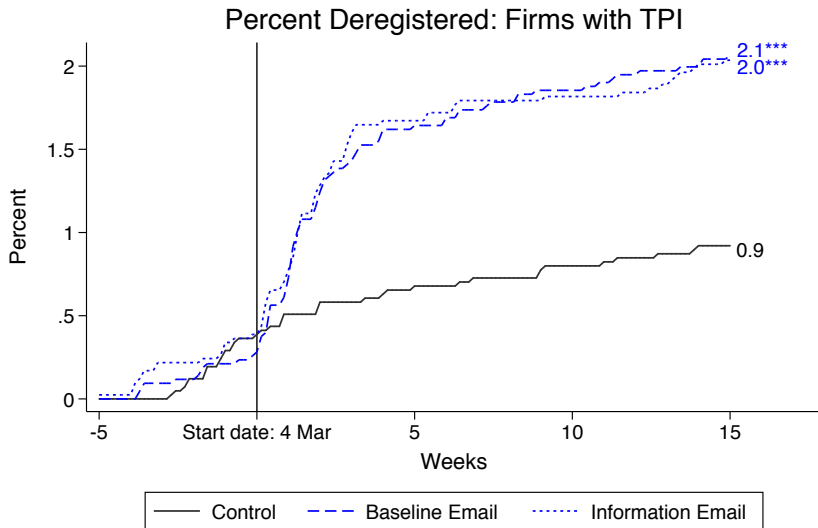
Figures: Email Experiment 1



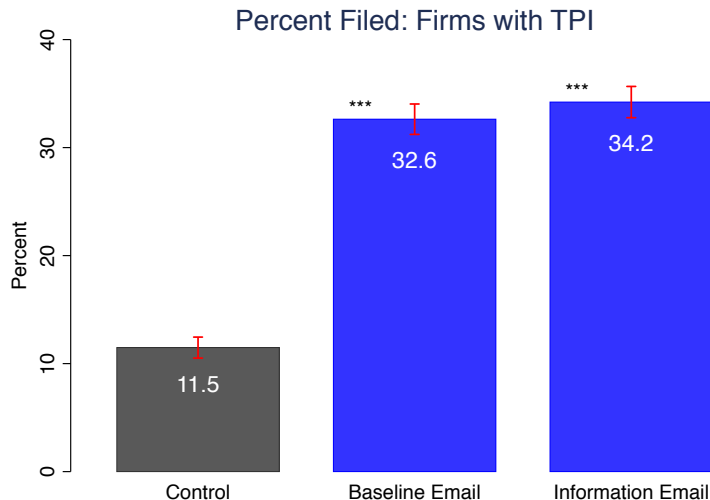
Figures: Email Experiment 1



Figures: Email Experiment 1

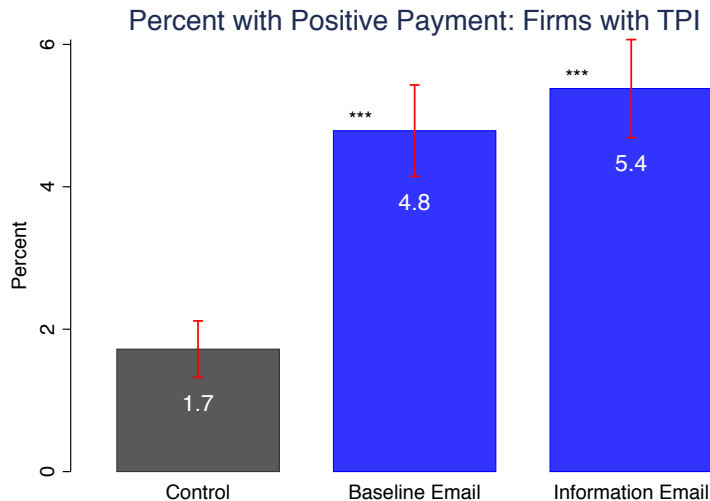


Figures: Email Experiment 1



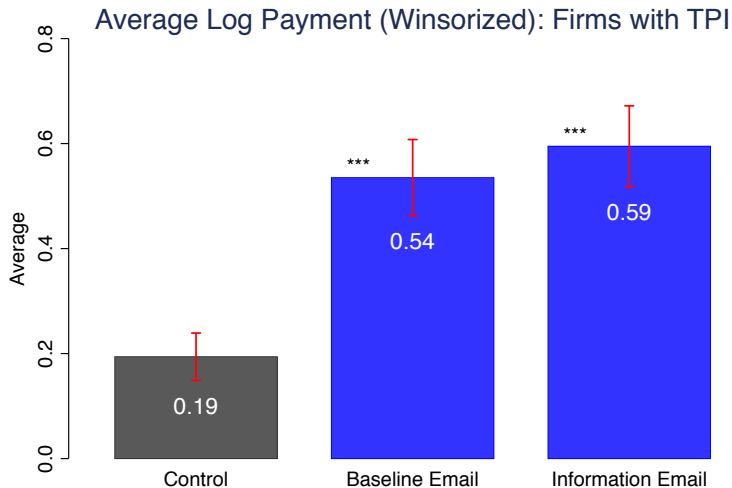
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 1



Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

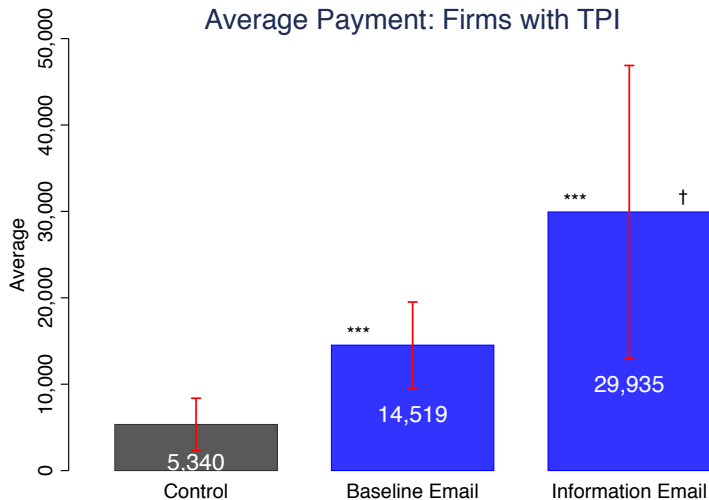
Figures: Email Experiment 1



Payment amounts winsorized at the top 0.1% to reduce the influence of outliers.

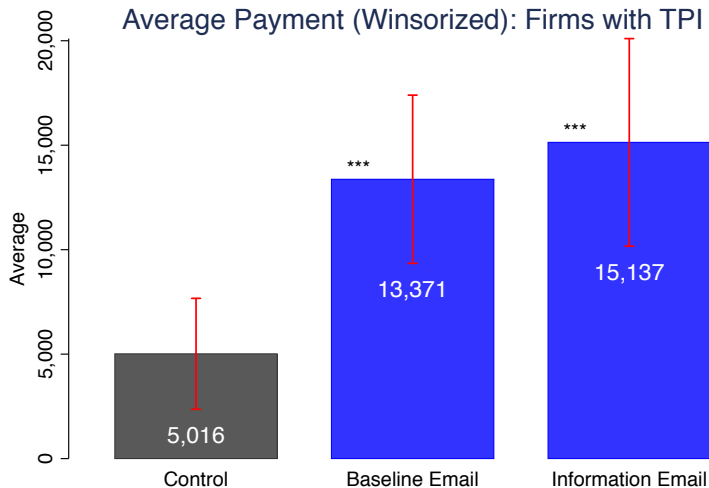
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 1



Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

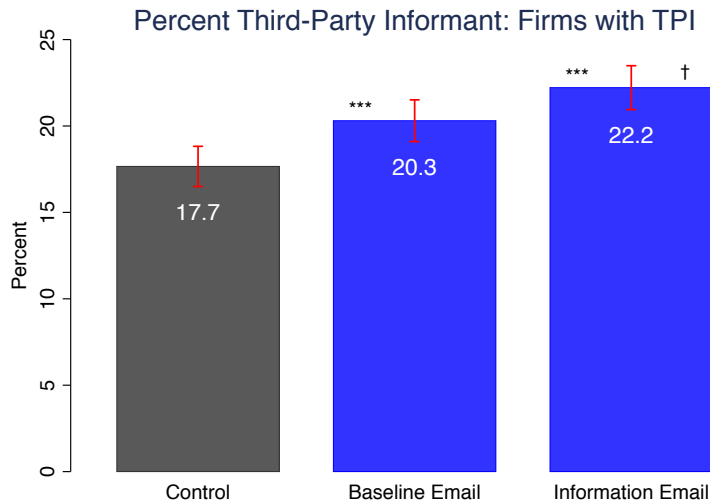
Figures: Email Experiment 1



Payment amounts winsorized at the top 0.1% to reduce the influence of outliers.

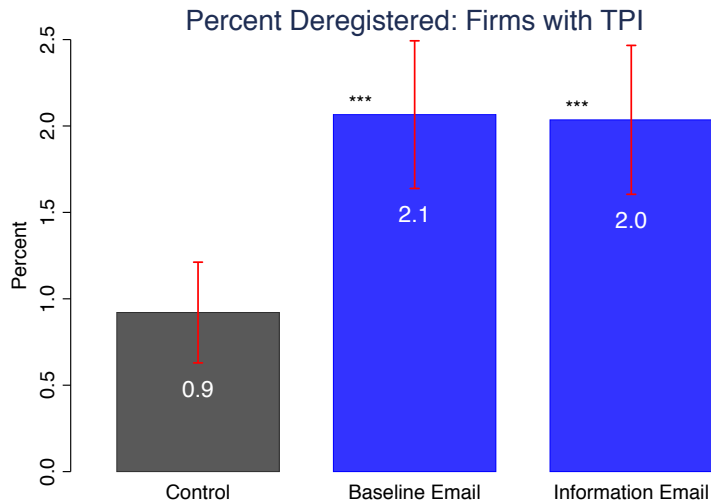
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 1



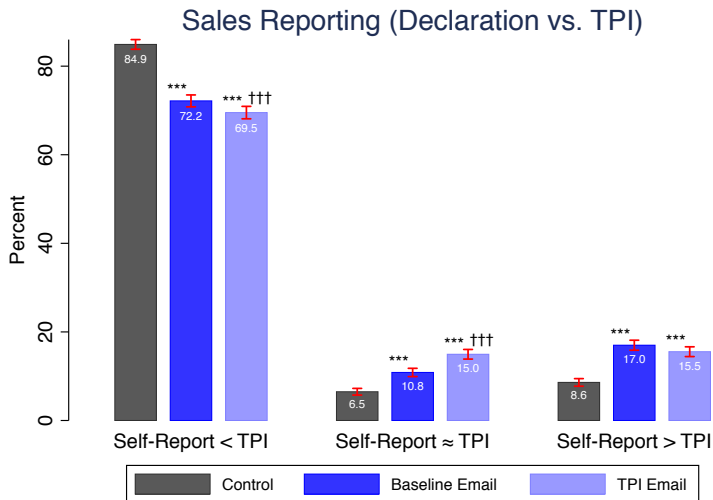
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 1



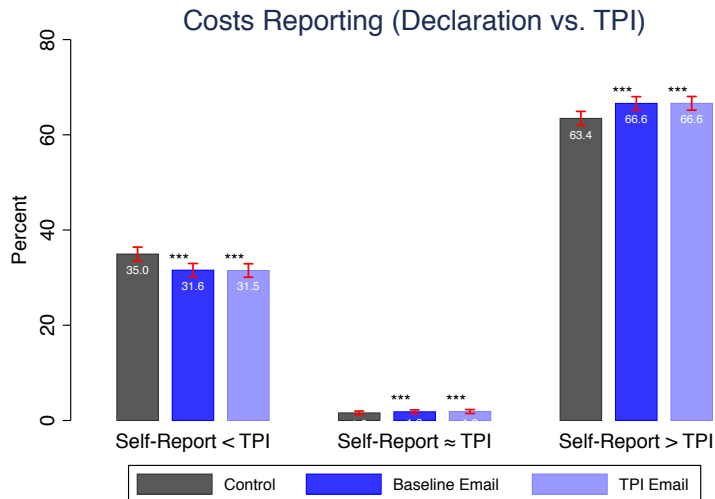
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 1



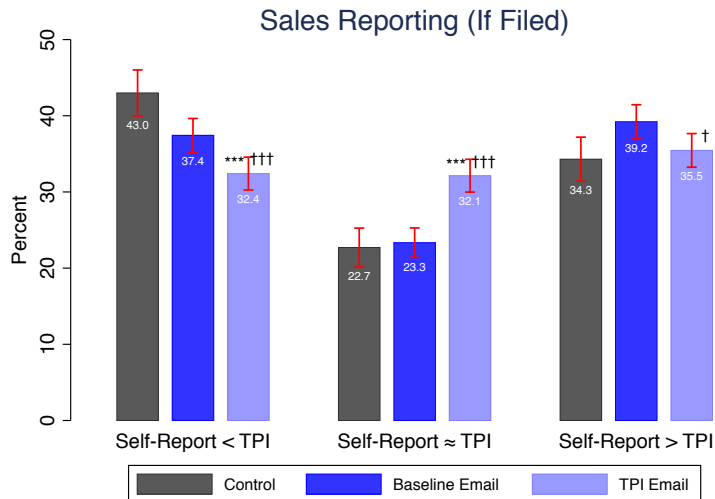
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 1



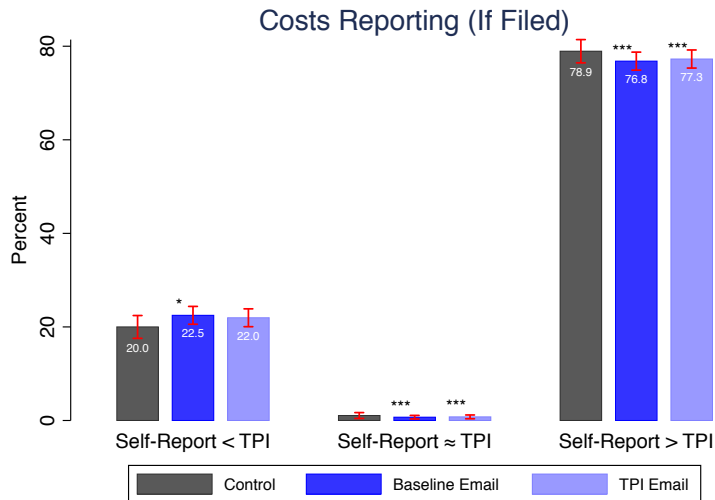
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 1



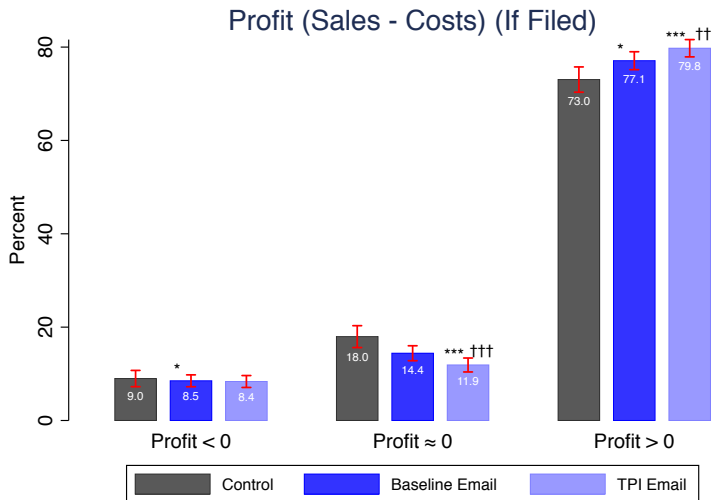
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 1



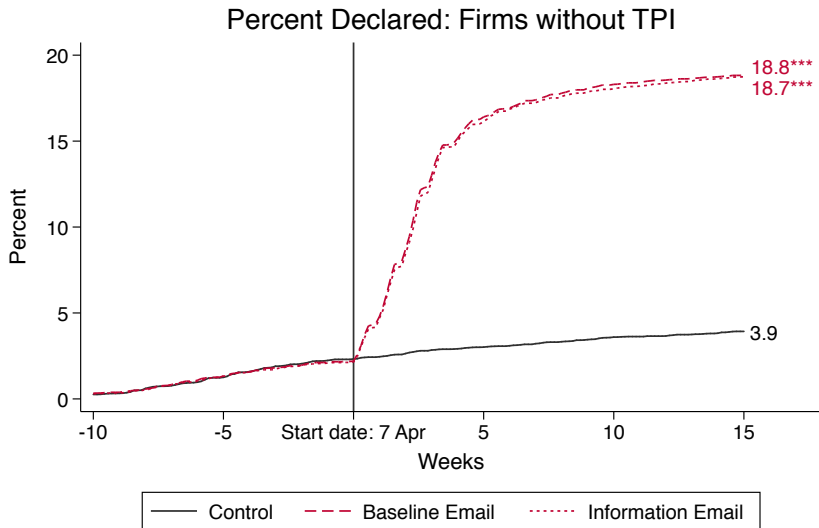
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 1

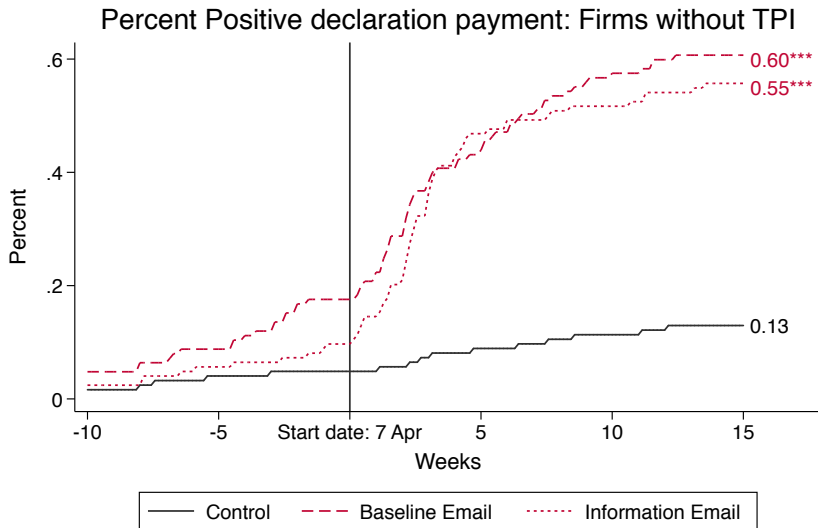


Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

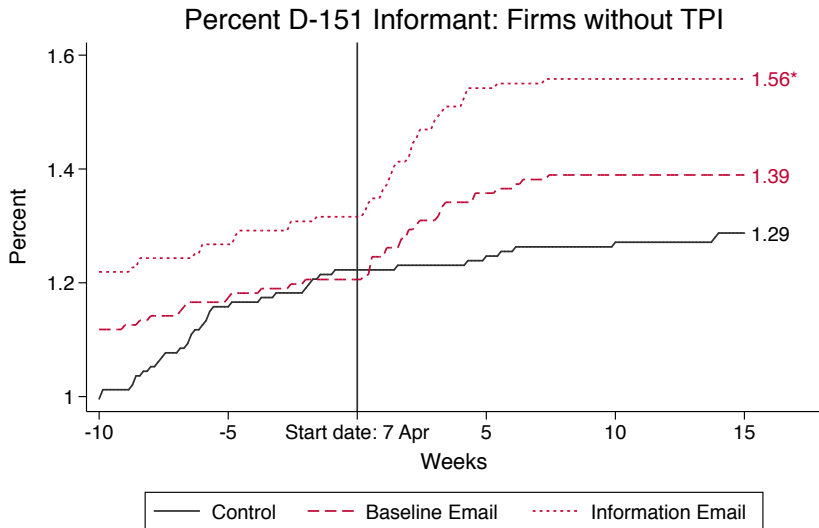
Figures: Email Experiment 2



Figures: Email Experiment 2

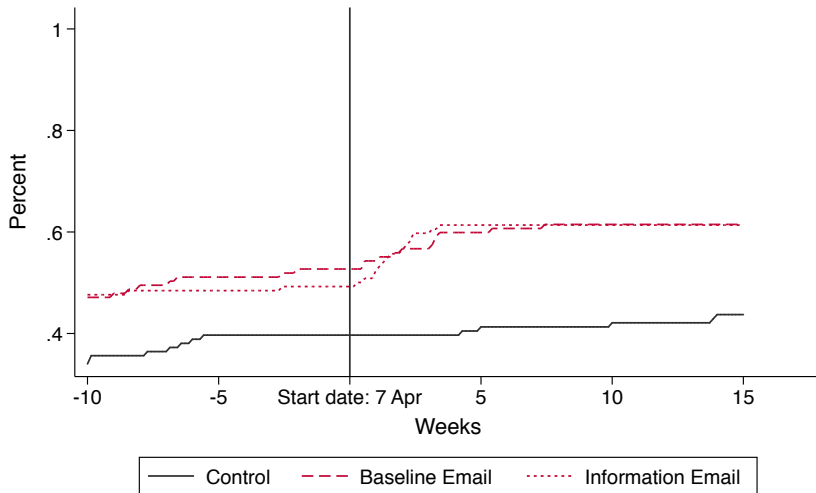


Figures: Email Experiment 2

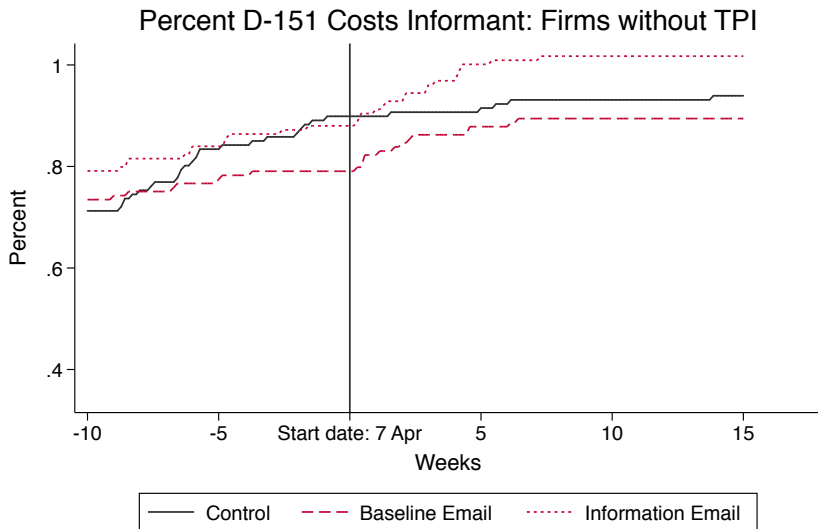


Figures: Email Experiment 2

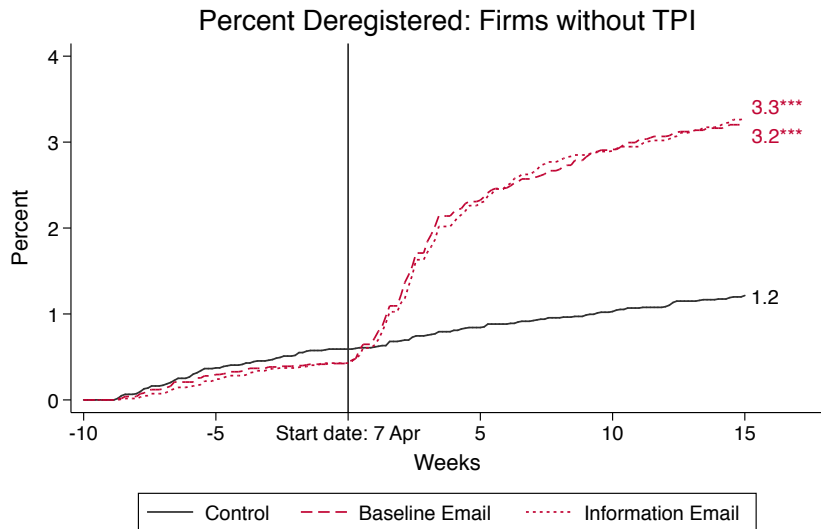
Percent D-151 Sales Informant: Firms without TPI



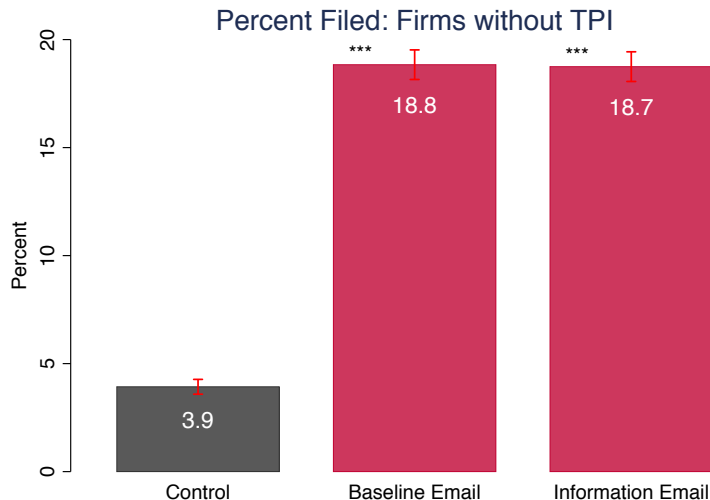
Figures: Email Experiment 2



Figures: Email Experiment 2

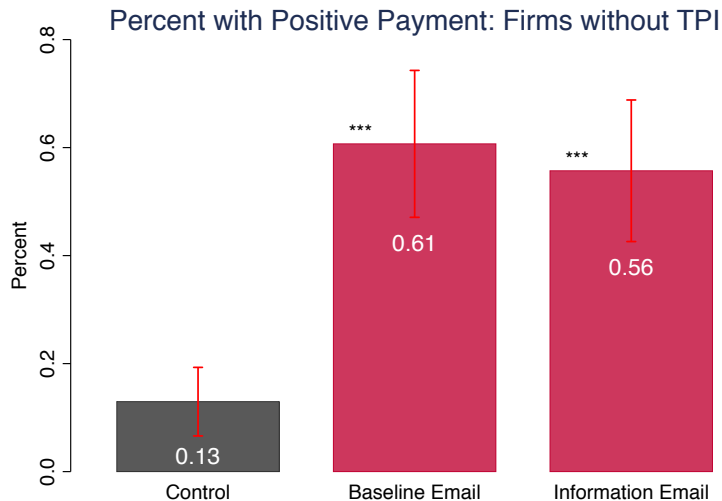


Figures: Email Experiment 2



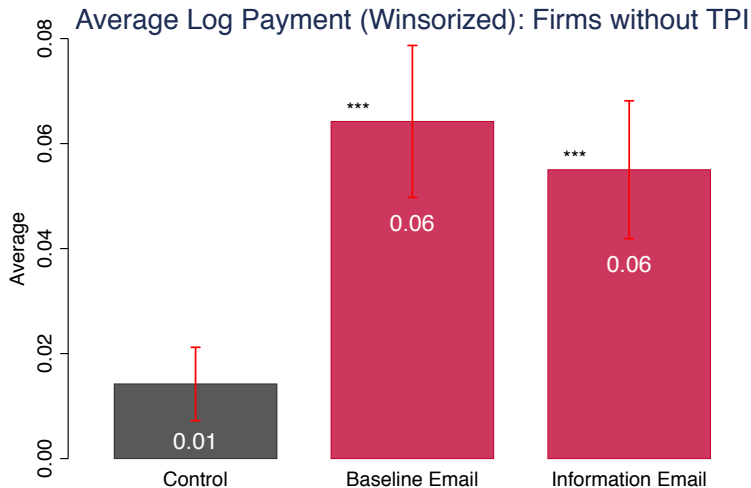
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 2



Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

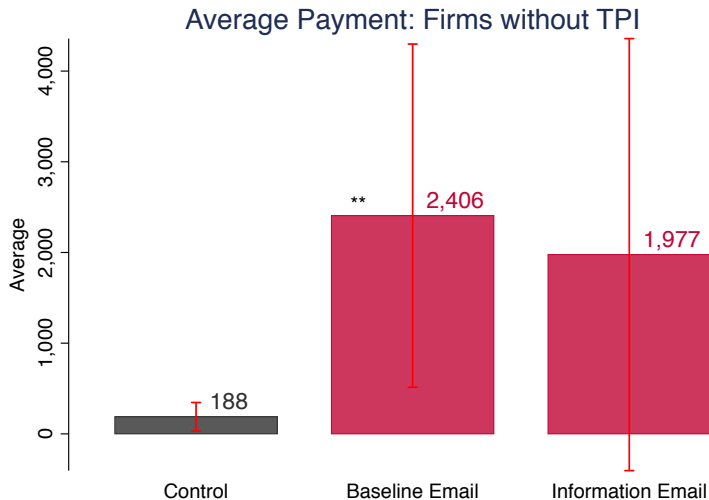
Figures: Email Experiment 2



Payment amounts winsorized at the top 0.1% to reduce the influence of outliers.

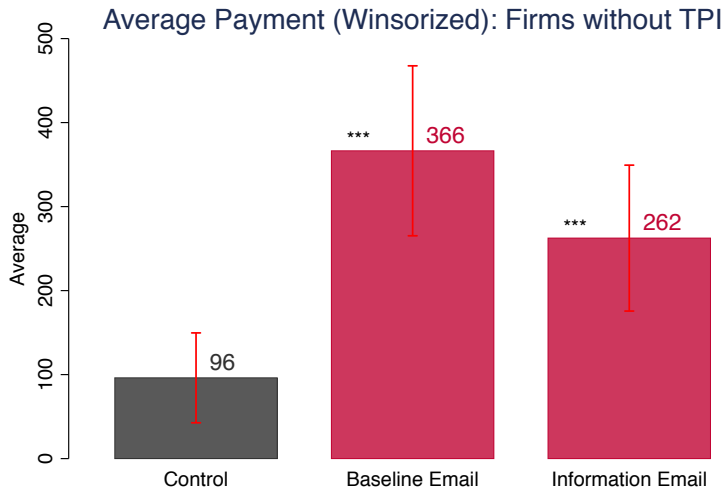
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 2



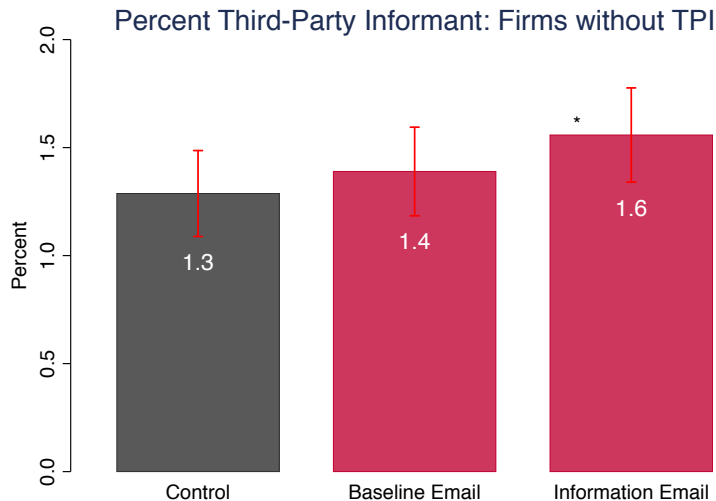
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 2



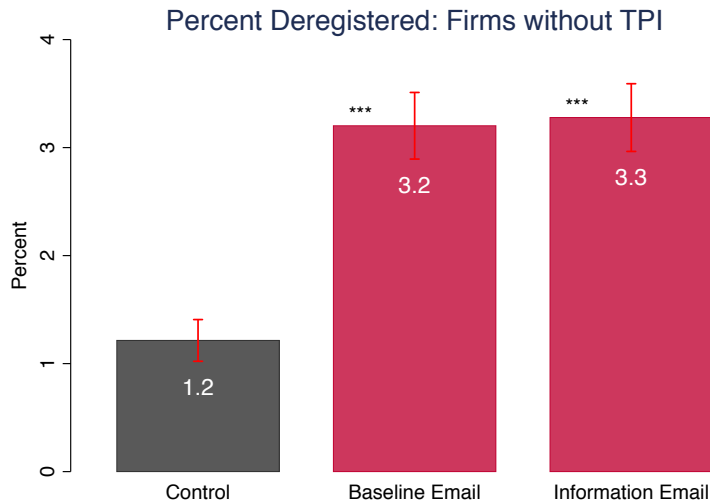
Payment amounts winsorized at the top 0.1% to reduce the influence of outliers.
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 2



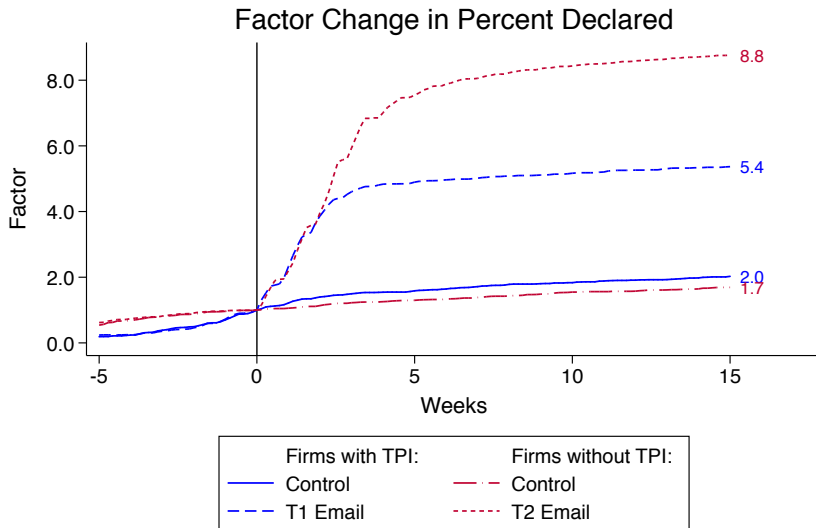
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: Email Experiment 2

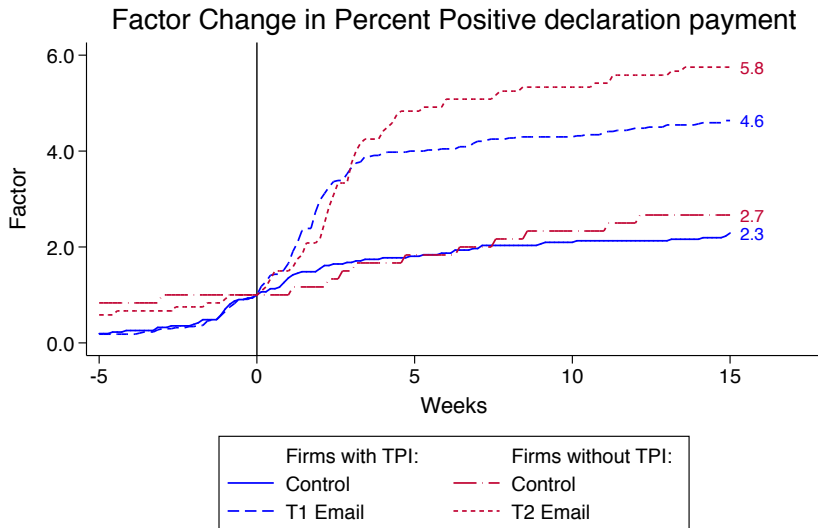


Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

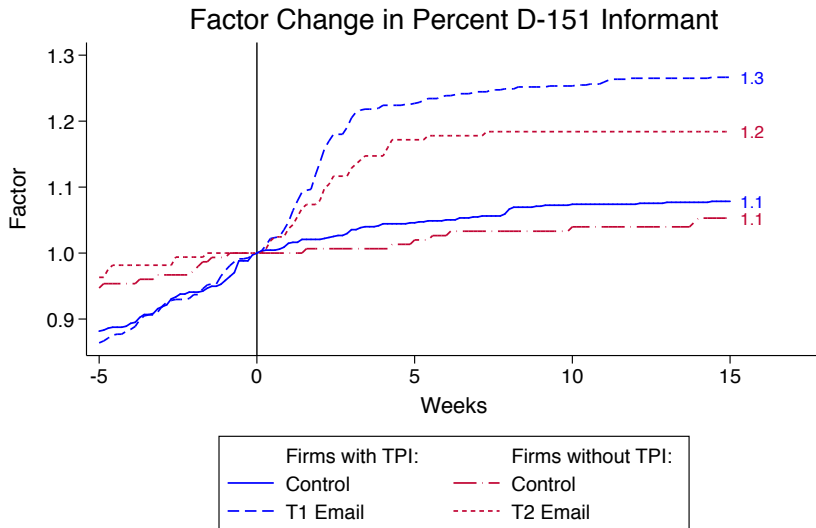
Figures: Pooled Email Experiments



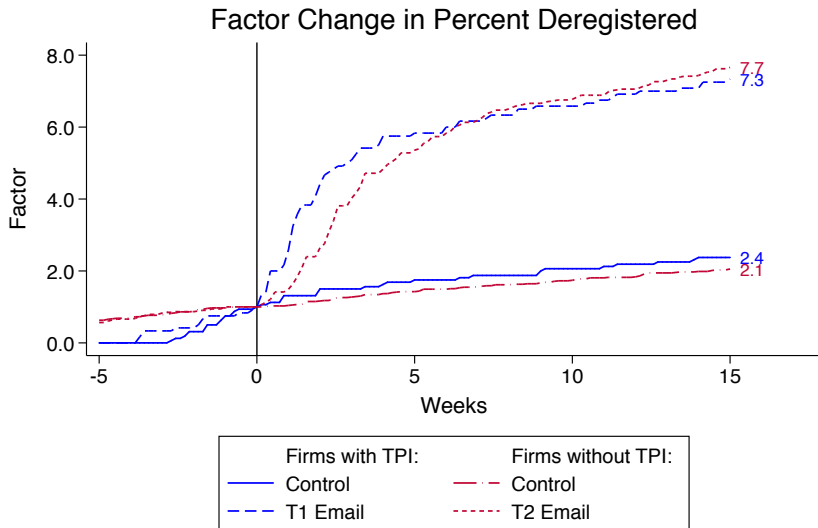
Figures: Pooled Email Experiments



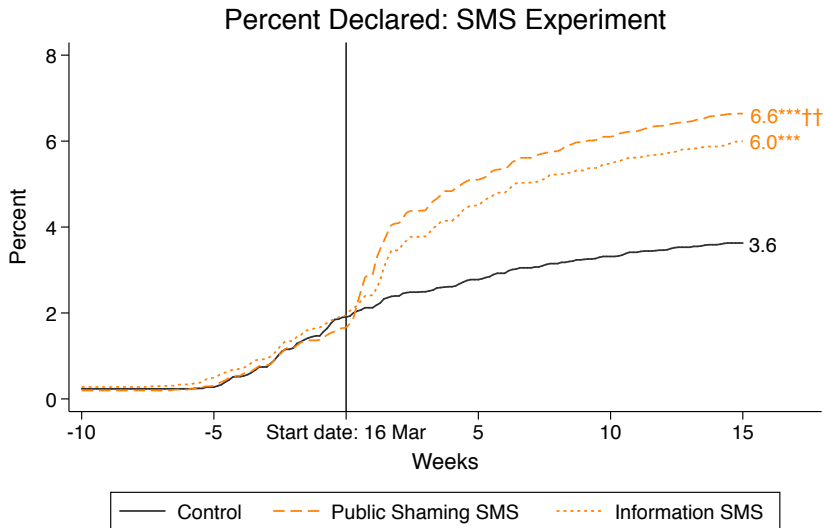
Figures: Pooled Email Experiments



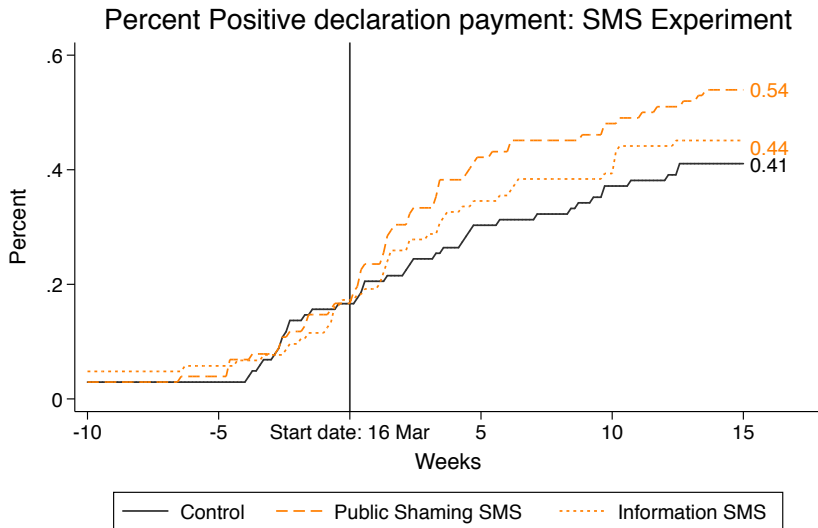
Figures: Pooled Email Experiments



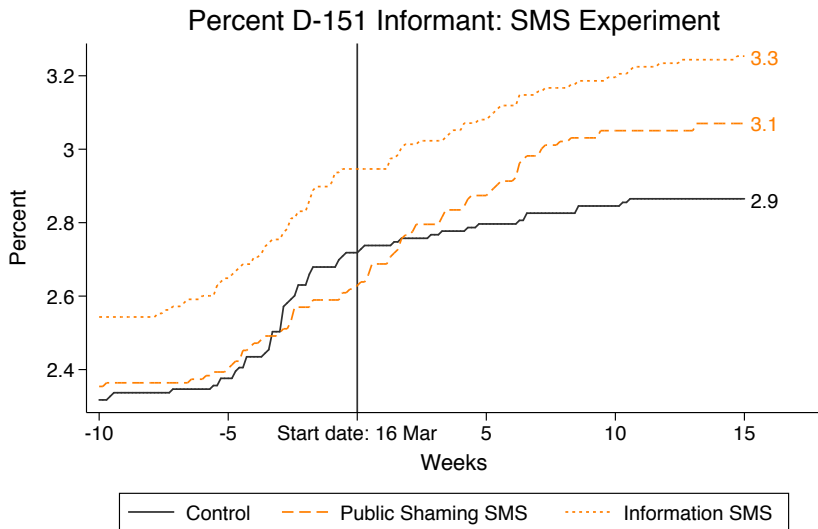
Figures: SMS Experiment



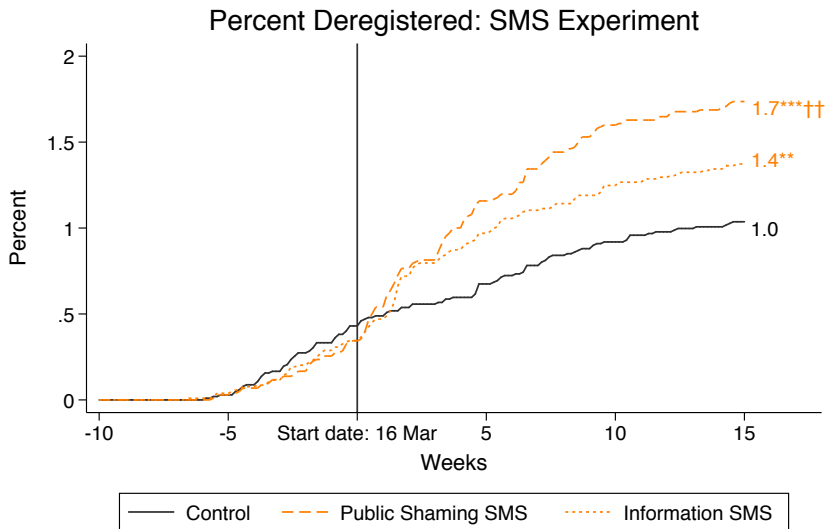
Figures: SMS Experiment



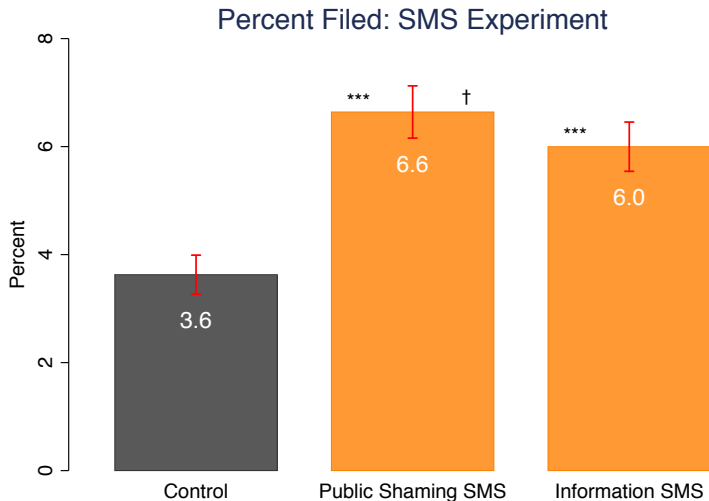
Figures: SMS Experiment



Figures: SMS Experiment

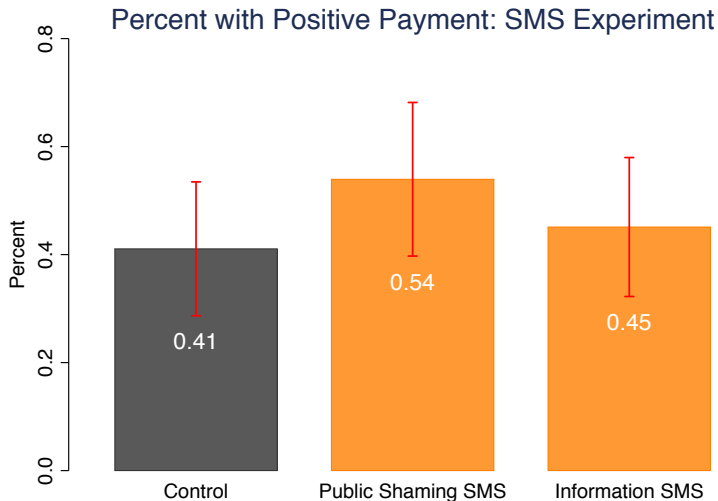


Figures: SMS Experiment



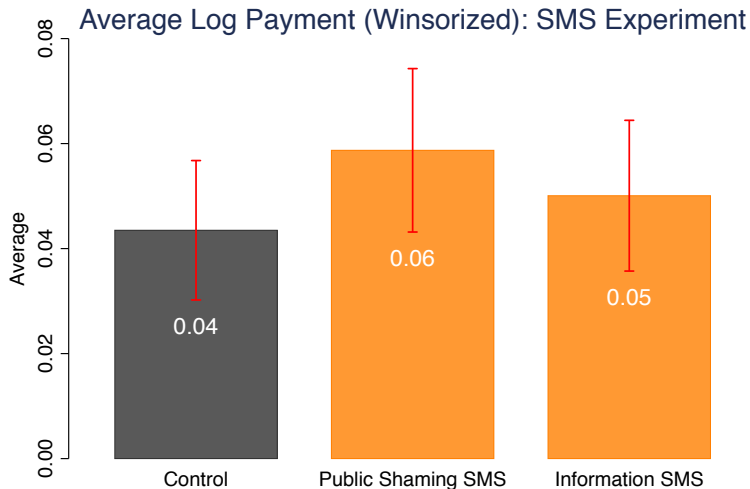
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: SMS Experiment



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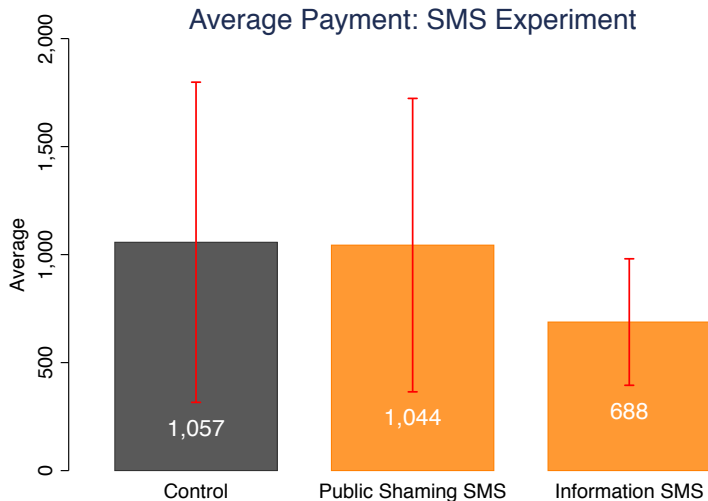
Figures: SMS Experiment



Payment amounts winsorized at the top 0.1% to reduce the influence of outliers.

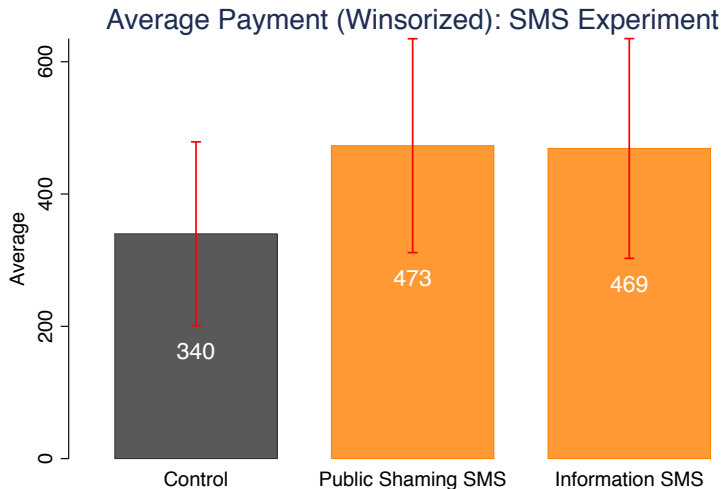
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: SMS Experiment



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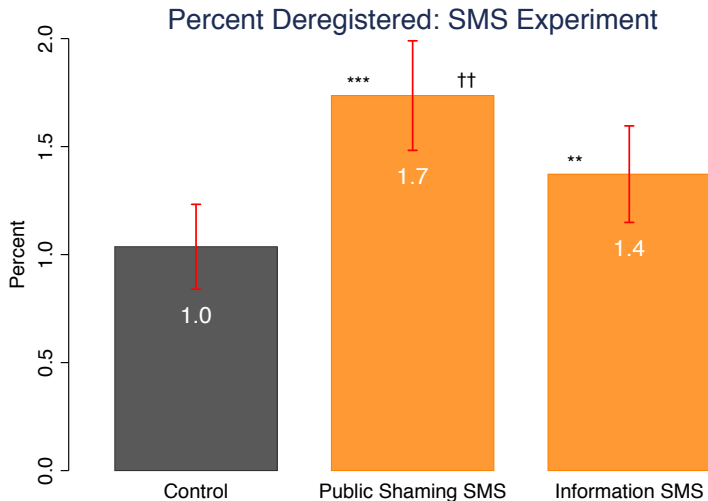
Figures: SMS Experiment



Payment amounts winsorized at the top 0.1% to reduce the influence of outliers.

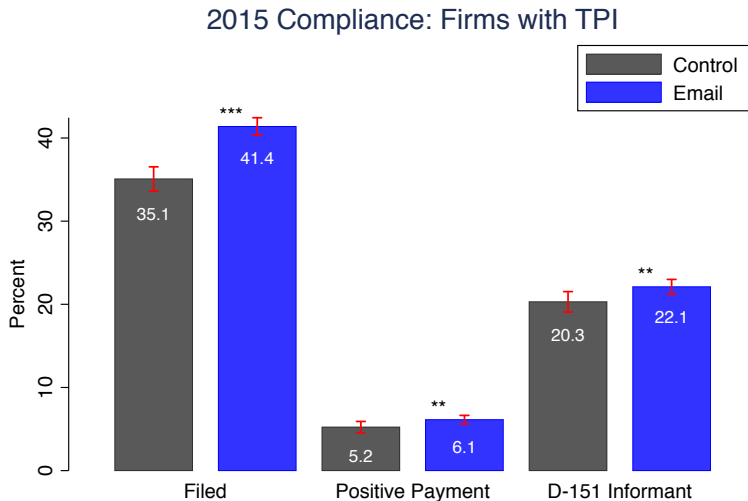
Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.

Figures: SMS Experiment



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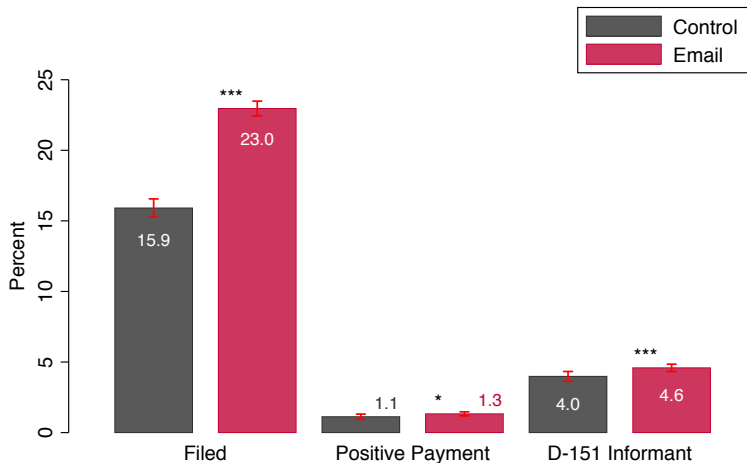
Persistence of Effect One Year Later: Firms with TPI



Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels).

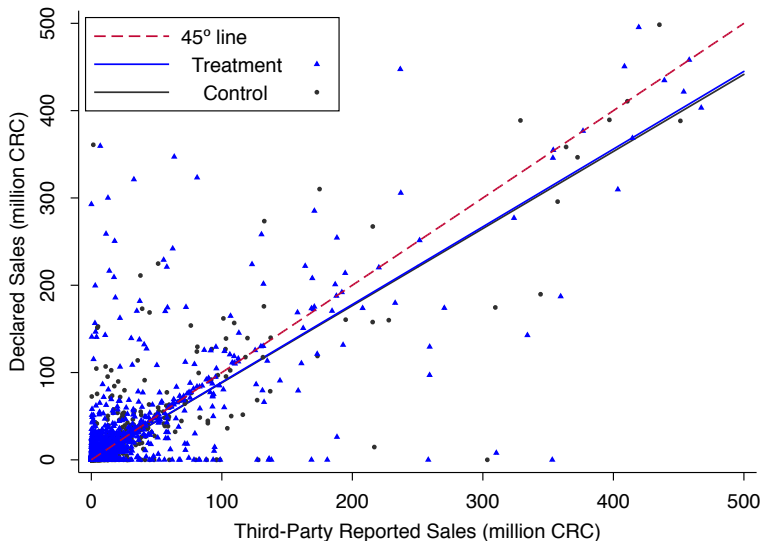
Persistence of Effect One Year Later: Firms without TPI

2015 Compliance: Firms without TPI

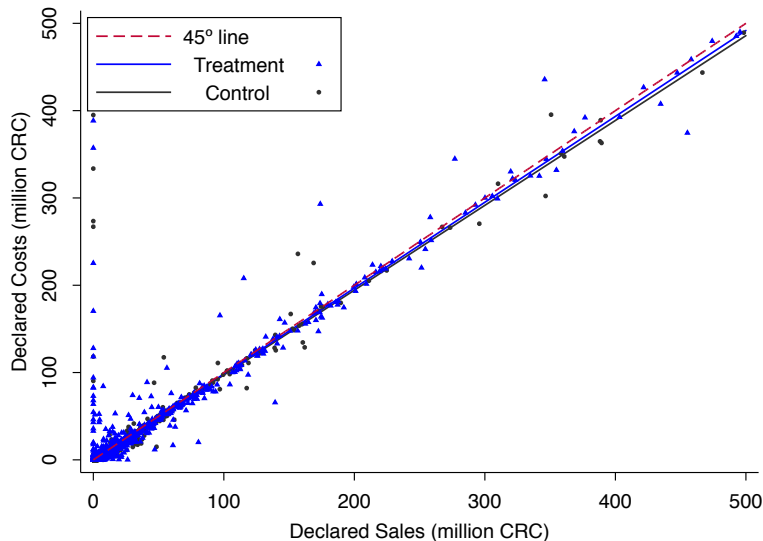


Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels).

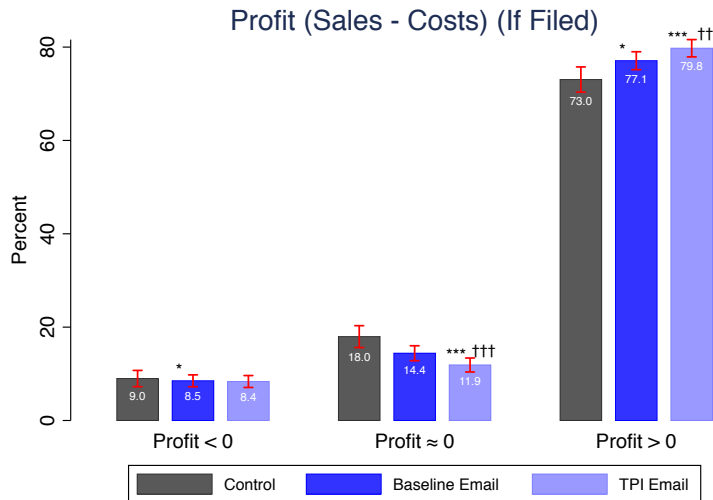
Self-Reported vs Third-Party Reported Sales



Self-Reported Costs vs Self-Reported Sales



Profits (Conditional)



Error bars indicate 95% confidence intervals. Stars indicate a significant difference from the control group (at the .10, .05, and .01 levels) and daggers (†) indicate a significant difference between the two treatments.