

**Online Appendix:
Regulation by Shaming: Deterrence Effects of Publicizing
Violations of Workplace Safety and Health Laws**

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APPENDIX: ESTIMATING THE EFFECTS OF PRESS RELEASES ON COMPLIANCE WHEN
INSPECTIONS ARE ENDOGENOUS: FORMAL ILLUSTRATION

This appendix formally illustrates the issue that arises when a facility's compliance with OSHA regulations is only observed conditional on being inspected, and the likelihood of being inspected is potentially endogenous to being exposed to a press release. Suppose we are interested in using the number of violations of OSHA standards V_i as a metric of facility i 's compliance, but the econometrician only observes violations conditional on an inspection being opened, $V_i(I_i = 1)$. Denote D_i as a dummy equal to 1 if facility i has been exposed to a press release (Treatment), and equal to 0 otherwise (Control), and suppose that exposure to a press release is randomly assigned. Using the potential outcomes framework, denote V_i^1 as violations if i is treated, and V_i^0 as violations if i is a control.

If we could measure compliance for everyone, then by random assignment of D_i comparing violations at Treatments and Controls estimates the Average Treatment Effect of press releases on the Treatment Group:

$$(A.1) \quad E(V_i^1|D_i = 1) - E(V_i^0|D_i = 0) = E(V_i^1 - V_i^0|D_i = 1)$$

However, because we do not observe V_i for non-inspected facilities, we cannot directly estimate Equation ???. A possible alternative is to estimate the treatment effect on the number of violations cited by OSHA, which captures both the effect on underlying compliance, and the likelihood that an inspection is opened:

$$\begin{aligned} &= E[V_i^1|D_i = 1, I_i = 1]Pr(I_i = 1|D_i = 1) - E[V_i^0|D_i = 0, I_i = 1]Pr(I_i = 1|D_i = 0) \\ &= \underbrace{[Pr(I_i = 1|D_i = 1) - Pr(I_i = 1|D_i = 0)]}_{\text{participation effect}} * (E[V_i^1|I_i = 1, D_i = 1]) \\ (A.2) \quad &- \underbrace{(E[V_i^1|I_i = 1, D_i = 1] - E[V_i^0|I_i = 1, D_i = 0])}_{\text{Conditional on Inspection (COI) effect}} * Pr(I_i = 1|D_i = 0) \end{aligned}$$

The difference in the number of violations found between those who have and have not observed a press release has two components: the first term of Equation ??? which gives the difference in the probability an inspection is initiated (“participation” effect), and the difference in mean violations conditional on inspection (“Conditional on Inspection” (COI) effect).

These effects can be estimated separately. The COI effect is akin to comparing the number of violations found at future inspections of Treatment and Control facilities. However, the COI effect may be plagued by selection bias if treatment affects the types of facilities that get inspected—in other words, if the participation effect is not zero. To see this, we can further decompose the COI effect into two parts:

$$\begin{aligned} &E[V_i^1|I_i = 1, D_i = 1] - E[V_i^0|I_i = 1, D_i = 0] \\ &= \underbrace{E(V_i^1 - V_i^0|D_i = 1, I_i = 1)}_{\text{causal effect}} + \underbrace{E(V_i^0|D_i = 1, I_i = 1) - E(V_i^0|D_i = 0, I_i = 1)}_{\text{selection bias}} \end{aligned}$$

The first term of the COI is a causal effect on Treatment facilities that get inspected. However, the second term is a form of selection bias: the difference in V_i^0 (i 's compliance in the absence of treatment) between Treatment and Control facilities that are inspected. For example, if observing a press release causes extremely dangerous facilities (with the highest V_i^0) to improve safety hazards, thus reducing the likelihood of an inspection triggered by an accident, then Treatment facilities with the highest V_i^0 are not inspected, making the second term negative. In other words, if treatment changes the *composition* of who gets inspected, the COI effect does not have a causal interpretation—even if observing a press release is randomly assigned.

APPENDIX TABLES AND FIGURES

Table A.1—: Smoothness of Predetermined Variables Around Press Release Cutoff

	(1) Press Release Issued (First stage)	(2) Complaint, referral, or fat/cat insp	(3) union present	(4) # prior inspec- tions	(5) # prior viol- ations
Penalty $\geq c$	0.20 (0.043)	0.044 (0.060)	0.048 (0.041)	0.19 (0.24)	-0.50 (0.94)
# observations	1,186	1,186	1,186	1,186	1,186
# observations Penalty $\geq c$	371	371	371	371	371
# observations Penalty $< c$	815	815	815	815	815
Control Mean	0.12	0.52	0.13	0.85	3.36

The table shows estimates of whether facilities that receive a penalty above the press release cutoff c have different characteristics from those that receive a penalty just below the cutoff. The sample is restricted to inspections with penalties issued between from Oct 2009 to Nov 2012.

The coefficients estimate the magnitude of the change in the dependent variable for inspections with penalties at the press release cutoff. Each coefficient is estimated in a separate regression which controls linearly for the penalty with different slopes on each side of the cutoff. All regressions use a bandwidth around the press release cutoff of 10,000 and include a construction dummy. Robust standard errors in parentheses. .

Table A.2—: Instrumental Variables (IV) Estimate of the General Deterrence Effect of a Press Release on Compliance of Other Facilities Within a 5 Kilometer Radius and in the Same Sector

	(1) ITT (Dep Var = log penalties)	(2) First stage (Dep Var= Press Release in focal inspection)	(3) TOT (Dep Var = log penalties)
All Inspections			
Focal penalty $\geq c$	-0.14 (0.045)	0.24 (0.058)	
Press Release in Focal Inspection			-0.60 (0.21)
Robust p-value	0.002	0.000	0.005
# observations	9,761	9,761	9,761
# peer groups	481	481	481
Left Bandwidth	3977.3	3977.3	3977.3
Right Bandwidth	9552.4	9552.4	9552.4
Control Mean Dep Var	8.27	0.07	8.27
Programmed Inspections			
Focal penalty $\geq c$	-0.11 (0.06)	0.20 (0.08)	
Press Release in Focal Inspection			-0.56 (0.31)
Robust p-value	0.075	0.008	0.072
# observations	10,873	10,873	10,873
# peer groups	674	674	674
Left Bandwidth	8210.4	8210.4	8210.4
Right Bandwidth	6661.6	6661.6	6661.6
Control Mean Dep Var	8.20	0.07	8.20

The table shows regression estimates of the effect of a press release about one focal facility on the subsequent compliance of peer facilities, defined as those within a 5km radius and in the same sector. The running variable is the focal penalty, and the threshold is whether the focal penalty is higher than the press release cutoff c . The sample in all regressions includes inspections of peers occurring in the 36 months following the date the focal penalty was issued through Dec 2013, and for which the focal penalty was issued between Oct 2009–Nov 2012. The regressions are estimated with a linear polynomial in the running variable and include controls for indicators that a facility is in the construction sector and (in the top panel) if an inspection was programmed. See Section 3.3 for further details. Robust standard errors clustered by peer group.

Table A.3—: Dynamic Effects of Press Releases on Compliance: Intent-to-treat Estimates

	(1)	(2)
	Dep Var = # Violations	
Focal penalty $\geq c$	-0.43 (0.25)	
0-6 months post focal penalty $\geq c$		-0.42 (0.25)
6-12 months post focal penalty $\geq c$		-0.70 (0.23)
12-24 months post focal penalty $\geq c$		-0.37 (0.25)
24-36 months post focal penalty $\geq c$		-0.50 (0.25)
# observations	9,761	9,761
Control Mean	2.29	2.29

The table shows ITT estimates of the effects of a press release about one *focal* facility on subsequent compliance of peer facilities, defined as those within a 5km radius and in the same sector.

For more details about the sample, see the note to Table ???. The running variable is the focal penalty, and the threshold is whether the focal penalty is higher than the press release cutoff c . The regressions are estimated with a linear polynomial in the running variable and include controls for indicators that a facility is in the construction sector and if an inspection was programmed. See Section 3.3 for further details.

Robust standard errors clustered by peer group.

Table A.4—: Instrumental Variables Estimates of the Effect of a Press Release on Compliance of Facilities in the Same Sector and at Varying Geographic Distances

	(1) ITT (DV= total viols)	(2) First stage (DV=Press Release in focal inspection)	(3) TOT (DV = total viols)
5 km radius	-0.40 (0.14)	0.24 (0.058)	-1.68 (0.64)
Robust p-value	0.003	0.000	0.009
# observations	9,761	9,761	9,761
# peer groups	482	482	482
Left Bandwidth	3,977	3,977	3,977
Right Bandwidth	9552.4	9552.4	9552.4
Control Mean Dep Var	2.3	0.1	2.3
10 km radius	-0.26 (0.13)	0.30 (0.07)	-0.84 (0.41)
Robust p-value	0.041	0.000	0.040
# observations	39,871	39,871	39,871
# peer groups	741	741	741
Left Bandwidth	7,328	7,328	7,328
Right Bandwidth	6998.6	6998.6	6998.6
Control Mean Dep Var	2.3	0.1	2.3
25 km radius	-0.30 (0.10)	0.37 (0.08)	-0.81 (0.28)
Robust p-value	0.002	0.000	0.004
# observations	175,x	175,524	175,524
# peer groups	1,049	1,049	1,049
Left Bandwidth	10,431	10,431	10,431
Right Bandwidth	5900.3	5900.3	5900.3
Control Mean Dep Var	2.2	0.0	2.2
50 km radius	-0.24 (0.09)	0.36 (0.07)	-0.66 (0.25)
Robust p-value	0.011	0.000	0.009
# observations	390,329	390,329	390,329
# peer groups	1,147	1,147	1,147
Left Bandwidth	11,118	11,118	11,118
Right Bandwidth	6095.5	6095.5	6095.5
Control Mean Dep Var	2.2	0.0	2.2

The columns show the ITT, first stage, and TOT estimates of the effects of a press release about a focal facility on the subsequent compliance of peer facilities, defined as those in the same sector and within the specified radius around the focal facility. The sample includes inspections in the 36 months following the date the focal penalty was issued through Dec 2013, and for which the focal penalty was issued between Oct 2009 and Nov 2012.

The running variable is the focal penalty, and the threshold is whether the focal penalty is higher than the press release cutoff c . The regressions are estimated with a linear polynomial in the running variable and include controls for indicators that a facility is in the construction sector and if an inspection was programmed. See Section 3.3 for more details about the regression specification. Robust standard errors clustered by peer group.

Table A.5—: ITT Estimates of the General Deterrence Effect of a Press Release on Alternative Measures of Compliance

	(1) # repeat or willful viols	(2) # high gravity viols	(3) 0	(4) Total viols> 2	(5) 4
Focal penalty $\geq c$	-0.05 (0.02)	-0.17 (0.08)	-0.08 (0.02)	-0.06 (0.02)	-0.04 (0.02)
Robust p-value	0.004	0.023	0.000	0.009	0.014
# observations	9,761	9,761	9,761	9,761	9,761
# peer groups	481	481	481	481	481
Control Mean Dep Var	0.12	0.70	0.71	0.32	0.15

The table shows ITT estimates of the effect of a press release about one focal facility on the subsequent compliance of peer facilities, defined as those within a 5km radius and in the same sector, for different measures of compliance. See the note to Table ?? for details about the sample.

The dependent variable in Column 1 is the number of violations classified as repeat or willful, and that in Column 2 is the number of violations with gravity (a measure of inspector's assessment of the likelihood that the violation will lead to a serious hazard) of 10, the highest possible score.

The running variable is the focal penalty, and the threshold is whether the focal penalty is higher than the press release cutoff c . The regressions are estimated with a linear polynomial in the running variable and include controls for indicators that a facility is in the construction sector if an inspection was programmed. See Section 3.3 for further details. Robust standard errors clustered by peer group.

Table A.6—: Robustness Checks on Intent-to-Treat General Deterrence Regressions

	(1) Base- line	(2) Epanechnikov kernel	(3) Quad- radic poly- nomial	(4) Drop top 1% violations	(5) IHS Transform ^a (coefficient= percent	(6) Include More Baseline controls	(7) Include State Fixed Effects	(8) restrict to a facility's: first focal penalty	(9) max focal penalty	(10) Peers= shared sector and zip code
Focal penalty $\geq c$	-0.40 (0.14)	-0.39 (0.12)	-0.50 (0.20)	-0.37 (0.14)	-0.18 (0.07)	-0.53 (0.12)	-0.44 (0.10)	-0.35 (0.11)	-0.78 (0.13)	-0.50 (0.19)
Robust p-value	0.003	0.001	0.012	0.008	0.015	0.000	0.000	0.002	0.000	0.010
# observations	9,761	11,151	7,226	9,674	9,761	9,761	9,761	4,096	5,107	3,698
# peer groups	481	481	380	480	481	481	481	375	424	435
Left Bandwidth	3977.3	3893.5	2126.3	3977.3	3977.3	3977.3	3977.3	3977.3	3977.3	5099.0
Right Bandwidth	9552.4	12323.3	9336.0	9552.4	9552.4	9552.4	9552.4	9552.4	9552.4	5865.1
Control Mean Dep Var	2.29	2.29	2.35	2.18	1.17	2.29	2.29	2.21	2.37	2.41

The table tests the robustness of the estimated ITT effect of a penalty levied on a *focal* facility that is above the press release cutoff c on compliance assessed in later inspections of peer facilities, defined as those within a 5km radius and in the same sector, except for column 9 which defines peers differently. Each column reports the results from a separate regression in which the running variable is the penalty issued at the focal inspection, and the threshold is whether the focal penalty is higher than the press release cutoff c . Each regression includes controls for a construction dummy and programmed inspection dummy. The sample includes inspections occurring in the 36 months following the date the focal penalty was issued, that were opened from Oct 2009 through Dec 2013, and for which the focal penalty was issued between Oct 2009 and Nov 2012.

In all columns, the dependent variable is the number of violations resulting from an inspection, except for Column 5 where it is the Inverse Hyperbolic Sine of the number of violations (see below). Robust standard errors clustered by peer group.

In Column 2, an Epanechnikov, rather than triangular, kernel is used in the regression. Column 3 includes a quadratic, rather than linear, polynomial in the running variable (*Focal Penalty*).

In Column 4, observations comprising the top 1% of violations are dropped. In Column 5, the dependent variable is the Inverse-Hyperbolic Sine (IHS) of the Number of Violations detected, and the coefficient estimates a *percent*, rather than *level*, change.

In Column 6, the regression additionally controls for the number of OSHA inspections, and the 75th percentile of penalties in inspections, in a facility's county-sector between 2005–2008, the year the focal penalty was issued, and dummies for each of the 10 OSHA regions. In Column 7, the regression instead additionally controls for fixed effects for each state.

In Column 8, if a facility is in the radius of multiple focal penalties, first focal penalty exceeding 25,000 is included in the sample. Column 9 makes a similar restriction, but only uses the maximum focal penalty.

Column 10 defines peer groups as facilities in the same zip code and sector as the focal inspection.

Table A.7—: Specific Deterrence Effect of a Press Release on Future Compliance of the Publicized Facility

Sample =	(1)	(2)	(3)	(4)
	All inspections		Excl. complaint, referral, or accident inspections	
Dep Var =	# viol-ations	ln(Initial Penalties)	# viol-ations	ln(Initial Penalties)
Focal penalty $\geq c$	-1.40 (0.56)	-0.60 (0.35)	-0.64 (0.74)	0.28 (0.49)
Robust p-value	0.013	0.084	0.39	0.57
Obs	468	533	254	291
Left Bandwidth	7632.3	8116.5	6279.9	6380.9
Right Bandwidth	5917.0	7606.9	6419.6	9823.2
Control Mean Dep Var	2.54	7.83	2.26	7.31

The table shows ITT estimates of the effects of a penalty levied on a focal facility (the *focal penalty*) that is above the press release cutoff c on compliance assessed in later inspections of that facility.

For each column, the sample includes inspections of a) facilities in Regions 1 and 4 that received a focal penalty in a prior inspection issued between 2002 and 2008, and b) facilities in all regions that received a focal penalty in a prior inspection issued between Oct 2009 and Nov 2012, that occur within 36 months following the date penalty is issued.

The running variable is the focal penalty, and the threshold is whether the focal penalty is higher than the press release cutoff c . The regressions are estimated with a linear polynomial in the running variable and include a construction dummy, a dummy equal to 1 if the penalty was issued after May 2009, a dummy if the inspection is programmed, and a dummy for regions 1 and 4. See Section 3.3 for more details. Robust standard errors clustered by facility.

Table A.8—: Do Facilities Use Press Releases to Learn About the Priorities of OSHA Enforcement?

	(1)	(2)
	Dep Var =	
	# focal violations	# non-focal violations
Focal penalty $\geq c$	-0.22 (0.11)	-0.22 (0.11)
Robust p-value	0.050	0.053
# observations	9,761	9,761
Left Bandwidth	3977.3	3977.3
Right Bandwidth	9552.4	9552.4
Control Mean Dep Var	0.87	1.45

The table shows ITT estimates of the effects of a penalty levied on a focal facility (the *focal penalty*) that is above the press release cutoff c on the subsequent compliance of peer facilities, defined as those within a 5km radius and in the same sector, for two categories of compliance. *Focal violations* are violations of standards that were also violated in the inspection of the focal facility that resulted in the focal penalty. *Non-focal violations* are violations of all other standards. See the note to Table ?? for details about the sample. See Section 3.3 for details about the regression specification. Robust standard errors clustered by peer group.

Table A.9—: Do Press Releases Have a Stronger Effect on Compliance When Workers Have More Bargaining Power?

	(1)	(2)	(3)	(4)
	Sample = peers within 10km radius			
	Share of pre-period inspected facilities that are unionized is...		State is Right-to-Work...	
	Low	High	Yes	No
Intent-to-treat Estimates				
Focal penalty $\geq c$	0.0011 (0.16)	-0.46 (0.15)	0.061 (0.092)	-0.37 (0.16)
Robust p-value	0.994	0.002	0.504	0.023
# observations	12,640	13,370	8,332	17,678
Left Bandwidth	3,977	3,977	3,977	3,977
Right Bandwidth	9,552	9,552	9,552	9,552
Mean Dep Var	2.18	2.37	1.86	2.47
Treatment-on-treated Estimates				
Press Release in Focal Inspection	0.0036 (0.52)	-1.77 (0.65)	0.16 (0.24)	-1.69 (0.81)
Robust p-value	0.994	0.006	0.510	0.037
# observations	12,640	13,370	8,332	17,678
Left Bandwidth	3,977	3,977	3,977	3,977
Right Bandwidth	9,552	9,552	9,552	9,552
Mean Dep Var	2.18	2.37	1.86	2.47

The table shows estimates of the effects of a press release about a *focal* facility on the subsequent compliance of peer facilities, defined as those within a 10km radius and in the same sector. The dependent variable in all regressions is the number of violations detected in inspections of peer facilities, and the sample includes peer inspections in the 36 months following the date the focal penalty is issued (through Dec 2013). The running variable is the focal penalty, and the threshold is whether the focal penalty is higher than the press release cutoff c . The estimates in the bottom panel account for the fuzziness in adherence to the cutoff rule. Columns 1 and 2 split the sample by whether the percent of inspections between 2005 and 2008 in the peer group's focal facility's county that were of unionized workplaces is below or above the sample median. Columns 3 and 4 split the sample by whether a facility is located in a Right-to-Work state or not.

The regressions are estimated with a linear polynomial in the running variable and include include controls for indicators that a facility is in the construction sector and if an inspection was programmed. See Section 3.3 for further details. Robust standard errors clustered by peer group.

Table A.10—: Do Press Releases Have a Stronger Effect on Injuries When Workers Have More Bargaining Power?

	(1)	(2)	(3)	(4)
	Dep Var = # peer inspections triggered by injury			
	Share of pre-period inspected facilities unionized		State is Right-to-Work	
	Low	High	Yes	No
Intent-to-treat Estimates				
Focal penalty $\geq c$	-0.0098 (0.080)	-0.18 (0.12)	0.043 (0.093)	-0.20 (0.11)
Robust p-value	0.90	0.14	0.65	0.064
Obs	407	387	367	427
Left Bandwidth	7143.5	7143.5	7143.5	7143.5
Right Bandwidth	6630.2	6630.2	6630.2	6630.2
Mean Dep Var	0.20	0.36	0.22	0.33
Treatment-on-treated Estimates				
Press Release in Focal Inspection	-0.060 (0.49)	-0.94 (0.67)	0.20 (0.46)	-1.31 (0.86)
Robust p-value	0.90	0.16	0.66	0.13
Obs	407	387	367	427
Left Bandwidth	7143.5	7143.5	7143.5	7143.5
Right Bandwidth	6630.2	6630.2	6630.2	6630.2
Mean Dep Var	0.20	0.36	0.22	0.33

The table shows estimates of the effects of a press release about a *focal* facility on the subsequent number of inspections triggered by a serious accident of peer facilities, defined as those within a 5km radius and in the same sector. Columns 1 and 2 split the sample by whether the percent of inspections between 2005 and 2008 in the peer group's focal facility's county that were of unionized workplaces is below or above the sample median. Columns 3 and 4 split the sample by whether a facility is located in a Right-to-Work state or not.

The sample includes focal penalties issued between Oct 2009 and Nov 2012.

The running variable is the focal penalty. Each regression controls for a dummy if an establishment is in the construction sector, the number of inspections in the focal facility's county between 2005–2008, and the year the focal penalty was issued. Robust standard errors clustered by peer group.

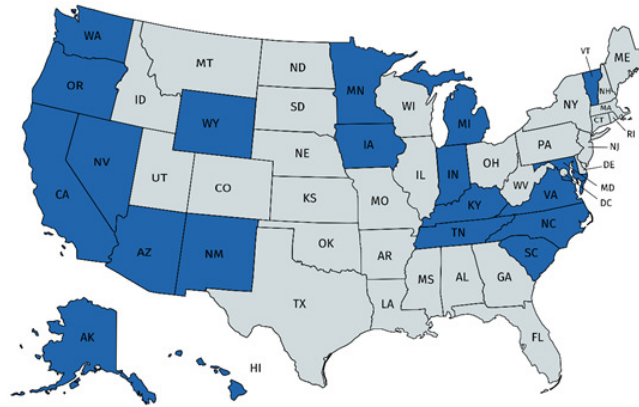
Table A.11—: Do Press Releases Have a Stronger Effect on Compliance When A Newspaper is More Likely to Cover It?

	(1)	(2)	(3)	(4)
	Sample = peers within 5-50 km radius			
	National Circulation of Focal Facility's Dominant Newspaper Is...		# Zipcodes Served by Focal Facility's Dominant Newspaper Is...	
	Low	High	Low	High
Press Release in Focal Inspection	-1.19 (0.68)	-0.52 (0.13)	-1.29 (0.41)	-0.42 (0.083)
Robust p-value	0.079	0.000	0.002	0.000
# observations	81,101	94,692	75,168	100,605
Left Bandwidth	3,910	3,910	3,910	3,910
Right Bandwidth	9,450	9,450	9,450	9,450
Control Mean Dep Var	2.55	2.01	2.58	2.05

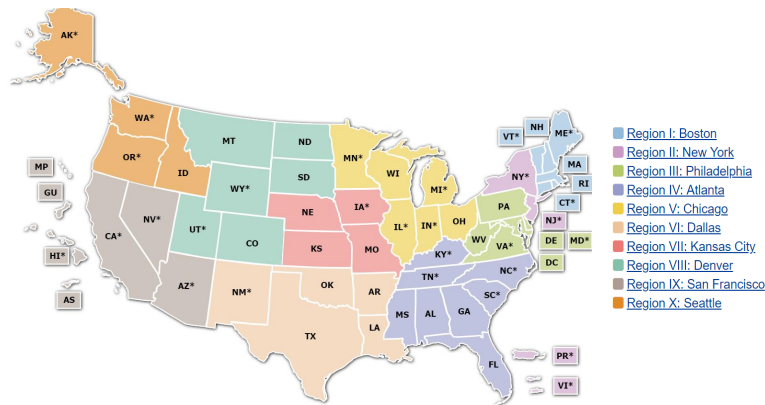
The table shows TOT estimates of whether the effects of a press release about a focal facility on the subsequent compliance of its peers, defined as other facilities between a 5 and 50 km radius and in the same sector, depends on the likelihood that a newspaper will cover it. The dependent variable in all regressions is the number of violations detected in an inspection, and the sample includes inspections of peer facilities in the 36 months following the date the focal penalty is issued. Columns 1 and 2 split the sample by whether the dominant newspaper in the focal facility's zipcode has a national circulation of below or above the sample median. Columns 3 and 4 split the sample by whether the number of zipcodes served by the dominant newspaper in the focal facility's zipcode is above or below the sample median. As shown in Section ??, a press release is more likely to be covered by a newspaper when the dominant newspaper is smaller (using either of these metrics).

The running variable is the focal penalty. For more details about the regressions, see Section 3.3. Robust standard errors clustered by peer group.

Figure A.1. : The Twenty-eight States Under OSHA’s Jurisdiction, and the Location of OSHA’s 10 Regions



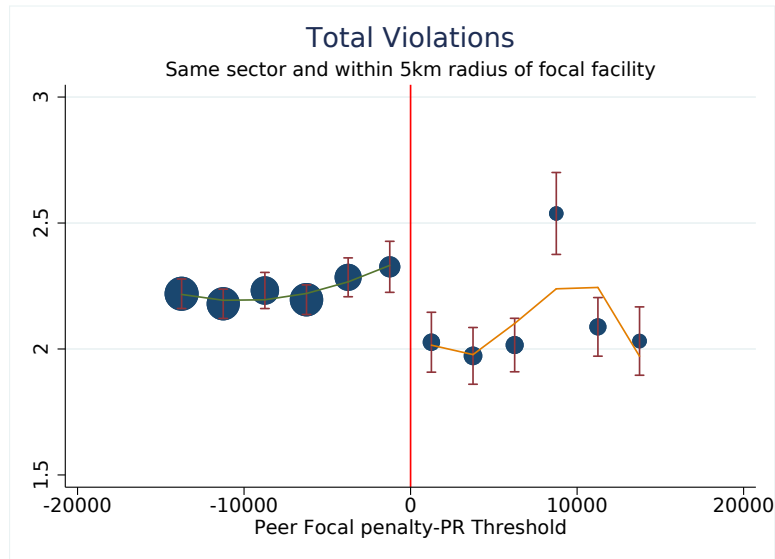
(a)



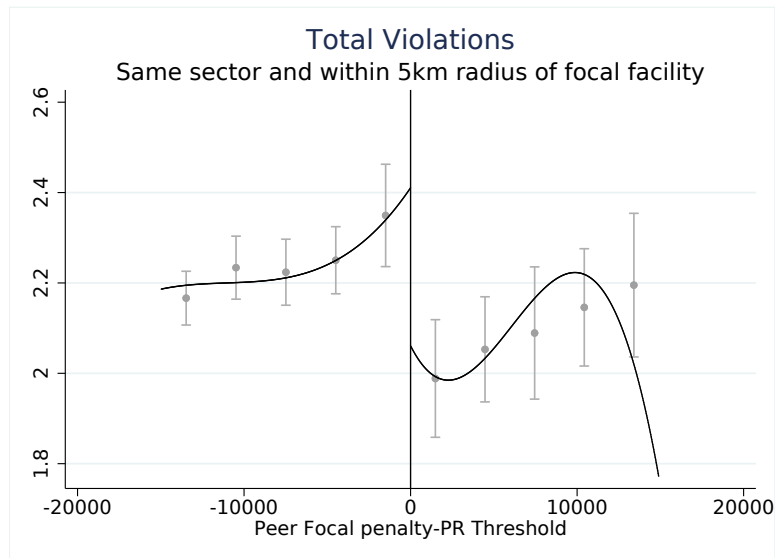
(b)

In panel (a), the states in gray are under federal OSHA jurisdiction. Panel (b) denotes how OSHA partitions the United States into 10 distinct regions. Source: <https://www.osha.gov/dcsp/osp/>

Figure A.2. : General Deterrence Effect of a Press Release on Subsequent Compliance of Other Facilities: Different Visualizations



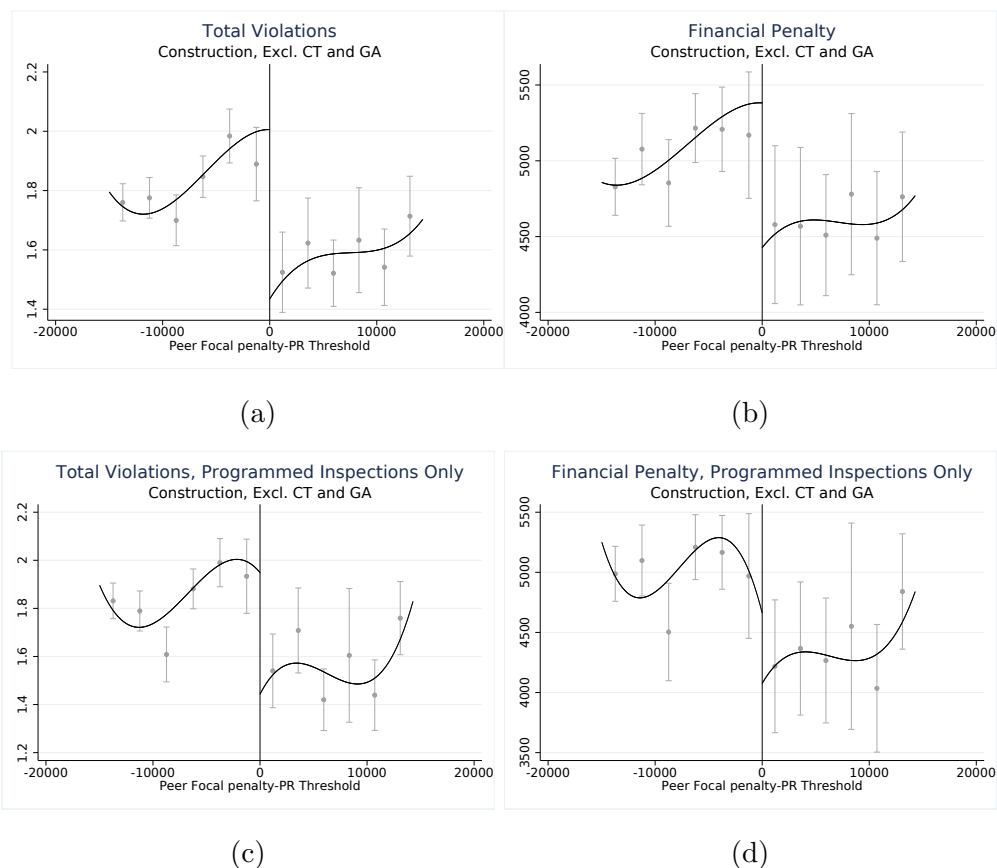
(a) Bins Weighted by Number of Observations



(b) Larger Bins

The panels show the number of violations in inspections of facilities in a 5 km radius and the same sector as an inspection of a *focal* facility that was recently issued a *focal penalty*. Each *focal penalty* is normalized by the cutoff c , above which OSHA was supposed to write a press release about the focal facility. In the top panel, each dot corresponds to an average over a \$2,500 bandwidth of focal penalty, and the size of each dot reflects the number of observations in each bin. In the bottom panel, each dot corresponds to a bin that is an average over a \$3,000 bandwidth of focal penalty. The continuous lines represent third-order polynomials fitted separately on each side of the cutoff. The sample includes inspections occurring in the 36 months following the date the focal penalty was issued through Dec 2013, and for which the focal penalty was issued between Oct 2009 and Nov 2012.

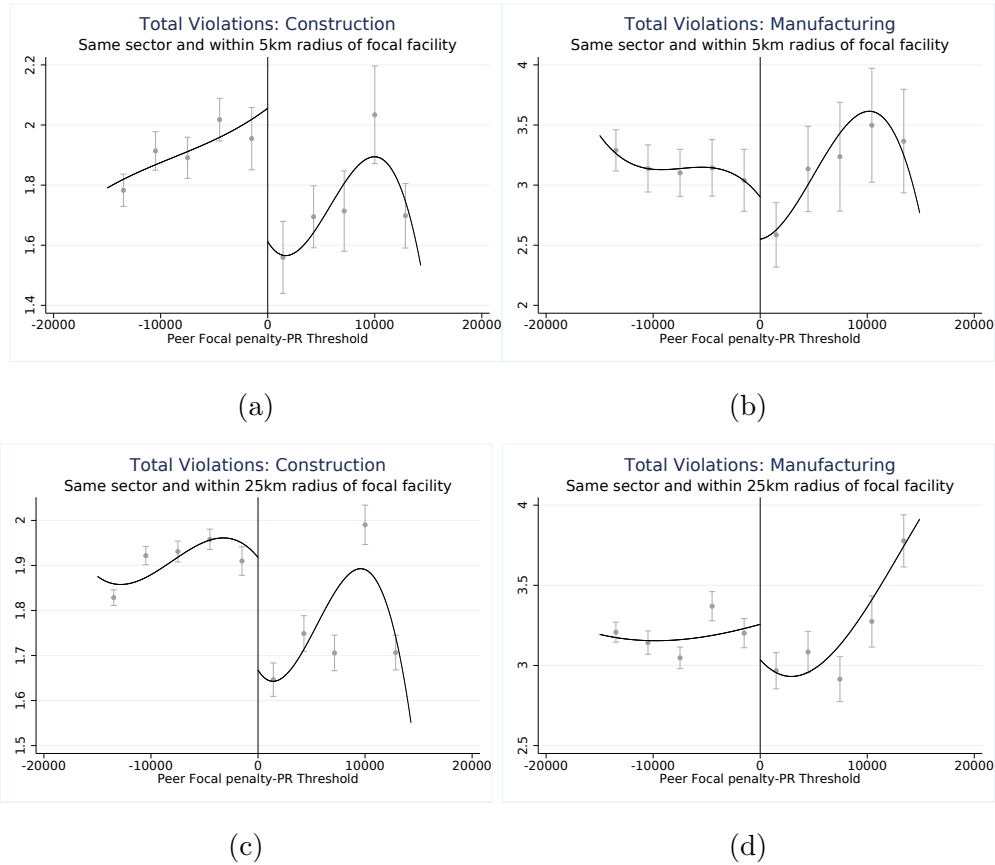
Figure A.3. : General Deterrence Effect of a Press Release on Subsequent Compliance of Other Facilities in a 5 km Radius and in the Same Sector, Dropping Outlier States



The panels show noncompliance among facilities in a 5 km radius and the same sector as an inspection of a *focal* facility that was recently issued a *focal penalty*, for different measures of noncompliance and different sample restrictions. The sample is restricted to the construction sector and excludes facilities located in Connecticut or Georgia, which were over-represented in the fourth bin to the right of the cutoff. Each *focal penalty* is normalized by the cutoff c , above which OSHA was supposed to write a press release about the focal facility. Each dot corresponds to an average over a \$2,500 bandwidth of focal penalty, with 95% confidence intervals included.

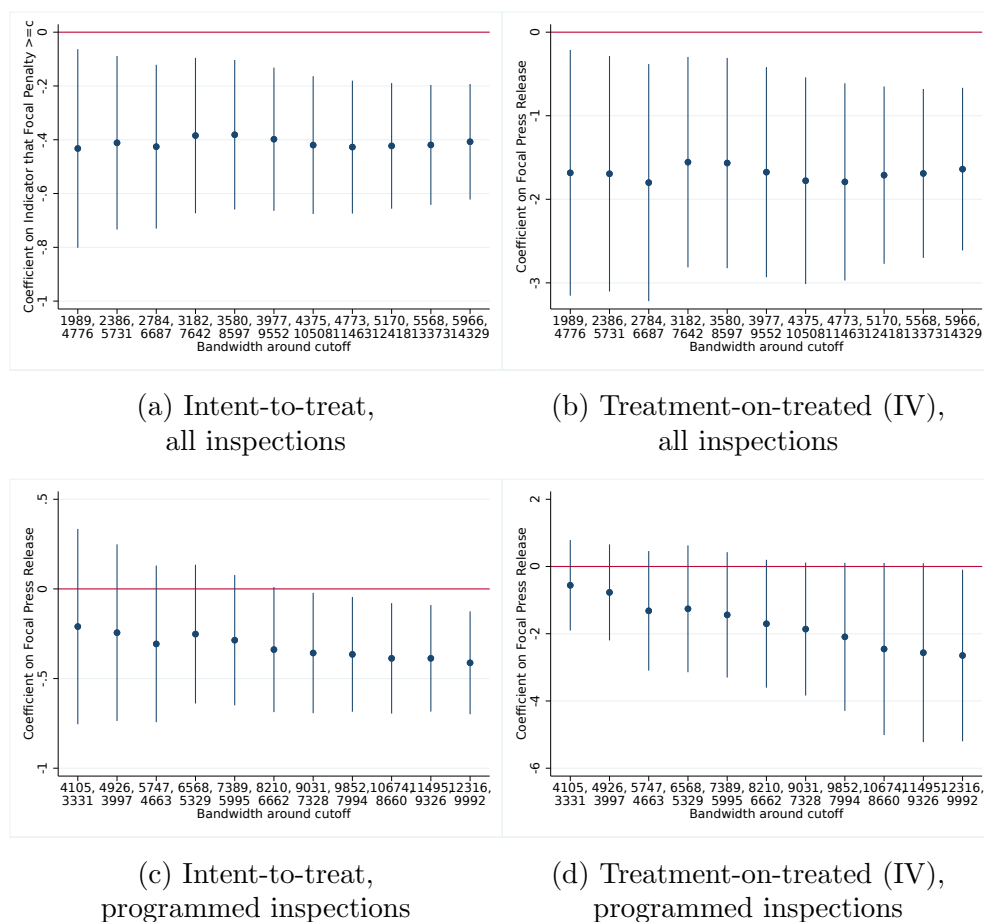
The continuous lines represent third-order polynomials fitted separately on each side of the cutoff. The sample includes inspections occurring in the 36 months following the date the focal penalty was issued through Dec 2013, and for which the focal penalty was issued between Oct 2009 and Nov 2012.

Figure A.4. : General Deterrence Effect of a Press Release on Subsequent Compliance: Different Sectors



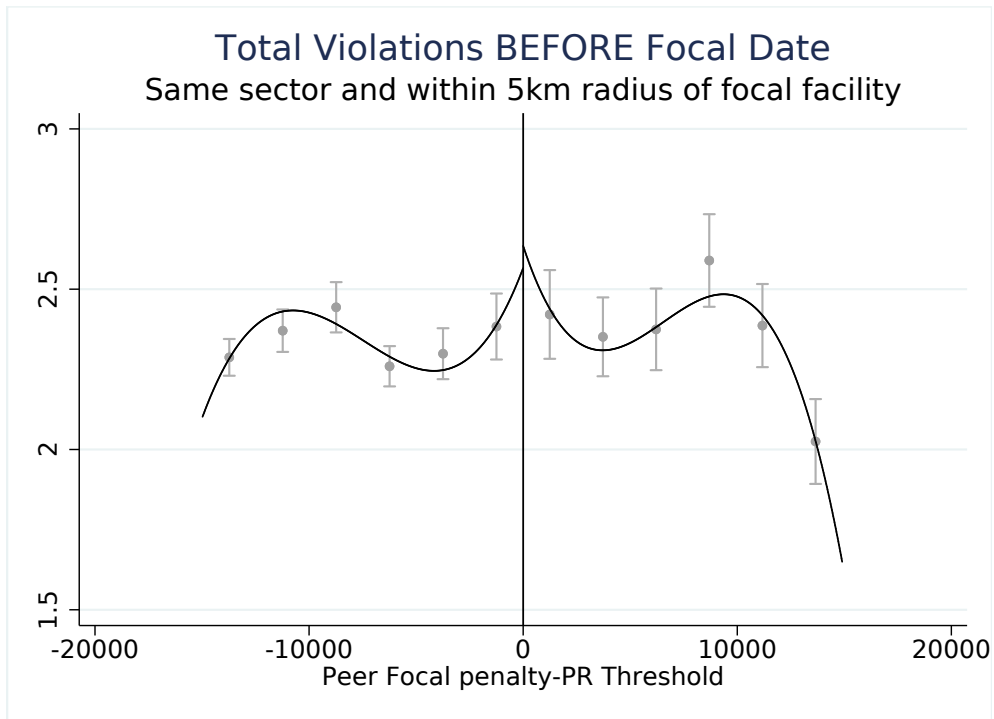
The panels show the number of violations in inspections of facilities in a 5 km radius and the same sector as an inspection of a *focal* facility that was recently issued a *focal penalty*, for facilities in the Construction or manufacturing sector (left and right columns, respectively), and for those within 5 and 25 km of the focal facility (top and bottom panels, respectively). Each *focal penalty* is normalized by the cutoff c , above which OSHA was supposed to write a press release about the focal facility. Each dot corresponds to an average over a \$3,000 bandwidth of focal penalty, with 95% confidence intervals included. The continuous lines represent third-order polynomials fitted separately on each side of the cutoff. The sample includes inspections occurring in the 36 months following the date the focal penalty was issued through Dec 2013, and for which the focal penalty was issued between Oct 2009 and Nov 2012.

Figure A.5. : Sensitivity of the Regression Estimate of the General Deterrence Effect of Press Releases to the Bandwidth Used Around the Focal Penalty



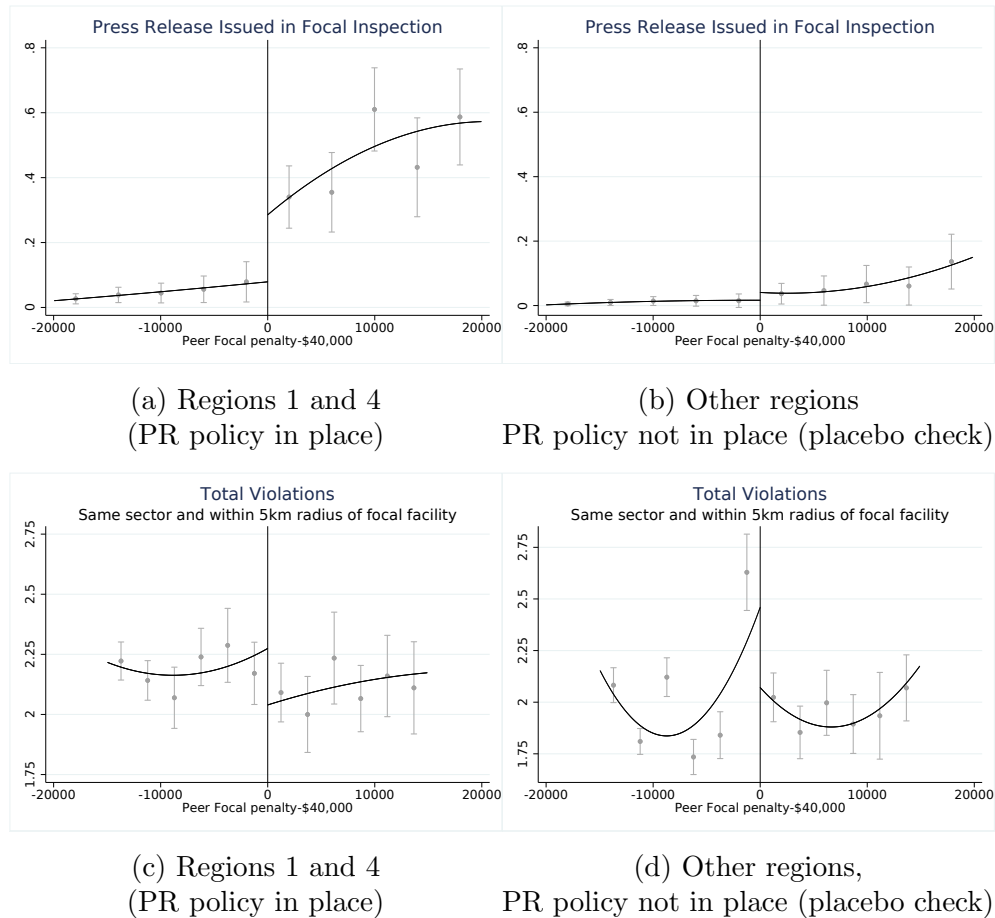
The figures show the point estimate and 95% confidence interval on the coefficient of interest in Equation ?? estimating the general deterrence effect of a press release on the number of violations detected at later inspections of other facilities in the same sector and within a 5 km radius, for different choices of bandwidth around the cutoff. The figures start with the baseline MSE-optimal bandwidth chosen by the procedure in Calonico et al. (2019) in the center, then progressively decrease the left and right bandwidths by 10 percent (going from center to left) and progressively increases the bandwidth by 10 percent (going from center to right). Panels (a) and (b) report ITT and TOT estimates (accounting for the fuzziness of the press release cutoff rule) using all inspections, respectively. Panels (c) and (d) report the same sets of estimates for the sample restricted to programmed inspections (*i.e.* excluding inspections triggered by a complaint, injury, or referral).

Figure A.6. : Placebo Check: Effect of a Focal Penalty Above the Press Release Cutoff on Compliance in Inspections Conducted Before the Focal Penalty is Issued



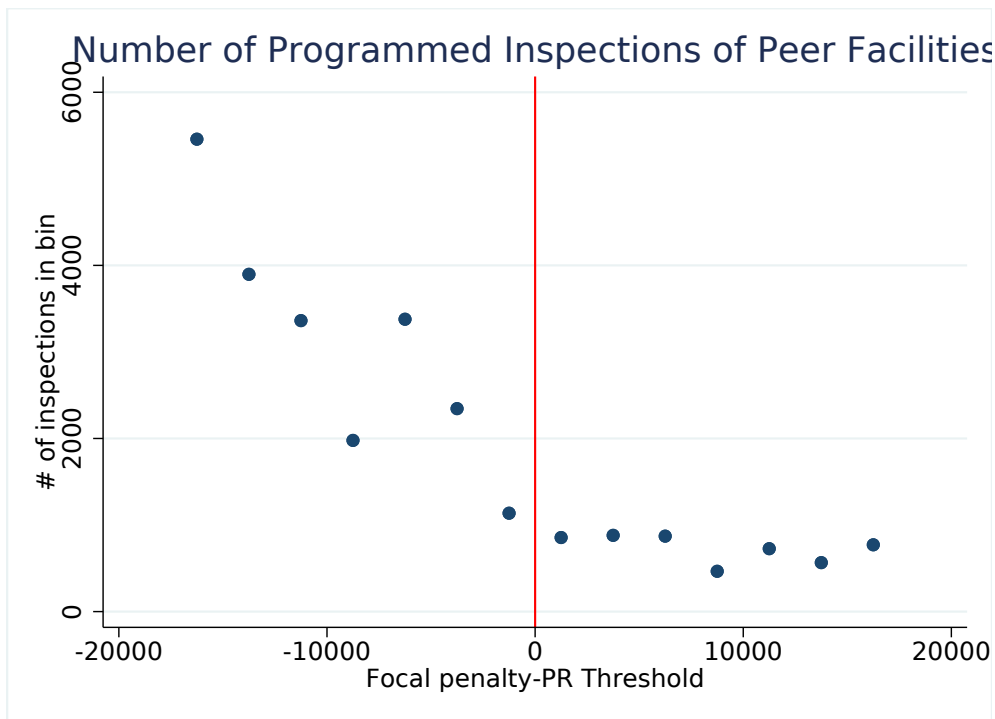
The figure shows, for facilities in a 5 km radius and the same sector as an inspection with a “focal penalty” in the range specified on the horizontal axis, the number of violations detected in inspections conducted *before* the focal penalty is issued. Each *focal penalty* is normalized by the cutoff c , above which OSHA was supposed to write a press release about the focal facility. Each dot corresponds to an average over a \$2,500 bandwidth of focal penalty, with 95% confidence intervals included. The continuous lines represent third-order polynomials fitted separately on each side of the cutoff. The sample includes inspections occurring in the 36 months *before* the date the focal penalty was issued, that were opened from Aug 2009 through Dec 2013, and for which the focal penalty was issued between Aug 2009 and Nov 2012. Regions 2 and 3, and states not under federal OSHA jurisdiction, are not included.

Figure A.7. : The Effect of Receiving a Penalty Above \$40,000 Prior to 2009 on the Probability a Press Release is Issued and Subsequent Compliance of Peer Facilities



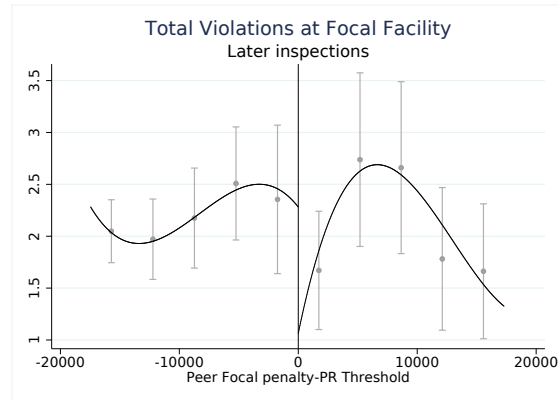
The top panels show whether inspections of *focal facilities* with penalties issued between 2002–2007 resulted in a press release. Each *focal penalty* is normalized by \$40,000, above which OSHA regions 1 and 4 were supposed to write a press release, but other regions were not, during this period. The bottom panel shows the number of violations in inspections of facilities in a 5 km radius and the same sector as an inspection of a *focal* facility that was recently issued a *focal penalty*. Each dot corresponds to an average over a \$2,500 bandwidth of focal penalty, with 95% confidence intervals included. The sample in the bottom panel includes inspections occurring in the 36 months following the date the focal penalty was issued through Dec 2013, and for which the focal penalty was issued between 2002–2007.

Figure A.8. : Frequency of Programmed Inspections of Peer Facilities Following the Date a Focal Penalty is Issued

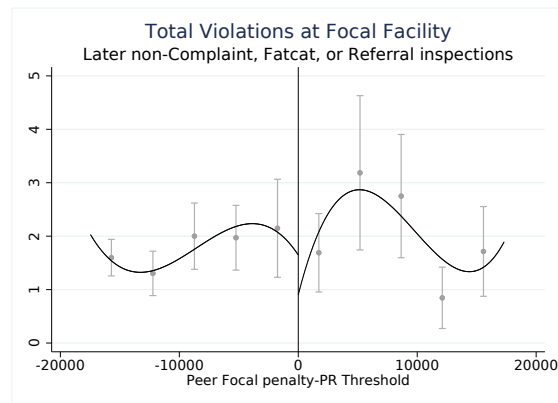


The figure shows the density of the number of programmed inspections of facilities in the same sector and within a 5 km radius of a facility with a focal penalty, in the 36 months following the date the focal penalty is issued. Each *focal penalty* is normalized by the cutoff c , above which OSHA was supposed to write a press release about the focal facility. Each dot corresponds to an average over a \$2,500 bandwidth of focal penalty. The sample includes focal inspections with penalties issued from Oct 2009 through Nov 2012.

Figure A.9. : Specific Deterrence Effect of a Press Release on Subsequent Compliance of the Publicized Workplace



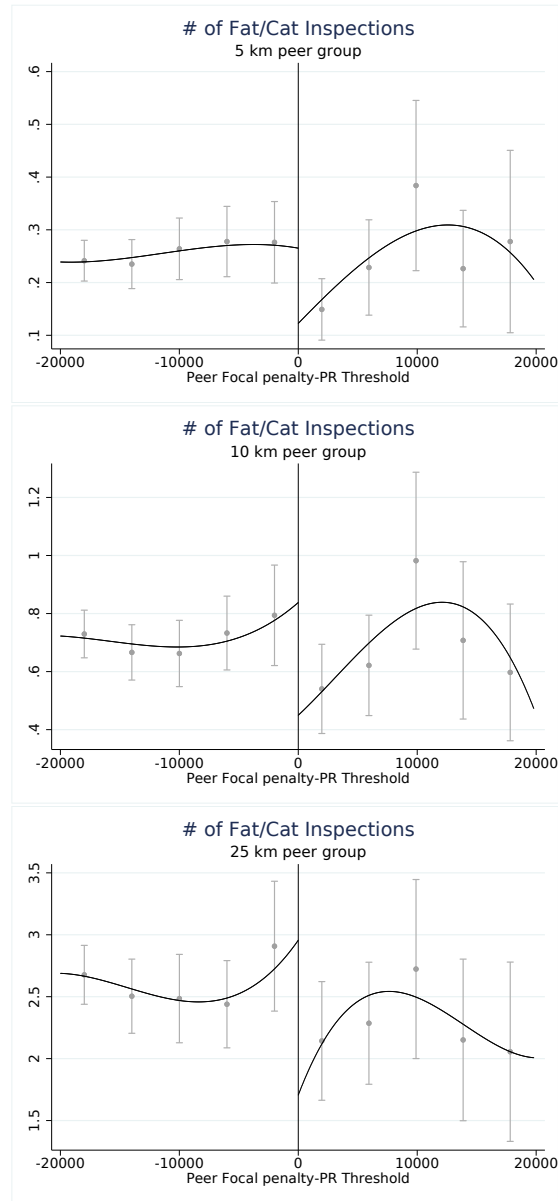
(a)



(b)

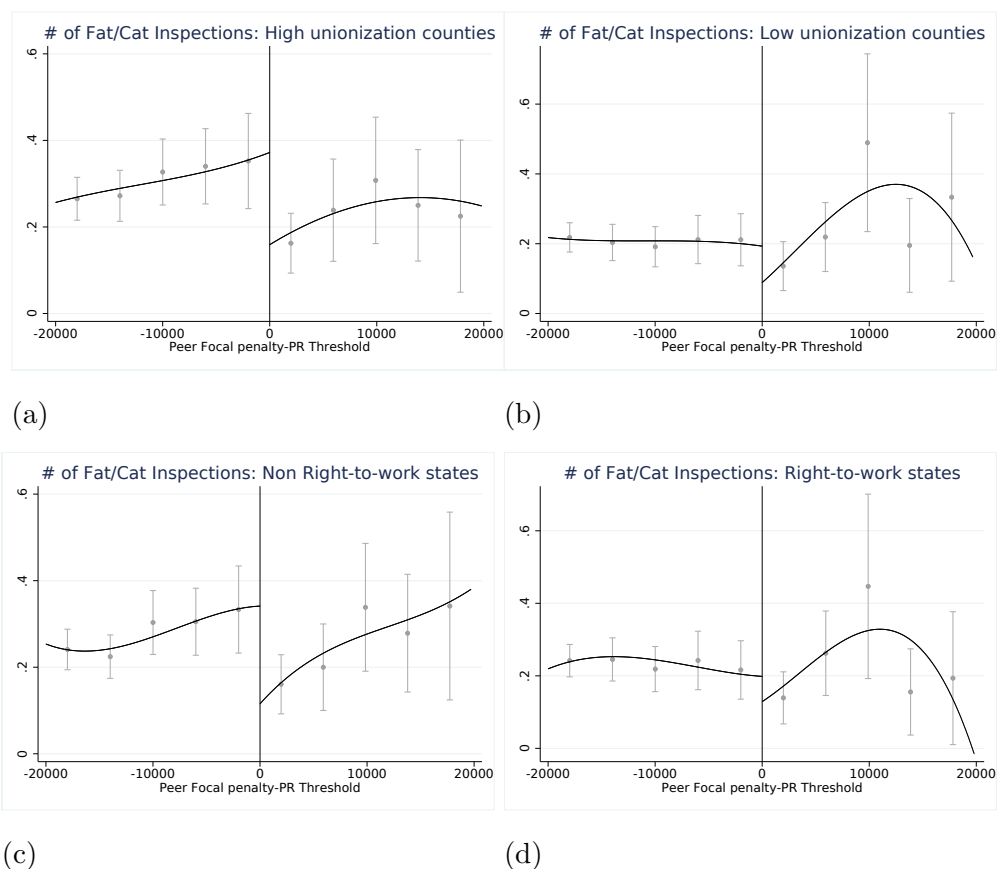
The panels show the number of violations found at later inspections of a facility that incurred a focal penalty within the specified range at a previous inspection. Each *focal penalty* is normalized by the cutoff c , above which OSHA was supposed to write a press release about the focal facility. Each dot corresponds to an average over a \$3,000 bandwidth of focal penalty, with 95% confidence intervals included. The continuous lines represent third-order polynomials fitted separately on each side of the cutoff. The sample includes inspections occurring in the 36 months following the date the focal penalty was issued through Dec 2013, and for which the focal penalty was issued between Oct 2009 and Nov 2012.

Figure A.10. : General Deterrence Effects of Press Releases on the Number of Inspections of Peer Facilities Triggered by a Serious Accident



The panels show the number of inspections triggered by a serious injury (“fat/cat”) among facilities in the same sector and in the specified geographic radius as a *focal* facility that was recently issued a *focal penalty*. Each *focal penalty* is normalized by the cutoff c , above which OSHA was supposed to write a press release about the focal facility. Each dot corresponds to an average over a \$4,000 bandwidth of focal penalty, with 95% confidence intervals included. The continuous lines represent third-order polynomials fitted separately on each side of the cutoff. The sample includes focal penalties issued between Oct 2009 and Nov 2012, and measures subsequent injury inspections occurring in the 36 months following the date the focal penalty was issued through Dec 2013.

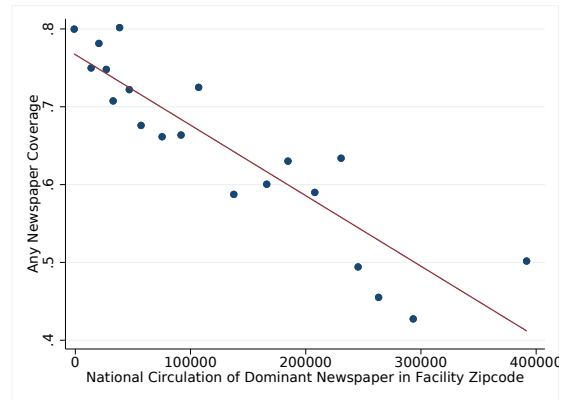
Figure A.11. : General Deterrence Effect of a Press Release on the Number of Workplace Injuries Depends on the Strength of Worker Bargaining Power



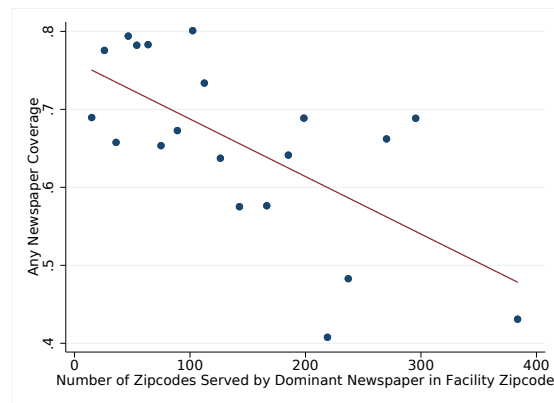
The panels show the number of inspections triggered by a serious injury among facilities in a 5 km radius and the same sector as a *focal* facility that was recently issued a *focal penalty*, depending on whether the facility is located in an area with low union density (left column) or high union density (right column). The top panels measure union density with whether the percent of OSHA inspections conducted in the focal facility's county between 2005–2008 in which the workers were unionized is below or above the sample median. The bottom panels measure low/high union density as whether a facility is in a Right-to-Work (RTW) or non-RTW state. Each figure is restricted to programmed inspections.

Each *focal penalty* is normalized by the cutoff c , above which OSHA was supposed to write a press release about the focal facility. Each dot corresponds to an average over a \$4,000 bandwidth of focal penalty, with 95% confidence intervals included. The continuous lines represent third-order polynomials fitted separately on each side of the cutoff. The sample includes focal penalties issued between Oct 2009 and Nov 2012, and measures subsequent injury inspections occurring in the 36 months following the date the focal penalty was issued through Dec 2013.

Figure A.12. : When a Press Release is Written About A Facility Located in a Zipcode in which the Dominant Newspaper is Larger, it is Less Likely to Receive Media Attention



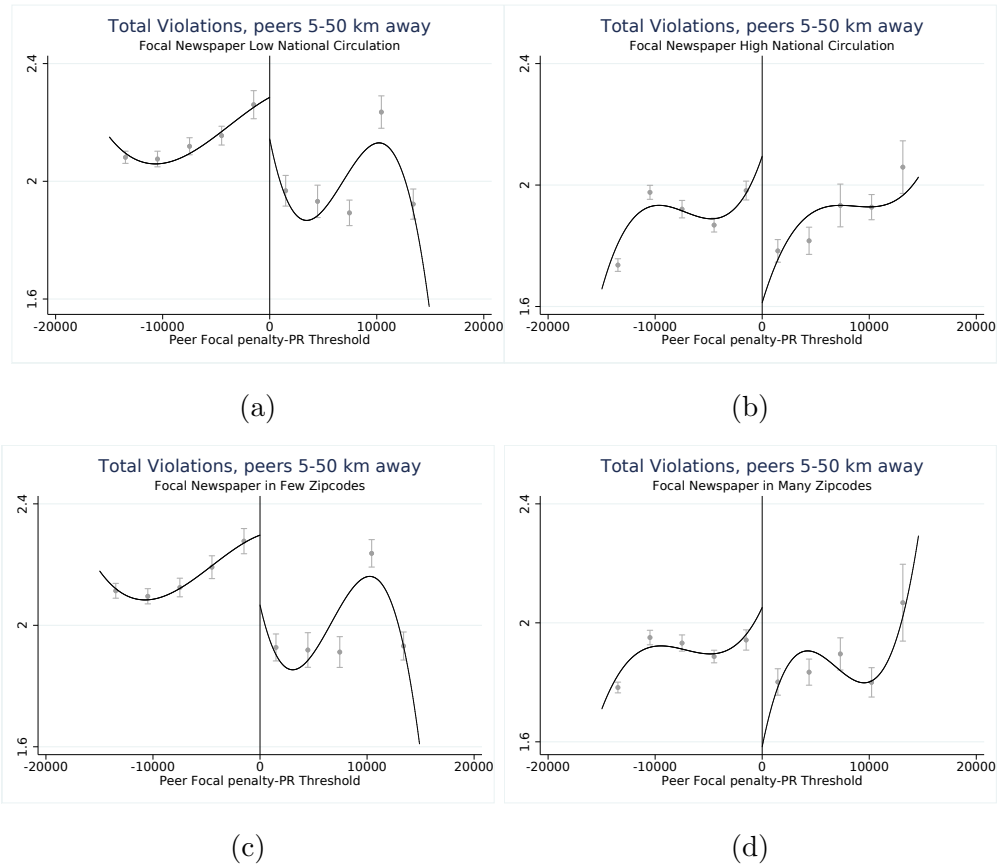
(a) Size = National Circulation



(b) Size = # Zipcodes Served

The figure shows binned scatterplots of the relationship between the probability that a press release is covered by a newspaper and the size of the dominant newspaper in the zipcode of the facility it is written about. The dominant newspaper is defined as the newspaper with the highest total circulation in a zipcode. Panels (a) and (b) measure a newspaper's size as its total national circulation and the number of zipcodes in which it has any circulation, respectively. The sample includes press releases about penalties issued between Aug 2009 and Nov 2012. Each scatterplot is residualized after controlling for the log of the penalty levied in the inspection, an indicator if the facility is in construction, and if the inspection was programmed.

Figure A.13. : General Deterrence Effect of a Press Release on Subsequent Compliance Depends on the Likelihood Newspapers Will Cover It



The panels show the number of violations among facilities in a radius between 5 km and 50 km and the same sector as an inspection of a *focal* facility that was recently issued a *focal penalty*, depending on whether the dominant newspaper in the focal facility's zipcode is small (left column) or large (right column). The dominant newspaper is defined as the newspaper with the highest total circulation in a zipcode. A "small" newspaper is measured as one for which the total national circulation is below the sample median (panels (a) and (b)) or one for which the number of zipcodes in which it has any circulation is below the sample median (panels (c) and (d)).

Each *focal penalty* is normalized by the cutoff c , above which OSHA was supposed to write a press release about the focal facility. Each dot corresponds to an average over a \$3,000 bandwidth of focal penalty, with 95% confidence intervals included. The continuous lines represent third-order polynomials fitted separately on each side of the cutoff. The sample includes programmed inspections occurring in the 36 months following the date the focal penalty was issued through Dec 2013, and for which the focal penalty was issued between Oct 2009 and Nov 2012.