

Internet Appendix for: CEO Hometown Preference in Corporate Environmental Policies

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A. A case study

We provide a case study of CEOs' hometown preference in pollution control based on the late Mr. Edgar S. Woolard, who served as the CEO and Chairman of DuPont from 1989 to 1995. Since the first year of his tenure, Mr. Woolard had committed a significant amount of effort and corporate resources to reduce DuPont's pollution. For example, Mr. Woolard declared himself to be the companies "Chief Environmentalist" and set aside \$1 billion a year for pollution control (See [this article](#) for more detail).

Consistent with human nature to develop an attachment to their hometowns, Mr. Woolard showed his affection for DuPont's NC plants. As one employee recalled that in the early 1990s, Mr. Woolard visited one of DuPont's NC plants, where he greeted the employees "like he had never left" (see [this article](#)). We then examine whether the pollution control efforts initiated by Mr. Woolard affected hometown and non-hometown plants differently. Figure [IA1](#) presents the results. We note that after Mr. Woolard became CEO, the pollution level of DuPont's plants experienced a general decreasing trend. Meanwhile, investments in pollution control activities also increased, as evidenced by the increasing adoption of source reduction activities and the decreasing percentage of generated wastes omitted to the environment. This is consistent with Mr. Woolard's campaign to make DuPont "greener."

More importantly, the reduction in pollution and increase in investments related to pollution control were unevenly felt: hometown plants (i.e., those located in Mr. Woolard's hometown state North Carolina) appeared to benefit more from Mr. Woolard's commitment to reduce the firm's environmental footprint. For example, the pollution level in NC plants decreased from around 1.56 to 1.06 million pounds from 1989 to 1996, a roughly 32% reduction. In contrast, the pollution level

in non-NC plants dropped from 1.00 to 0.79 million pounds, a 20% reduction. This comparison suggests that hometown plants experienced a larger decline in pollution levels than non-hometown plants.

Furthermore, the changes in sales over time suggested that the lower pollution level in hometown plants was not a result of a smaller operational scale. Instead, the gap in sales between hometown and non-hometown plants widened during Mr. Woolard’s tenure. In terms of pollution control activities, we find that NC plants invest more heavily in source reduction activities at the chemical level and conduct more waste management after wastes are generated.

Overall, we believe the above case analysis provides an effective piece of anecdotes to support our formal test.

B. Why do headquarter plants pollute more?

In Table 2 of the paper, we document that plants located in their parent firms’ headquarters states release more toxic chemicals. We examine whether this result is driven by plants’ relative importance in affecting local environmental quality. When there are more local peer plants, the pollution level of a single plant has a limited impact on local aggregate environmental quality. If headquarter plants have a higher number of peer plants than do hometown plants, we may expect CEOs to more proactively reduce the pollution of their hometown plants, as they understand that such actions have a greater impact on local outcomes.

We indeed observe that there are, on average, a larger number of plants around a CEO’s headquarters than the number of plants around a CEO’s hometown. For example, plants in CEOs’ home counties, on average, have four peer plants located within a 20-mile radius. In contrast, headquarter plants have ten peer plants within the same radius. We also empirically find that CEOs’ tendency to reduce hometown pollution is moderated by the number of plants in the vicinity. In Table [IA2](#), we interact the number of nearby plants with both the hometown dummy and the

headquarters dummy. When there are zero other polluting plants nearby, both the hometown dummy and the headquarters dummy have a negative and significant coefficient, indicating that the CEOs are willing to reduce pollution in both locations. However, the interaction between the number of nearby plants and the hometown (headquarters) dummy is positive, suggesting that CEOs' tendency to reduce pollution becomes weaker when there are more plants nearby.

C. Cross-sectional analyses of CEO turnovers based on the importance of hometown states

In Section 2.3. of the manuscript, we use a Difference-in-Differences approach to show that turnover-induced increases (decreases) in plants' distance to CEO hometowns raise (lower) pollution levels. An alternative interpretation of this finding is that a firm hires a CEO from a certain location because the firm wants to improve its environmental performance in that location. If this type of firm–location pair confounding factors are driving CEO turnovers and, thus, the subsequent changes in plant pollution, we expect the impact of turnover-induced changes in hometown proximity to be stronger among plants that are central to firm operations. If parent firms change CEOs in response to geographical environmental considerations, they are more likely to do so in states that are central to the firms' operations. In Appendix Table IA3, we measure the pre-turnover importance of a plant to a firm as the fraction of a firm's employees or sales from this plant, and we interact this measure with the two indicators for turnover-affected plants. The results show that being identified as important to parent firms does not ameliorate the increase in pollution when a plant experiences a decrease in hometown proximity (columns (1) and (3)), nor does it enhance the reduction in pollution for plants experiencing an increase in hometown proximity (columns (2) and (4)).

D. Pollution control in non-hometown plants

We examine the spillover effect of CEO hometown preferences on non-hometown plants. In doing so, we directly compare the toxic releases of non-hometown plants in the same location, where one non-hometown plant’s parent company A operates a hometown plant elsewhere and the other non-hometown plant’s parent company B does not operate any hometown plant. If firm A reallocates resources away from its non-hometown plants toward the hometown plant(s), we should expect the first non-hometown plant to pollute more than the second.

We first construct a new independent variable *Parent Firm’s % in Hometown Plant*, which measures the fraction of hometown plants for each firm–year. We then compare non-hometown plants from a parent where a CEO has more hometown plants against non-hometown plants from a parent where all plants are non-hometown:

$$\begin{aligned} Pollution_{p,s,i,j,t} = & \alpha + \beta_1 \text{Parent Firm's \% in Hometown Plant} \\ & + \beta_2 D(\text{HQ State}) + \text{Controls} + \text{FEs} + \epsilon_{p,s,i,j,t}, \end{aligned}$$

where the regression sample excludes plants located either in CEOs’ hometown states or within the 50-mile radius of CEOs’ home counties. The FEs include plant state–year and plant industry–year fixed effects, but use parent fixed effects to replace parent–year fixed effects because the measurement of hometown plant presence does not vary within a parent–year.

Appendix Table [IA4](#) presents the results. In columns (1) and (2), we observe no correlation between the presence of hometown plants and the pollution levels of non-hometown plants, suggesting that the lower pollution level at the former does not appear to be achieved at the cost of the latter. In columns (3) and (4), we again find that the number of chemicals emitted by non-hometown plants is uncorrelated with the presence of hometown plants in the parent firm. These results suggest that CEOs do not pursue environmental protection near their hometown to the detriment of other places. Instead, it is more likely that CEOs spend extra dollars on pollution abatement near their hometowns.

Figure IA1: DuPont's Environmental performance around CEO Edgar S. Woolard's tenure

This figure shows the environmental performance of DuPont's plants between 1988 and 1996. Plants are grouped by whether they are located in North Carolina, the hometown state of Edgar S. Woolard, who served as CEO of DuPont from 1989 to 1995. The dark dashed line represents hometown plants and the dark solid line represents non-hometown plants.

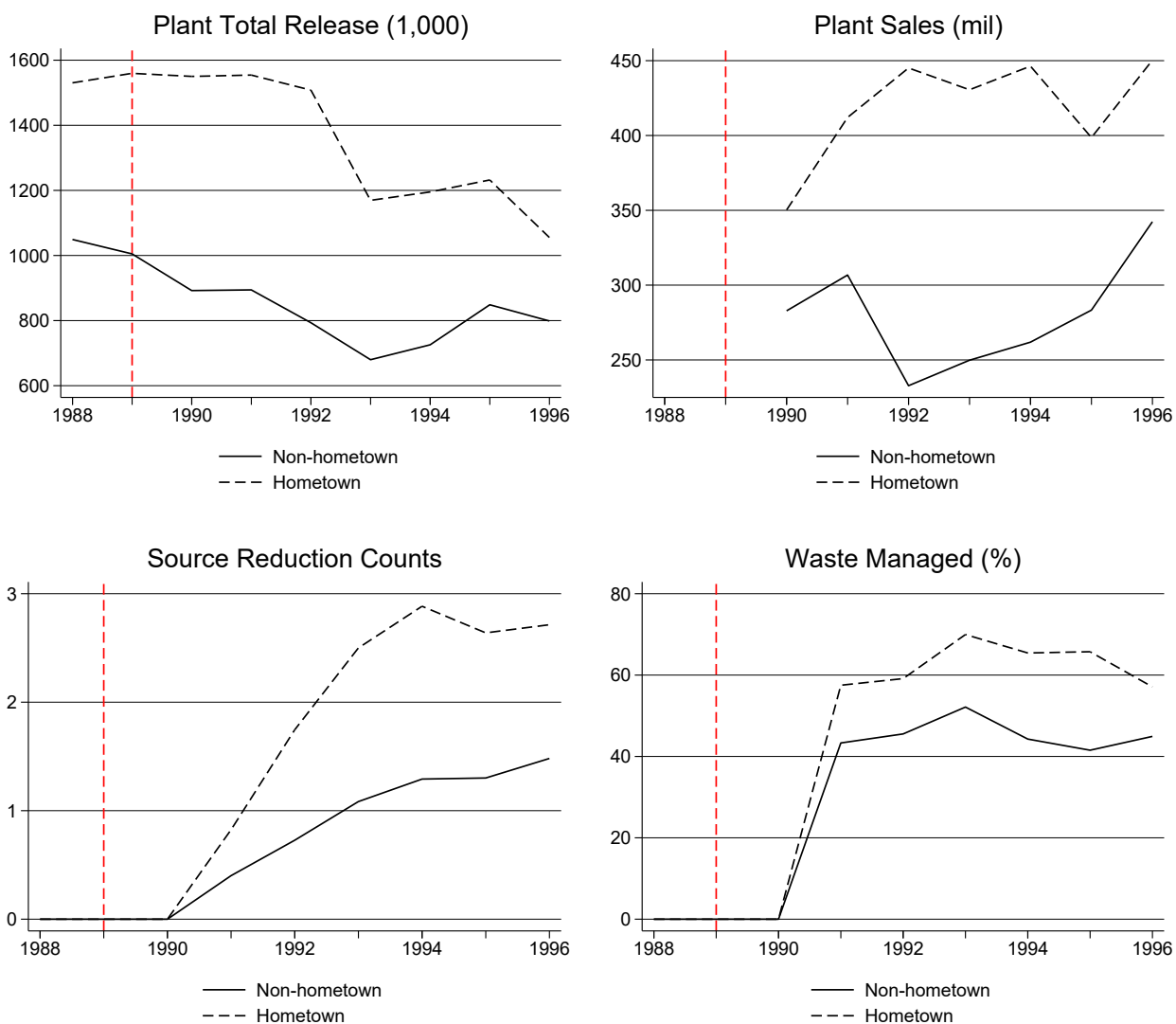


Figure IA2: Waste management activities

This figure overviews pollution abatement activities under two main categories: pollution prevention (also known as source reductions) and post-production waste management process.

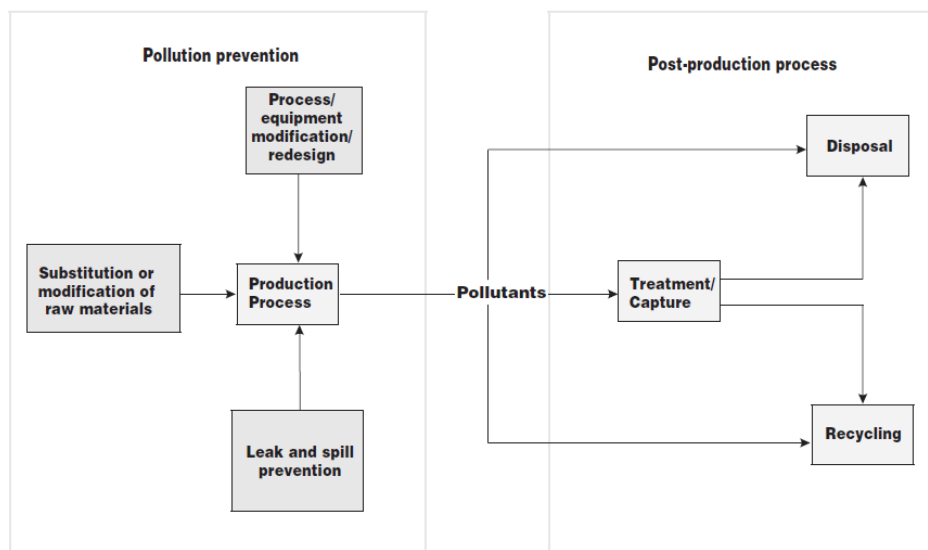


Table IA1: The frequency and category of source reduction activities

This table lists the eight broad categories of source reduction activities. Among chemical-year observations that implement any of the abatement activities, we also calculate each category's frequency of implementation in the TRI database.

Source Reduction Category	Percent(%)
Good Operating Practices	30.90
Process Modifications	22.62
Spill and Leak Prevention	15.47
Raw Material Modifications	10.47
Inventory Control	6.54
Surface Preparation	4.81
Cleaning and Degreasing	4.63
Product Modifications	4.55

Table IA2: Number of nearby plant counts and pollution reduction incentive

This table reports Poisson regression results on whether firms' pollution reduction in CEOs' hometown or headquarter locations depends on the number of nearby plants. The sample includes plant-year observations between 1992 and 2019. *Nearby Plant Count (50m)* and *Nearby Plant Count (100m)* measure the number of plants within the 50-mile and 100-mile radius of a given plant in a year, respectively. The fixed effects included in the regressions are denoted at the bottom of the table. Standard errors are clustered by parent-year and plant state-year. ***, **, and * indicate significance level and the 1%, 5%, and 10%, respectively.

Dependent variable	Total Release			
	(1)	(2)	(3)	(4)
D(0 – 50 miles)	-0.840*** (0.233)	-1.421*** (0.373)		
D(Hometown State)			-0.103 (0.239)	-1.285*** (0.451)
D(HQ State)	0.099 (0.122)	-0.366* (0.214)	0.032 (0.149)	-0.322* (0.164)
D(HQ State) × Nearby Plant Count (50m)	0.087** (0.040)		0.133*** (0.044)	
D(HQ State) × Nearby Plant Count (100m)		0.184*** (0.054)		0.187*** (0.040)
D(0 – 50 miles) × Nearby Plant Count (50m)	0.173** (0.078)			
D(0 – 50 miles) × Nearby Plant Count (100m)		0.271*** (0.096)		
D(Hometown State) × Nearby Plant Count (50m)			-0.078 (0.078)	
D(Hometown State) × Nearby Plant Count (100m)				0.263** (0.113)
Log(Plant Sales)	0.090*** (0.015)	0.092*** (0.015)	0.083*** (0.015)	0.087*** (0.015)
Observations	32422	32422	32964	32964
Pseudo R^2	0.784	0.783	0.784	0.784
Parent-year FE	Y	Y	Y	Y
Plant state-year FE	Y	Y	Y	Y
Plant industry-year FE	Y	Y	Y	Y

Table IA3: Cross-sectional analyses of CEO turnovers based on the importance of hometown states

This table contains the Poisson regression results on whether the impact of CEO turnovers on plant-level pollution is stronger for plants in states that are important to firms' business operations. The regression is based on matched samples that include plants affected by parent firm CEO turnovers (plants located in the hometowns of either the outgoing CEOs or incoming CEOs). For each treated plant, we match control plants by total pollution level and employee counts using the Coarsened Exact Matching procedure. $D(\text{High EMP Plant})$ and $D(\text{High Sales Plant})$ are indicators for plant with more than 10% of employees and sales within the parent firm during the three year before CEO turnovers. The fixed effects included in the regressions are denoted at the bottom of the table. Standard errors are clustered by parent-year and plant state-year. ***, **, and * indicate significance level and the 1%, 5%, and 10%, respectively.

Dependent variable	Total Release			
	(1)	(2)	(3)	(4)
D(Hometown to Nonhometown)*D(Post)	0.172 (0.107)		0.142 (0.130)	
D(Nonhometown to Hometown)*D(Post)		-0.409*** (0.134)		-0.409*** (0.133)
D(Hometown to Nonhometown)*D(High EMP Plant)*D(Post)	0.008 (0.015)			
D(Nonhometown to Hometown)*D(High EMP Plant)*D(Post)		0.059 (0.097)		
D(Hometown to Nonhometown)*D(High Sales Plant)*D(Post)			0.284 (0.256)	
D(Nonhometown to Hometown)*D(High Sales Plant)*D(Post)				0.058 (0.097)
D(High EMP Plant)*D(Post)	-0.010 (0.061)	-0.003 (0.015)		
D(High Sales Plant)*D(Post)			0.095 (0.075)	-0.002 (0.010)
D(High EMP Plant)	-0.006 (0.047)	0.002 (0.009)		
D(High Sales Plant)			-0.081* (0.043)	0.004 (0.006)
D(Post)	0.023 (0.058)	-0.012 (0.008)	-0.016 (0.068)	-0.013 (0.010)
Log(Plant Sales)	-0.006 (0.034)	0.105*** (0.037)	-0.006 (0.034)	0.105*** (0.037)
Observations	6137	6693	6137	6693
Pseudo R^2	0.988	0.994	0.988	0.994
Parent-year FE	Y	Y	Y	Y
Plant state-year FE	Y	Y	Y	Y
Plant industry-year FE	Y	Y	Y	Y
Plant FE	Y	Y	Y	Y

Table IA4: Pollution control in non-hometown plants

This table reports Poisson regression results on whether the pollution of non-hometown plants is affected by the presence of hometown plants of the same firm. The sample includes annual observations for all non-hometown plants between 1992 and 2019. *Hometown Sibling – Radius* and *Hometown Sibling – State* indicate the existence of hometown plants for a given firm–year, identified by $D(0 - 50 \text{ miles})$ dummy and $D(\text{Hometown State})$ dummy, respectively. The fixed effects included in the regressions are denoted at the bottom of the table. Standard errors are clustered by parent–year and plant state–year. ***, **, and * indicate significance level and the 1%, 5%, and 10%, respectively.

Dependent variable	Plant Total Release		Chemical Counts	
	(1)	(2)	(3)	(4)
Parent Firm's % in Hometown Plants - Radius	0.046 (0.052)		0.028 (0.028)	
Parent Firm's % in Hometown Plants - State		-0.001 (0.036)		-0.029 (0.018)
D(HQ State)	-0.040 (0.065)	-0.042 (0.066)	0.072*** (0.017)	0.066*** (0.017)
Log(Plant Sales)	0.186*** (0.017)	0.186*** (0.017)	0.090*** (0.005)	0.090*** (0.005)
Observations	36349	36349	39979	39979
Pseudo R^2	0.662	0.662	0.350	0.350
Parent firm FE	Y	Y	Y	Y
Plant state-year FE	Y	Y	Y	Y
Plant industry-year FE	Y	Y	Y	Y