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Environmental Justice and the Print Media During the Implementation of Superfund

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Research Question

- Does the print media, through disparate coverage, contribute to environmental (in)justice?
- Print media may cover poor or minority neighborhoods differently:
 - More: Editorial bias towards a story that has an additional “angle” of race, justice, etc.
 - Less: Editorial bias against a story that may seem more distant to the concerns of typical subscribers.

Why Media Matters

- Prior research shows effects of media coverage on polluters.
 - Saha & Mohr, 2013
 - Hamilton, 1995
- Media is a form of “informal regulation.”
 - Zwickl & Moser, 2015

Time Period: 1982-1984

- Initial years of Superfund.
- Large number of sites added to National Priorities List (NPL).
 - Editors had discretion about which sites to include and the about the intensity of coverage.
- Coincides with start of Environmental Justice movement.
- A period where perceptions about race shaped public opinion and policy.

Methodology

- Identify all sites added to the NPL from 1982-84.
- Identify all newspaper articles in *the Washington Post* or *the New York Times* that include the word “Superfund.”
- Of these, identify articles discussing specific sites.

Methodology: Qualitative

- A big disparity in coverage.
- At least one of top five sites mentioned in 60% of the articles.
- Review the history of those five sites:
 - Reasons for intense media coverage.
 - Socio-economic characteristics of each site.
 - How the articles portray residents & neighborhoods.

Methodology: Quantitative

- Classify the articles by article characteristics.
- Generate measures of media intensity for each site according to content and number of articles written.
- Regress media intensity on site characteristics.
 - To what degree does race & median income correlate to media coverage.

Article Analysis

- Article Features Identified
 - Neighborhood description (*blue-collar, nearby school*)
 - Environmental risk (*runoff to stream or soil*)
 - Health risks (*links to cancer or birth defects*)
 - Specific Chemicals name (*Toluene, PCB's, Dioxin*)
 - Quote from victim, resident or advocate
- “Detailed” = any of above.
- “Political Only” = none of above + exclusively about political scandal or renewal of legislation.

	<i>Washington Post</i>	<i>New York Times</i>	<i>Total</i>
Total Articles	72	93	165
With details	44	54	98
Neighborhood characteristics	19	27	46
Political only	24	26	50
Multiple sites	36	21	57
Avg. # of Sites	1.9	1.5	1.6

Frequently Mentioned Sites

Site Name	Hazard Score	<i>New York Times</i> Cites	<i>Washington Post</i> Cites	Total Citations	Cites, excl. political	2016 Status:
Stringfellow Acid Pits, CA	61.4	22	26	48	13	Active
Love Canal, NY	52.3	20	16	36	26	Deleted
Times Beach, MO	40.1	11	10	21	16	Deleted
Seymour Recycling, IN	58.2	4	11	15	8	Active
Chem-Dyne, OH	48.8	2	7	9	6	Active

Frequently Mentioned Sites: Zip Code Characteristics

	% White	% Non- White	% His- panic	Populati on	Median Income
Love Canal	96.00	2.71	1.29	30,290	\$28,085
Stringfellow	72.63	4.32	23.10	17,358	\$36,737
Times Beach	98.82	0.55	0.63	6,006	\$40,074
Seymour Recycling	98.12	1.36	0.53	21,094	\$26,718
Chem-Dyne	88.85	10.70	0.45	41,190	\$24,790

Notes: Unweighted averages. 1990 Census data at zip-code level.

Narrative: Evacuated Towns

Love Canal and Times Beach

- Working-class and predominantly white.
- In the case of Love Canal, poorer, black residents also affected, but their story ignored (Blum, 2008).
- By 1982: Love Canal was already a historical episode. Articles were about aftermath or Love Canal mentioned in passing.
- Times Beach events occurred during 1982-83.

Narrative: Political Scandal

Stringfellow, Seymour, and Chem-Dyne.

- Amongst first sites to be slated for remediation.
- Great fanfare as Reagan administration announced settlements.
- Charges of “sweetheart” deals, announcements timed to influence elections, and insufficient planning/funding for the scale of cleanup needed.

Narrative: Political Scandal

Stringfellow, Seymour, and Chem-Dyne.

- These sites more diverse in of race and income, but..
- Most articles were not about the sites at all.
- If articles investigated the sites, only because of the scandal.
- Stringfellow coverage focused broadly on water supplies of Riverside and Los Angeles.

Quantitative Analysis

- Do characteristics of zip code have a statistical relationship to:
 - Likelihood of any coverage?
 - Likelihood of coverage with any site, hazard, or neighborhood details?
 - Number of articles written?
 - Number of articles written that include details?
- Methods: Probit and Poisson Estimations using 1990 census data.

Estimation Results

	Media Attention	Attn: Detailed	# of Articles	# Articles: Detailed
Non-white	0.001 (0.01)	0.002 (0.01)	-0.026*** (0.01)	-0.023*** (0.01)
Hispanic	0.010* (0.01)	0.010* (0.01)	0.022*** (0.00)	0.015*** (0.01)
Log Income	0.041 (0.23)	0.037 (0.24)	-0.077 (0.20)	-0.280 (0.24)
Hazard Score	0.031*** (0.01)	0.025*** (0.01)	0.072*** (0.01)	0.053*** (0.01)
Population/10,000	0.005 (0.05)	0.014 (0.05)	0.025 (0.04)	0.060 (0.05)
Washington Area	3.004*** (0.52)	2.969*** (0.52)	2.111*** (0.23)	1.910*** (0.28)
New York Area	0.438*** (0.17)	0.271 (0.17)	0.394*** (0.14)	0.535*** (0.17)

Pseudo R-Squared

N=470.

Interpretation

- Influential Outlier: Stringfellow
 - If Stringfellow is dropped:
 - Hispanic becomes insignificant (still positive)
 - Non-white remains significant only in count data models
- Relative to “white”, the New York Times and Washington Post reported less frequently on NPL sites in non-white communities.
- Relative to “white” the two papers were similarly likely to report on NPL sites in Hispanic communities.

Extensions in Progress

- Merge onto 1980 tract & county-level data.
- Estimate relationship between media attention and type or duration of cleanup.
 - [Initial results](#) show strong positive correlation between all measures of media attention and probability of “deleted.”
 - Concern about selection:
 - some articles written specifically in response to slow progress.
 - Selection likely to bias against finding a result.

Missing from the Narrative

- Warren County, NC
 - Hazardous waste disposal facilities
- Potential sites never included
 - E.g. Cancer cluster in Colorado
- Newer Time Periods
- Other News Outlets (west coast or regional)