

Coming Clean: Information Disclosure and Environmental Performance

Michael E. Kraft

Public and Environmental Affairs

UW-Green Bay

kraftm@uwgb.edu

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Presentation Outline

- Information Disclosure and Transparency as a Policy Strategy
- Policy Expectations for TRI
- Progress with TRI and Questions Raised
- Research Design and Data Collection
- Results: Facility and Public Officials Surveys
- Conclusions and Recommendations for More Effective Transparency and Open Government

Introduction

- An NSF-funded project (#0306492). Papers at: www.uwgb.edu/idedm/
- Book in press at MIT Press: *Coming Clean: Information Disclosure and Environmental Performance*. With Mark Stephan and Troy D. Abel. Available fall 2010.
- TRI as example of information disclosure: leading federal non-regulatory program of this kind.
- We ask how information disclosure actually works and with what effects on facilities and communities? Implications for transparency?

Background

- Regulation as dominant strategy for environmental policy for four decades.
- “an elaborate system of reporting, inspections, and penalties exists to make people follow the rules” (Fiorino, *New Environ. Regulation* 2006)
- Large Number of Facilities: 40,000 stationary air sources, 90,000 facilities with water permits, over 425,000 hazardous waste facilities, 400,000 underground injection wells, and 173,000 drinking water systems.
- Effects/outcomes? Generally good, but highly variable.

Background II

- Common critiques: command and control is bureaucratic, prescriptive, fragmented, adversarial, possibly inefficient and ineffective.
- Reform agendas and efforts since 1980. However, little change to date.
- A role for information disclosure? Value of information transparency and open government?
- Emergency Planning and Community Right to Know Act (EPCRA) 1986.
- Assumptions in making information public.

TRI Effects

- EPCRA Title III mandates reports from 21,000 plus facilities and on over 650 toxic chemicals.
- Progress since 1988: Decrease of releases over time, about 61%, using the core 286 chemicals reported on since 1988.
- EPA considers TRI a success. Some others less positive. Questions of data quality, meaning, and public understanding.
- Amount of chemicals released is **still large**: about 4 billion pounds a year. Thus health risks continue.

Questions about TRI—and Other Information Disclosure/Transparency Programs

- **How** has this process worked? What mechanisms are at play?
- **Why** did the facilities reduce their releases? What **differences** are there among the facilities?
- What do facilities **think** about the TRI?
- What do federal and state officials **think** about the TRI? Are the data **used**, and if so, **how**?
- What **lessons** are there for the future for transparency and open government?

Research Design and Data

- TRI database: Facilities reporting between 1991 and 2000. Reported releases and risk.
- Risk data from EPA RSEI (Risk-Screening Environmental Indicators) model: air emissions.
- Survey data: National sample survey of 1,083 facilities. Mail questionnaires in 2005. Also for state and federal TRI officials. Return rates acceptable to high: 24% corporate, 58% state officials, and 80% EPA officials.
- Also illustrative case studies. Interviews with facility officials to complement survey data.

Safer and Cleaner Facilities: 1991-2000

- **Green:** Decreased releases and risk: 42%
- **Blue:** Increased releases, lowered risk: 8%
- **Yellow:** Decreased releases, higher risk: 12%
- **Brown:** Increased releases and risk: 38%
- In sum, 54% **decreased** releases but 46% of facilities **increased** releases.
- Important to recognize such variation.

Facility Environmental Expertise Also Varies Considerably

- ISO 9001 certified: 82% yes; 18% no
- ISO 14001 certified: 35% yes, 65% no
- Seeking ISO certification: 14% yes, 86% no
- Have Environmental Management System: 59% yes, 41% no
- TRI contact official is member of professional associations: 46% yes, 54% no

With Whom Do Facility Managers Interact?

- **The most:** Facility employees, corporate management, suppliers, customers/end users, and regulators
- **The least:** trade associations, environmental organizations, community groups, local emergency planning committees, legislators, media

What Factors Matter Most in Industry's Management of Toxic Chemicals? (in descending order)

- Limiting Legal Liability
- Improving Environmental Performance
- Improving Regulatory Compliance
- Saving Money
- Strengthening the Firm's Reputation
- Desire to Improve Community Relations
- Anticipation of New Legislation/Regulation

Effects of Facility Experience with TRI

- Increased understanding of reporting needs
- Increased ability to collect more accurate data
- Helped to identify goals for release reduction
- **Not** so much of an effect: increased ability to discuss releases with community/media, improved understanding of costs/benefits of chemical management, emergency management
- Overall experience with the TRI: 37% positive; 51% neutral; 12% negative: 88% **not** negative

How TRI Data Are Used by Federal and State Officials (in descending order)

- Assist with regulations and enforcement
- Educate citizens about local pollution problems
- Compare emissions to similar facilities
- Compare facility emissions over time and check emissions against permit records
- Increase knowledge of local pollution problems
- Identify needs and opportunities for source reduction
- Compare and evaluate public and environmental risks, and set local, state, and regional priorities

Effects of Using TRI Data in These Ways (in descending order)

- Pollution prevention activities were undertaken
- Source reduction efforts were effected
- Media coverage increased
- Industry-citizen meetings were prompted
- Emergency management was improved
- Litigation took place or data used in litigation
- Legislative, regulatory, or administrative changes occurred

Conclusions and Implications for Transparency and Open Government

- TRI works, but much variation in effects across individual facilities, states, and communities.
- Metrics: use public health risk information as well as quantity. Improve on RSEI model.
- Experiment with creative approaches to improve public attention and understanding.
- Information should be current, simple, clear, and accessible. Use intermediaries: community groups, media, local officials, social networks.
- Need to rebuild public trust in science and information, in part through open government.

Further Implications for Transparency and Open Government

- Measure/report facility environmental performance.
- Information disclosure works best with well-designed and enforced regulations.
- Offer assistance, especially to lagging facilities.
- Offer recognition, encouragement, and rewards to leading facilities.
- Information disclosure and transparency vital for accountable governance. But need careful design and implementation.