

Determinants of Evaluation Supply at the
U.S. Environmental Protection Agency (EPA):
**A Case Study of the RCRA
Hazardous Waste Program**

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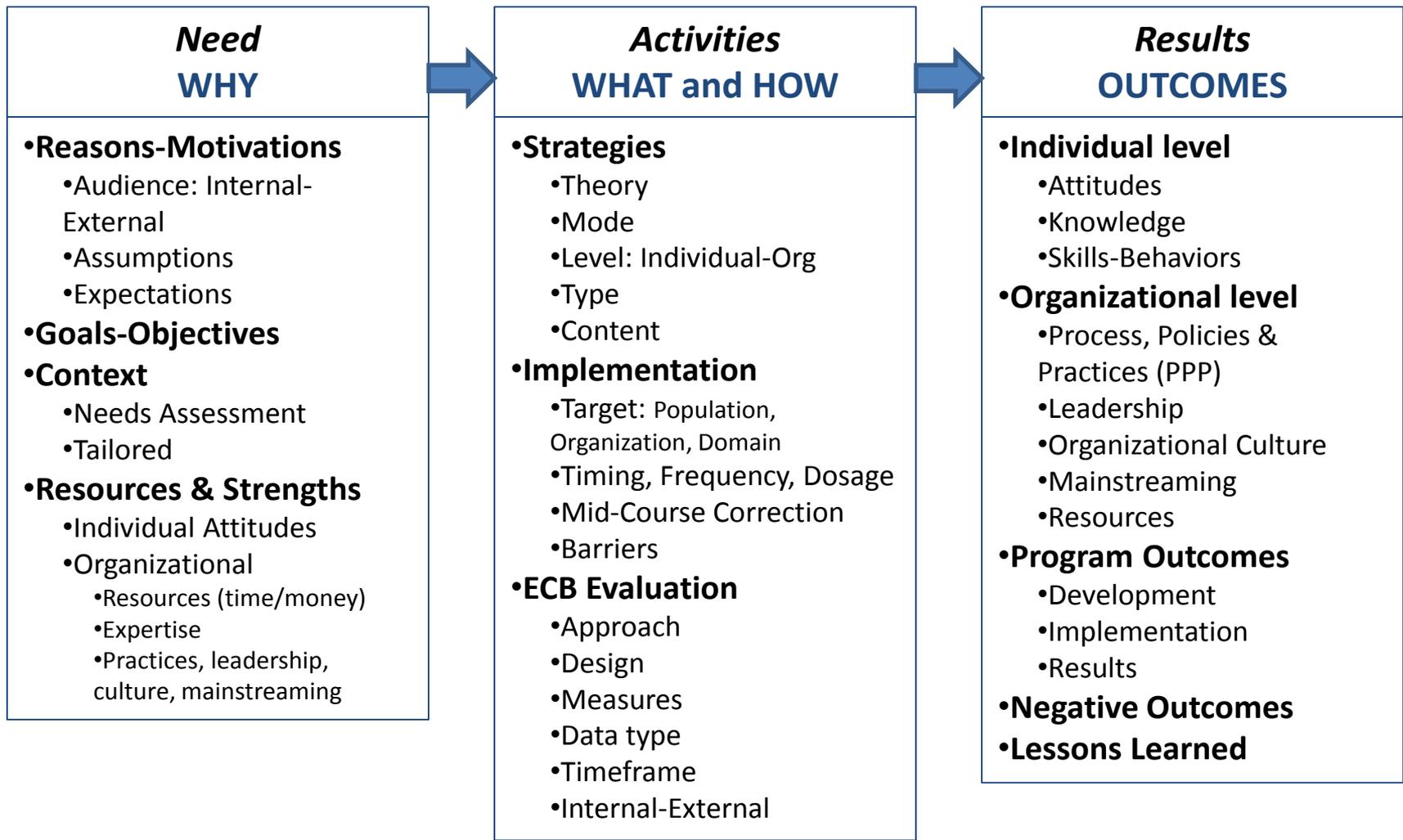
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Why study EPA evaluation supply?

- **Calls for more evaluation of EPA programs** from academics are not new (Greenstone 2009, Ferraro 2009, Knapp & Kim 1998)
- But there is a limited focus in existing capacity-building literature specifically on EPA evaluation capacity
- EPA conducts **extensive *ex ante* analysis** during rulemaking
 - From 1998-2013 **~200 RIAs and ~1450 Ecological and Human Health Risk Assessments** (*RegInfo.gov and Regulations.gov*)
- Compared to the frequency of *ex ante* analysis, relatively **little formal evaluation** sponsored by EPA occurs today
 - EPA sponsored **70 *ex media* or *ex post* evaluations** over the past 15 years, including 3 impact evaluations (*EPA/OP*)

Labin et al.'s Integrated ECB Framework



RCRA Case Research Questions

#1: What Federal **policy systems support** the development of evaluation in environmental programs implemented by the EPA? In the presence of those systems, how has **evaluation capacity building** at the EPA occurred?

#2: What **facilitators encourage** the production of evaluation in EPA's RCRA Program? What real and perceived **barriers impede** the production of ex media and ex post evaluation in RCRA?

#3: How might program evaluation, if supplied, serve as a **tool to inform** the development and implementation of EPA policies and regulations?

Methods: Data & Analysis

- **RCRA Case Selection Criteria:**

- Implement national-scale EPA policy
- Well-established programs in operating stage
- Joint implementation between EPA and state partners



- **Data Collection**

- *Archival Documents:* Agency document reviews (guidance, memos), environmental authorizing statutes, existing EPA-sponsored evaluations
- *Semi-Structured Interviews:* 31 interviews with purposeful, targeted selection



- **Analysis**

- Themes open and axially coded in NVivo
- Include illustrative analysis within case using administrative data from RCRA enforcement activities to consider processes, systems, determinants, and usefulness



RCRA History & Context

- **Authorization:** Original program **established in 1960s**, with major modifications in the 1970s and 1980s; **no reauthorizations since 1984**
- **Identified Program Goals:** prevent future Superfund Sites & ensure proper management of haz waste, cradle-to-grave
- **Political Dynamics:** **history of congressional scrutiny** from delayed regulations and a mid-1980 political controversy
- **Design:** Cooperative Federalism design, with substantial share of hazardous waste **activities delegated to states** (e.g., permitting, enforcement)
- **Courts & Litigation:** 151 suits against EPA from 1995 to 2010

RCRA Evaluation Capacity Inventory

Criteria	Finding	Explanation
<i>1. Is the program significant enough to merit evaluation?</i>	Yes	RCRA taken as a whole comprises a major program at EPA with 400,000 regulated facilities and operators, regulations that apply to all 50 states, \$30 billion in estimated annual private compliance costs, \$250 million in annual State expenditures, and \$208 million in annual Federal expenditures.
<i>2. Are the program goals clear?</i>	Yes	While a consistent perspective on program goal was lacking during initial stages of development, as a mature program general agreement between the program staff, political appointees, and Congress has emerged: RCRA is intended to prevent future Superfund sites and to encourage waste minimization and pollution prevention.
<i>3. Can the results of evaluation influence decisions about the program?</i>	Yes	The 1990 Implementation Study provides evidence that the RCRA program staff have experience and interest in using comprehensive evaluations to inform and guide future program decisions. Other formal evaluation efforts such as the hazardous waste determination evaluation resulted in program staff proposing regulatory revisions. Interviewed EPA staff also identified less formal evaluations that resulted in regulatory revisions.
<i>4. Are intended evaluation users and uses well-defined?</i>	Yes	National program managers, regional program directors, and other EPA staff are well-suited to consider recommendations from evaluations, and to implement recommendations through collaboration with stakeholder networks, agency guidance, or regulation. The program has a history of applying recommendations from evaluations to improve program operations, including through regulations and administrative processes.
<i>5. Can an evaluation technically be completed?</i>	Yes	Through RCRAInfo, ECHO, and other existing administrative databases, EPA possesses a wealth of facility-, community-, and state-level data that can support evaluation of program outcomes. EPA is also developing new data systems to support the electronic hazardous waste manifest, which will allow the agency to access near real-time facility-level data on generation and transport of hazardous waste.

RCRA Evaluability: Formal Evaluations

- **Completed RCRA Evaluations: 20 identified**
 - 13 evaluations were funded by EPA's Office of Policy Evaluation competition between 2003-2013, self-initiated
- **Examples:**
 - 1990 RCRA Implementation Study:
 - Political appointee committed to evaluation in confirmation hearing
 - Conducted prior to expected reauthorization activities
 - Addressed widespread critiques of the program, with range of stakeholders
 - Conducted with internal EPA staff expertise
 - 2010 WasteWise Evaluation:
 - Voluntary programs under critique due to lack of mandate and challenges describing benefits
 - Program initiated study to respond to critiques
 - OMB critique of attribution issues to address for Information Collection Request (ICR)
 - Contractor addressed by only surveying Federal facilities in USPS

Identified Evaluation Supply Factors

Factor	Facilitator			Barrier		
	Documents	Evaluations	Interviews	Documents	Evaluations	Interviews
Motivation		■	■			
Leadership		■	■		■	■
Political Environment	■	■	■	■	■	■
Perceived Utility	■	■	■	■	■	■
Program Resources		■	■		■	■
Program Culture		■	■	■	■	■
Program Design	■	■	■	■	■	
Legal Issues	■	■	■	■	■	■
Methodological Issues		■			■	■
Data Issues	■	■	■	■	■	■

Future Opportunities for RCRA

1. Emphasis on **Leadership** for Evaluation Prioritization
2. **Calibration with Regulatory Processes**
3. Systems and Procedural Development for **Further Analysis of Outputs/Outcomes**

Next Steps in Research

- Conduct cross-case analysis to compare determinants from multiple EPA programs, including the NAAQS and Performance Partnerships
- From the cross-case, consider how the factors align with existing frameworks, or suggest modifications