Hazardous Waste Management: A View from the States

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Hazardous Waste Management: A View from the States

Melissa Armbrister

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Introduction

In 1998 the American Society of Civil Engineers (ASCE) prepared a report card on various components of America’s infrastructure. In that report the ASCE gave a “D-” to the current status of hazardous waste management in this country. In their 1998 report, the ASCE concluded that:

More than 530 million tons of municipal and industrial hazardous waste is generated in the U.S. each year. Since 1980, only 423 (32%) of the 1200 Superfund sites on the National Priorities List (NPL) have been cleaned up. The NPL is expected to grow to 2,000 in the next several years. The price tag for Superfund and related clean up programs is an estimated $750 billion and could rise to $1 trillion over the next 30 years (ASCE, 1998).

Clearly, hazardous waste management represents a formidable task for policy makers at all levels of government. Of course, eliminating waste requires facilities for disposal; this is perhaps the most controversial aspect of the hazardous waste management debate. At the local level, counties and municipalities are routinely engaged in battles in which they are trying to impose these unwanted facilities on their neighbors. The state is often forced to step in and play a central role in resolving the conflict.

Over the last several decades, several authors have sought to determine to what degree of importance the public places on improving and protecting the environment, as well as the various policy options they are willing to consider. Waste facility siting plays an important role in these policy options. To a far lesser degree, scholars have directly considered the opinions of those persons responsible for making the ultimate policy decisions.

Rather, scholars have tended to rely on an institutional approach when studying environmental decision-making. To this point, legislators’ attitudes on the environment have not been assessed to the point that the citizens can feel comfortable about their decision-making abilities, especially when one considers the various technical features that accompany the policy. This research project is intended to add to the growing body of literature on environmental decision making by considering the opinions of state legislators regarding various policy options concerning hazardous waste management and facility siting.

Literature Review

The following information is derived from state environmental studies in policy journals and handbooks and contains information on how these studies have been assessed in the past.

The federal government has returned the administration of state environmental policies back to the states. This responsibility, called primacy (Crotty, 1987), give states central management over the environment when public support for environmental activities is among its highest levels (Dunlap, 1991). Research on comparative state government environmental management has increased to the point that the success of national and state programs has been widely noticed (Lowry, 1992). The only problem is the fact that it has become increasingly complex.
One study on hazardous waste disposal in Tennessee examined the views that constituents and legislators have pertaining to the scientific and technical aspects in making policies as to where waste facilities should be sited. The results of a survey given to 588 constituents and 72 legislators in Tennessee showed that the public was far more interested in control of hazardous waste disposal than in the economic benefits that a facility would provide (Freeman, Lyons, and Fitzgerald, 460). It also showed that the legislators were actually more favorable than the public on having the facility that provided communities with jobs, lower county taxes, and fire protection (460). This study was important in looking at constituents' opinions, but did not focus primarily on the legislators, nor was it comparable with other states.

In policy enactment, studies have also been completed regarding certain assessments on issues like acceptable risk, risk assessment, and comparative risk. Surveys of the state legislators regarding the use of risk assessments when enacting the environmental policies have shown strong support for use of the assessments (Cohen, 1997). However, there is little consistency on defining the level of acceptable risk (Cohressen and Covello, 1989). State comparative risk projects have shown that they can be procedurally fair, but do not produce substantive fairness (Patterson and Andrews, 1995).

When it comes to policy enactment of environmental issues, environmental interest groups have played a big part in trying to obtain goals, although not necessarily by peaceful actions. Such groups fight to obtain their respective goals (Ingram and Mann, 1989), and it has been shown that these groups have better organized industrial interests at the state level (Bacot and Dawes, 1996). One study of 73 Washington state environmental groups showed that the institutionalized groups regularly testify at the state legislature, while grassroots groups do not, based on the fact that grassroots groups do not have as large a membership or receive as much funding (Salazar, 1996).

Policy implementation has had more of an extensive amount of information obtained from developments, findings, and research directions. There has been studies done on privatization, market-based incentives, government regulation, legislative-bureaucratic oversight, experimentation, innovation, environmental federalism, citizen and group participation, comparative state environmental policy outputs, and regional variation in comparative state environmental policy outputs. All of these issues lead up to the study at hand, but the main issue concerns the regional variation in comparative state environmental policy outputs.

Regional comparative policy implementation is greatly affected by environmental federalism. When policy implementation comes from federal policies, states are more likely to respond to them when compared to national initiatives. When there is discussion of balancing uniform national standards and state autonomy, there is persistent conflict (Weiland and O'Leary 1997). In 1996 Malysa conducted a comparative study pertaining to the Coastal Zone Management Act, a state-regulated act, and found that states are capable of managing their own coastal zones.

Citizen and group participation in state environmental administration is an important issue when discussing regional discrepancies among state legislators on environmental policy issues. States that fail in providing citizens with resources to mobilize the interest groups in right-to-know programs, are engaging in symbolic politics, and are not really helping the environment (Grant 1997).

Comparative state environmental policy outputs can be measured in different ways. One way is to look at general measurements of state environmental commitment. Hays, Esler, and Hays (1986) developed a model showing that liberal citizens, strong environmental interest groups, and liberal conditions
and professional legislatures are most committed to environmental protection. They also show that state’s manufacturing interests, economic means, environmental conditions, and federal government influence exhibit little or no affect on environmental commitment. Another way of looking at state environmental commitment is by measuring environmental efforts in a fiscal manner. This type of examination finds that the strongest determinants of state environmental efforts come from pollution and environmental interest group activity (Bacot and Dawes, 1996). These authors explain that no matter which measure is used, pollution is the most dominant explanatory factor of state environmental efforts.

Regional variation in comparative state environmental policy outputs clearly persist in the distribution of environmental externalizes across the states (Bacot, Dawes, and Sawtelle, 1996). For example, in a 1994 study conducted by Alm, acid rain policies across the board seem to contain comparatively broad results. Alm found that there is a strong relationship between region and environmental policy when controlling other variables like total pollution emissions and coal production.

Results

As legislators make decisions regarding policy priorities, they are most likely to address those issues that have the most salience with their constituencies. Although several studies have identified the environment as a particularly striking issue among the public, that fact was not borne out in this survey. As seen in Table 2, over half the legislators indicated that fewer than 5% of calls that they received were related to an environmental issue. Nearly 90% said that less than 5% of their calls were related specifically to a hazardous waste issue.

Table 1: State representation in survey responses (N=331)

<table>
<thead>
<tr>
<th>State</th>
<th># Responses</th>
<th>Response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>Florida</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Montana</td>
<td>46</td>
<td>31</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>153</td>
<td>36</td>
</tr>
<tr>
<td>North Dakota</td>
<td>46</td>
<td>29</td>
</tr>
<tr>
<td>Oregon</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Washington</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Colorado</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>331</td>
<td>24</td>
</tr>
</tbody>
</table>

Methods

The data for this research was collected from a mail survey that was sent to all legislators in the following states: Alabama, Florida, New Hampshire, Colorado, Washington, North Dakota, Oregon, and Montana. The survey was conducted during the period of February through March 2000. Follow-up surveys were sent out to non-responders on two occasions. The survey consisted of twenty-three questions, most of which directly pertained to the perceptions of environmental policy. Six of the questions were designed specifically to assess the demographic characteristics of the respondents.
Although constituents do not call legislators frequently about environmental issues, the legislators in this study generally agree that solid and hazardous wastes are potential problems in their respective states, as seen in Table 3. Yet it is important to note that compared with other issues, these environmental concerns do not rank as the most serious problems. Rather, issues related to education, taxes, economic development and population growth were seen as the most serious problems facing the legislators in these states.

As noted at the outset of this paper, the most controversial aspect of hazardous waste management is the siting of facilities to dispose of the waste. As presented here, there is considerable evidence that nationally we are confronting a crisis concerning disposal and management; there is widespread agreement among the legislators in this study that hazardous waste management is at least a somewhat serious problem facing their states. Given this evidence it is clear that disposal facilities will have to be built, but how will those decisions be made and what do the legislators prefer?

To get at those answers, the legislators in this study were asked whether they would approve or disapprove of various options of making decisions concerning the placement of hazardous waste disposal facilities. As seen in Table 4, the least favored option was a lottery where all communities would have an equal chance of being chosen. There was also general opposition to having the federal government make the decision. The most preferred option was having the waste treated in the same locale as it was produced. Beyond this option, legislators basically supported either state or local action.
<table>
<thead>
<tr>
<th>Decision</th>
<th>N</th>
<th>Dissaprove Strongly</th>
<th>Dissaprove</th>
<th>Approve</th>
<th>Approve Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lottery where all communities have an equal chance of being chosen</td>
<td>320</td>
<td>64.7</td>
<td>27.2</td>
<td>7.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Having the waste treated in the same location at which it is manufactured</td>
<td>314</td>
<td>5.7</td>
<td>16.9</td>
<td>63.1</td>
<td>14.3</td>
</tr>
<tr>
<td>A decision by scientific experts</td>
<td>308</td>
<td>9.7</td>
<td>23.1</td>
<td>54.9</td>
<td>12.3</td>
</tr>
<tr>
<td>A decision by federal officials</td>
<td>318</td>
<td>33.6</td>
<td>38.1</td>
<td>25.8</td>
<td>2.5</td>
</tr>
<tr>
<td>A decision by state officials</td>
<td>319</td>
<td>7.5</td>
<td>20.1</td>
<td>62.1</td>
<td>10.3</td>
</tr>
<tr>
<td>A decision by local officials</td>
<td>317</td>
<td>12.9</td>
<td>23.0</td>
<td>49.5</td>
<td>14.5</td>
</tr>
<tr>
<td>A decision by a citizen’s advisory group</td>
<td>320</td>
<td>16.9</td>
<td>34.7</td>
<td>42.2</td>
<td>6.3</td>
</tr>
<tr>
<td>A government commission</td>
<td>314</td>
<td>22.0</td>
<td>34.4</td>
<td>37.6</td>
<td>6.1</td>
</tr>
</tbody>
</table>

Discussion and Conclusions

For the next several years hazardous waste management is going to represent a public policy that will serve as a formidable challenge for policy makers. However, it is not clear that citizens perceive the problem in the same way as experts, or even in the same way as their own representatives. Why is this the case? Little (1999) suggests that public reaction to basic infrastructure needs will only arise when extreme conditions appear. It seems that without a Love Canal or Chernobyl it will be difficult to build public support for various environmental issues, including hazardous waste disposal.

Even so, it is clear that basic infrastructure needs will need to be developed, including the locating of disposal facilities. When faced with the decision on how to make the best choice, the findings presented here are clear: regardless of what region of the country they are from, the legislators participating in this study agree that hazardous waste should be treated where it is manufactured and that a lottery used to choose facility sites is unacceptable.

References


Ingram and Mann. "Interest Groups and Environmental Policy." (1989.)


