# ENVIRONMENTAL POLICY ATTITUDES: ISSUES, GEOGRAPHICAL SCALE, AND POLITICAL TRUST

David M. Konisky (corresponding author)<sup>1</sup>
Truman School of Public Affairs
University of Missouri
koniskyd@missouri.edu

Jeffrey Milyo
Department of Economics and the
Truman School of Public Affairs
University of Missouri
milyoj@missouri.edu

Lilliard E. Richardson, Jr.
Truman School of Public Affairs
University of Missouri
richardsonle@missouri.edu

#### Abstract

This paper examines environmental policy attitudes, focusing on the differences in attitudes across issue type (i.e., pollution, resource preservation) and geographical scale (i.e., local, national, global). In addition, we test whether an individual's trust in government influences environmental policy attitudes. Analyzing responses from a nationally-representative survey of 1,000 Americans, we find more public support for government action to address pollution issues than resources issues, and stronger support for local and national pollution abatement than dealing with global problems such as climate change. We also find that more trusting individuals are more supportive of government action to address pollution problems and global issues. Finally, controlling for trust and various demographics, the results show that Republicans and politically conservative individuals are much less likely to support further government effort to address environmental issues.

-

<sup>&</sup>lt;sup>1</sup> Acknowledgements: The authors would like to thank the University of Missouri for financial support, and Tyler Schario for excellent research assistance.

#### Introduction

Since the onset of the modern environmental movement more than three decades ago, social scientists have actively examined public opinion on the environment. Recent research suggests that the U.S. public has persistently expressed concern about environmental problems (Dunlap 2002; Guber 2003). The General Social Survey, for example, has routinely asked the public whether the federal government is spending the right amount of money on improving and protecting the environment. For most of the past thirty years, majorities of the public (ranging from 50 percent to 60 percent) have responded that the federal government is spending too little. The apex of support for more government spending came during the late 1980s, likely a response to the Reagan Administration's retrenchment in environmental protection effort. Guber (2003) has shown a similar trend for other attitudinal measures, including those about the appropriate level of regulation and the degree that environmental protection is desired, even if it comes at the expense of jobs and economic growth.

One might reasonably infer from these attitudinal data that the public is generally supportive of government efforts to protect the environment, as large majorities are willing to support federal spending at the same or at increased levels to address environmental challenges. Because of the general nature of these types of questions, however, it is difficult to reach more than impressionistic conclusions about the environmental policy preferences of the U.S. public. For example, which environmental issues does the public think the government should spend the most time and money addressing? Does the public care more about local, national, or global issues? And, does trust in government affect an individual's preferences for additional government action to address environmental issues?

To examine these questions, we analyze responses to the 2007 Cooperative Congressional Election Study (CCES). This survey included a battery of environmental questions asked of a 1,000-person nationally-representative sample of U.S. adults. These questions enable us to compare public attitudes across a dozen environmental issues, ranging from those involving pollution to those involving natural resources, and varying in geographical scale from local to national to global. While most of the extant literature focuses on measuring and explaining the general concept of overall environmental concern, we are interested in how attitudes vary across these dimensions. Moreover, when we evaluate the public's preferences for government intervention to address environmental issues, we can control for public trust in government, which allows us to disentangle attitudes about government from those about environmental policy.

To summarize our main findings, we find that public support for government action to address the environment differs across issue type and geographical scale. The public desires more government effort to address local and national pollution issues, and less for global and natural resource problems. These findings underscore the value of studying attitudes with respect to specific issues, rather than focusing on single measures of environmental concern. In analyzing variation in these attitudes, we also find that they differ across segments of the population. The strongest predictors of environmental policy preferences are political attributes. Specifically, we find that Republicans and ideologically conservative individuals, controlling for their trust in government, are substantially less supportive of further government effort to address environmental issues.

The balance of the paper proceeds as follows. Next, we summarize the extant literature studying environmental attitudes. Subsequently, we describe the 2007 CCES survey and the

questions we examine. We then analyze and discuss our findings regarding the public's environmental issue attitudes, focusing on the similarities and differences across the type and geographical scale of issues. We conclude with directions for future research and a discussion of the implications of our research.

## **Measuring Environmental Policy Attitudes**

Most of the research studying public opinion about the environment has focused on defining and measuring what is generally referred to as "environmental concern." The concept of environmental concern has been defined in many ways. In a recent review of the literature, Dunlap and Jones (2002, p.485) defined it as "the degree to which people are aware of problems regarding the environment and support efforts to solve them and/or indicate a willingness to contribute personally to their solution." Scholars working in this area have grappled with difficult conceptual and measurement issues, such as dimensionality (e.g., Dunlap et al. 2000; Guber 1996, 2003; Scott and Willits 1994; Xiao and Dunlap 2007) and the stability of opinions over time (e.g., Dunlap and Scarce 1991; Dunlap et al. 2001; Guber 2003).

Researchers have also attempted to identify the determinants of environmental concern, focusing on a relatively standard set of individual-level attributes that might predict an individual's orientation toward the environment. Among the most consistent predictors of environmental concern are political ideology and party identification. Numerous studies have consistently demonstrated that Democrats and politically more liberal individuals tend to express stronger environmental attitudes than do Republicans and ideological conservatives (Carman 1998; Dunlap et al. 2001; Guber 2003; Kanagy et al. 1994; Klineberg et al. 1998; Press 1993; Uyeki and Holland 2000; Van Liere and Dunlap 1980). In addition, younger and better educated

<sup>&</sup>lt;sup>2</sup> See Dunlap and Jones (2002) for a comprehensive review of this extensive literature.

segments of the American public tend to express more pro-environmental attitudes (e.g., Carman 1998; Kanagy et al. 1994; Klineberg et al. 1998; Xiao and Dunlap 2007).

Some research has also identified gender, race, and religious beliefs as important correlates of environmental attitudes. Regarding gender, several studies have found that women express more environmental concern than do men (Bord and O'Connor 1997; Dietz et al. 2002; Mohai 1992; Xiao and Dunlap 2007), whereas others have found inconclusive results (Blocker and Eckberg 1997; Klineberg et al. 1998). Studies estimating the relationship between race and environmental preferences have had varied results. Early work found that African-Americans tended to express weaker environmental attitudes (Hershey and Hill 1977-1978) and prioritized other issues such as crime, education, and housing. More recent work has found few differences between African-Americans and whites across a large number of environmental issues (Jones and Carter 1994; Mohai 1990; Mohai and Bryant 1998; Taylor 1989). Finally, there is some evidence that more religious individuals tend to be less concerned about environmental issues (Guth et al. 1995).

The focus of this paper is on a different research question than the factors shaping overall environmental concern. We are interested in the distribution and determinants of public attitudes toward different types of environmental issues, rather than the public's general orientation toward the environment. Considerable research has argued that the concept of environmental concern consists of several latent concepts, with issue attitudes often representing one such underlying dimension (e.g., Carman 1998; Guber 2003; Klineberg et al. 1998; Xiao and Dunlap 2007). This stream of work is meritorious as a way to understand the factors that help define an individual's general environmental orientation or ecological worldview, and it supports efforts to create single scales to define such attitudes, such as the New Environmental Paradigm Scale

(Dunlap and Van Liere 1978; Dunlap et al. 2000) or the Environmental Concern Scale (Weigel and Weigel 1978). Much less attention, however, has been given to how perceptions vary across different environmental issues. In this paper, we are specifically interested in how support for government action to address environmental issues varies by issue type and geographical scale, and the role that trust in government has in explaining this variation.

First, there is disagreement in the literature on whether public attitudes about the environment are consistent across various types of environmental issues. In this paper, we are particularly interested in comparing attitudes toward pollution and resource preservation issues. In question is whether public attitudes about environmental policy are characterized by constraint (Converse 1964), and specifically horizontal constraint, which in this context means that attitudes toward one environmental issue will coincide with attitudes toward other environmental issues. Some attention has been given to the differences in opinion across substantive issue types, but mostly in an effort to construct an underlying dimension of environmental concern, not as a preference to understand (deHaven-Smith, 1988, 1991; Klineberg et al. 1998; Mohai and Bryant 1998 are exceptions). The possibility that public attitudes about environmental policy vary across different types of issues is an important question for the scholarly literature. Many studies have used a single item to characterize environmental attitudes (e.g., Elliot et al. 1995; Guber 2003; Kanagy et al. 1994; Johnson et al. 2005), but this is only appropriate to the extent to which the environment means the same thing to all people.

A second question of interest in the paper is whether public attitudes about environmental issues differ according to their geographical scale. One might hypothesize that people prefer stronger policy measures directed toward more proximate issues. For example, the public may hold stronger conservation preferences for local natural areas than for tropical rain forests in

other countries. Similarly, people may want additional action to address local air pollution problems that directly affect quality of life in their community, but care less about national level air pollution that may not affect them at all. Several studies of U.S. public opinion have explicitly considered how attitudes vary across issues of different geographical scales (deHaven-Smith 1991; Dunlap et al. 1993; Klineberg et al. 1998; Mohai and Bryant 1998; Murch 1971), but most are either dated or rely on local or state-specific survey samples.

Finally, public confidence in government may play an important role in understanding attitudes about government intervention to protect the environment. Trust in government has been shown to be correlated with policy preferences on a wide variety of issues, such as race policy and healthcare policy (Hetherington 2004), but to our knowledge it has not been considered in the context of environmental policy attitudes. This is important because survey questions often used to measure environmental policy attitudes typically ask a respondent about one's opinion on the desired level of government action (e.g., federal spending, effort) to address a particular environmental issue (Elliott et al. 1997; Guber 2003; Carman 1998). A concern with these questions is the possible conflating of attitudes about government and preferences about environmental protection, the latter of which may be conditional on how much trust the individual has in government. We examine the role of public trust in government, as well as issue type and geographical scale in the analyses to follow.

### **Survey Data**

To better understand the public's attitudes toward different types of environmental issues, we examine survey data from the 2007 CCES. The overall CCES study included a sample of 10,000 persons conducted through the collaborative efforts of a consortium of universities. Each

university team designed its own questionnaire, which was administered to a 1,000 person subsample. Survey participants also responded to a set of common questions, which were asked of the entire 10,000 person sample. The 2007 CCES survey was administered in November 2007 by Polimetrix, an internet survey firm located in Palo Alto, California. Polimetrix uses a national matched-random sampling method in which participants are selected to reflect the national adult population (Rivers n.d.). Although this method reduces potential sampling error, we use weights to guard against potential biases and to assure that the sample is nationally representative.

The survey instrument for this analysis included a battery of questions about environmental issues. Specifically, respondents were asked to think about the role of government in addressing twelve environmental issues.<sup>3</sup> The precise wording of the question was as follows: "Thinking about *Environmental Issue X*, how much effort do you think the government should put into addressing this issue?" The response categories were: "A lot less," "A little bit less," "About the same," "A little bit more," or "A lot more." As presented in Figure 1, the environmental issues of interest were deliberately chosen to provide variation on two dimensions: issue type and geographical scale. In terms of issue types, the dozen environmental problems in the survey were evenly divided between pollution issues and what we will term resource issues, by which we mean protection of natural and biological resources. With respect to geographical scale, four questions were asked about local issues, four about national issues, and four about global issues. The issues were each described with precise geographical referents to eliminate ambiguity about the scale of each environmental problem (Xiao and Dunlap 2007). Within each of the four issues asked for each geographical scale, two were pollution questions and two were resource questions.

\_

<sup>&</sup>lt;sup>3</sup> Gallup periodically asks about many of these issues in its surveys on environmental opinion, usually in the context of how much individuals personally worry about each issue.

## [Figure 1 about here]

There are several other important design elements of the 2007 CCES battery of environmental questions to note. First, the series of questions were specifically designed to minimize the conflating of attitudes about government, federal spending, and environmental protection. The survey asked about respondents' preferred level of government effort, without specifying spending. The purpose here was to decouple attitudes about spending from those about environmental protection needs. In addition, the survey asked respondents about their level of trust in government. Specifically, respondents were asked to characterize their trust in local, state, and federal government. These questions enable differentiation across different levels of government, and provide a control variable to use to disentangle the public's attitude about environmental policy from its attitude about government in general.

Second, the survey used consistent wording for the twelve issues, so that the only factor varying in each question was the issue itself. Some past survey research on environmental issues has suffered from problems in which some questions are asked in a pro-environmental direction, whereas others are asked in what might be characterized in an anti-environmental direction (Dunlap and Jones 2002). Last, in the administration of the survey, the twelve issues were asked in a random order to minimize bias from question ordering effects.

### **Survey Results**

In this section of the paper, we turn to the survey results. We first compare public attitudes across the twelve environmental issues to determine whether and how attitudes differ across the type and geographical scale of the issues. Second, we estimate a series of regression

models to examine whether and how the determinants of environmental policy attitudes diverge across these dimensions.

Describing Public Attitudes on the Environment

The battery of environmental questions on the 2007 CCES survey enables a direct comparison of public attitudes on twelve distinct environmental issues. As a first step in understanding public attitudes on the environment, we present the full distribution of responses in Table 1. The respondents express strong support for increased government effort across the twelve issues. Large majorities support either a lot more or a little bit more government effort to address all of the issues, and for half of the issues, a third or more of the sample indicates that they want the government to put forth a lot more effort. The percentage of the public expressing a desire for the government to reduce its environmental protection effort is strikingly small, representing less than ten percent of the sample for each of the non-global scale issues.

In Table 1, we rank the environmental issues by the mean level of response for each, where "A lot more" is coded 2, "A little bit more" is coded 1, "About the same" is coded 0, "A little bit less" is coded -1, and "A lot less" is coded -2. Positive values therefore indicate a preference for more government effort to address the issue. The means and standard deviations are presented in the last column of the table. Protecting community drinking water is the issue with the most public support, and it is followed in order by reducing pollution in U.S. rivers, lakes, and ecosystems, and reducing urban air pollution. The least support is for preserving natural areas near where the respondent resides, managing urban sprawl, and protecting biodiversity.

[Table 1 about here]

There are several patterns in these responses. First, the U.S. public is particularly concerned about local and national pollution issues. The top three issues (and four of the top five) for which the public wants government to take action are pollution issues at the local or national level. The next group of issues according to the mean-based rankings consists of three national and three global problems (means range from .65 to .74). Included in this middle group is global warming, which the public places as the eighth most important issue. This is somewhat surprising given the high level of media attention that global warming has recently received, but it may simply reflect disagreement about the severity (or existence) of climate change. Last, at the bottom of the rankings are three resource preservation issues, including those that can be categorized as global-level or local-level problems. Collectively, these trends in the data suggest attitudinal differences along an issue type dimension – pollution compared to resources, and a geographical scale dimension – national and local compared to global.

## Explaining Public Attitudes on the Environment

To further examine public preferences for government action to protect the environment, we examine the determinants of public attitudes. Of particular interest is how commonly found correlates of overall environmental concern explain preferences for environmental issues in general, and for pollution and resource preservation issues and for issues at varying geographical scale, in particular.

To examine these questions, we constructed several different scales, which serve as the dependent variables in the regression analyses that follow. First, we use the responses to each of the twelve questions to construct a single index. The scale ranges from -24 to 24, where higher values represent greater support for additional government action to address the environmental issues. The mean value on the scale is 8.9, with a standard deviation of 11.4. Table 2 presents

the descriptive statistics for this scale and the others we describe below. The Cronbach alpha indicates a reliability coefficient of .96 for the responses, indicating that the responses to the twelve questions fit together very well on a single scale. Moreover, the scale correlates at 0.61 with responses given by the participants to a question asking them about their overall level of concern with the environment.<sup>4</sup>

#### [Table 2 about here]

We create analogous scales for pollution issues and resource issues, using the responses for each relevant set of questions. Because each scale is based on responses to six questions, the scale ranges from -12 to 12. The mean level of support is 5.0 for the pollution scale and 3.9 for the resources scale, which reflects the stronger preferences for government action to address pollution issues than resource preservation issues. An explanation for this difference may be that pollution problems tap into more consensual values about human health, while there is less of a nationwide preservation ethic. We also construct a scale for each of the three geographical levels of interest – local, national, and global. Each scale is comprised of four survey items, ranging from -8 to 8, with a mean of 3.2 for the set of local and national issues, and 2.6 for global issues. In addition to the lower mean for the global issues, there is also a larger standard deviation, which reflects the higher degree of disagreement about the desired level of government action to address global-level issues. The Cronbach alpha statistic for each of the scales is at least .87, providing justification for combining the items in each into a single index. It is possible that the high correlation in the responses reflects consistency in views about the government intervention as much as about the environment. We explore this possibility in the analyses that follow.

.

<sup>&</sup>lt;sup>4</sup> The specific question was as follows: How would you characterize your overall level of concern for the environment? Would you say you are not concerned, a little concerned, somewhat concerned, very concerned, or haven't you thought much about this? Thirty-eight percent of the respondents said they were "very concerned," 32 percent were "somewhat concerned," 21 percent were "a little concerned," 6 percent were "not concerned," and about 3 percent said they "have not thought much about this issue."

Estimating Models of Environmental Policy Attitudes

We estimate regression models to test a set of determinants of environmental attitudes against each of the scales. These models enable an initial analysis of how perceptions differ (or coincide) among different segments of the population for different groupings of the environmental issues. We use a set of explanatory variables often employed to predict environmental attitudes, including age (in years), gender (female coded 1, male coded 0), race (minorities coded 1, whites coded 0), education (6 point scale ranging from no high school to a post-graduate degree), church attendance (4 point scale ranging from almost never to once a week or more), urban residence (individuals living in an urban county coded 1, those living in a rural county coded 0), political ideology (5 point scale ranging from very liberal to very conservative), and party identification (a Republican indicator, an Other indicator, with Democrat as the excluded category).<sup>5</sup>

We also include a variable representing the respondent's level of trust in government. The trust in government measure is a scale ranging from 0 to 9, constructed by adding the responses to three questions that asked the respondents to characterize their level of trust in local, state, and federal government (each question is a 4-point scale ranging from hardly ever to just about always). We use the respondent's level of trust in government to capture their general confidence in government so that we can disentangle the respondent's environmental policy attitudes from their perceptions about government in general.

4

<sup>&</sup>lt;sup>5</sup> The 2007 CCES survey asked a question about household income, but we exclude it from the regressions because nearly 15 percent of the respondents did not provide a response and we did not want to drop these individuals from the sample. When we include income as a covariate, the coefficient does not attain statistical significance. The survey also asked whether the respondent was a member of various groups, including the Sierra Club. Because Sierra Club membership is strongly predicted by several of the other explanatory variables in the model, we did not include it in the final models. Including membership in the Sierra Club did not markedly affect the results.

<sup>6</sup> The Cronbach alpha indicates a reliability coefficient of .75 for the responses.

We present the results from the first set of regressions in Table 3. The OLS regression coefficients displayed in the first column are for the model using the scale derived from the responses to all twelve of the environmental issues in the survey. The strongest predictors of support for government action to address these issues are political ideology and party identification. The coefficient of -4.8 on the political ideology variable suggests that, for each point increase on the scale (from liberal to conservative), there is a movement of nearly five points, or nearly half of a standard deviation, on the environmental issues scale toward less government intervention. There is a similar size effect for Republicans and a somewhat smaller effect for Independents and other party affiliated respondents relative to Democrats. Individuals expressing more trust in government are more likely to support additional government action to address environmental issues – a two standard deviation change in the trust variable would represent about a one point difference on the scale. Last, counter to much of the existing literature, age is positively associated with the environmental issues scale, and individuals living in urban areas are less supportive of further action to address the environment. Each of these relationships, however, was significant only at the .10 probability level, and the coefficient on age suggests even a decade difference in age accounts for less than half a point on the scale.<sup>7</sup>

## [Table 3 about here]

The next two columns show the results using the separate scales for pollution and resource issues. Looking across the coefficients, there are both interesting similarities and differences. Political ideology and party identification remain the strongest predictors for each set of issues. Politically conservative respondents, Republicans and Independents, on average,

\_

<sup>&</sup>lt;sup>7</sup> A possible explanation for this finding regarding age is that there is a cohort effect. Older survey respondents in 2007 are a different cohort of individuals than those that participated in the surveys studied in much of the existing literature. For example "Baby Boomers" may have different environmental attitudes than the "World War II generation," due to different experiences at the age when they formulated their opinions about the environment.

favor less government action on the environment regardless of the issue type. The size of the effect for pollution issues is similar to the resource preservation values.

There are also a couple of notable differences between the models. Trust in government has a statistically significant positive effect on public attitudes about government action to address pollution issues, but there is no such association in the resources model. Also, individuals living in urban areas show no significant differences from those residing in rural areas on resource issues but are less likely to support additional government action to address pollution issues. This finding is unexpected given the tendency for pollution problems to be more severe in urban settings. Moreover, older individuals prefer more government action on resource issues, while minorities prefer less. These latter two relationships did not emerge in the pollution issues model. Clearly, the varying results across the models suggest subtle issue type differences in environmental policy attitudes.

The next set of models considers the determinants of attitudes for the environmental issues grouped according to their geographical scale. These results are presented in Table 4. One important difference in these models is in the way we measure trust in government. Here, we focus on an individual's trust in the most relevant level of government for each set of issues. Specifically, we use trust in local government for the set of local issues, and trust in the federal government for the set of national and global issues.

### [Table 4 about here]

Once again and consistent with previous studies on overall environmental attitudes, the most robust relationships we find across all three levels of geographical scale are between environmental attitudes and political ideology and party identification. Irrespective of the geographical scale, ideologically conservative individuals were less likely to support further

government action, even after controlling for their level of trust in government. For each point increase on the political ideology scale from liberal to conservative, there is a movement from one to two points lower on the environmental issues scale. The negative association between Republican and Independents and support for government action remains large and statistically significant in each model (except for Independents on local issues), with a particularly large effect in the global issues model. The size of the effect for global issues, in fact, is about twice that for local issues, a subject we return to in the discussion below.

Although the demographic variables perform rather poorly overall, there are some notable differences across the models that suggest the importance of considering the geographical scale of environmental issues. Individuals that attend church more regularly were somewhat more likely to support action on local-level issues, and older respondents were significantly more supportive of national issues. On the other hand, minorities were less supportive of action on national issues, and individuals living in urban areas were less likely to advocate additional government action on global issues. These relationships were only statistically significant at the 10% level. Finally, an individual's trust in government was a significant predictor only for global issues; respondents with higher levels of confidence in government were more likely to support government action to address issues such as climate change, ozone depletion, and the protection of biodiversity.

To test the robustness of these findings, we also estimated these models with an additional control variable to account for the respondents' assessments of environmental quality. It is likely that people's attitudes about the appropriate level of government intervention are related to these assessments. An individual not concerned about national air quality, for example, is less likely to advocate further government action to address this issue. The 2007

CCES included questions asking respondents to provide their assessment of local, national, and global environmental quality, but we did not include this response as a control variable in the models described above due to endogeneity concerns. When re-estimating the models above including the respondent's assessment of environmental quality, the core results summarized above are largely the same. Political ideology and party identification remain the strongest predictors of environmental issue attitudes. Across the three models, the coefficient for the environmental quality assessment variables were always negative and statistically significant, indicating that those individuals viewing environmental quality as poor are more supportive of government action to address it.

Thinking local, but not global?

Analyzing the determinants of environmental policy attitudes toward the different groupings of issues provides the simplest way to examine how individual-level correlates may differ across the issues. The analysis thus far, however, does not explain the discernible drop-off in the mean level of support for government action to address local pollution as compared to the lower level of support for addressing global pollution issues. Recall that the local pollution issues topped the issues of most concern to the public, while global pollution issues – global warming and ozone depletion – were in the middle of the pack. While one might infer from this pattern of responses that people have stronger preferences for local rather than global issues, local resource preservation issues also came in at the very bottom of the rankings.

\_

<sup>&</sup>lt;sup>8</sup> The first question reads: Overall, how would you rate the quality of the global environment? Would you say that it is very good, fairly good, fairly bad, or very bad? This was followed by a question about the quality of the environment in the United States and in the respondent's local community.

<sup>&</sup>lt;sup>9</sup> How an individual perceives environmental quality might affect how much effort s/he thinks the government should put forth to address an issues, but attitudes about how much government intervention they think is necessary to address an environmental issue may also predict their assessment of environmental quality.

<sup>&</sup>lt;sup>10</sup> In the model of national-scale environmental problems, the coefficient on the Republican dummy variable no longer reaches statistical significance.

To determine which segments of the population account for these drop-offs in support, we create several new dependent variables. First, to examine the case of the decline in support for global pollution issues relative to that of local pollution issues, we create a dummy variable coded one for survey respondents that indicate a desire for more or the same amount of government action to address local pollution issues and a desire for less government action to address global warming (114 respondents). All other respondents are coded zero. We construct an analogous variable for ozone depletion (107 respondents). In each case, we are holding the issue-type constant (i.e., pollution), while the geographical-scale of the issue varies.

To explore the case of the drop-off in support from higher levels for local pollution issues to lower levels for local resource preservation issues, we create a similar dependent variable, coded one for survey respondents indicating a desire for more or the same amount of government action to address local pollution issues and simultaneously a desire for less government action to preserve local natural areas (124 respondents). All other respondents are coded zero. We create an equivalent variable for managing urban sprawl (126 respondents). In these cases, we are holding constant the geographical scale (i.e., local-level), and considering variation on the issue-type dimension.

We estimate a series of logistic regression models, using the same set of explanatory variables as before. Of central interest here is identifying the set of characteristics for individuals with higher probabilities of dropping off in their support. We present the results for these models in Table 5.

### [Table 5 about here]

The first two columns of Table 5 present the results (odds ratios) for the case of a dropoff in support for global warming and ozone depletion, respectively. Regarding climate change, a Republican was over nine times more likely than a Democrat to exhibit a drop-off.

Independents and other politically-affiliated individuals were over six times more likely. For each point on the political ideology scale toward conservative, individuals were about twice as likely to drop-off in their support for government action as the policy issue changed from local pollution to global pollution. Frequent churchgoers, older respondents, and men were more likely to drop-off in their support. The findings for ozone depletion are similar with regard to party identification and political ideology, although the effects are somewhat smaller for party affiliation. In addition, more highly educated respondents were more likely to express a drop-off in support for government action to address ozone depletion. 

11

Individual's political attributes are much weaker predictors of drop-offs in support for local resource preservation issues compared from local pollution issues. In fact, the only statistically significant finding of drop-offs in support for preserving local natural areas is that ideologically conservative individuals are less likely to have expressed reduced support. In the case of drop-off in support for urban sprawl from support for government action to address local pollution issues, men, non-minorities, and those living in urban areas were all less likely to indicate weaker support for managing urban sprawl than for dealing with local pollution issues. These results suggest that personal attributes, more than political ones, explain the diminishment in support for local resource management from local pollution abatement.

#### Conclusion

The findings presented above suggest a strong relationship between political ideology and party identification and environmental issue attitudes. Across the issue type and

<sup>11</sup> We also estimated models to identify the correlates of individuals that drop off in support for global pollution issues from national pollution issues. The findings are similar to the case of drop-off from local pollution issues.

geographical scale of the twelve environmental policy attitudes in the 2007 CCES survey, ideologically conservative individuals and Republicans expressed considerably less enthusiasm for further government action on the environment. Independents expressed attitudes that were significantly less supportive than Democrats but also more supportive than Republicans. These ideological and partisan relationships exist even when controlling for an individual's level of trust in government, suggesting that the findings have more to do with attitudes about the environment than just general attitudes about government. Although previous research has found similar effects regarding political ideology and party identification, a key difference with the extant literature we find is that demographic attributes and trust in government have different relationships with environmental attitudes, depending on the type and geographical scale of the issues. An implication of this finding is that it suggests that single measures of environmental concern may be disguising important heterogeneity in environmental policy attitudes.

A strength of the set of questions included in the 2007 CCES is that they enable the direct comparison of public attitudes across a wide set of environmental issues. The general nature of the questions, however, also has some limitations. The question design did not require respondents to consider tradeoffs. That is, while support for government action to increase environmental protection is clearly high among the public, it is not possible to infer what the public might be willing (or unwilling) to exchange for increased government effort toward improving environmental protection. Examination of attitudes toward different types and geographical scales of environmental issues that directly tap into these tradeoff questions are important areas for future research.

#### References

- Blocker, T. Jean and Douglas Lee Eckberg. 1989. Environmental issues as women's issues: General concerns and local hazards. *Social Science Quarterly* 70: 586-593.
- Bord, Richard J. and James O'Connor. 1997. The gender gap in environmental attitudes: The case of perceived vulnerability to risk. *Social Science Quarterly* 78: 830-840.
- Carman, Christopher Jan. 1998. Dimensions of environmental policy support in the United States. *Social Science Quarterly* 79(4): 717-733.
- Converse, Philip E. 1964. "The nature of belief systems in mass publics," In David E. Apter, ed. *Ideology and Discontent*. New York: Free Press.
- deHaven-Smith, Lance. 1991. *Environmental concern in Florida and the Nation*. Gainesville: University of Florida Press.
- deHaven-Smith, Lance. 1988. Environmental belief systems: Public opinion toward land use regulation in Florida. *Environment and Behavior* 20(2): 176-199.
- Dietz, Thomas, Linda Kalof, Paul C. Stern. 2002. Gender, values, and environmentalism. *Social Science Quarterly* 83(1): 353-364.
- Dunlap, Riley E., George H. Gallup, Jr., and Alec M. Gallup. 1993. Of global concern: results of the Health of the Planet Survey. *Environment* 35: 7-15, 33-39.
- Dunlap, Riley E. and Robert Emmet Jones. 2002. "Environmental concern: Conceptual and measurement issues," In Riley E. Dunlap and William Michelson, eds., *Handbook of Environmental Sociology*. Westport, CT: Greenwood Press.
- Dunlap, Riley E. and Rik Scarce. 1991. Poll trends: Environmental problems and protection. *Public Opinion Quarterly* 55(4): 651-672.

- Dunlap, Riley E, and Kent D. Van Liere. 1978. A proposed measuring instrument and preliminary results: The "New Environmental Paradigm" *Journal of Environmental Education* 9: 10-19.
- Dunlap, Riley E., Kent D. Van Liere, Angela G. Mertig, and Robert Emmet Jones. 2000.

  Measuring endorsement of the new ecological paradigm: A revised NEP scale. *Journal of Social Issues* 56(3): 425-442.
- Dunlap, Riley E., Chenyang Xiao, and Aaron M. McCright. 2001. Politics and environment in America: Partisan and ideological cleavages in public support for environmentalism.

  \*Environmental Politics 10(4): 23-48.
- Elliott, Euel, Barry J. Seldon, and James L. Regens. 1997. Political and economic determinants of individuals' support for environmental spending. *Journal of Environmental Management* 51: 15–27.
- Elliott, Euel, James L. Regens, and Barry J. Seldon. 1995. Exploring variation in public support for environmental protection. *Social Science Quarterly* 76: 41-52.
- Guber, Deborah Lynn. 2003. *The Grassroots of a green revolution: Polling America on the environment*. Cambridge, MA: MIT Press.
- Guber, Deborah Lynn. 1996. Environmental concern and the dimensionality problem: A new approach to an old predicament. *Social Science Quarterly* 77(3): 644-662.
- Guth, James L., John C. Green, Lyman A. Kellstedt, and Corwin W. Smidt. 1995. Faith and the environment: Religious beliefs and attitudes on environmental policy. *American Journal of Political Science* 39(2): 364-382.
- Hershey, Marjorie Randon and David B. Hill. 1977-1978. Is pollution 'a white thing'? Racial differences in preadults' attitudes. *Public Opinion Quarterly* 41(4): 439-458.

- Hetherington, Marc J. 2004. Why trust matters: Declining political trust and the demise of American liberalism. Princeton: Princeton University Press.
- Johnson, Martin, Paul Brace, and Kevin Arceneaux. 2005. Public opinion and dynamic representation in the American states: The case of environmental attitudes. *Social Science Quarterly* 86(1): 87-108.
- Jones, Robert Emmet and Lewis F. Carter. 1994. Concern for the environment among Black Americans: An assessment of common assumptions. *Social Science Quarterly* 75(3): 560-5479.
- Kanagy. Conrad L., Craig R. Humphrey and Glenn Firebaugh. 1994. Surging environmentalism: Changing public opinion or changing publics. *Social Science Quarterly* 75: 804-819.
- Klineberg, Stephen L. Matthew McKeever, and Bert Rothenbach. 1998. Demographic predictors of environmental concern: It does make a difference how it's measured. *Social Science Quarterly* 79(4): 734-753.
- Mohai, Paul. 1992. Men, women, and the environment: An examination of the gender gap in environmental concern and activism. *Society and Natural Resources* 5(1): 1-19.
- Mohai, Paul. 1990. Black environmentalism. Social Science Quarterly 71: 744-765.
- Mohai, Paul and Bunyan Bryant. 1998. Is there a "race" effect on concern for environmental quality? *Public Opinion Quarterly* 62(4): 475-50.
- Murch, Arvin W. 1971. Public concern for environmental pollution. *Public Opinion Quarterly* 35: 100-106.
- Press, Daniel. 2003. Who votes for natural resources in California? *Society & Natural Resources* 16(9): 835-846.
- Rivers, Douglas. n.d. Representative sample matching from internet surveys, available at

- http://web.mit.edu/polisci/portl/cces/material/sample matching.pdf.
- Scott, David and Fern K. Willits. 1994. Environmental attitudes and behavior: A Pennsylvania survey. *Environment and Behavior* 26(2): 239-260.
- Taylor, Dorceta E. 1989. Blacks and the environment: Toward explanation of the concern and action gap between Blacks and Whites. *Environment and Behavior* 21: 175-205.
- Uyeki, Eugene and Lani Holland. 2000. Diffusion of pro-environmental attitudes? *American Behavioral Scientist* 4394): 646-662.
- Van Liere, Kent D. and Riley E. Dunlap. 1980. The social bases of environmental concern: A review of the hypotheses, explanations, and empirical evidence. *Public Opinion Quarterly* 44(2): 181-197.
- Weigel, Russell and Joan Weigel. 1978. Environmental concern: The development of a measure.

  Environment and Behavior 10: 3-15.
- Xiao, Chenyang and Riley E. Dunlap. 2007. Validating a comprehensive model of environmental concern cross-nationally: A U.S.-Canadian comparison. *Social Science Quarterly* 88(2): 471-493.

Figure 1. Environmental Issues in the Survey

	Issue Type			
Geographical Scale	Pollution	Resources		
Local	<ul> <li>Protecting community drinking water</li> <li>Reducing urban air pollution issues like smog</li> </ul>	<ul><li>Preserving natural areas near where l</li><li>live</li><li>Managing urban sprawl</li></ul>		
National	<ul> <li>Reducing pollution of the nation's rivers, lakes, and ecosystems</li> <li>Reducing national air pollution problems like acid rain</li> </ul>	<ul> <li>Preserving national forests and other federally-protected areas</li> <li>Managing national parks</li> </ul>		
Global	<ul> <li>Reducing emissions that contribute to global warming</li> <li>Preventing damage to the earth's ozone layer</li> </ul>	<ul> <li>Preventing loss of the world's tropical rain forest</li> <li>Protecting the world's plant and animal species from extinction</li> </ul>		

Table 1. Public Attitudes about Government Effort to Address Environmental Issues

Thinking about *Environmental Issue X*, how much effort do you think the government should

put into addressing this issue?

Faving and all large	A Lot More (2)	A Little Bit More	About the Same	A Little Bit Less	A Lot Less (-2)	Mean (SD)
Environmental Issue Protecting community drinking water	40%	31%	(0) 26%	1%	1%	1.07 (0.92)
Reducing pollution of the nation's rivers, lakes, and ecosystems	40	29	26	3	3	0.99 (1.02)
Reducing urban air pollution issues like smog	36	28	27	4	4	0.89 (1.06)
Preserving national forests and other federally-protected areas	29	30	31	6	4	0.74 (1.07)
Reducing national air pollution problems like acid rain	32	28	28	6	6	0.73 (1.15)
Preventing loss of the world's tropical rain forests	36	23	26	5	10	0.72 (1.27)
Maintaining national parks	25	29	41	2	3	0.71 (0.96)
Reducing emissions that contribute to global warming	38	23	21	5	13	0.70 (1.36)
Preventing damage to the earth's ozone layer	35	23	25	5	11	0.66 (1.31)
Preserving natural areas near where I live	24	29	39	3	4	0.65 (1.02)
Managing urban sprawl	25	28	34	4	8	0.56 (1.15)
Protecting the world's plant and animal species from extinction	27	26	29	7	10	0.54 (1.24)

Source: 2007 Cooperative Congressional Election Study. Environmental issues were asked in a random order.

**Table 2. Environmental Policy Attitudes Scales** 

	Mean	Standard	Minimum	Maximum
Issue Scales		Deviation		
All	8.9	11.4	-24	24
Pollution	5.0	6.0	-12	12
Resources	3.9	5.7	-12	12
Local	3.2	3.5	-8	8
National	3.2	3.7	-8	8
Global	2.6	4.7	-8	8

Source: 2007 Cooperative Congressional Election Study.

Table 3. Determinants of Environmental Policy Attitudes, by Issue Type

	All Issues	Pollution Issues	Resources Issues
	(1)	(2)	(3)
Age	0.04†	0.02	$0.02 \dagger$
	(002)	(0.01)	(0.01)
Female	0.61	0.55	0.07
	(0.67)	(0.35)	(0.35)
Minority	-1.16	-0.26	-0.90*
	(0.81)	(0.42)	(0.41)
Education	0.53	0.00	0.04
	(0.25)	(0.13)	(0.13)
Church attendance	0.04	-0.05	0.10
	(0.29)	(0.15)	(0.15)
Urban residence	-1.71†	-0.98†	-0.65
	(0.95)	(0.49)	(0.48)
Political ideology	-4.81**	-2.45**	-2.30**
	(0.41)	(0.21)	(0.21)
Republican	-5.61**	-3.16**	-2.72**
	(1.04)	(0.54)	(0.53)
Independent or other party	-1.64†	-0.81†	-0.93*
	(0.87)	(0.45)	(0.45)
Trust in government	0.38*	0.23*	0.14
	(0.18)	(0.09)	(0.09)
Constant	25.1**	13.6**	11.5**
	(2.17)	(1.12)	(1.11)
Observations	864	885	878
$R^2$	.33	.34	.29

Cells contain OLS regression coefficients with standard errors in parentheses. Significance levels: † p>.10, \* p>.05, \*\* p>.01. Scale for all issues ranges from -24 to 24, and for pollution issues and resource issues from -12 to 12.

Table 4. Determinants of Environmental Policy Attitudes, by Geographical Scale

Table 4. Determinants of El	Local Issues	National Issues	Global Issues
	(1)	(2)	(3)
Age	0.01	0.02**	0.00
·	(0.01)	(0.01)	(0.01)
Female	0.27	0.07	0.28
	(0.22)	(0.22)	(0.27)
Minority	-0.43	-0.47†	-0.32
	(0.26)	(0.27)	(0.32)
Education	0.04	0.10	-0.07
	(0.08)	(0.08)	(0.10)
Church attendance	0.16†	0.02	-0.10
	(0.09)	(0.10)	(0.12)
Urban residence	-0.41	-0.32	-0.82*
	(0.31)	(0.31)	(0.37)
Political ideology	-1.35**	-1.49**	-1.97**
	(0.13)	(0.14)	(0.16)
Republican	-1.35**	-1.62**	-2.75**
	(0.33)	(0.35)	(0.41)
Independent or other party	-0.41	-0.52†	-0.83*
	(0.28)	(0.29)	(0.35)
Trust in government	-0.01	0.01	0.18*
	(0.14)	(0.16)	(0.07)
Constant	7.46**	7.55**	10.6**
	(0.70)	(0.70)	(0.86)
Observations	886	901	891
$R^2$	.24	.29	.37

Cells contain OLS regression coefficients with standard errors in parentheses. Significance levels: † p>.10, \* p>.05, \*\* p>.01. Scales range from -8 to 8.

**Table 5. Explaining Drop-Off in Public Support for Government Action** 

		ort for Local Compared to	High Support for Local Pollution Compared to		
	Low Support Low Suppo		Low Support	Low Support	
	for	for	for	for	
	$\widetilde{Global}$	Ozone	Preserving	Managing	
	Warming	Depletion	Local Natural	Urban	
	(1)	(2)	Areas	Sprawl	
			(3)	(4)	
Age	1.02*	1.03**	1.00	0.99	
	(0.01)	(.009)	(0.01)	(0.01)	
Female	0.60†	.977	1.22	1.76*	
	(0.17)	(0.27)	(0.30)	(0.45)	
Minority	0.72	1.05	0.86	1.76†	
	(0.34)	(0.47)	(0.24)	(0.56)	
Education	1.06	1.27*	0.99	0.92	
	(0.11)	(0.12)	(0.08)	(0.08)	
Church attendance	1.34**	1.14	1.02	0.91	
	(0.15)	(0.14)	(0.11)	(0.10)	
Urban residence	1.17	0.86	1.42	0.53†	
	(0.41)	(0.28)	(0.51)	(0.18)	
Political ideology	2.04**	2.17**	0.74*	0.89	
	(0.36)	(0.35)	(0.10)	(0.13)	
Republican	9.55**	4.78**	1.46	1.31	
-	(6.41)	(2.48)	(0.52)	(0.49)	
Independent or other party	6.84**	2.47†	0.90	1.27	
	(4.46)	(1.24)	(0.51)	(0.40)	
Trust in government	1.10	1.06	1.18	0.93	
	(0.23)	(0.21)	(0.18)	(0.15)	
Observations	913	913	910	910	
Pseudo R <sup>2</sup>	.19	.17	.02	.03	
Model $\chi^2$	73.6	79.8	9.24	16.6	
(Probability)	.000	.000	.509	.083	

Cells contain odds ratios from logistic regression, with standard errors in parentheses. Significance levels: † p>.10, \* p>.05, \*\* p>.01