Agency Politicization and the Implementation of Executive Order 13514

Aaron Ray

Abstract
Federal agencies are responsible for implementing policies created by the United States Congress and the president. However, a tension exists between an agency’s independence and its responsiveness to the preferences of elected officials. Berry and Gersen (2010) argue that the more political appointees there are in control of an agency, the more influence political principals have over that agency. The implementation of a presidential requirement that agencies engage in climate change adaptation planning allows for a test of this hypothesis. This paper uses the variation in implementation of this requirement across agencies to test factors which may explain that variation. Results of this analysis indicate that the degree of agency politicization is a significant predictor of responsiveness to the president’s preferences.

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Background

President Barack Obama took office in 2009 promising to make addressing climate change a national priority. Although the administration has achieved little progress legislatively on the issue, it has used executive orders to begin the process of reducing emissions and adapting to the impacts of climate change.

President Obama issued Executive Order (EO) 13514, “Federal Leadership in Environmental, Energy, and Economic Performance,” on October 5, 2009. EO 13514 mandates that a number of measures be taken to reduce greenhouse gas (GHG) emissions by the federal government. In addition to these climate change mitigation efforts, the EO includes measures to promote adaptation to climate change impacts. Section 16 of the EO requires federal agencies to participate in the Interagency Climate Change Adaptation Task Force (ICCATF) and develop policies to reinforce the strategy being developed by the ICCATF. The EO also directs the Council on Environmental Quality (CEQ) Chair to oversee the development of a progress report and make additional recommendations to promote adaptation by the federal government. Since the signing of the EO, CEQ and the ICCATF have produced two progress reports on climate change adaptation – one in 2010 and another in 2011.

CEQ and ICCATF have also released a set of instructions to guide agencies in developing and implementing coordinated climate change adaptation plans in accordance with provisions of the EO (CEQ, “Instructions,” 2011). Adaptation plans are meant to enable agencies to evaluate the risks that climate change presents to agency missions and operations. The CEQ Chair monitors agency compliance with these instructions through the Office of the Federal Environmental Executive (OFEE). The instructions require each agency to take the following steps:

- Establish an agency climate change adaptation plan.
- Increase agency understanding of how the climate is changing.
- Apply understanding of climate change to agency mission and operations.
- Develop, prioritize, and implement actions.
- Evaluate and learn.

Given the difficulty the Obama administration has had moving comprehensive climate change legislation through Congress, the implementation of the adaptation provisions of the EO represents an attempt to pursue climate change policy through non-legislative avenues. This involves three related efforts. First, the administration has designated the relevant organ (CEQ) within the Executive Office of the President (EOP) to oversee implementation of the EO. Second, the administration tasked an existing interagency body, the ICCATF, with developing policy and recommendations for CEQ and federal agencies. Third, the administration has used its authority over federal agencies to mandate implementation of the recommendations of the ICCATF and CEQ.

While the EO instructs agencies to comply with the mandates of the ICCATF and CEQ, agencies vary in responsiveness to these instructions. For example, of 76 federal agencies identified by scholars, only 35 submitted adaptation plans. This variation presents an opportunity to test theories from the literature on policy implementation and agency responsiveness. This paper uses...
early data on the progress of agencies in drafting climate change adaptation plans to test explanations of agency responsiveness to executive orders.

Theory

An extensive literature exists exploring the role of federal agencies in implementing policy. Theory and practice suggest that a tension exists between the independence of an agency and its responsiveness to the preferences of elected officials. Calvert et al. (1989) developed a model in which agencies exercise considerable bureaucratic discretion in implementation while policy choice reflects the preferences of elected officials. The model attempts to capture policy implementation as a dynamic and multi-stage game. This game includes the appointment stage, in which the legislature or executive creates the set of choices available to bureaucrats. It also includes mechanisms of continuous control, both active and latent, such as budgeting and oversight powers available both to the legislature and to the executive. Executive orders represent one mechanism by which the executive exerts control over federal agencies.

Another mechanism through which the legislature and executive exercise control over agencies is the politicization of agencies in the appointment stage, in this case measured as a ratio of political appointees to career staff. Berry and Gersen (2010) find that the more political appointees there are in control of an agency, the more influence political principals have over that agency. Presidents have actively increased the number of appointees over time as a means to increase their control over executive agencies. Figure 1 illustrates this increase in the politicization of federal agencies since 1960.

Figure 1. Politicization of the bureaucracy (data from Lewis, 2005).
While the trend is toward increased politicization, there is variation within agencies that may help to explain variation in the responsiveness of those agencies to the preferences of the president. Figure 2 illustrates the number of political appointees as a share of the number of managerial positions in federal agencies.

**Figure 2.** Variation in politicization by agency (data from Lewis, 2005).

This paper tests Berry and Gersen’s finding that the degree of politicization influences the responsiveness of the bureaucracy to the preferences of elected officials. To do so, this paper will exploit the variation in politicization across agencies and investigate the degree of responsiveness of those agencies to the requirements of EO 13514. In particular, I focus on the requirement that agencies submit climate change adaptation plans.

**Hypotheses**

Starting with the theory presented by Berry and Gersen, I have identified three hypotheses about agency responsiveness that can be tested with the available data. First, I expect that more politicized agencies will be more likely to have submitted an agency climate change adaptation plan. This hypothesis follows Berry and Gersen’s finding that more politicized agencies are more responsive to political principals. Second, given that climate change is an ideologically charged issue area, it is possible that agency ideology may influence agency responsive. It is also possible, given Berry and Gersen’s findings, that agencies whose prevalent ideology most closely aligns with that of the sitting president will be most responsive. Therefore, I will test the hypothesis that liberal agencies, as defined by David Lewis on the basis of a survey of experts on bureaucratic politics, will be more likely to have submitted a plan. Third, as climate change is an issue area in which science plays a prominent role, it is possible that an agency’s responsiveness may be influenced by whether that
agency’s mission revolves around science. The third hypothesis, then, is that science-oriented agencies will be more likely to have submitted a plan. I will discuss the operationalization of these hypotheses in the next section.

Model and Data

The model described below is used to test the influence of the relevant theoretical variables on the submission of agency climate change adaptation plans in response to EO 13514 and the subsequent implementation instructions developed by the ICCATF and CEQ. The dependent variable of interest is the submission status of an agency adaptation plan in 2012. The instructions required agencies to develop initial adaptation plans as part of the Strategic Sustainability Performance Plans submitted to the Office of Management and Budget (OMB) in 2012. On February 7, 2013, 35 federal agencies released their climate change adaptation plans (CEQ 2013).

The independent variables of interest include a number of agency characteristics. These data were collected from the website of David Lewis, professor of Political Science at Vanderbilt University. The most recent data available from Professor Lewis are from 2005. This dataset includes 76 federal agencies. Table 1 lists the independent variables included in the data set and descriptive statistics.

Table 1. Independent variables.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>apt</td>
<td>Number of Senate-confirmed appointees</td>
<td>5.07</td>
<td>0</td>
<td>31</td>
<td>5.94</td>
</tr>
<tr>
<td>year</td>
<td>Year oldest unit created</td>
<td>1940</td>
<td>1789</td>
<td>1993</td>
<td>54.7</td>
</tr>
<tr>
<td>science</td>
<td>1=identified by Lewis as science agency</td>
<td>0.185</td>
<td>0</td>
<td>1</td>
<td>0.356</td>
</tr>
<tr>
<td>regulat</td>
<td>1=identified by Lewis as regulatory agency</td>
<td>0.294</td>
<td>0</td>
<td>1</td>
<td>0.435</td>
</tr>
<tr>
<td>totemp</td>
<td>Number of employees</td>
<td>24,343</td>
<td>10</td>
<td>235,846</td>
<td>53,176</td>
</tr>
<tr>
<td>manage</td>
<td>Number of managers</td>
<td>2,731</td>
<td>2</td>
<td>24,389</td>
<td>5,841</td>
</tr>
<tr>
<td>ideo</td>
<td>Measure of agency ideological preferences; 1=liberal, 1=conservative</td>
<td>-0.010</td>
<td>-0.929</td>
<td>0.962</td>
<td>0.550</td>
</tr>
<tr>
<td>pol</td>
<td>Measure of politicization; number of appointees as fraction of managers</td>
<td>0.068</td>
<td>0</td>
<td>1</td>
<td>0.140</td>
</tr>
</tbody>
</table>
The independent variables described in Table 1 include both the theoretically relevant variables and controls for other agency characteristics. The three theoretically relevant independent variables are pol, ideo, and science.

The variable that measures the degree of politicization (pol) is a measure designed by Lewis in which the number of senate-confirmed political appointees in an agency are divided by the number of managerial positions in that agency. This measure creates a ratio of political appointees to management level staff in each agency, which can be used as a proxy for the influence of political principals on the agency. The first hypothesis outlined above predicts that a higher degree of politicization (i.e., a higher ratio) will correlate with a greater likelihood of plan submission. The variable that measures agency ideology (ideo) was constructed by Lewis after a survey of experts in bureaucratic politics. Lewis surveyed 39 top experts from academia, journalism, and think tanks and asked them to rate the ideology of government agencies. The higher the value of this measure, the more liberal the agency. The second hypothesis then predicts that higher values of this measure will correlate with a greater likelihood of plan submission. The third variable (science) is a dichotomous indicator with a value of one if the agency was identified by Lewis as having a mission that is closely aligned with scientific processes or outcomes (See Appendix 1 for a list of science-oriented agencies). Lewis identified agencies as science-oriented by utilizing data from three National Academy of Science reports on presidential appointments to leadership positions in science. The third hypothesis suggests that being identified as a science agency will correlate with a greater likelihood of plan submission.

Of the 76 agencies for which data were available, 29 submitted agency adaptation plans to OMB in 2012. The analytical model in this paper uses logistic regression to test the effect of the independent variables identified in Table 1 on the likelihood that an agency submitted a plan. The model is expressed as:

\[ Y_{plan} = B_0 + B_{pol} + B_{ideo} + B_{totalemp} + B_{regular} + B_{science} + B_{age} \]

Results

Table 2 presents results, in the form of odds ratios, from a logistic regression of the submission of an agency adaptation plan on various agency characteristics. The results indicate that of the factors included in the model, only agency politicization has a significant (p=0.032) effect on the likelihood of plan submission. Controlling for the other factors included in the model, a one unit increase in politicization increases the odds of submission by 0.986 times. Thus, an agency that is completely made up of political appointees would be nearly 100% more likely to submit a plan than one without any political appointees. While this is a small substantive effect, as the mean level of politicization among agencies in the sample is only 6%, it is the only statistically significant effect in the model. This result is consistent with the theory tested by Berry and Gersen that politicized agencies are more responsive to the preferences of elected officials. In this case, more politicized agencies were more likely to comply with the provisions of EO 13514 and the associated instructions.
Table 2. Results of logistic regression.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Log Odds Ratio (Std. Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pol</td>
<td>0.986** (0.007)</td>
</tr>
<tr>
<td>ideo</td>
<td>1.043 (0.583)</td>
</tr>
<tr>
<td>totalemp</td>
<td>0.999 (7.08)</td>
</tr>
<tr>
<td>regulat</td>
<td>0.924 (0.621)</td>
</tr>
<tr>
<td>science</td>
<td>2.436 (1.959)</td>
</tr>
<tr>
<td>age</td>
<td>1.012 (0.008)</td>
</tr>
</tbody>
</table>

N=74
Log likelihood=-39.7
Pseudo R²=0.198

*** p<0.01; ** p<0.05; * p<0.10

These results provide some preliminary support for the first hypothesis, that agency politicization increases responsiveness. The results do not support either of the second two hypotheses. Based on these data and model specification, the factors of agency ideology and having a science-related mission do not increase the likelihood of plan submission. However, as discussed below, there are limitations in the data that require some caution in interpreting these results.

Discussion

These findings provide empirical confirmation for the theory and observations of Berry and Gersen. They also suggest that in the arena of environmental policy generally, and climate adaptation in particular, policy making by executive order involves limitations in terms of agency responsiveness. These findings provide further explanation for the trend toward politicization of executive agencies. If presidents want to make policy through executive orders, there is evidence to suggest that their interests are served by politicizing executive agencies in order to increase the likelihood that their instructions will be followed. As predicted by Berry and Gersen, presidents’ ability to exert control over agencies is strengthened by appointing a higher percentage of political staff in those agencies.

There are a number of limitations to this preliminary finding that present opportunities for further research. The limitations presented by the availability of data are clear. First, the Lewis data were only available up to 2005. Having data from more recent years would likely improve the theoretical link between agency characteristics and policy outcomes. Using the 2005 data requires the assumption that the level of politicization and ideological orientations of agencies has remained stable since 2005. This assumption is a significant limitation and stands to be tested if more recent
data can be obtained. Second, the budget information was not available even in the 2005 data. Having information on agency budgets would allow the model to be refined and alleviate justifiable concerns about omitted variable bias. Third, the construction of the dependent variable as a dichotomous one, indicating submission of plan, may not capture variation in the quality and comprehensiveness of the plans or the effort devoted to their creation. Collecting data from each agency on how many people were involved in the plan development, what resources were devoted to the process, and the how close the process was to the agency leadership would allow for a more nuanced analysis of agency responsiveness.

In spite of these limitations, this research provides additional evidence to support the view that the politicization of federal agencies may increase the power presidents exert over the bureaucracy. The trend towards politicization seems to increase the responsiveness of the bureaucracy to the president, but potentially reduces agency independence. The potential link between agency independence and responsiveness to the executive will remain an issue requiring thoughtful consideration by scholars, politicians, and voters alike.

1 The United Nations Environment Program (UNEP) defines mitigation as “efforts to reduce or prevent emissions of greenhouse gases.” UNEP defines adaptation policy as measures to “reduce vulnerabilities and build resilience to the impacts of climate change.” See United Nations Environment Program.

2 Throughout this paper, “agency” and “agencies” are used to refer to all federal executive units.

3 Of the 76 agencies included in the dataset from 2005, 74 remained in 2013 and were included in the regression analysis.

4 Of the 35 agencies that submitted plans, only 29 were represented in the data set constructed using Lewis’ data.

5 The following modifications were made to the model: 1) apt and manage were not included as they are components of pok; 2) age was calculated as the difference between the year the agency was started and 2013.
References


Appendix 1. Science Agencies, as defined by David Lewis

Consumer Product Safety Commission
Council of Economic Advisers
Council on Environmental Quality/Office of Environmental Quality
Department of Agriculture
Department of Commerce
Department of Defense
Department of Energy
Department of Health and Human Services
Department of Homeland Security
Department of Interior
Department of Justice
Department of Labor
Department of Transportation
Environmental Protection Agency
National Aeronautics and Space Administration
National Science Foundation
National Transportation Safety Board
Nuclear Regulatory Commission
Office of Science and Technology Policy
U.S. Agency for International Development