Federal Disaster Relief in the U.S.: The Role of Political Partisanship and Preference in Presidential Disaster Declarations and Turndowns

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Abstract

Federal disaster declarations are authorized by the president under the provisions of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (the Stafford Act). Previous studies pertaining to presidential disaster declarations have found varying levels of political influence associated with the declaration process. Factors including electoral votes, reelection years, congressional committee appointments, geographic location, and party favoritism have been implicated in the selective approval capacity that is designated to the president in issuing federal disaster declarations.

This article aims to provide a comparative analysis of emergency and major disaster declaration requests under the Stafford Act from 1989-2005 with attention directed towards political partisanship, biased vote-seeking, and the potential for a state to be overwhelmed by a disaster event. Our study reveals a higher success rate in acquiring major disaster declarations for states with lower total taxable resources and during presidential reelection years. The same findings were not evident in the analysis of emergency disaster declarations where statistically significant observations were limited to events in which recent multiple disasters had occurred and/or senatorial and presidential party similarity existed. There was no statistical evidence to suggest that gubernatorial and presidential party similarity, U.S. House of Representatives and presidential party similarity, FEMA congressional oversight committee membership, electoral votes, or FEMA regional office location influenced success in securing emergency or major disaster declarations. Several aspects of our results differ from prior studies and provide new findings regarding the role of political influence in the disaster declaration process.

KEYWORDS: disaster declarations, Stafford Act, disaster policy

1. Introduction

Federal disaster declarations in the U.S. are authorized by the president under the provisions of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (the Stafford Act). This act created a mechanism for the distribution of various forms of relief aid after disasters including debris removal, temporary housing, individual and family financial assistance, infrastructure repair, emergency communications, and military support for the preservation of life and property (Bea 2006). Disaster declaration requests are considered when a state or local government indicates that it has been "overwhelmed" by the effects of a disaster event and the governor of the affected state has executed the state's emergency plan and requested disaster relief from the President of the United States (Sylves and Waugh 1996; Bazan 2005). The Stafford Act gives the president permanent authority to direct federal aid to affected states (Bea 2005).

Attention has been drawn to political motives such as partisanship and biased vote-seeking that may influence the declaration process due to the sole discretion granted to the president with respect to disaster declarations and turndowns and the observation of a significant increase in both the frequency of disaster declarations and the financial allotment associated with federal aid since the approval of the Stafford Act (Sylves 1998; Downton and Pielke 2001; Garrett and Sobel 2003). In reference to the significant increase in post-Stafford Act requests for disaster declarations, Rubin (2007, 121) indicates that "seeking presidential disaster and emergency declarations has become a 'growth industry' for the U.S.". Sylves (2008, 101) informs us that, "the broader authority to judge what is or is not a disaster under the Stafford Act has provided presidents since 1988 with more latitude to approve unusual or 'marginal' events as disasters or emergencies." The success rate in acquiring a presidential emergency or major disaster declaration increased from 62.5 percent during the pre-Stafford Act time period of 1953-1988 to 79.8 percent in the 1989-2005 post-Stafford Act time frame. Requests for disaster declarations are 28 percent more likely to be granted since the Stafford Act was legislated in 1988. Claims of "disaster gerrymandering" (Platt 1999), inefficiency, and inconsistency in the determination and aid distribution process for disaster declarations have been highlighted in prior research and media reports (Sylves and Waugh 1996; Gaul, Morgan, and Cohen 2006). The lack of established specific fixed criteria for the determination of a state's capacity to be "overwhelmed" by a disaster event has led to scrutiny regarding evidence of the designation of presidential disaster declarations that is independent of major hazard event experience (Schmidtlein, Finch, and Cutter 2008). The ability for the president to modify cost share requirements for major disaster declarations (Bea 2006) and exceed monetary relief thresholds for emergency disaster declarations (Bea 2005) compounds the concern pertaining to subjectivity in decision making protocols. Additionally,

federal intervention after disasters has become an expected role of government and the failure to offer assistance could create a loss of confidence during a time of crisis (Sugerman, 2007). These considerations extend the debate regarding the presidential disaster declaration process. Political influences including electoral votes, reelection year, affiliations between affected states and key congressional committee appointees, and party favoritism have all been implicated in the selective approval capacity that is solely designated to the president (May 1985; Downton and Pielke 2001; Garrett and Sobel 2003; Cutter and Emrich 2005; Krueger 2005; Reeves 2006; Sylves and Buzas 2007; Schmidtlein, Finch and Cutter 2008).

This paper attempts to systematically examine the empirical evidence associated with the claim that federal disaster declarations are primarily motivated by political influences and less motivated by actual need. Our study supplements prior research by focusing on a comparative evaluation of post-Stafford Act emergency and major disaster declaration requests with particular attention directed towards the role of political partisanship and biased vote-seeking in disaster declaration decision making and the relative capacity for a state to become "overwhelmed" by a disaster event. The findings provide additional input with respect to the underlying causes of disparities in the distribution of disaster relief in the U.S. and the subjective rationale associated with presidential disaster declarations and denials.

Data for this study were collected from 1989 to 2005, in order to focus on the post Stafford Act time frame when the incidence and percentage of disaster declarations relative to denials increased substantially in comparison to the previous time frame (1953-1988). Emergency and major disaster declaration requests are analyzed independently and compared to determine if there is any evidence of differential political influence in the declaration and denial of these two categories of disaster requests that are under the sole decision making authority of the president. According to Sylves (2008, 96), "many emergency declarations, more than major disaster declarations, are likely to stretch the rule that states must lack the capacity to recover on their own to qualify for a presidential declaration. In times of tight state and local budgets, or when they are in deficit, an emergency offers governors a flexible path for securing federal help." Emergency declarations provide a limited level of federal support and are a presidential alternative to a denial for a major disaster declaration request. As such, emergency declarations may provide an opportunity for the president to obtain or preserve some degree of political favor in response to a disaster request without providing access to the more extensive resources that are available under major disaster declarations.

2. Background and Literature Review

The following historical perspective focuses specifically on changes in policy that are relevant to this analysis. The reader is directed to FEMA's information portal (FEMA 2008a) and the works of Rubin (2007) and Sylves (2008) for a more detailed review of Stafford Act requirements and a historical review of disaster policy in the U.S. Emergency disaster declarations require a federal cost share of not less than 75 percent of funds distributed and the financial aid is limited to $5 million dollars, although the president may exceed this amount with congressional notification if there is a continuing threat to public safety and property. Federal aid in emergency declarations is limited to debris clearance and emergency protective measures including, in part, technical assistance to local governments, co-ordination of disaster relief between government agencies, and individual and household assistance consisting of temporary housing grants and distribution of food, medicine, and consumables. Major disaster declarations are eligible for federal benefits that provide for significant extensions of the measures that exist under emergency declarations and include a broad array of individual and household assistance benefits and public assistance for the repair, restoration and replacement of infrastructure. Major disaster declarations indicate the eligibility for requesting states to receive individual and family assistance, public assistance, and/or hazard mitigation assistance. Requests for presidential disaster declarations are initiated by the governor of an affected state, although the president can issue an emergency declaration for a state without the governor's request in extraordinary situations that involve primarily federal interests (Bazan 2005). Emergency declaration requests can be declared or denied (turndown). Major disaster declaration requests can de declared, denied, or designated as emergency declarations. Approval or denial of emergency disaster declarations and major disaster declarations is under the sole final authority of the President of the U.S. Congress appropriates funds for disaster relief on an annual basis to guarantee that federal assistance is available to those communities that have received disaster declarations. Bea (2005, 4) notes that "appropriations to the DRF (Disaster Relief Fund) generally evoke little controversy" in Congress. Supplemental appropriation legislation is required to meet the urgent needs associated with catastrophic events.

2.1 Previous Research

Prior studies have investigated the role of political influence in presidential disaster declarations. Garrett and Sobel (2003) suggested that nearly half of all disaster relief is politically motivated, rather than determined by need, and concluded that states more politically important to the president have higher rates of disaster declaration. They utilized "public choice theory" to describe the actions of politicians in the disaster declaration process as dependent on personal

self interest and incentives and independent of the sole altruistic motive of serving the public good. Garrett and Sobel (2003, 508) apply this concept to congressional committee oversight of FEMA and determine by disaster expenditure models that 44.5 percent of FEMA disaster payments are due to representation on FEMA oversight committees and "that for each House member on an oversight subcommittee (which directly oversees disaster expenditures), states receive an average of $31 million in excess disaster expenditures." However, the aforementioned study concluded that there was no evidence that states having a governor from the same party as the president led to a higher level of disaster relief or that the president used disaster declaration authority to harm legislators of an opposing political party. Cutter and Emrich (2005) conducted a detailed nationwide analysis and noted limited spatial or statistical correlation between disaster losses and disaster declarations along the West Coast, Gulf Coast and Florida, the eastern Great Plains, Appalachia and the Northeast. These authors concluded that the political nature of the disaster declaration process may contribute to the effectiveness of a state and county in securing this designation.

Additional research indicates that the level of disaster declaration is higher in reelection years than in non-reelection years (Downton and Pielke 2001; Garrett and Sobel 2003; Stehr 2006; Sylves and Buzas 2007). Reeves (2007) contends that a sitting president can expect a 1.7 percent increase in votes in a statewide contest in return for a single presidential disaster declaration. Downton and Pielke (2001) reviewed disaster declarations as they relate to Stafford Act requirements pertaining to a state's capacity to respond adequately to a disaster event by considering per capita damages, total damage as a percent of state expenditure, and per capita damages as a percent of household income. The Downton and Pielke study revealed that a state's ability to pay was not a major consideration in presidential disaster declarations. Several studies have provided additional insight into the presidential decision making process by utilizing both disaster declarations and denials (turndowns) in their analysis. Sylves (1998) provided an analysis of presidential disaster declarations that included declarations and turndowns in coastal versus inland states. The study found that between January 1990 and June 1997 coastal states averaged more disaster declarations than inland states and received more disaster relief funding when data were controlled for population, land area, and population density. Sylves concluded that coastal states do not receive a disproportionate percentage of primary flood declarations although they do experience a higher turndown rate than inland states. Sylves and Buzas (2007) provided an analysis of disaster declarations and turndowns from 1953-2003 which included a consideration of the type of disaster event and found that a state's success rate in acquiring disaster declarations was greater in presidential reelection years and that the odds of approval for a declaration request were greater among Democratic presidents and

Republican governors. They determined that hurricanes and typhoons were the event most likely to positively impact the rate of approval. The authors did not find any significant association between the incidence of acquiring disaster declarations and gubernatorial/presidential party similarity. More recently, Schmidtlein et al. (2008) applied a geographic weighted regression methodology to determine the spatial similarity between major hazard events and presidential disaster declarations and determined that spatial inequities exist in the distribution of disaster declarations that are indicative of the political nature of the decision making process.

It is evident that varied aspects of prior analyses have provided disparate findings and opinions regarding the association of electoral votes (Downton and Pielke 2001, Reeves 2007, Sylves and Buzas 2007), gubernatorial and presidential party similarity (May 1985, Garrett and Sobel 2003), and congressional influence (Garrett and Sobel 2003; Sylves and Buzas 2007) with respect to presidential disaster declarations. There has been consistency in findings with respect to a positive relationship between presidential reelection years and success in acquiring a disaster declaration by an affected state (Downton and Pielke 2001; Garrett and Sobel 2003; Stehr 2006, Sylves and Buzas 2007) and with respect to spatial disparities in the distribution of disaster declarations (Sylves 1998; Cutter and Emrich 2005; Schmidtlein, Finch, and Cutter 2008).

2.2 Theoretical Framework

Garrett and Sobel (2003) utilize the "public choice" model to explain presidential motive in disaster declaration decision making. This theoretical construct represents a political version of "rational choice theory" and suggests that politicians react to issues which they face based on personal gain, as manifested through the attainment and preservation of power and prestige, and independent of motivation that is focused on public benefit and need. Similarly, Frisch (2006, 18) references the "distributive" model of congressional organization in stating that, "members of Congress seek membership in committees that will best serve their interest in reelection". Peterson's (1995) "legislative theory" suggests that the president is primarily motivated by political incentive and that congressional influence will prevail in bargaining between the president and Congress. Individual political gain supplants altruistic motive under the premise of a public choice model, a distributive model, or legislative theory. This concept is readily applied to political motivations regarding disaster request declarations and turndowns and the intergovernmental relationships that exist amongst a variety of bureaucratic, legislative, and executive stakeholders.

However, the complexities of decision making under the premise of public choice, distributive, and legislative theory have been criticized by several authors (Barnes 1987; Barnes and Sheppard 1992; Miller 1992; Peterson 2005; Frisch

2006). John Rawls (1993) was a strong advocate of both rational and reasonable moral powers that coexist and are central to political decision making. Favoritism in the form of partisan behavior towards members of congress or governors who represent the same political party as the president is indicative of an entrenched method of preserving power amongst like minded elected representatives. Rawls viewed partisanship as a manifestation of injustice (Muirhead 2003) and this perspective is exemplified in findings that suggest federal disaster relief is disproportionately distributed based on political favoritism that is independent of actual community need or by biased vote-seeking via the selective distribution of a greater frequency of disaster declarations to areas with a higher number of electoral votes and/or during reelection cycles.

Cebula (2004) indicated that public dissatisfaction with government can lead to emotional responses in voting behavior. The failure of presidential support for a gubernatorial disaster declaration request can be reasonably assumed to have a negative emotional effect on the respective community. This concept of "negative voting" by a dissatisfied public has been presented as an explanation for mid-term congressional decline in a sitting president's party (Kernell 1977). Quattrone and Tversky's (1988) research revealed that respondents show greater sensitivity to losses than to gains and suggests that voter options in political referendums may be determined based on negative factors. Similarly, the "negativity effect", as described by Lau (1985), promotes the concept of political behavior based on greater weight being given to negative information than positive information. It is evident that public expectations of supportive behavior from the president and FEMA, combined with the conflicting tendencies associated with rational and reasonable decision making, provide for complexities in the analysis of policy implementation under the provisions of the Stafford Act. Our study thus considers the effect of several explanatory factors that are indicative of political influence and actual need in an attempt to discern the predominant theoretical framework that is applicable to presidential disaster decision making.

3. Data and Methodology

Data sets for this study were obtained from the Public Entity Risk Institute (2008), the Federal Emergency Management Agency (FEMA 2008b), and additional information was acquired from FEMA (2006) under the Freedom of Information Act. The data included the number of emergency and major disaster requests (turndowns and approvals) from 1989 to 2005. Complete information regarding turndowns was not available for disaster declaration requests after 2005. Congressional oversight committee membership and the party affiliations of governors by state was obtained from the *Almanac of American Politics* (Barone and Ujifusa 1990, 1992, 1994, 1996, 1998, 2000; Barone and Cohen 2002, 2004,

2006) consistent with the research of Garrett and Sobel (2003). The consideration of FEMA oversight committees was consistent with the prior published research of Garrett and Sobel (2003). There were six House subcommittees and six Senate subcommittees included in the analysis. The Economic Development, Public Buildings & Emergency Management subcommittee was added in 2000 and the Homeland Security committee was added in 2003. Three of the subcommittees in the House and two subcommittees in the Senate oversaw disaster funding and the remaining subcommittees oversaw other FEMA operations. The FEMA oversight committees/subcommittees are listed below.

House of Representatives subcommittees/committees
Economic Development, Public Buildings & Emergency Management subcommittee and Water Resources and Environment subcommittee of the Transportation and Infrastructure Committee
V.A., Housing, and Urban Development, and Independent Agency subcommittee of the House Appropriations Committee
Basic Research subcommittee of the Science Committee
Housing and Community subcommittee of the Banking and Financial Services Committee
Homeland Security committee
Senate subcommittees/committees
Clean Air, Wetlands, Private Property and Nuclear Safety subcommittee of the Environment and Public Works Committee
Veteran's Administration, Housing and Urban Development subcommittee of the Senate Appropriations Committee
Oversight of Government Management and District of Columbia subcommittee of the Government Affairs Committee
Housing Opportunity and Community Development subcommittee of the Banking, Housing and Urban Affairs Committee
Science, Technology and Space subcommittee of the Commerce, Science, and Transportation Committee
Homeland Security committee

State level data pertaining to estimated Total Taxable Resources was obtained from the U.S. Department of the Treasury (2008), the National Center for Higher Education Management Systems Information Center for State Higher Education Policymaking and Analysis (2007) and Compson (2003). Poverty data was obtained from the U.S. Census Bureau. All major disaster and emergency disaster declarations and turndowns were considered with exception of fire suppression, because presidents do not issue fire suppression actions (Sylves 1998). The analysis of disaster declaration and turndowns was confined to the fifty states of the U.S. The District of Columbia, U.S. territories and U.S. possessions that are eligible for disaster declarations and turndowns under the provisions of the Stafford Act were excluded due to the absence of gubernatorial party, voting congressional membership and/or the absence of an electorate that votes in presidential elections. The resulting breakdown of states included in the respective FEMA regions is as follows:

FEMA Region I-Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
FEMA Region II-New Jersey, New York
FEMA Region III-Delaware, Maryland, Pennsylvania, Virginia, West Virginia
FEMA Region IV-Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
FEMA Region V-Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
FEMA Region VI-Arkansas, Louisiana, New Mexico, Oklahoma, Texas
FEMA Region VII-Iowa, Kansas, Missouri, Nebraska
FEMA Region VIII-Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
FEMA Region IX-Arizona, California, Hawaii, Nevada
FEMA Region X-Alaska, Idaho, Oregon, Washington

The names and definitions of all variables considered in our analysis are summarized in Table 1. Binary logistic regression was utilized to analyze the dichotomous dependent variable ― federal disaster declaration requests. Presidential disaster request declarations were coded as 1 and disaster request denials (turndowns) were coded as 0. Separate regression models were implemented to examine emergency disaster declaration requests and major disaster declaration requests. The objective of our regression analyses was to determine if: (a) variables pertaining to political, partisanship, politically biased vote-seeking or "overwhelming" need are influential with respect to disaster declarations and denials; and (b) variables influencing emergency declarations are similar or different from those influencing major disaster declarations. The different categories of explanatory variables are described in detail below.

       Partisanship: This category consists of distinct dichotomous variables that are indicative of party favoritism between the president and governors, U.S. senators, or U.S. house representatives who shared political party affiliation and U.S. senators or U.S house representatives who served on FEMA oversight committees. Additionally, FEMA regions are utilized as an independent categorical variable in this analysis to determine if political influences are pertinent to the disaster declaration recommendations that are generated in each respective FEMA region. Gubernatorial, senatorial, and house party similarity with the president is considered a partisan variable due to the electoral benefits that a sitting president may receive from a governor/senator/house member with similar political perspectives who is more likely to support a "same party" president's initiatives and reelection efforts. For each declaration request, governors of the same party as the president were coded 1 and opposing party governors were coded as 0. States with both senators representing the same party as the president were coded as 1 and states with a single senator or no senator of the same party as the president were coded as 0. States with a majority of house representatives who were of the same party as the president were coded as 1 and states with equal party representation or a majority of house representatives of the opposing party were coded as 0, for each declaration request.

Prior consideration of the influential role of congressional membership on FEMA oversight committees with respect to disaster declarations resulted in the estimation that 44.5 percent of FEMA disaster payments are due to representation on FEMA oversight committees and "that for each House member on an oversight subcommittee (which directly oversees disaster expenditures), states receive an average of $31 million in excess disaster expenditures" (Garrett and Sobel 2003, 508). However, Garrett and Sobel (2003) indicated that they were unable to obtain information on the total number of disaster requests and their analysis was, therefore, limited to disaster declarations. Fiscal determinants are not relevant in the consideration of disaster declaration turndowns and oversight committee membership since no financial support is generated for turndowns. However, it is assumed that if the presence of single representative on an oversight committee generates an average of 31 million dollars in additional relief (Garrett and Sobel 2003), the presence of a single representative will also be correlated with a higher success rate in acquiring disaster declarations. The following analysis considers the relationship between membership on congressional FEMA oversight committees and all post-Stafford Act disaster declaration requests (both declarations and turndowns) from 1989-2005. States with at least one senator and /or states with at least one house representative on a FEMA oversight committee were coded 1 and states without a representative were coded as 0. FEMA regions were also included in this category to determine if there was any evidence of partisanship in the intergovernmental and bureaucratic relationships that exist between this agency and elected officials. FEMA regions were included as dichotomous variables. For each disaster declaration request, the region under evaluation was coded as 1 and the remaining FEMA regions were coded as 0. Region X (Alaska, Idaho, Oregon, and Washington) represented the required baseline comparison variable in the analysis because it had the fewest declaration requests during the time frame analyzed. The potential for disparity in the distribution of disaster declarations based on differential degrees of political influence across the various FEMA regions has been addressed in prior research (Stephens and Wikstrom 2007; Schmidtlein, Finch, and Cutter 2008). Schmidtlein, Finch, and Cutter (2008, 13) recommended that further research in this arena should "incorporate measures of state political importance... to identify if those political influences help to explain the differential spatial pattern of PDDs" (presidential disaster declarations). It is assumed that if partisanship or biased vote-seeking has an influence on presidential decision making, certain FEMA regions will reveal a statistically significant relationship with disaster declarations when controlling for the other predictor variables.

Biased Vote-Seeking: This category was utilized to indicate a tendency for the president to seek voter favor in states with a significant electoral vote (weighted) and/or during reelection years. The weighting for electoral votes was

consistent with prior methodology (Garrett and Sobel 2003) and was employed for consistency in comparative analysis. This weighting acknowledged "battleground" states as those states that often switched party allegiance in presidential elections by considering the percentage of presidential elections won by each respective party from 1956-2004 and factoring the percent by the following formula: "*Y= 1-4 (X-0.5)^2,* where X is the percent of presidential elections between 1956 and 2004 won by a Democrat and *Y* is the weighting factor having a maximum value of one at X= 50% and a minimum value of zero at *X= 0%* or X= 100%. Y is multiplied by the number of electoral votes in a state to arrive at the measure of electoral importance. Because Y has an inverted U shape, the value of *Y* is the same if we used the percent of presidential elections that were won by a Republican" (Garrett and Sobel 2003, 500). For each disaster declaration request, the reelection year variable was coded as 1 for reelection year and 0 for other years. Disaster request declarations and turndowns were considered from November 1st of the year prior to reelection through October 31st of the reelection year for the analysis of the relevant presidential reelection years (1992, 1996, and 2004). The explanatory variables electoral votes weighted and reelection years are predicted to have a statistically significant positive relationship with disaster declarations if biased vote-seeking is occurring in the presidential designation of disaster declarations.

   Overwhelming Need: The Stafford Act specifically provides for discretionary decision making by the president and allows for selective declarations in areas of recurrent disaster exposure and in areas where there is a low income population (Bazan 2005). States with a recent recurrence of a state and/or federal disaster declaration within a 12-month timeframe and those states with a higher poverty level are less likely to have the financial resources that may be necessary to manage a disaster event without federal support due to the state's fiscal obligations that are associated with these characteristics. Recent multiple disasters was coded as a dichotomous variable with declaration requests for events that occurred within 12 months of a prior declaration coded as 1 and all other requests as 0. Poverty levels associated with each request were categorized by the annual percentage of individuals in poverty for each respective state that was requesting disaster relief. The potential for a state to be "overwhelmed" by a disaster event is evaluated in this study based on the General Accounting Office's recommendation for the use of state "Total Taxable Resources" (TTR) as a guideline for the assessment of state fiscal capacity in the determination of eligibility for federal aid, with specific reference to disaster declarations under the provisions of the Stafford Act (Wrightson 1996; GAO 1998; GAO 2001). TTR, as developed by the Treasury Department, averages per capita income and all income produced within in a state by residents, nonresidents, and businesses. The General Accounting Office (GAO 2001, 12)) indicates that "TTR provides a more

sensitive adjustment for growth over time in a state's fiscal capacity than does adjustment for inflation based on personal income". TTR were reported and categorized as total taxable resources per capita indexed to the U.S. and applied to each state for the respective disaster event. Poverty rate, recent multiple disasters and total taxable resources are predicted to have no statistical relationship with disaster declarations if the decision making process is assumed to be primarily dependent on political partisanship or biased vote-seeking behavior.

Table 1 Variable names and definitions

Variable	Definition and measurement
Federal Disaster Declaration Request	1=declaration, 0=denial (turndown)
Partisanship:	
Governor	1=same party, 0=not same
U.S. senator	1=both same party, 0=not same
U.S. house representative	1=majority same party, 0=not same
FEMA oversight committee senate	1=membership on committee, 0=no membership
FEMA oversight committee house	1=membership on committee, 0=no membership
FEMA region	1=region specified, 0=other regions
Biased Vote-Seeking:	
Electoral votes weighted	# of electoral votes weighted by prior election outcomes (see formula in text)
Reelection year	1=reelection year, 0=other yr
Overwhelming Need:	
Recent multiple disasters	1=state or federal declaration in prior 12 months, 0=none in prior 12 months
State poverty rate	Percent of state population below the annual poverty level
Total taxable resources	Annual TTR per capita indexed to the U.S.

4. Results

Table 2 provides summary statistics for emergency and major disaster declaration requests and includes each of the variables used in our analysis. There were a total of 1,130 disaster declaration requests analyzed during the 1989-2005 timeframe. This included 191 (16.9 percent) requests for emergency declarations and 939 (83.1 percent) requests for major disaster declarations. The incidence of presidential approval for all emergency and major disaster declaration requests under evaluation from 1989-2005 was 80 percent (902/1130). The presidential approval rate was 85 percent (162/191) for emergency declaration requests and 79 percent (740/939) for major disaster declaration requests.

Table 2 Descriptive statistics for variables analyzed

	Emergency Disaster Declaration Request (N=191)				Major Disaster Declaration Request (N=939)			
Variable:	Min	Max	Mean	SD	Min	Max	Mean	SD
Declaration	0	1	0.85	0.36	0	1	0.79	0.41
Governor	0	1	0.51	0.50	0	1	0.45	0.50
Senate	0	1	0.34	0.47	0	1	0.31	0.46
House	0	1	0.51	0.50	0	1	0.46	0.50
Senate FEMA Oversight	0	1	0.80	0.40	0	1	0.69	0.46
House FEMA Oversight	0	1	0.72	0.45	0	1	0.73	0.45
FEMA 1	0	1	0.18	0.39	0	1	0.08	0.27
FEMA 2	0	1	0.11	0.31	0	1	0.05	0.22
FEMA 3	0	1	0.07	0.26	0	1	0.10	0.30
FEMA 4	0	1	0.20	0.40	0	1	0.23	0.42
FEMA 5	0	1	0.09	0.29	0	1	0.14	0.35
FEMA 6	0	1	0.15	0.36	0	1	0.13	0.34
FEMA 7	0	1	0.03	0.16	0	1	0.08	0.27
FEMA 8	0	1	0.05	0.22	0	1	0.07	0.25
FEMA 9	0	1	0.07	0.26	0	1	0.06	0.23
FEMA 10	0	1	0.01	0.10	0	1	0.05	0.21
Electoral Vote weighted	0.85	52.07	11.23	10.15	0.85	52.07	10.92	10.56
Reelection Year	0	1	0.08	0.27	0	1	0.21	0.41
Recent Declaration	0	1	0.70	0.46	0	1	0.73	0.45
State Poverty Rate	5.5	26.40	12.59	3.44	5.60	26.40	13.13	3.64
TTR Index	0.67	1.60	0.99	0.18	0.67	1.73	0.96	0.16

Multivariate logistic regression was utilized to investigate the statistical effect of the aforementioned partisanship, biased vote-seeking, and "overwhelming" need characteristics, after including all variables in separate models for emergency and major disaster declaration requests. Logit models were estimated for the designation of a disaster declaration by the president as a function of the explanatory variables previously described. For each logit model, the natural logarithm of the odds of acquiring a presidential disaster declaration is assumed to be a linear function of the relevant independent variables and the maximum likelihood method was used to estimate the model. A simultaneous examination of all explanatory variables in a single model allows for consideration of the effects of each variable while controlling for the effects of the remaining variables. The logit coefficients and odds ratios from our multivariate logistic regression models are presented in Table 3. The log likelihood (chi-square) test indicated overall significance for both the emergency disaster declaration request model ($p < 0.001$) and for the major disaster declaration request model ($p < 0.05$). About 88 percent of the observed declarations and denials (turndowns) were correctly predicted or classified as declarations or denials (turndowns) by the multivariate logit model for emergency requests and

79 percent were correctly classified by the model for major requests. Collinearity diagnostics indicated no significant evidence of multicollinearity between the explanatory variables in either model.

For emergency declaration requests, success in acquiring declarations is significantly influenced by senate and presidential party similarity, after controlling for the other explanatory variables. The odds of acquiring an emergency declaration increase for each emergency request in states where both U.S. senators were from the same party as the president. The odds of receiving an emergency declaration also increase significantly in states that had a prior state or federal disaster declaration within the past 12 months. No significant relationship was found between success in acquiring emergency disaster declarations and any of the remaining partisanship, biased vote-seeking or overwhelming need predictor variables. For major declaration requests, the odds of acquiring a declaration decline significantly in states where both U.S. senators were from the same party as the president, after controlling for the other explanatory variables. Reelection year is also significantly and positively associated with success in acquiring major disaster declarations. Total Taxable Resources (TTR) is another statistically significant factor influencing major disaster declaration success. The odds of receiving a disaster declaration decrease by almost 87 percent for each one unit increase in the state TTR index. There was no evidence of a statistically significant relationship between success in acquiring major disaster declarations and any of the remaining partisanship, biased vote-seeking, or overwhelming need predictor variables.

5. Discussion

The consideration of explanatory variables associated with political partisanship provided evidence of a significant relationship between senatorial/presidential party similarity and success in acquiring emergency declarations. This may be indicative of biased political motivation by the president in the distribution of federal relief under the provisions of the Stafford Act. However, the negative association between senatorial/presidential party similarity and major disaster declarations in the regression analysis is contrary to any premise of partisan behavior that is consistent with public choice, distributive, or legislative models. Our contrasting findings with respect to this variable suggest a relationship that may not have any causal role with respect to presidential decision making. The absence of significant statistical associations for the remaining partisan predictor variables including gubernatorial and presidential party similarity, U.S. House of Representatives and presidential party similarity, FEMA oversight committee membership, and FEMA regions suggests a limited role for partisan bias in presidential disaster declaration decision making.

Table 3 Logit coefficients and odds ratios from multivariate analysis of disaster declaration requests

Variable	Emergency Disaster Declaration Request		Major Disaster Declaration Request	
	Coefficient	Odds Ratio	Coefficient	Odds Ratio
Governor	0.54	1.71	0.27	1.31
Senate	2.12***	8.35	-0.30*	0.74
House	-0.61	0.55	-0.00	0.98
Senate FEMA Oversight	0.30	1.35	-0.06	0.94
House FEMA Oversight	-0.40	0.67	-0.02	0.98
FEMA Region 1	-18.80	0.00	-0.24	0.79
FEMA Region 2	-19.22	0.00	-0.25	0.78
FEMA Region 3	-0.55	0.58	0.09	1.10
FEMA Region 4	-20.36	0.00	-0.49	0.61
FEMA Region 5	0.10	1.10	-0.41	0.66
FEMA Region 6	-20.00	0.00	-0.76	0.47
FEMA Region 7	-0.39	0.65	-0.60	0.55
FEMA Region 8	-20.62	0.00	0.00	1.00
FEMA Region 9	-21.38	0.00	-0.11	0.90
Electoral Vote wtd	0.00	1.00	-0.00	1.00
Reelection Year	0.44	1.55	0.64***	1.90
Recent Declaration	1.39***	3.99	-0.03	0.97
State Poverty Rate	-0.09	0.91	-0.02	0.98
TTR Indexed to US	0.55	1.73	-1.87***	0.16

*$p < 0.10$. ** $p < 0.05$. *** $p < 0.01$

Similar to the findings of prior research, the consideration of predictor variables associated with biased vote-seeking revealed significant evidence that disaster declarations are more likely to be issued during presidential reelection years, but only for major disaster declaration requests. This is indicative of a degree of biased vote-seeking behavior that has been confirmed in all other statistical studies that included this variable. Although emergency declarations may represent a potentially marginal type of presidential declaration based on comparative total federal fiscal obligation and it has been noted that emergency declarations offer governors a more "flexible path for securing federal help" (Sylves 2008, 96), there is no evidence of preferential designation of emergency declarations during reelection years in the post-Stafford Act timeframe (1989-2005). Major disaster declaration requests can be denied, granted, or reassigned and declared as emergency disasters by the president. The non-significant relationship between reelection years and emergency disaster declarations may be associated with a greater tendency for the president to issue major declarations during reelection years and not re-designate major requests to the less fiscally

burdensome category of emergency declarations. It may also be indicative of a tendency for the president to be less politically motivated during the acute disaster phase when the debris removal and public safety aspects of emergency disaster declarations are a primary need. The absence of a significant relationship between electoral votes weighted and either emergency or major disaster declaration success does not support a conclusion of biased vote-seeking behavior in this aspect of presidential disaster declaration decision making.

Regarding "overwhelming need" variables, the Stafford Act makes specific provisions for presidential discretion in the consideration of requests from areas that have been impacted by recent disasters. The increase in emergency declarations in areas that have had prior declarations within the past 12 months supports the consideration of this extenuating circumstance by FEMA and/or the president in the decision making process. The evidence of a negative relationship between Total Taxable Resources (TTR) and the success rate in acquiring declarations provides evidence that the previously noted recommendations of the GAO are empirically evident in the review of major disaster requests from 1989-2005. The distribution of a higher percentage of declarations to states with a lower level of TTR may be indicative of a needs based application of discretionary decision making by the president. State poverty level was not significantly associated with presidential disaster declaration success for emergency or major disaster declaration requests.

6. Conclusions

This study has expanded upon the body of research pertaining to political influence and presidential disaster declarations by the independent and comparative assessment of emergency and major disaster declaration requests (declarations and turndowns) and the consideration of a wide variety of explanatory factors that are indicative of political partisanship, biased vote-seeking and overwhelming state need. Prior published research has indicated the need for incorporating several of the variables employed in this analysis to address an important gap in the literature pertaining to presidential disaster declaration decision making. Some of our findings, however, differ substantially from the conclusions of related previous studies.

The complexities of intergovernmental relations between state and federal legislative and executive branches and bureaucracies is associated with an environment that produced statistical evidence of some degree of partisanship and biased vote-seeking in this analysis, but these findings are limited to the statistically significant relationship between reelection year and major disaster declaration success and the conflicting findings associated with U.S. senate/presidential party similarity and emergency and major disaster declaration success rates. The evidence of a significant relationship between states with a

lower Total Taxable Resource index and success in acquiring major disaster declarations and states with recent multiple disasters and success in acquiring emergency disaster declarations supports the concept of presidential discretionary disaster declaration decision making that is attentive to need and public interest. The post-Stafford Act timeframe has been associated with a marked increase in the incidence and frequency of disaster declarations in the U.S. Multivariate logistic regression analysis of every gubernatorial request for a presidential disaster declaration from 1989-2005 failed to reveal any evidence of a statistically significant association between the likelihood of success in acquiring presidential disaster declarations and gubernatorial/presidential party similarity, U.S. House of Representatives/presidential party similarity, FEMA oversight committee membership, FEMA region, or weighted electoral votes.

Partisanship and biased vote-seeking behavior are inherent aspects of our political system with a longstanding history that has often raised concerns regarding effective governance (Apperson 2006). The risks and rewards associated with incentive based partisan behavior have been noted in prior studies (Kingdon 2003, Muirhead 2003). Excessive allegiance to members of similar parties creates the danger of inequitable distribution of public services and a biased enactment and implementation of legislation. Indiscriminate and biased vote-seeking behavior creates similar vulnerabilities and engenders a concept of a government that is subservient to a public choice model that places personal gain over public good. The consideration of partisanship and biased vote-seeking as being forces of primacy in time of disaster provides a particularly egregious scenario. It is evident that both rational choice and reasonable decision making are utilized in the recommendations of the president. Presidential disaster declaration decision making does not appear to be primarily motivated by the political influences associated with public choice, distributive, or legislative theory in this analysis based on the absence of significant positive findings for the majority of predictor variables, including several variables that were determined to be indicators of political influence in prior studies.

The increase in the incidence of presidential disaster declarations and disaster relief funding since the onset of the Stafford Act is associated with changes in intergovernmental relations and policy implementation that are independent of political partisanship and biased vote-seeking. Rubin (2007) and Birkland (1996) have acknowledged the role of media coverage and large scale disasters as focusing events that may have influenced the declaration process after the initiation of the Stafford Act. The devolution of federal oversight and funding for a vast array of state initiatives and the discontinuation of federal general revenue sharing grants during the 1980's may have encouraged a subsequent increase in gubernatorial disaster declaration requests due to diminished state resources. State and federal fiscal constraints combined with the established trend

of continued increases in federal fiscal support during and after disaster events will necessitate changes in the Stafford Act and in the methods utilized to determine eligibility for federal assistance. It is essential that legislators and bureaucrats are informed regarding all of the variables that appear to influence the decision making process. Effective action is contingent on establishing a disaster policy agenda that is attentive to the causal aspects of any apparent disparity in the distribution of federal disaster relief. Based on the findings of this study, we recommend redirecting attention away from the broad claims of political partisanship and biased vote-seeking in presidential disaster declaration decision making and towards the post event evaluation of community recovery in disaster declared areas. This will provide an evidence-based approach to analyzing the effectiveness of the Stafford Act and allow for focused policy revisions to be applied that will provide for the effective and efficient use of federal dollars for disaster stricken regions of the U.S.

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