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Citizen-Based Brand Equity: A Model and Experimental Evaluation

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Abstract

Government agencies carry reputations in the public imagination. Agency names, images, and icons help form a brand that conveys information about that agency's competency in a given area of public policy. This article brings the concept of consumer-based brand equity from business marketing to public administration research on agency reputation. Like their commercial counterparts, public organizations may enjoy positive brand equity that provides political leverage and facilitates effective management, or negative brand equity that weakens an agency politically and frustrates administration. Just as different commercial products appeal to different kinds of consumers, an agency's brand value might differ with various segments of the public. We adapt a classic model of consumer branding to the public administration context, developing a framework for analyzing citizen-based brand equity for public agencies. A series of experiments embedded in a national survey is then used to gauge brand favorability for four US federal agencies as first-order test of the concept. We find consistent evidence that agencies' brands positively affect support for federal management, but also that partisanship conditions agencies' brand favorability.

In 1947, the United States *Department of War* reorganized and changed its name to the *Department of Defense* following the Second World War. As the postwar department was reorganized, its major functions—maintaining military capability and conducting military operations—did not change. However, the new name signaled the bureaucracy's postwar priorities to the nation and to the world: the age of colonialism and conquest was over, and an era of defense and strategic cooperation had arrived. The Department of Defense's new "brand" was meant to help sustain public support and, ultimately, secure resources from politicians who might otherwise hesitate to spend big in peacetime.

How does an agency's brand shape public perceptions of that agency? Do agency brands have important implications for politics and policy? This article

adapts a classic theoretical framework of commercial branding to the public administration context, and then uses experimental evidence to evaluate the brands of four US federal agencies as an initial application of the framework. Connecting political science theories of agency reputation with the concept of "brand equity" from the business marketing literature, we argue that public agencies' names can evoke symbolic meanings, associations, and emotions among citizens who may have limited familiarity with those agencies. In business marketing research, consumers' reactions to brands lead them to form different judgments about qualitatively similar products (Keller 1993; Lassar, Mittal, and Sharma 1995). Government agencies also carry brand images, and public managers sometimes go to great lengths to shape them. A positive public reputation can help an agency manage more effectively (Jerit 2008; Thomson and Perry 2006), and can give its managers strategic leverage in their relations with elected officials (Carpenter 2001; Carpenter and Krause 2015). That agencies have and cultivate public

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images is well understood, albeit broadly and in a general way.

This study brings greater theoretical clarity to research on public agency brands and their relationships with reputations. We argue that, like their commercial counterparts, public agencies' "brands" are associated with attributes, benefits, and attitudes that cause citizens to regard agencies more or less favorably. The result is positive or negative *citizen-based brand equity* for public agencies. We demonstrate the viability of this framework with an evaluation of the brands of four US federal agencies: the Department of Agriculture, Department of Energy, Environmental Protection Agency, and Army Corps of Engineers. We use a series of experiments embedded in a national public opinion survey to gauge the degree to which the public perceives them as suited to implement public policies in their respective domains. The experimental design employed here contributes to the scant but emerging empirical research on agency branding. To summarize our main results, we find that agency brands can evoke citizen responses that create positive or negative agency brand equity. Further, partisanship conditions brand equity in important ways, as Democrats and Republicans respond differently to brands that align with or against their preferred ideologies.

This article begins with a brief overview of business marketing research on brands, with particular attention to consumer-based brand equity. We connect this line of research to political scientists' work on agency reputation and political psychology. Building on this foundation, we develop a basic framework for analyzing citizen-based brand equity among public agencies. We suggest that brands names shape citizens' attitudes by triggering emotions and/or by conveying information about the agency. A set of hypotheses follows, aimed at establishing the first-order proposition that agency brand favorability varies systematically. We evaluate these hypotheses using experimental evidence from a national public opinion survey. We report our findings, discuss their implications for public managers, and lay out an agenda for future research on agency brands for students of politics, public administration, and public policy.

Brand Equity and Agency Reputation

Long a subject of interest for students of commercial marketing, public sector branding has received increasing attention in recent years, with much of the literature focused on places (e.g., cities, buildings), governments, and policies (Braun 2012; Eshuis, Braun, and Klijn 2013; Eshuis and Klijn 2012, 3, 2017; Harris, Brownell, and Bargh 2009; Karen et al. 2016;

Zavattaro 2014; Zenker, Braun, and Petersen 2017). Branding for specific agencies has received comparatively little attention. The dearth of attention to agency brands is surprising, given that public agencies spend considerable resources in advertising to promote their brands (Kosar 2012).[1]

Developing a general theory of public agency branding involves combining long research traditions on branding in business marketing and consumer economics with political science and public administration scholarship on agency reputation. An exhaustive review is beyond the scope of this study, as these topics have generated voluminous literatures. Our modest aim here is to capture the core insights of each line of inquiry in service of understanding public agency brands, adapting the consumer-based brand equity theory to public administration and political science research on public branding and agency reputation.

Brand Equity in Business Marketing

In business marketing and consumer economics, brands are public reputations associated with particular firms or their products. Brands convey informational cues about a product, rather than information itself: consumers tend to choose branded products when they have preferences about products, but relatively little information about those products (Cobb-Walgren, Ruble, and Donthu 1995; Erdem and Swait 1998; Faircloth, Capella, and Alford 2001). A consumer need not understand the molecular chemistry at work in laundry detergent to form an opinion about *Tide* or *All*. The information that brands convey can be so potent that often consumers prefer to buy a product of their favored brand at a higher cost than a qualitatively identical competitor, simply due to brand loyalty (Foxall and Schrezenmaier 2003; Foxall, Oliveira-Castro, and Schrezenmaier 2004). A firm's "brand equity" refers to the value that a business gains (or loses) by virtue of the information that its firm or product name and associated images convey (Farquhar 1989). As such, a firm's reputation plays a key role in generating profits (Lassar, Mittal, and Sharma 1995), and firms' brand equity plays an important role in growing firm value (Lane and Jacobson 1995; Simon and Sullivan 1993), as well as in mergers and acquisitions (Mahajan, Rao, and Srivastava 1994). Since a firm's brand can drive profitability, firm managers have strong incentives to manage or develop their brand images. Firms develop "firm-based brand equity" when the brand has independent, quantifiable value *as a brand*—that is, value apart from the quality of the product or service that the brand represents (Farquhar 1989; Simon and Sullivan

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1 Kosar (2012) reports that US federal agencies spend $892.5 million annually on public advertising.

1993). For example, company A might purchase a brand from company B if company A recognizes an opportunity to profit from the value of that brand. The value that firm A is willing to pay for use of *the brand itself* is firm-based brand equity.

Though public administration researchers have given significant attention to agency reputation and public branding, the concept of "firm brand equity" fits awkwardly with mainstream research in public administration because profitability and equity growth are not main goals of most government agencies. More directly relevant to public agencies is "consumer-based brand equity," which refers to consumers' awareness of and reactions to brand names and images, rather than the brand's financial value (Keller 1993; Lassar, Mittal, and Sharma 1995; Wood 2000). In consumer economics, positive consumer-based brand equity raises consumer willingness-to-pay (Lassar, Mittal, and Sharma 1995), reduces price elasticity (Krishnamurthi, Lakshman, and Raj 1991), and so allows firms to capture larger profit margins from sales (Aaker 2009; Keller 1993), and enhances the effectiveness of product marketing efforts (Yoo, Donthu, and Lee 2000). Consumer-based brand equity is subjective in the sense that it reflects "beliefs and attitudes for the brand" apart from the "objective reality of the product" (Keller 1993, 8). In other words, consumer-based brand equity is based on impressions about the firm or product, which are not necessarily informed by any substantive knowledge about the firm or product itself.

Public Agency Reputation

In recent years, political scientists and public administration scholars have given increased attention to agency reputations and their effects. Carpenter (2010) defines agency reputation as "a set of beliefs about an organization's capacities, intentions, history, and mission that is embedded in a network of multiple audiences" (36). Carpenter identifies four dimensions of bureaucratic reputation—performative, moral, technical, and legal-procedural—that develop through assessment of agencies' characteristics. As with commercial firms, beliefs about public agencies on any of these dimensions can be shaped by symbols and figurative images, such as "organizations' name, typesetting, slogans, employee uniforms, distinct colors, and architectures" (Alon-Barkat and Gilard 2017, 662).[2] Just as a commercial firm's brand value allows it to capture additional profits, a public agency's reputation can provide its leaders with significant autonomy from its

political overseers (Carpenter 2002; MacDonald 2010; Maor, Gilad, and Bloom 2013). A key element of bureaucratic reputation in Carpenter's (2001) framework is public support for an *agency*, apart from direct support for its policies. Public support for an agency is so significant politically that bureaucrats invest heavily in reputation-building efforts, not only with their legislative overseers but—crucially—with the public at large (Carpenter 2001; Lee 2011; Wæraas and Byrkjeflot 2012). A positive (or negative) agency reputation can improve (or hamper) organizational performance, too. Agencies with positive reputations enjoy advantages in recruiting or retaining employees (Carpenter 2002; Lee and Whitford 2013), and greater stability (Krause and Corder 2007), both of which predict improved agency function (Carpenter and Krause 2012).

Agency Public Reputation and Brand Equity

The idea of consumer based brand equity can be linked with organizational reputation in public administration context. In broad terms, in a democracy the mass citizenry is analogous to the "consumer" of public agencies' goods and services (e.g., Kelly 2005; Osborne 1993; Vigoda 2002); certainly a depiction of citizens-as-consumers broadly underlies much of the ethic behind the "New Public Management" (Hood 1991). To the extent that the citizen-consumer metaphor holds, an agency's public reputation contributes to brand favorability.

Recognizing the importance of agency reputation in bureaucratic politics, a handful of recent studies subject governments' brand favorability to the kind of analysis that is used to assess consumer-based brand equity in the commercial arena. Karens et al. (2016) use a randomized laboratory experiment to test whether respondents expressed more trust when exposed to European Union (EU) brand images along with a policy, as compared with the policy alone. They find that the EU brand significantly increased trust in all three laboratory settings (Belgium, Poland, and the Netherlands). However, their work has some important limitations. First, the study's main experimental manipulation compared the EU with an unnamed government, not another government or specific agency. This manipulation makes it impossible to distinguish the effects of the EU's brand as an administrative bureaucracy from its brand as a multinational political body. Second, the study's empirical subjects were undergraduate economics students in a highly stylized laboratory setting, which severely limits its generalizability.

In a similar vein, Marvel (2016) and Alon-Barkat and Gilad (2017) use survey experiments to evaluate the effects that exposure to symbols associated with public agencies have on attitudes toward those agencies. Both studies find that graphic elements of

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2 Alon-Barkat and Gilad (2017) explain that through *evaluative conditioning* processes, symbols and figurative images can shape citizens' attitudes either positively or negatively. For more on psychological mechanisms behind branding, see Alon-Barkat and Gilad (2017, 662–3).

agency logos can shape attitudes, and their mass survey designs offer greater generalizability than Karens et al. (2016). The theoretical aim in Marvel (2016) and Alon-Barkat and Gilad (2017) is to assess the effect of symbolic elements of an agency's brand (specifically, logo design) on citizen attitudes toward that agency. In both of these studies the identity of the agency is a constant, and its symbolic representation is the variable of interest. Their results offer evidence that elements of branding can shape public perceptions about government agencies.

Trusted Brands: A Conceptual Model

To what extent does public perception of a government agency's brand affect public evaluation of that agency's fitness to administer policy? To address this question, we apply Keller's (1993) foundational consumer-based brand equity framework to public agencies; that is, we offer a simple, general model of *citizen-based brand equity*. Adapting our definition from Eshuis and Klijn (2012), an agency brand is a name, symbol, or other combination of images intended to identify and differentiate a government agency or group of agencies from others. The model includes several dimensions of agency branding that offer avenues for investigation. Our aim here is to lay out its basic elements, and then derive some simple hypotheses from it for initial testing. Figure 1 depicts the basic model graphically.

Brand Associations

Like their commercial counterparts, agencies carry *brand images,* or *associations* held in public memory, shown at the left of figure 1. Associations interact to form greater or lesser *favorability*, which in turn gives a firm or product overall positive or negative brand equity. Following Keller (1993), the associations that form brand favorability fall into one of three categories: attributes, benefits, and attitudes.

Attributes are descriptive characteristics of a government organization as perceived by the citizen—that is, what citizens think the agency is and does, based on the agency's reputation and ideology. Carpenter and Krause (2012) argue that the public's perception of an agency's procedures, morale, and skills are important aspects of its reputation. For example, in the US federal government, the National Aeronautics and Space Administration (NASA) and Los Alamos National Laboratory are highly specialized organizations focused primarily on scientific research, and so the public may perceive a high level of technical acumen as an important attribute of these agencies. Symbolic images like logos or slogans may evoke such attributes (Alon-Barkat and Gilad 2017; Marvel 2016). Just as experience with a firm or its products affects perceptions of

brand attributes, direct observations of or experiences with an agency may shape perceived agency attributes in potent ways. To the extent that agency brands are widely associated with some ideological position, an agency's perceived ideology is a relevant attribute for its brand—a point to which we return later.

Benefits are the personal values associated with a public agency; that is, what citizens believe that an agency can do for them. Benefits can be immediate, tangible goods provided directly to the citizen (e.g., a pension payment from the Social Security Administration or disaster relief assistance from the Federal Emergency Management Agency), or public goods that benefit an entire community, country, or world (e.g., military protection from the Department of Defense or weather forecasts from the National Oceanic and Atmospheric Administration). As in Keller's original formulation, benefits may be purely symbolic: a citizen may value an agency as representative of her government's virtue, strength, or prestige in a way that relates to her own personality or self-image. For example, a citizen might feel a rush of excitement at seeing the US Navy's Blue Angels[3] fly overhead, or pride at seeing images of National Parks that she might never actually visit. Public agencies that provide services to citizens often introduce "more user-friendly and customer-oriented processes and structures," which can provide positive cues for citizens' favorable views toward government agencies (Aberbach and Christensen 2007; Torres and Pina 2004; Wæraas 2014, 677). Given that many citizens tend to view governments negatively (e.g., as inefficient or inflexible), branding efforts can override previous perceptions.

Brand *attitudes* are citizens' overall evaluations of an agency, and are "a function of the associated attributes and benefits that are salient for the brand" (Keller 1993, 4). Brand attitudes may be careful or cursory; a citizen might deliberately study an agency's history, structure, and operations, or (more likely) apply some simple heuristic about likely agency attributes and benefits, or simply react emotionally to the brand. A key difference between public agencies and commercial firms is that political beliefs are likely to condition attitudes toward the former much more than the latter: just as party identification, ideology, and elite opinions strongly predict voter choice apart from candidates' actual policy stances (Campbell et al. 1960; Zaller 1992), citizens' identification with a political party or ideologies might condition an agency's brand in a way

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3 The *Blue Angels* is a demonstration squadron of fighter jets that performs aerobatic shows for the public at events across the United States. The Blue Angels serve no strategic or tactical military purpose; apparently the squadron's roughly $40 million annual budget is an investment in brand-building for Navy aviation.
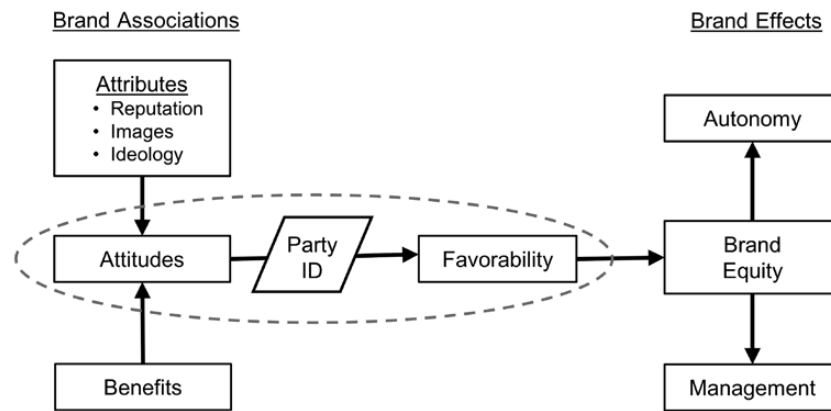
Note. Adapted from Keller (1993). The present empirical study focuses on the area within the dashed oval.

Figure 1. Conceptual Model of Citizen-Based Brand Equity

that they would not affect a commercial firm's brand. Party identification is a kind of lens or filter through which citizens perceive an agency's brand. This effect of partisanship is shown at the left-center of figure 1, modifying the effects of brand attitudes on overall brand favorability.

Favorability

The public may perceive an agency as having favorable attributes (e.g., technical capacity, devoted personnel) or unfavorable attributes (e.g., inefficiency, corruption). Similarly, agencies might be viewed as providing benefits (e.g., energy, education) or detriments (e.g., pollution, violence). Together, these attributes and benefits interact to shape favorable or unfavorable attitudes toward the agency's brand. Commercial marketing efforts are aimed at creating more favorable associations with a firm's brand. Just so, agency marketing (or, more cynically, propaganda) efforts are intended to increase brand favorability (Lee 2011). Measures to increase favorability may be as simple as naming an agency carefully (e.g., "Department of War" vs. "Department of Defense"), or as elaborate as lengthy, multimedia public relations campaigns (e.g., the U.S. Forest Service's Smokey Bear). The favorability of an agency's brand can underlie popular support for (or opposition to) the agency's actions or its leaders' policy agenda (Carpenter 2001).

Two causal mechanisms can help explain the processes that drive brand favorability: (1) brands may evoke images that can affect citizens' attitudes; and (2) brands can convey informational cues, which combine with individuals' heuristics to shape favorability. The key difference between the two is that the former treats brand names as an emotional trigger, while the latter assumes that brand names contain information that can affect citizens' attitudes. Research on branding in the public administration tradition tends to emphasize the former mechanism, while public opinion research in political science tends to emphasize the latter. Our general model of citizen-based brand equity is agnostic with respect to the cognitive processes at work in branding, since they yield similar predictions about the effects of brands.

Critically, a citizen need not have any actual knowledge about an agency, its operations, or the policies that it is supposed to implement in order for him to perceive the agency's brand favorably or unfavorably. A consumer does not need to contemplate the relative technical merits of operating systems to have a preference for *Android* or *iPhone* when shopping for a mobile phone. In this model, the brand itself evokes emotions and/or provides informational cues to citizens—however limited, incomplete, erroneous, or even deceptive. Just as a commercial product's brand image may differ from the product's reality, so may a public agency's. Every agency has a brand insofar as it is perceived at all by the public, whether or not it is actively engaged in branding (Kotler and Levy 1969).

Research on motivated reasoning in political science and public administration suggests that citizens' prior political beliefs affect their attitudes toward government and public agency performance (Bækgaard and Serritzlew 2016; Jilke 2017). Government agency brands are also inexorably political (James and Van Ryzin 2016; Jilke 2017). Consequently, citizens' political values (or ideologies) are likely to condition the ways that their attitudes about an agency translate into favorability toward its brand. That is, US citizens who identify as Democrats or Republicans might respond differently to a given agency's brand because partisans have different attitudes toward the government generally (Chanley, Rudolph, and Rahn 2000; James and Van Ryzin 2016; Keele 2007). To the extent that

agencies are associated with some policy or ideological position (Clinton and Lewis 2008), partisanship might also moderate the effects of attributes and benefits on brand favorability (James 2011, 403). For example, if an agency's brand is perceived as relatively conservative, members of conservative parties are likely to perceive that agency's brand more favorably and members of liberal parties less favorably, ceteris paribus. Research on motivated reasoning in political psychology and public administration gives strong reasons to expect that party identification shapes brand favorability for such ideologically laden brands (Festinger 1962; James and Van Ryzin 2016; Jilke 2017; Kunda 1990).

Effects of Brand Equity

More or less favorable brands give an agency more positive or negative brand equity. Positive brand equity can help agency managers establish autonomy from politicians (Carpenter 2001; MacDonald 2010; Maor, Gilad, and Bloom 2013) and improve organizational performance (Carpenter 2002; Carpenter and Krause 2012; Krause and Corder 2007). In addition, although public organizations often are at a disadvantage in recruiting or sustaining human capital (Bach and Bordogna 2013; Hansen and Mailand 2013), strong brand equity can help to attract quality employees (Rourke 1969; Lee and Whitford 2013). Favorable brand equity can also help raise citizens' trust in and satisfaction with government (Eshuis and Klijn 2012); negative brand equity can have the opposite effect in those dimensions. These effects are depicted at the right side of figure 1.

The framework outlined here is intentionally broad, meant to facilitate greater development in multiple directions and empirical evaluation of its many parts. The left-hand side of this framework allows for hypothesizing about brand favorability as a dependent variable, with various attributes, benefits, and attitudes (possibly contingent on partisanship) contributing to greater or lesser favorability. This portion of the framework is principally behavioral and psychological. At the other end of the framework, brand favorability may be analyzed as an independent variable that drives more or less brand equity, which can in turn lead to differences in agency autonomy and performance. This right-hand side of the framework is more contextual and institutional.

An Initial Test

Our focus in this initial investigation is *brand favorability*, which is the linchpin at the center of the basic model. Establishing brand favorability as a first-order proposition is critical; if agency brand favorability does not vary systematically, then its causes and effects are moot. Therefore, in this study we test the concept of citizen-based brand equity by applying Keller's (1993) standard for evaluating brand favorability: a comparison of public reactions to an agency brand versus reactions to a qualitatively comparable generic or alternative brand. We focus specifically on attitudes toward bureaucratic agencies based only on their names to draw inferences about the existence and favorability of their brands. We are interested in the two phenomena predicted by the model: (1) variation in agency brand favorability; and (2) partisan-contingent brand favorability.

Brand Favorability

If public agencies carry brand value apart from the public policies that they are charged with administering, then citizens should respond differently—more or less favorably—to the prospect of government action when that action is associated with a particular agency's name. Our first hypothesis, then, is:

> *H1Favorability*: Support for government action is higher (lower) when it is associated with a specific agency's name than when it is not.

This hypothesis allows for either positive or negative favorability. Hypothesis H1 essentially pits an agency's brand name against a generic, as in studies of consumer branding (Keller 1993). In the case of federal agency brand favorability, the "generic" is simply "the federal government." To the extent that citizens perceive the federal government negatively in general, the generic carries a negative brand favorability and any detectable agency-specific brand equity is measured against this negative baseline.

Party-Contingent Brand Favorability

If party identification conditions the ways that brand attitudes translate into favorability, then individuals who identify with different parties will respond differently to brands. These differences will be especially pronounced for agencies that are associated with an ideological position. Partisanship is not expected to condition brand favorability if an agency's brand is not associated with a political ideology.

Under contemporary partisan alignments in the United States, we expect agency brand effects to vary between Republicans and Democrats, depending on the agency's perceived dominant ideology. Based on Clinton and Lewis' (2008) survey of experts, some US federal agencies are perceived as conservative, some as moderate, and others as liberal. Accordingly, we expect "conservative agency" brands to generate positive brand favorability among Republicans and negative favorability among Democrats. Similarly, we expect "liberal agency" brands to yield positive brand

favorability among Democrats and negative favorability among Republicans. Relatively "moderate agency" brands are expected to engender positive favorability for both members of both parties. However, we expect these moderate agencies' brands to have a stronger effect on Republicans, since they may tend to oppose government action generally. We expect agency brands to soften this opposition and so increase support for government management. More formally, party identification is a modifying variable that conditions the effect of a brand.

A set of hypotheses about party-contingent brand effects follows:

H2a: Partisan-contingent favorability, moderate agencies: For ideologically moderate agencies, the effect of the agency's brand on support for government policy is stronger for Republicans than for Democrats.

H2b: Partisan-contingent favorability, conservative agencies: For ideologically conservative agencies, the effect of the agency's brand on support for government policy is positive for Republicans, but negative for Democrats.

H2c: Partisan-contingent favorability, liberal agencies: For ideologically liberal agencies, the effect of the agency's brand on support for government policy is positive for Democrats, but negative for Republicans.

This list is not exhaustive; additional hypotheses may follow from the general model advanced here. In this initial inquiry, we do not aim to measure the relative influence of brand attributes, benefits, or attitudes on favorability; our immediate goal is simply to establish that public agency brand favorability exists, that it varies, and that party identification conditions it

significantly. In other words, the present study focuses on the center of figure 1 within the dashed line.

Study Design

Evaluating our hypotheses requires testing citizen responses to agency brands in ways that marketing researchers test consumer responses to commercial brands. As Keller (1993) puts it, "... a brand is said to have positive (negative) customer-based brand equity if consumers react more (less) favorably to ... the brand than they do to the same marketing mix element when it is attributed to a fictitiously named or unnamed version of the product or service" (8). Following this general approach, we embedded an experiment in a US national public opinion survey about food, energy, and water resource issues. Near the beginning of the questionnaire respondents were asked what role various entities—including the federal government—should have in the management of food, energy, and water. Respondents assigned a preferred level of involvement to each entity on a four-point scale: *no role*, *minor role*, *major role*, or *leading role*. Table 1 reports the full list of entities included in the questionnaire; the order in which they appeared was randomized.

For each of the three topics (food, energy, and water), respondents were assigned at random to a branded treatment (a specific federal agency name) or generic control ("federal government") condition. For food and energy, the experiment pitted a generic federal government against the branded US Department of Agriculture (USDA) and US Department of Energy (DOE), respectively. For water, respondents were assigned to three groups and the survey applied two experimental treatments—the US Army Corps of Engineers (USACE) and US Environmental Protection Agency (EPA)—because the two agencies share implementation authority under the US Clean Water Act. These four agencies provide significant ideological

Table 1. Experimental and Control Conditions

Agricultural Resources	Energy Resources	Water Resources
US Department of Agriculture (treatment)	*US Department of Energy (treatment)*	*US Environmental Protection Agency (treatment)*
Federal government (control)	Federal government (control)	*US Army Corps of Engineers (treatment)*
State government	State government	Federal government (control)
Local government	Local government	State government
Private industry	Local or regional energy authority	Local government
Farmers	Private industry	Local or regional water authority
Nonprofit organizations	Energy producers	Private industry
	Nonprofit organizations	Farmers
		Nonprofit organizations

Note: Indicate what you think the appropriate role, or level of involvement, should be for the following types of organizations in managing. Respondents were assigned randomly to either treatment or control groups for each type of resource. Items were presented within the questionnaire in random order.

diversity for purposes of testing hypotheses H2a–c. Clinton and Lewis' (2008) analysis uses expert perceptions to estimate ideological positions that range from very liberal (–2.07) to very conservative (+2.40), with moderate agencies around zero. Among the agencies analyzed here, the USDA (+0.16) and Dept. of Energy (+0.35) are moderate, while the USACE is fairly conservative (+2.04) and the EPA is fairly liberal (–1.21).

Respondents were separately assigned randomly to either treatment or control conditions for each of the three resource topics, as illustrated in figures 2 and 3. That is, random assignment occurred separately for agriculture, energy, and water.

Survey Design and Administration

The survey was administered online and conducted by the GfK Group, a market research firm. GfK recruited participants from their non-volunteer panel member database (about 55,000 members more than 18 years of age), which was constructed through probability-based home address sampling. Households without Internet access were included in the sample; if recruited households did not have access to Internet, GfK provided them with a laptop computer and free Internet access, which allowed them to participate. GfK offered both English and Spanish versions of the questionnaire. Altogether, GfK's panel sampling frame represents approximately 97% of US households.

Once panel members were assigned, they received an email or notification on their online member page to take the survey. The email included a link that members could click to complete the questionnaire, which included 35 total items and required about 22–25 min to complete. Upon completion of the survey, participants were entered into raffles for cash rewards and other prizes. If a participant did not finish the survey 3 days after they start, a reminder was sent to them through e-mail. Three to four days after the email reminder, participants were contacted through an automated telephone reminder. GfK's survey tool uses IP address tracking to guard against multiple responses by a single respondent. An initial 3,363 email invitations yielded a total of 1,979 completed responses, for a response rate of 58.9%.

The experimental items were placed near the beginning of the questionnaire to minimize priming effects; the experimental questions about agriculture, water, and energy were the third, fourth, and fifth items on the survey, respectively.[4] Further, data on partisanship and demographic variables were not gathered in the

Figure 2. Experimental Design for Managing Agricultural and Energy Resources
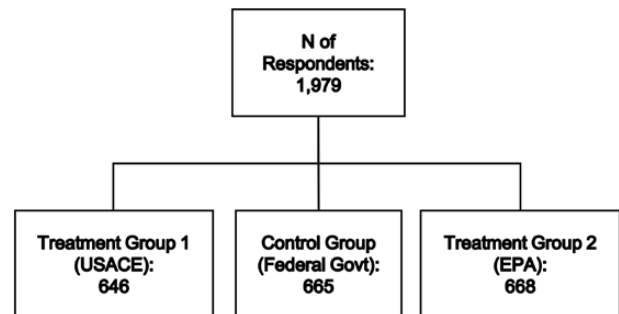
Figure 3. Experimental Design for Managing Water Resources

survey questionnaire; rather, they were collected by GfK in the process of panel construction.

Validity and Generalizability

The study design employed here offers a high degree of internal validity and external generalizability. Importantly, all four of the agencies included in the experiment are bureaucracies within the US federal government and have national jurisdiction over their respective policy areas. In that way, the "federal government" and branded agency are qualitatively equivalent for purposes of actual public administration. As noted earlier, the "federal government" carries some (likely negative) brand associations, and so is not truly generic. However, "federal government" is nonetheless a useful control condition because all of the agencies evaluated here are arms of the federal government, and so administration by one of these agencies is qualitatively identical to administration by the "federal government."

Recall that no specific level of knowledge about any of the policy areas or agencies is necessary to generate positive or negative brand favorability. Although generating brand favorability does not require prior knowledge about an agency, citizens may have different levels of knowledge about these agencies and their work. Randomization guards against bias caused by differences in knowledge about the agencies: randomly assigned treatment means that substantive knowledge is randomly distributed across the treatment and

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4 The first question asked about respondents' overall level of concern about various public policy issues. The second question asked about the trustworthiness of several institutions.
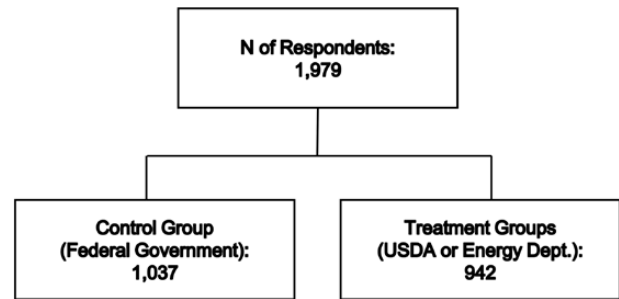
Table 2. Comparison of Survey Participants with the American Community Survey and General Social Survey

	Survey Participants	ACS/GSS
Gender		
Female	51%	51%
Male	49	49
Race and ethnicity		
White	69	63
Hispanic	14	17
Age		
18–35	24	31
35–64	54	51
65 or older	23	18
Education		
Less than high school	11	14
High school diploma	29	28
Some college	28	29
Bachelor's degree or higher	33	29
Political identification		
Strong Republican	15	10
Not strong Republican	11	12
Leans Republican	20	10
Independent/undecided/other	4	22
Leans Democrat	18	13
Not strong Democrat	14	16
Strong Democrat	18	17
Unemployment	8	9
Religious service attendance		
More than once a week	11	7
Once a week	20	22
Once or twice a month	9	14
A few times a year	14	10
Once a year	18	21
Never	25	26
Marital status (married)	54	46
Income (median)	$52,052	$53,482

Note: ACS data on gender, race, age, median income, education, and unemployment are 5-year estimates between 2009 and 2014. GSS data on party identification, religious attendance, and marital status are from 2014.

control conditions. Taken together, these elements of the experiment mean that any significant difference in support for federal management of agriculture, energy, or water associated with an agency's name is attributable to the agency's brand.

At the same time, the 1,979 responses from GfK's national probability sample offers strong external generalizability to the US population. Table 2 presents comparisons of survey participants' average characteristics and attitudes with the American Community Survey (ACS) and General Social Survey (GSS) respondents.

The respondents analyzed here are broadly representative of the US adult population. Thus, the present sample offers a significant improvement in

generalizability over laboratory experiments in which the research subjects are nonrandomly selected college students. One difference between our survey participants and ACS/GSS survey respondents is that our sample includes more Republicans and fewer citizens who identify as Independent, although the percent of Democrats is quite similar.

Analytical Approach

We analyze our experimental results with both bivariate and multivariate approaches. An important virtue of controlled experimental design is that simple bivariate analysis allows causal inference with a high degree of confidence, and so we first present comparative treatment versus control results with simple bivariate tests of statistical significance. Next, we use regression to estimate the direct and party-contingent effects of the brand treatment while controlling for several demographic and attitudinal covariates. With random treatment the purpose of multivariate regression is not to correct for bias, but rather to improve the precision of estimates. This two-pronged approach helps maximize both causal inference and generalizability.

Measurement

The dependent variables in our three experiments are the respondents' levels of support for federal government management of energy, agricultural, and water resources, measured on the four-point scale described above (*no role*, *minor role*, *major role*, or *lead role*). The main independent variable in is the brand treatment.

In addition to the experimental treatment, our multivariate analysis includes several controls that were linked to agency trust in recent research (Robinson et al. 2013). For purposes of testing hypothesis H2, respondents' *party identification* was measured with a seven-point Likert-type scale, from strong Republican (1) to strong Democrat (7) with the middle value of 4 that is undecided, Independent, or "other."

We also control for a variety of personal characteristics that are expected to correlate with attitudes toward government policy. *Political ideology* is measured with a seven-point scale from extremely liberal (1) to extremely conservative (7).[5] *Religious service attendance* is measured with six point scales from more than once a week to never. A set of socioeconomic variables is also included: *home ownership* (1 if home owner, zero otherwise), *employment status* (1 if unemployed, zero otherwise), *marital status* (1 if married, zero

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5 Separately, we estimated favorability without political ideology to be sure that ideology did not condition the effect of partisanship in our analyses. The direct and partisan-contingent effects of branding remained consistent in these alternate models.

otherwise), education measured in *years of education*, *number of children*, and *household income* (logged).[6] Lastly, we include demographic information: the respondent's *gender* (female = 1, otherwise = 0), *race* (1 if white, zero otherwise), and *ethnicity* (Hispanic = 1, non-Hispanic = 0). A descriptive summary of these variables is presented in the Appendix.

Individuals who care about agricultural, energy, and/ or water resource issues generally may be more supportive of a prominent role for the federal government apart from agency branding. To account for this general preference, we include indices of attitudes toward environmental management as controls in our regression models. To create the measures, we asked the same question as the one for the dependent variable: "indicate what you think the appropriate role, or level of involvement, should be for the following [types of organizations] in managing [types of resources]" with regard to state government, local government, private industry, farmers, nonprofit organizations, and other local authorities. We then applied principal component analysis for these items; factor loadings for each measure (agricultural, energy, and water resources) are presented in the Appendix. General attitudes toward management for each type of resources loaded with two factors: public entities (state and local governments) and private entities (businesses, industry, farmers, and nonprofit organizations). Regression-based, standardized scores were calculated for the two factors, *public beliefs* and *private beliefs,* respectively. The factor loadings and reliability test results are presented in the Appendix.

Finally, the GfK survey included an intentional oversample of respondents from Texas (621 out of 1,979, or about 30%). In order to guard against undue influence from these respondents, we conducted bivariate analyses with and without the Texas respondents and found very similar results. Additionally, our regression models include a dummy variable for Texas (1 if respondent is Texan, zero otherwise).[7]

Results

Bivariate Analysis: Brand Favorability
Table 3 reports the categorical responses for agricultural, energy, and water resources. A categorical χ^2 test shows that citizens' preferences between the "generic" federal government and "branded" agencies are different across all three policy issues ($p < .05$). The bottom panel of table 3 analyzes the categorical responses as continuous data on a 1–4 scale, then uses comparative means, ANOVA and Kruskal–Wallis' nonparametric test to assess the differences between the two groups. ANOVA and Kruskal–Wallis test results also confirm that the mean differences between control and treatment groups are statistically different from zero for the USDA, Department of Energy, and EPA ($p < .05$), but not for the USACE (a point to which we return later). Figure 4 depicts these bivariate results graphically, reporting the standardized support score for each agency (Mean = 0, SD = 1), relative to the federal government.

In four of the five tests (four agencies vs. federal government, one agency vs. agency), analysis reveals statistically and substantively significant differences in average support for federal resource management between the treatment and control groups. Moreover, the results are consistent in direction: in each experiment average public support is greater for branded agencies compared with the generic federal government.

For agriculture, the *brand favorability* of the USDA—the difference between the control and treatment group—is +0.63 ($p < .01$). For energy, the brand favorability of the DOE is +0.34 ($p < .01$). Brand favorability differed for the two agencies tested in the water resource management comparison. Although the USACE displayed slight brand favorability, the difference was not statistically significant on average across all respondents ($p = .69$). However, the EPA enjoys a brand favorability of +0.29 ($p < .01$). Overall, all agencies except the USACE yielded positive brand favorability.

Together these results offer strong support for hypothesis H1. For four out of the five agencies analyzed here, the implication is that federal management receives greater public support when it is associated with a particular agency's name.

Conditional Analysis: Party-Contingent Favorability
Hypotheses H2a–c predict that the effects of brand attitudes on favorability depend on citizens' partisanship. To evaluate these contingent hypotheses, we first compare the average effects of the brand treatments for respondents who identify as Democrats with those who identify as Republicans. Using the seven-point Likert scale of party identification, we coded respondents who answered 1–3 (strong Democrat, Democrat, leaning Democrat) as Democrats; respondents who answered 5–7 (leaning Republican, Republican, strong Republican) were coded as Republicans.[8] Figure 5 shows the marginal effect of brands by respondent party identification.

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6 For the household income measure, we first asked respondents to answer where they would fit into 19 categories of income from less than 5,000 dollars to 175,000 dollars or more. We measure household income using the median value for each category.

7 Somewhat surprisingly, comparison of Texas respondents with the rest of the sample revealed no significant difference between Texans and other Americans with respect to their attitudes toward agriculture, energy, and water management.

8 As a test of robustness, we separately estimated the effects of partisanship with "leaning" Democratic/Republican respondents coded as Independent. Results were substantively similar and statistically stronger than the analyses presented here.

Table 3. Bivariate Tests of Agency Branding Experiments

Policy Issues		Agricultural Resources		Energy Resources				Water Resources			
	Assigned Groups	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment
	Citizens' Responses	Fed. Gov.	USDA	Fed. Gov.	Energy Dept.	Fed. Gov.	USACE	Fed. Gov.	EPA	USACE	EPA
Categorical test results	No role (1)	126	48	80	51	65	56	65	49	56	49
	Minor role (2)	437	186	268	137	178	155	178	133	155	133
	Major role (3)	315	376	397	358	255	299	255	225	299	225
	Lead role (4)	140	313	266	375	149	124	149	244	124	244
	Pearson χ^2	203.38***		65.29***		7.91*		33.58***		51.51***	
Continuous test results	Mean (SE)	2.46 (0.88)	3.03 (0.87)	2.84 (0.91)	3.15 (0.87)	2.75 (0.92)	2.77 (0.86)	2.75 (0.92)	3.02 (0.94)	2.77 (0.86)	3.02 (0.94)
	Difference in means	−0.572***		−0.308***		−0.020 n.s.		−0.266***		−0.246***	
	ANOVA	208.87***		57.86***		0.16 n.s.		26.5***		23.81***	
	Kruskal–Wallis	178.88***		54.83***		0.12 n.s.		26.15***		25.28***	

Note: n.s, not statistically significant.
**$p < .01$; ***$p < .001$.
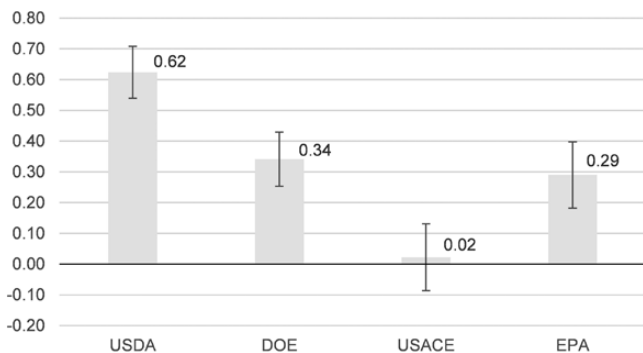
Figure 4. Marginal Effects of Brand: Federal Government Versus Agency's

Marked partisan effects appear across all three resource areas. The marginal effects of brand favorability are strongly positive for the "moderate" USDA and Department of Energy, but the effects are far stronger for Republicans than for Democrats, consistent with hypothesis H2a. For managing agricultural resources, brand favorability for the USDA is +0.78 for Republicans and +0.54 for Democrats. The Department of Energy generates +0.28 brand favorability among Democrats, +0.46 among Republicans.

Our analysis of brand favorability for water resource management yields interesting illustrations of party-contingent brand favorability, since it pits a "conservative" USACE against the "liberal" EPA. The USACE's brand had *opposite* average effects on Democrats and Republicans: the USACE generated *negative* brand favorability (–0.20) among Democrats relative to the control, but positive favorability (+0.24) among Republicans. This difference of brand favorability between Democrats and Republicans is statistically significant, providing strong support for hypothesis H2b. The EPA's brand prompted positive brand favorability for both Democrats and Republicans (+0.26 and +0.30, respectively) relative to the federal government's. The EPA's brand effect is not statistically significant, however, and so we cannot affirm hypothesis H2c on the basis of this result.

In substantive terms, these results indicate that the ideologically "moderate" brands of the USDA and Department of Energy have markedly stronger positive effects for Republicans than for Democrats. For the ideologically "conservative" USACE, favorability is higher among Republicans but weaker among Democrats when policies are administered by the USACE. However, the brand of the ideologically "liberal" EPA have similar effects for Democrats and Republicans.

Brand Versus Brand
Managing water provides an opportunity to compare two branded agencies that occupy ideologically divergent positions on Clinton and Lewis' (2008)

scale: USACE versus EPA. The first column in figure 6 shows the marginal effect of brand favorability for EPA relative to USACE; the other two columns provide the marginal effect by party identification. The EPA enjoys a positive brand favorability of +0.27 relative to USACE overall. But the brand effect is much stronger for Democrats, giving EPA a brand favorability of +0.46 relative to USACE among Democrats. For Republicans, the EPA's brand favorability is positive on average, but not statistically significant. However, the difference in relative brand favorability between partisans is statistically and substantively significant: Democrats prefer the "liberal" EPA over the "conservative" USACE much more strongly than do Republicans. This result is consistent with hypothesis H2c.

Estimating Total Brand Favorability
The results of our regression analysis are shown in two tables: table 4 for agricultural and energy resource management, table 5 for water resource management.[9] In both tables and across all three resource areas, we report both the direct effects of the brand treatment to test hypothesis H1 and party identification interaction terms to test hypotheses H2a–c. We report standardized coefficients to ease interpretation.

Regression analysis shows that three of the four agencies tested yield positive brand favorability relative to the federal government control. Models 1 and 3 in table 4 indicate that, all else equal, citizens prefer the branded USDA and Department of Energy to the control, with effects of +0.35 and +0.20, respectively ($p < .001$). Similarly, table 5 shows that the EPA brand carries a +0.14 brand equity ($p < .001$) relative to the control in Model 7 and +0.12 relative to the USACE in Model 9. Only the USACE failed to generate positive and statistically significant direct brand favorability (table 5, Model 5). These results are consistent with the bivariate analysis, but regression yields somewhat more modest estimates of brand effects after controlling for covariates.

When we interact treatments with party identification in tables 4 and 5, results are substantively consistent with the depictions in figures 4–6. The net effects of the USDA and Department of Energy brands are greater for Republicans than for Democrats in table 4. For water resources, table 5 shows treatment–partisanship interactions for the USACE and EPA versus the control and versus each

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9 Since the dependent variables in these models are based on categorical survey items, we estimated ordered and multinomial probit models as robustness checks. The models show that most results hold except for Model 4 in table 4 (Fed. Gov. vs. DOE), in which the party-brand interaction term is no longer statistically significant.

Note: Reference group is federal government; * indicates statistically significant differences in favorability ratings between Democrats and Republicans at 95% significance level. Bars represent 95% confidence intervals.
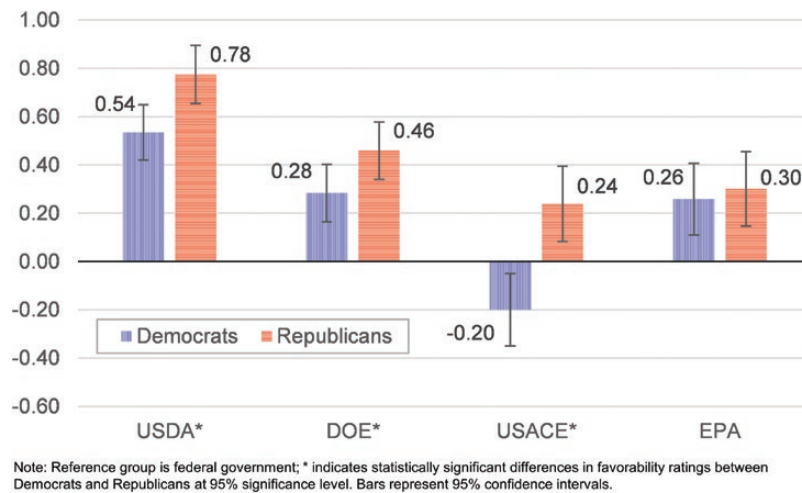
Figure 5. Marginal Effects of Brand by Partisanship

other. The interaction term in Model 6 shows that Democrats perceive USACE more negatively than do Republicans. Model 8 suggests no statistically significant interaction effects between the EPA brand and partisanship, which indicate that citizens view USEPA more favorably than the federal government regardless of their political party affiliation. Model 10 evaluates the USACE and EPA brands relative to each other, and yields a very strong interaction term, indicating sharp partisan differences in the relative favorability of these two agencies' brands. As might be expected, in general the effects of partisanship are greatest for individuals who identify as *strongly Republican* or *strongly Democrat*. Finally, addition of the brand-party identification interaction terms generally improved fit across the 10 models.

Taken together, these results affirm a general positive effect of agency brands (hypothesis H1). The results also affirm broad party-contingency to brand favorability consistent with hypotheses H2a–c.

Discussion

Government agencies carry reputations in the public imagination; the concept of citizen-based brand equity brings greater clarity and rigor to theories of bureaucratic reputation. Like private firms, public agencies often invest heavily in efforts to increase the favorability with which the public perceives them. Applying a classic model of branding from consumer marketing to public administration yields some important basic expectations about those public perceptions. One is that the public will perceive a particular agency by name differently from "the government" generically, apart from any specific knowledge about that agency. Adapting branding theory to the public administration context requires

an important amendment, however; unlike private firms, public agencies' efforts are inexorably political. Consequently, the effects of branding on public perceptions are subject to the perennially potent partisanship that shapes public opinion in the United States. This initial study sought to establish the first-order proposition that public agency brand favorability varies systematically.

The results are encouraging. Embedded survey experiments offer strong, generalizable evidence that brand attitudes shape public favorability toward four US federal agencies. Moreover, we find evidence that partisanship conditions the way that citizens perceive agencies' fitness to administer policy.

A general implication of our model is that public managers and policymakers can build or sustain support for policy implementation in part through strategic assignment of policies to specific agencies. For example, the results of this initial experiment suggest that developing and administering federal policies through "conservative" (e.g., USACE) or "moderate" agencies (e.g., USDA and Department of Energy) may help build support among Republicans, but perhaps erode it among Democrats.

Another broad implication is that managing and cultivating the agency reputation though a public brand is an important part of enhancing public accountability (Busuioc and Lodge 2017) and legitimacy (Carpenter and Krause 2012). Every effort made by a public organization to seek legitimation and high performance is perceived, judged, and assessed by citizens (Vigoda 2002). When citizens have favorable views toward an agency, they tend to perceive the agency itself and its actions as legitimate, responsive, and accountable. In turn, citizens' satisfaction with the services provided by the agency increases, and they are more likely to trust in the agency. By the

Table 4. Regression Analysis: Favorability for Managing Agricultural and Energy Resources

Treatments	Model 1	Model 2	Model 3	Model 4
	FedGov | USDA	FedGov | USDA	FedGov | Energy Dept.	FedGov | Energy Dept.
(left = base [0]; right = treatment [1])	0.348***	0.481***	0.199***	0.296***
(e.g., in model 1, federal = 0; USDA = 1)	(17.68)	(11.03)	(10.01)	(6.52)
Political party identification	0.121***	0.184***	0.154***	0.200***
(strong Republicans = 1; strong Democrats = 7)	(4.48)	(5.79)	(5.76)	(6.15)
Political party identification × treatment		−0.161***		−0.118**
		(−3.47)		(−2.58)
Controls				
Political ideology	−0.160***	−0.160***	−0.193***	−0.193***
(extremely liberal = 1; extremely conservative = 7)	(−5.93)	(−5.93)	(−7.39)	(−7.43)
Religious service attendance	−0.019	−0.020	−0.025	−0.025
(more than once a week = 1; never = 6)	(−0.88)	(−0.93)	(−1.16)	(−1.17)
Gender (female = 1)	−0.043*	−0.044*	−0.049*	−0.049*
	(−2.10)	(−2.15)	(−2.43)	(−2.42)
Home ownership (house own = 1)	0.024	0.024	0.008	0.007
	(1.08)	(1.09)	(0.36)	(0.34)
Household income, logged	0.014	0.011	0.032	0.032
	(0.56)	(0.44)	(1.39)	(1.37)
Age	0.007	0.006	0.024	0.024
	(0.30)	(0.28)	(1.12)	(1.11)
Employement status (unemployed = 1)	0.028	0.031	0.024	0.023
	(1.33)	(1.46)	(1.19)	(1.16)
Marital status (married = 1)	0.017	0.018	−0.008	−0.008
	(0.71)	(0.77)	(−0.35)	(−0.35)
Race (White = 1)	0.022	0.017	0.048	0.049
	(0.83)	(0.66)	(1.87)	(1.91)
Hispanic (Hispanic = 1)	−0.010	−0.013	−0.004	−0.001
	(−0.37)	(−0.50)	(−0.16)	(−0.03)
Numbers of children	−0.027	−0.029	−0.009	−0.010
	(−1.24)	(−1.33)	(−0.42)	(−0.46)
Years of education	0.025	0.022	0.047*	0.047*
	(1.12)	(1.02)	(2.22)	(2.21)
Texas respondent (Texas = 1)	0.031	0.030	0.028	0.028
	(1.51)	(1.48)	(1.35)	(1.35)
General policy support				
Public factor score	0.298***	0.299***	0.353***	0.352***
	(13.33)	(13.42)	(16.08)	(16.10)
Private factor score	−0.170***	−0.170***	−0.177***	−0.176***
	(−8.21)	(−8.17)	(−8.22)	(−8.20)
Observations	1,830	1,830	1,814	1,814
Overall *R* squared	0.302	0.306	0.300	0.302
Adjusted *R* squared	0.295	0.299	0.293	0.295
AIC	4247.8	4237.8	4151.0	4146.5
F	57.22	56.62	48.68	46.78

Note: OLS regression with robust standard errors; standardized coefficients; *t*-statistics in parentheses.
*$p < .05$; **$p < .01$; ***$p < .001$.

same token, brands that evoke the wrong emotions or convey misleading information can undermine an agency's accountability and legitimacy.

Limitations and Future Directions
The present findings point the way to deeper, more thorough development of our general model of citizen-based brand equity. A clear next step is to replicate the present study with other government agencies' names. The simple, subtle manipulation employed in this study is well-suited to embedded public opinion survey experiments at the local, state, or federal levels, in the United States and elsewhere. Besides affirming or falsifying effects of brand attitude on favorability, an accumulation of such

Table 5. Regression Analysis: Favorability for Managing Water Resources

Treatments	Model 5 FedGov | USACE	Model 6 FedGov | USACE	Model 7 FedGov | EPA	Model 8 FedGov | EPA	Model 9 USACE | EPA	Model 10 USACE | EPA
(left = base [0]; right = treatment [1])	0.031	0.252***	0.139***	0.203***	0.123***	−0.038
(e.g., in model 5, federal = 0; USACE = 1)	(1.23)	(4.46)	(5.60)	(3.39)	(4.73)	(−0.63)
Political party identification	0.074*	0.189***	0.101**	0.134**	0.057	−0.027
(strong Republicans = 1; strong Democrats = 7)	(2.19)	(4.36)	(2.99)	(3.21)	(1.63)	(−0.64)
Political party identification × treatment		−0.273***		−0.079		0.200**
		(−4.48)		(−1.27)		(3.15)
Controls						
Political ideology	−0.152***	−0.152***	−0.212***	−0.212***	−0.161***	−0.159***
(extremely liberal = 1; extremely conservative = 7)	(−4.55)	(−4.57)	(−6.44)	(−6.46)	(−4.67)	(−4.63)
Religious service attendance	−0.009	−0.014	0.006	0.004	−0.007	−0.005
(more than once a week = 1; never = 6)	(−0.34)	(−0.53)	(0.22)	(0.14)	(−0.25)	(−0.19)
Gender (female = 1)	−0.074**	−0.070**	−0.030	−0.029	−0.049	−0.049
	(−2.86)	(−2.73)	(−1.18)	(−1.14)	(−1.82)	(−1.84)
Home ownership (house own = 1)	0.025	0.024	0.027	0.028	0.032	0.027
	(0.88)	(0.84)	(0.97)	(1.03)	(1.12)	(0.94)
Household income, logged	−0.002	−0.007	0.024	0.023	0.010	0.008
	(−0.07)	(−0.21)	(0.78)	(0.77)	(0.33)	(0.26)
Age	0.171***	0.163***	0.010	0.009	0.092**	0.089**
	(6.23)	(5.94)	(0.37)	(0.33)	(3.13)	(2.99)
Employement status (unemployed = 1)	0.001	0.000	−0.018	−0.019	−0.025	−0.024
	(0.05)	(0.00)	(−0.68)	(−0.71)	(−0.90)	(−0.88)
Marital status (married = 1)	−0.045	−0.047	−0.034	−0.034	−0.003	−0.004
	(−1.55)	(−1.61)	(−1.18)	(−1.19)	(−0.11)	(−0.12)
Race (White = 1)	0.002	0.009	0.002	0.001	0.047	0.053
	(0.06)	(0.26)	(0.05)	(0.04)	(1.39)	(1.55)
Hispanic (Hispanic = 1)	−0.019	−0.020	0.006	0.004	−0.010	−0.006
	(−0.59)	(−0.63)	(0.21)	(0.14)	(−0.32)	(−0.18)
Numbers of children	0.002	0.005	−0.017	−0.015	−0.003	−0.005
	(0.06)	(0.16)	(−0.60)	(−0.54)	(−0.10)	(−0.20)
Years of education	0.047	0.054	0.027	0.028	0.015	0.017
	(1.67)	(1.93)	(1.00)	(1.03)	(0.52)	(0.59)
Texas respondent (Texas = 1)	0.004	−0.002	−0.011	−0.011	0.017	0.012
	(0.16)	(−0.08)	(−0.42)	(−0.43)	(0.61)	(0.46)
General policy support						
Public factor score	0.372***	0.373***	0.335***	0.335***	0.296***	0.297***
	(15.31)	(15.41)	(13.71)	(13.71)	(11.35)	(11.42)
Private factor score	−0.139***	−0.143***	−0.173***	−0.175***	−0.170***	−0.170***
	(−4.84)	(−4.98)	(−6.43)	(−6.47)	(−6.16)	(−6.14)
Observations	1,202	1,202	1,221	1,221	1,217	1,217
Overall *R* squared	0.249	0.262	0.264	0.265	0.202	0.209
Adjusted *R* squared	0.238	0.250	0.254	0.254	0.191	0.197
AIC	2816.6	2798.1	2953.4	2953.7	2971.0	2962.7
F	30.52	31.19	32.14	30.54	22.44	22.51

Note: OLS regression with robust standard errors; standardized coefficients; *t*-statistics in parentheses.
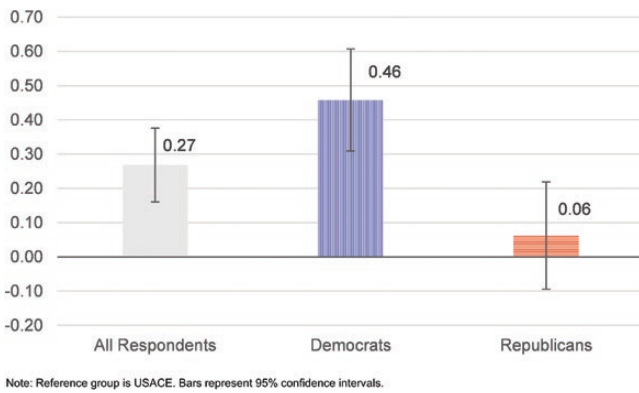*p < .05; **p < .01; ***p < .001.

Figure 6. Brand Differences in Managing Water Resources: EPA Versus USACE by Partisanship

studies would establish a baseline range of variation for brand favorability. Moreover, replication will further illuminate the degree to which partisanship conditions the public agency brands favorability.

Partisan-contingent brand effects offer a particularly intriguing avenue for further inquiry. Our finding that the US Army Corps of Engineers and EPA brands have *opposite* effects on Republicans and Democrats suggests that public agencies carry implicit partisan affiliations in the public mind. In fact, our results are conspicuously consistent with Clinton and Lewis' (2008) effort to gauge federal agency ideology from liberal-to-conservative on a standardized scale using an expert opinion survey. Replication of similar experiments with agencies across the Clinton–Lewis spectrum would offer potent affirmation of or modification to agency ideology as a theoretical construct.

Finally and perhaps most importantly, the general brand equity conceptual model provides a theoretical connection between public perceptions of an agency

(the left-hand side of figure 1) with their political and managerial effects (the right-hand side of figure 1). In other words, this framework shows how brand attributes, benefits, and attitudes translate into brand equity that bureaucrats can leverage into political autonomy and managerial effectiveness. In so doing, this model unites public administration research on branding with political science theories of agency reputation and autonomy. We hope that this general branding framework will facilitate further research. The present study offers empirical leverage on just one piece of the broader model. Although we identify two cognitive processes that shape attitudes—brand as an emotional trigger or a heuristic cue—our experimental design does not isolate precise cognitive mechanisms that result in citizen-based brand equity. Future studies aimed at identifying the cognitive processes that construct citizen-based brand equity will be important in fleshing out and refining the framework. Future research might also explore the attributes and benefits associated with various agency brands, the extent to which attributes and benefits positively or negatively affect brand favorability, and how partisan motivated reasoning conditions these elements of brand equity. Experimental designs are well-suited to testing the effects of images, icons, and tangible or general benefits on citizen favorability. The fruits of further explorations of citizen-based brand equity are likely to be valuable for scholars and agency leaders alike.

Funding

Appendix

Table A1. Descriptive Statistics

Variable	Obs	Mean	SD	Min	Max
Political party identification (1 = strong Republicans; 7 = strong Democrats)	1,961	4.14	2.09	1	7
Political ideology (1 = extremely liberal; 7 = extremely conservative)	1,906	4.26	1.53	1	7
Religious service attendance (Once a week = 1; never = 6)	1,913	3.84	1.78	1	6
Gender (female = 1)	1,979	1.51	0.5	1	2
House ownership (house own = 1)	1,979	0.73	0.44	0	1
Household income, logged	1,979	10.86	0.94	7.82	12.21
Age	1,979	50.19	17.31	18	93
Employment status (unemployed = 1)	1,979	0.08	0.27	0	1
Marital status (married = 1)	1,979	0.54	0.5	0	1
Race (White = 1)	1,979	0.69	0.46	0	1
Hispanic (Hispanic = 1)	1,979	0.14	0.35	0	1
Numbers of children	1,979	0.47	0.92	0	8
Years of education	1,979	13.79	2.75	0	20

Table A2. Factor Loadings for Managing Agricultural Resources

Variables	Public Beliefs	Private Beliefs
State government	**0.748**	−0.471
Local government	**0.812**	−0.315
Private industry	0.580	**0.440**
Farmers	0.435	**0.716**
Nonprofits	0.582	**0.071**
Eigenvalue	2.08	1.03
Cronbach's alpha	0.63	

Note: "Indicate what you think the appropriate role, or level of involvement, should be for the following types of organizations in *managing agricultural resources*" (1–4 scale). Bold text indicates items associated with factors.

Table A3. Factor Loadings for Managing Energy Resources

Variables	Public Beliefs	Private Beliefs
State government	**0.737**	−0.441
Local government	**0.799**	−0.398
Local or regional energy authority	**0.713**	−0.258
Private industry	0.598	**0.628**
Energy producers	0.632	**0.447**
Nonprofits	0.530	**0.317**
Eigenvalue	2.73	1.11
Cronbach's alpha	0.75	

Note: "Indicate what you think the appropriate role, or level of involvement, should be for the following types of organizations in *managing energy resources*" (1–4 scale).

Table A4. Factor Loadings for Managing Water Resources

Variables	Public Beliefs	Private Beliefs
State government	**0.690**	−0.498
Local government	**0.784**	−0.404
Local or regional water authority	**0.631**	−0.401
Private industry	0.639	**0.458**
Farmers	0.614	**0.530**
Nonprofits	0.599	**0.492**
Eigenvalue	2.63	1.30
Cronbach's alpha	0.74	

Note: "Indicate what you think the appropriate role, or level of involvement, should be for the following types of organizations in *managing water resources*" (1–4 scale).

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