

ORIGINAL ARTICLE OPEN ACCESS

Public Perceptions of the Administrative Values Tradeoff: Bureaucratic and Democratic Ethos

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Received: 6 February 2024 | **Revised:** 21 September 2024 | **Accepted:** 2 October 2024

Keywords: administrative values | bureaucracy and democracy | public program performance

ABSTRACT

Scholarly debate over bureaucratic and democratic values has been one of the fundamental questions in the field of public administration. Despite a volume of theoretical discussions, we know little about how the general public cares about these two sets of administrative values in practice. This research fills the gap in the literature by investigating the public's views on four administrative values: effectiveness and efficiency, as well as equity and participation. We also test whether there is a tradeoff between bureaucratic and democratic values. We conducted a vignette experiment using the context of US nursing homes where different administrative values (effectiveness, efficiency, equity, and participation) serve as treatment manipulations. Our findings suggest that the public considers different values in assessing public organizations, and that they recognize the trade-off between efficiency and participation. The study has broad implications for our understanding of ethical frameworks of public administration, namely bureaucratic and democratic ethos.

초록

관료제적 가치와 민주주의적 가치의 상관관계는 오랫동안 행정학계에서의 주요 이론적 논의 중 하나로 취급되어 왔다. 정치행정이론, 실행정학, 신공공관리론, 민주행정 등 행정학의 주요 담론들의 발전에서 보여지듯이 이 주제에 대한 이론적 논의가 오랜기간 발전되어왔으나, 실제로 시민들이 이렇게 상반되는 행정 가치들에 대해 어떻게 인식하는지에 대한 연구가 미흡하였다. 따라서 본 연구에서는 시민들이 정부조직을 평가함에 있어 관료제적 그리고 민주주의적 행정가치들을 어떻게 인식하는지, 그리고 두 종류의 가치들이 서로 상반됨을 인식하는지를 미국의 공공요양병원을 배경으로 한 실험실문법론을 통해 조사하였다. 실험실연구 결과 시민들은 효과성과 효율성(관료제적 가치), 그리고 공평성과 시민참여(민주주의적 가치)를 정부조직운영에 있어 중요한 개별적인 가치로 인식하고 있었다. 또한 효율성과 시민참여 간 가치 사이의 상관관계를 인지하고 있음이 발견되었다.

1 | Introduction

The tension between bureaucracy and democracy has been one of the field's major debates (Burke and Cleary 1989; Meier 1997; Meier and O'Toole 2006; Nabatchi 2018). Several streams of literature stressed aspects of this tension. A more traditional public

administration focused on efficiency and economy (Wilson 1887; Gulick 1937), while the New Public Administration advocated for social equity and democratic citizenship (Waldo 1971). The New Public Management laser-like focused on increasing government effectiveness (Osborne and Gaebler 1992), while more contemporary scholars have again emphasized the importance of democracy,

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participation, and equity in public administration (Bryson, Crosby, and Bloomberg 2014; Gooden and Portillo 2011; Nabatchi 2010).

In essence, the tension arises because the central elements of democratic ethos, which include enhancing popular participation in government and advancing social equity, do not guarantee bureaucratic effectiveness and efficiency, and vice versa (Okun 1975; Nabatchi 2018; Meier and O'Toole 2006). Nevertheless, public administrators must uphold both democracy and bureaucracy (Burke and Cleary 1989; Nabatchi 2010) and consider multiple values (that often conflict with each other) in making decisions related to public services. Scholars have indeed recognized the importance of pursuing different administrative values from both bureaucratic and democratic frameworks. Frederickson (2015) regards efficiency, effectiveness, and equity as equally important pillars of public administration. Nabatchi (2018) also presents a variety of bureaucratic (e.g., efficiency, expertise, and efficacy) and democratic values (e.g., equity, participation, citizenship, and public interests) as parts of the public values framework.

Despite a volume of theoretical discussions, what is missing in the literature is how such democracy–bureaucracy tension is perceived by individual citizens. While government organizations seek to promote either (or both) sets of values through various managerial practices for the welfare of the broader public, such practices can also influence individual citizens' perceptions of organizational performance, especially when citizens are provided with relevant information on these practices. The literature, however, has rarely investigated how the organizational-level practices to uphold different administrative values can determine individual citizens' public program assessments. In addition, no study has tested whether the tension between democratic and bureaucratic values is at play in practice, specifically in the public perceptions of and attitudes towards public organizations. To fill this gap, this study investigates the public perceptions of four different administrative values: effectiveness and efficiency (i.e., bureaucratic values), and equity and participation (i.e., democratic values) in evaluating public programs. It does so by using the data from a randomized preregistered survey experiment in the context of the US public nursing homes. The findings suggest that the public is able to link performance information on the four values to the corresponding value dimensions in evaluating public program performance, and that they regard effectiveness as the most important criterion. We also find that there is a clear tradeoff between efficiency and participation, which provides an empirical support concerning the long-standing tension between bureaucracy and democracy. These findings together contribute to advancing both the theory and practice of public values management, government performance, and public perceptions.

The paper proceeds as follows. First, we define bureaucratic and democratic administrative values, and conceptualize effectiveness, efficiency, equity, and participation. Second, we review the literature on public perceptions of public organizational performance and administrative value dimensions to generate research hypotheses. Third, we explain our research design strategies, including experimental contexts, data collection, variables, and analytical methods. Fourth, results are presented and discussed. Last, we conclude with a discussion of the study's implications and contributions.

2 | Bureaucratic and Democratic Values: Effectiveness, Efficiency, Equity, and Participation

Public organizations have multiple performance dimensions (Rainey 2003) and should be responsive to different sets of stakeholders whose interests may often conflict with one another (Walker et al. 2018). While there have been many attempts to categorize these performance dimensions in terms of administrative values (Nabatchi 2018), the bureaucratic–democratic framework is the most common approach (Burke and Cleary 1989; DeLeon and DeLeon 2002; Pugh 1991). Bureaucratic ethos includes such values as efficiency, effectiveness, economy, hierarchy, and expertise (Pugh 1991; Rutgers and Van Der Meer 2010), which are grounded upon instrumentalism, utilitarianism, and market logic as key standards for administrative decision-making. In contrast, democratic ethos includes concepts of public interest, citizenship, social equity and justice, and public participation (DeLeon and DeLeon 2002; Frederickson 2015), which are based on political philosophy and democratic theories. The conflict among these values is frequently the topic of debate and discussion in public administration (Finer 1941), policy analysis (Weimer and Vining 2017), political science (Jenkins-Smith 1990), and economics (Okun 1975). Democratic concepts such as participation, transparency, equity, and democratic citizenship are all processes that generally add costs or place restraints on the efficient allocation of resources to generate desired outcomes (Okun 1975).

Among these different values from bureaucratic and democratic ethos frameworks, this paper focuses on four major administrative values: effectiveness and efficiency (bureaucratic values), and equity and participation (democratic values), given the importance of these values in the history and current practices of public administration. First, effectiveness and efficiency (along with economy) have been foundational values in the government bureaucracy system since the Pendleton Act of 1883 (Rosenbloom, Kravchuk, and Clerkin 2022). The emphasis on these bureaucratic values has persisted to date, especially during and after the government reform movement and the New Public Management during the 1990s (Piatak and Jensen 2024). Second, equity and participation have been considered as major values for achieving democracy. These values have gained significant traction in recent decades (Gooden and Portillo 2011; Nabatchi 2018), partially in response to the field's heavy emphasis on bureaucratic values. Equity was adopted as one of the four pillars of public administration by the National Academy of Public Administration in 2005, and public administration scholars presented “a call to action” for enhancing equity at the Minnowbrook at 50 conference (Blessett et al. 2019). Participation has also been heavily promoted, especially given the persistent concerns about declining democracy and the erosion of civic participation in political and policy processes (Nabatchi 2010).

We believe that focusing on these four values provides a nuanced picture of the public's value preferences and their perceptions of bureaucracy–democracy tension. Not only does the value set resonate with the bureaucratic and democratic ethos framework, but it also reflects other public value typologies, such as Nabatchi's (2018) organizational, market, legal, and

political frames and Rosenbloom's (1983) managerial, political, and legal approaches to public administration. This value set, therefore, could appropriately serve as core public values as defined by Bozeman (2007, 13): "those providing normative consensus about (a) the rights, benefits, and prerogatives to which, citizens should (and should not) be entitled; (b) the obligation of citizens to society, the state, and one another; and (c) the principles on which governments and policies should be based." Each specific value, however, needs to be conceptualized to generate our experimental manipulations.

2.1 | Effectiveness

Given the multidimensional and complex nature of organizational programs, the concept of effectiveness has no single definition (Rainey 2003). The complexity is even more true in the context of public organizations, where multiple constituencies judge organizational effectiveness (Walker et al. 2018) and using financial criteria to measure effectiveness is not desirable or can be problematic. Scholars have thus considered various dimensions and employed different assessment approaches such as goal achievement, program outcomes, service quality, stakeholder satisfaction, internal organizational health, and resources acquisition (for a list of different dimensions of and approaches to public organizational effectiveness, see Rainey 2003, 155–167), in conceptualizing effectiveness of public organizations.

When it comes to the empirical operationalization of program effectiveness, many scholars point to the consequences or impacts of the actions undertaken, focusing on achieving "valid and useful outcomes" (Piatak and Jensen 2024, 5) and delivering services as desired (Rutgers and Van Der Meer 2010; Meier et al. 2022). Examples include service/performance assessment scores (Amirkhanyan et al. 2019), official outcome standards such as students' test scores in public schools (An, Song, and Meier 2022), or accuracy rates for program payments (Wenger and Wilkins 2009). Following the previous empirical studies, we also focus on producing desired services and useful outcomes (as reflected in service assessment ratings) in operationalizing effectiveness.

2.2 | Efficiency

Efficiency, the perceived focus of traditional public administration, is one of the major bureaucratic values; as Gulick (1937, 92–193) puts it, efficiency was considered as "axiom number one in the value scale of administration" during that time. In contemporary studies of public administration, the concept of efficiency is defined in various ways (Rutgers and Van Der Meer 2010). One commonly used definition is technical efficiency, which focuses on the relationship between resources and results, or inputs and outputs. Within the realm of technical efficiency, authors often make further differentiations, such as social and technical efficiency or different types of economic efficiency like locative, dynamic, and productive efficiency (Rutgers and Van Der Meer 2010).

Regardless of the specific distinctions, efficiency generally maintains the fundamental characteristic of the input–output

ratio mentioned earlier and can be considered as a form of technical efficiency. Some of the famous definitions of efficiency include: "to take the shortest path, the cheapest means, toward attainment of the desired goals" (Simon 1976, 14); "obtaining the greatest output for a given level of resources" (Wilson 1989, 316); "maximum achievement of a given end with given resources" (Diesing 1973, 11). Given such definitions, previous empirical studies have measured efficiency with cost per unit given the same level of service quality (Brunner, Robbins, and Simonsen 2024; Meier, Davis, and Xiaoyang 2023), and we also follow this approach in our conceptualization of efficiency.

2.3 | Equity

As one of the major values in democratic ethos (Pugh 1991), equity is broadly concerned with achieving fairness, impartiality, or equality (Savas 1978, 802) in providing public services and policies (Gooden and Portillo 2011; Cepiku and Mastrodascio 2021). Equity can be conceptualized in varying ways and can refer to inputs, resources and access, processes, outputs, and outcomes (Cepiku and Mastrodascio 2021), and (in)equities can be identified in terms of gender, race, ethnicity, and socioeconomic status, among others (Blessett et al. 2019).

While equity is considered as one of the important pillars of public administration, it is not "as well developed theoretically or the subject of as much research and analysis as efficiency and economy" (Frederickson 2015, xix). During the past decade, both scholars and practitioners of public administration have sought to promote equity (Blessett et al. 2019; Nabatchi 2018), as racial, ethnic, and socioeconomic disparities have continued to abound in various policy areas, especially due to the 2008 economic crisis and the COVID-19 pandemic (Cepiku and Mastrodascio 2021). To advance equity in public service, scholars emphasize the importance of recognizing each person's different circumstances and allocating the resources and opportunities needed to reach an equal outcome, rather than providing equal levels of resources. This acknowledges the presence of systematic discrimination against those in the disadvantaged group (Frederickson 1971), which has prevented them from accomplishing equal outcomes; as Frederickson (1971, 311) writes, "the procedures of representative democracy presently operate in a way that either fails or only very gradually attempts to reverse systematic discrimination against disadvantaged minorities." In their call to action to promote social equity at the Minnowbrook at 50, Blessett et al. (2019, 284) also note, "numerous inequities exist throughout the public sector and in myriad policy areas that result in detrimental harms for subjugated and marginalized communities."

Achieving equity, therefore, often means providing more access, resources, and opportunities to the disadvantaged, so that the outcome disparities between the advantaged and the disadvantaged could decrease (Frederickson 2015). Following this logic, our study also focuses on serving more disadvantaged people (i.e., providing more resources and access to public service) to reduce the disparities, in conceptualizing equity.

2.4 | Participation

Participation is regarded as both as a moral “value” for democracy (Bryson, Crosby, and Bloomberg 2014) and a “method” that enables democratic public administration to function properly (Rowe and Frewer 2000). As a “value,” participation is “embedded with notions such as self-control or self-determination, human dignity, and self-respect” (Nabatchi 2018, 63). As a “method,” public participation broadly captures various “activities by which people’s concerns, needs, interests, and values are incorporated into decisions and actions on public matters and issues” (Nabatchi and Leighninger 2015), thereby allowing for democratic decision-making in government. While participation has long been considered as critical for democratic administration, it has not received much attention compared with bureaucratic values (effectiveness and efficiency) in both the theory and practice of public administration (DeLeon and DeLeon 2002). Scholars have, therefore, advocated for the need to reinvigorate participation in public administration (Bryson, Crosby, and Bloomberg 2014; Nabatchi 2010), and have made strides to advance empirical studies on participation in the recent decade (Amirkhanyan et al. 2024; Jo and Nabatchi 2021).

Despite the advances, scholars and practitioners generally agree that defining participation is challenging, partly given the variety of different participatory forms (Nabatchi and Leighninger 2015; Rowe and Frewer 2000). Such definitional challenges also make it hard to measure the concept of participation in empirical research. While not perfect, previous studies have often employed objective indicators of participation, such as the frequency of engaging citizen groups in administrative decision-making processes (Amirkhanyan et al. 2019, 2024; Lee and Kim 2018). Our study also uses the frequency of engaging relevant stakeholders in our conceptualization of participation.

3 | Public Perceptions of Administrative Values Tradeoff: Previous Research and Hypotheses

An extensive volume of previous research investigates public perceptions of government performance dimensions, particularly in the behavioral public administration literature (Hvidman and Andersen 2016; Flink and Xu 2024; James et al. 2020). The gap in the literature, however, is the modest attempt to examine how the public considers different administrative values and how they make tradeoffs between these values in assessing public program outcomes. Despite the importance of considering multi-dimensional aspects of public organizational performance, most previous studies extensively focused on overall performance and did not directly manipulate different administrative value dimensions. We were only able to find a few recent studies that consider the independent effects of multiple values in public judgments of government programs (Amirkhanyan et al. 2023, 2024; Belle and Cantarelli 2022; Meier, Davis, and Xiaoyang 2023). Belle and Cantarelli (2022) tested whether people in Italy are willing to tradeoff individual freedom, human lives, and economic advantage using a conjoint experiment in the context of a public health crisis during COVID. Although their research is not about administrative values such as effectiveness, efficiency, equity, and participation, it

shows how the experimental approach can be used to study public’s responses to government programs that have multi-faceted features. More similar to the current study, Meier, Davis, and Xiaoyang (2023) conducted vignette experiments in the context of US public schools to test how the public responds to different treatments (effectiveness, equity, and costs) in evaluating different dimensions of public programs. Although they examined the tradeoff in values, the study was not positioned directly as a tradeoff between bureaucracy values and democratic values, and in particular did not address the democratic value of participation. In an eight nation experiment on COVID-19 policies, Amirkhanyan et al. (2023) specifically assess equity as well as effectiveness via experimental manipulation and find that both strongly affect citizen evaluations, but they do not assess any potential tradeoffs. Similarly, Amirkhanyan et al. (2024) include participation as a democratic value in a study of food assistance programs and find that greater participation increases support for such programs; they do not, however, include participation as a dependent variable or assess tradeoffs.

Expanding these studies, our study examines the public’s perception on various performance dimensions of government organizations and their decisions to get services from the organizations, according to different bureaucratic and democratic values. As a base set of hypotheses, we first posit that a government organization’s practices promoting the four values (effectiveness, efficiency, equity, and participation affect) affect public perceptions of how effective, efficient, and equitable, and participatory the organization is, respectively. This is based on an assumption in the performance information theory: published performance information can affect citizens’ perceptions and attitudes towards public organizations (James 2011; James and Moseley 2014). When the public organization use these administrative values to guide their managerial decision making and communicate that with citizens by providing appropriate performance information related to these values, the public’s perception of the organizational performance will be improved (James et al. 2020).

Not only will the performance information centered on the four values formulate favorable public assessment of (overall) organizational performance, but the information on each value will also affect public perceptions of the corresponding value dimension. In other words, we posit that the public is able to distinguish effectiveness, efficiency, equity, and participation. Compared with the past, citizens in general have higher levels of education, and thus greater abilities to understand and communicate with relevant information (Nabatchi and Leighninger 2015), including government performance information (e.g., Holbein 2016). A recent study also found that the general public is able to differentiate among effectiveness and equity in their assessment of public programs (Meier, Davis, and Xiaoyang 2023). We, therefore, expect that the public will be able to perceive differences between effectiveness, efficiency, equity, and participation, when provided with the appropriate information. Specifically, the first set of our hypotheses are as follows.

Hypothesis 1a. *Citizens would evaluate an organization as more effective when the organization gets a higher score on its service quality.*

Hypothesis 1b. *Citizens would evaluate an organization as more efficient when the organization spends less expenditures per service recipient.*

Hypothesis 1c. *Citizens would evaluate an organization as more equitable when the organization serves more disadvantaged recipients.*

Hypothesis 1d. *Citizens would evaluate an organization as more participatory when the organization conducts more frequent meetings with service recipients and relevant stakeholders.*

We also test whether the public regards (a) certain value(s) as more critical than other values, in evaluating public service. There has been no clear theory and/or previous studies on which specific administrative value the general public regards as the most important. We contend that public consideration for different administrative values should begin with organizational effectiveness (Meier, Davis, and Xiaoyang 2023). Only when a program achieves some level of effectiveness is it logical for individuals to think about other aspects of public organizational activities, for example, whether the organization engages relevant stakeholders, whether the organization seeks to save costs in providing services, and whether the organization is willing to provide (more) benefits to the socially disadvantaged people. Piatak and Jensen (2024) found that effectiveness is a significantly valued criterion by those who prefer service delivery by government organizations (as opposed to nonprofit or for-profit organizations), in the context of elder care, the empirical context for our study. Following this logic, we present our second hypothesis:

Hypothesis 2. *Citizens would regard effectiveness as the most important criterion in evaluating public programs.*

Based on the bureaucracy–democracy tension (Burke and Cleary 1989; Meier 1997; Nabatchi 2010), our last set of hypotheses relate to the public perspectives on the tradeoff between bureaucratic and democratic values. In theory, reconciling democratic ethos with the work of bureaucracy has long been considered as one of the most significant challenges of public administration (Waldo 1948). The tension, therefore, has appeared in the field's major discourses such as the politics–administration dichotomy (Wilson 1887), New Public Administration (Waldo 1971), and New Public Management (Osborne and Gaebler 1992). The theoretical tension is well captured in what Meier and O'Toole (2006, 1) write:

“Bureaucracies are hierarchical institutions that can provide the capacity and expertise to accomplish complex social tasks, but they are frequently characterized as undemocratic and even threatening to democracy. Democracies [...] attend in different measures to principles of majority rule and deference to the perspectives of intense interests among the public. But as such, they need not necessarily show keen attention to the values of efficiency, effectiveness, or specialized expertise.”

Such conflicts between bureaucratic and democratic values not only exist in theory but also are at play in practice. Participation may incur additional costs and create

organizational inefficiency, which can subsequently undermine bureaucratic performance (Okun 1975). Participation is a type of collective and shared group decision making that differs from traditional bureaucratic decision making and often involves negotiation and bargaining of different interests among different individuals (Jo and Nabatchi 2021; Rowe and Frewer 2000). Planning and implementing participatory processes, therefore, require administrative leadership to effectively balance competing interests and a different role orientation treating citizens as partners instead of service customers (Nabatchi and Leighninger 2015), which could often be costly. Even when participatory processes do not involve much of shared decision-making or consideration of citizens as partners, conducting participation imposes “production costs,” which include staff's time to craft and manage the processes, fees for using event facilities, transportation to the event site, and the preparation of information materials (Wang and Bryer 2013). Irvin and Stansbury (2004, 58) write, “the low end of the per-decision cost of citizen participation groups is arguably more expensive than the decision making of a single administrator, even if the citizen participants' time and costs are ignored.” This clearly suggests the tradeoff between efficiency and participation. Scholars also note that administrative decision-making requires technical expertise of public service professionals, and that citizen participation may undermine bureaucratic effectiveness (Irvin and Stansbury 2004, 58–60). This is even more so in highly professionalized service contexts such as healthcare (Frankish et al. 2002), environment (Young and Tanner 2023), and land use planning (Aitken 2010). Previous studies note that addressing individuals' concerns and interests could compromise service quality, thereby affecting outcome effectiveness (Frankish et al. 2002).

Equity may also conflict with effectiveness and efficiency in administering public service (Fernández-Gutiérrez and Van Walle 2019; Okun 1975). When public organizations seek to promote efficiency by delivering services with less costs, inequity is likely to be created and sustained. Economic models also posit the equity–efficiency tradeoff; when less-qualified minorities are promoted due to the efforts to promote equity, there can be loss in efficiency (Welch 1976). Some empirical findings support these arguments; Lee (2019) found that increasing the number of minority bureaucrats is negatively associated with federal agencies' goal achievement, and Holzer and Neumark (1999) found that Affirmative Action (which is one of popular administrative actions to promote social equity) may lead to hiring employees with less qualifications. It should, however, be noted that these studies do not conclude promoting equity and participation always results in loss in effectiveness and efficiency; effects of democratic practices on bureaucratic performance are neither simple nor linear but may depend on other micro and macrolevel factors (Lee 2019; Nabatchi and Leighninger 2015). A common argument, nevertheless, is that bureaucratic and democratic ethos are in tension and achieving both values in public service processes is challenging.

In short, bureaucratic values and democratic values may conflict in managing public programs. We posit that such conflict may be also recognized by individual citizens and affect their public program assessments. Piatak and Jensen (2024) found that individual

citizens' prioritization of different administrative values affects their service delivery preferences; those who prioritize equity prefer government service delivery, while those who value efficiency prefer for-profit service delivery. This finding suggests a significant difference between efficiency and equity in individual citizens' perceptions, which provides support to our arguments on the effects of bureaucracy–democracy tension in public perceptions. Considering these conflicting relationships between bureaucratic and democratic values, we hypothesize:

Hypothesis 3a. *There is a tradeoff between equity and effectiveness in evaluating public programs.*

Hypothesis 3b. *There is a tradeoff between equity and efficiency in evaluating public programs.*

Hypothesis 3c. *There is a tradeoff between participation and effectiveness in evaluating public programs.*

Hypothesis 3d. *There is a tradeoff between participation and efficiency in evaluating public programs.*

4 | Research Design and Measurement

4.1 | Research Context

We conduct our empirical examination using the data from a pre-registered vignette experiment in the context of US public nursing homes. Extended long-term care for the elderly, the subject of this study, is a major public issue in the United States. Historically, the aged population was considered a private sector problem with care provided by families and charitable institutions supplemented by a modest number of no-frills local government facilities (Bohm 2000). The passage of Medicaid and Medicare as part of Title XIX of the Social Security Act in 1965 dramatically changed this policy by providing public funds to support health care for the elderly and the indigent. Although the majority of long term care facilities in the US are private, for profit organizations, long term care meets the established “publicness” criteria of both funding and control (Bozeman and Bretschneider 1994). In 2022, the Congressional Research Service (2022) estimated that Medicaid, Medicare, and other government programs (including ownership of some facilities) totaled \$343.6 billion or 72.3% of expenditures on nursing homes. The industry is also heavily regulated by state and federal government with established standards for acceptable care, regular inspections of nursing homes by government officials, and penalties for noncompliance (Amirkhanyan, Kim, and Lambright 2008).

4.2 | Operationalization of Four Values for Experimental Manipulations

As noted in our conceptualization of the four values earlier in the paper, we focus on service quality/ratings, cost per unit, serving (more) disadvantaged individuals, and the extent of stakeholder engagement in measuring effectiveness, efficiency, equity, and participation, respectively. In addition, people's perceptions of effectiveness, efficiency, equity, and participation tend to be comparative; for instance, an absolute level of effectiveness does

not exist, but people can judge an organization's effectiveness compared to a certain standard or to other organizations and programs (Olsen 2017).

Reflecting the comparative nature of these concepts, we operationalize effectiveness, efficiency, equity, and participation as follows: (1) organization A is more “effective” if organization A produces a service that is of better quality than organization B; (2) organization A is more “efficient” if the cost per unit of an outcome for organization A is lower than the cost per unit of organization B; (3) organization A is more “equitable” if organization A serves more disadvantaged people than organization B; (4) organization A is more “participatory” if organization A more frequently engages its stakeholders than organization B. These operationalizations are also clear and simple enough to serve as experimental manipulations.

4.3 | Experimental Vignette

The vignette experiment involved a hypothetical government owned and operated nursing home (Meadows Care Center); all respondents were told that the average nursing home in the state was rated as three stars (by the Centers for Medicare and Medicaid, a federal agency), cost \$9034 per resident a month, had 80% of its residents on Medicaid, and held monthly meetings with the patient and family advisory council (see Appendix 1. for exact wording). These state-wide figures were presented to give the respondents a comparison between the nursing home in question and the performance of other nursing homes (see Olsen 2017). The figures were selected by examining national averages to reflect the mundane realism of a real world choice. The data were reported in both a comparative context and as unambiguous as possible to avoid potential framing effects and misinterpretation so that the tradeoffs among the dimensions of performance could be assessed.¹ Individual respondents were then randomly assigned to treatments for four variables coinciding with the potential outcome: number of stars 1, 2, 3, 4, 5 (effectiveness), cost \$8131 or \$9937 (efficiency), Medicaid recipients 64% or 96% (equity), and council meetings weekly or yearly (participation). The manipulations essentially create variation that deviates both positively and negatively from the average nursing home in the state resulting in a between subjects' design with symmetrical positive and negative treatment manipulations. By keeping the treatment manipulations symmetrical (i.e., the positive and negative treatments have the same absolute values), the treatments can be incorporated as four individual variables in an overall regression equation.

The experiment was approved by the Institutional Review Board of XX University. After the consent form, respondents were presented with a hypothetical nursing home vignette. They then responded to a series of questions about their perceptions of the nursing home. The final section of the questionnaire asked for demographic information from the respondents and also contained four manipulation checks to determine if the treatments were recognized by the individuals. We conducted an online survey experiment on Prolific in February 2023. Respondents on Prolific are relatively diverse but tend to be younger and more educated than the general population (see Appendix 2 for sample characteristics on

several demographic indicators). A total of 1600 respondents participated in our study and were compensated \$1.00, approximately \$10.00/h. Prolific filters the respondents to eliminate bots and ensure that all respondents are US based according to their IP address.

Before analyzing the data, we conducted both balance tests and manipulation checks. Although balance tests are frequently used to contend that the randomization process indeed randomly assigned individuals to treatments, even random processes will at times generate results that are not random (Mutz, Pemantle, and Pham 2019). In the present case, we conducted balance tests (see Appendix 3) and found no significant differences at the 95% significance level for all demographic characteristics (age, race, gender, education level, household income, living area, and political party affiliation).

The manipulation tests involved asking respondents at the end of the survey factual questions about the four manipulations. The star rating of the nursing home was correctly identified by 88% of respondents. Ninety four percent of respondents correctly identified the costs per resident. The correct percentages for Medicaid recipients and for frequency of advisory council meetings were identified correctly by 94% and 92%, respectively. We also conducted a set of chi-square tests to compare respondents who correctly identified the received treatments to those who did not (see Tables A4-1–A4-4 in Appendix 4). All were statistically significant, which suggests that the respondents identified the specific treatments they got. Specifically, the chi-square statistics were 4600 ($p < 0.00001$) for effectiveness, 1200 ($p < 0.0001$) for efficiency, 1200 ($p < 0.00001$) for equity, and 1100 ($p < 0.00001$) for participation. Overall, these tests indicate that the treatments are strong enough to avoid insignificant results due to a lack of recognition of the treatments.

4.4 | Strategy of Analysis

Each of the four treatments will be included as independent variables in a set of regression models. Models will include five dependent variables. We first include four dimensions of organizational performance designed to tap into the underlying concept behind the treatment. This requires reliable measures of effectiveness (for the star rating), efficiency (for the costs), equity (Medicaid recipients), and participation (advisory councils). The indicators of effectiveness are seven Likert scale items (on a 7-point scale, from 1 [does not fit at all] to 7 [fits very well]) first introduced in the literature by Hvidman and Andersen (2016) and augmented by Meier et al. (2022) (see Appendix 5 for exact wording of all questions and factor loadings); a single significant factor with an Eigenvalue of 6.25 and a Cronbach's alpha of 0.94 is the resulting measure. Four 7-point Likert scale items provide indicators of efficiency (e.g., "The nursing home makes the most of its monetary and human resources"). A single significant factor with an Eigenvalue of 3.43 and a Cronbach's alpha of 0.98 is the efficiency measure. Equity is measured via three 7-point Likert scale items concerning fair and equitable treatment of all residents as well as admissions standards that are combined into a single factor score (Eigenvalue = 2.48, Cronbach's alpha = 0.90). Since there were no existing scales for participation

in the behavioral public administration literature, five new items on various aspects of participation (see Appendix 5 for wording of the survey items) were included asking about keeping residents informed, seeking feedback, and engaging residents in decisions. The resulting single significant factor score was highly reliable (Eigenvalue 4.36 with a Cronbach's alpha 0.96).

In addition to these perceptual measures on organizational performance, we also included willingness to get services from the organization as another dependent variable. This is an overall measure of behavioral intention (see Meier et al. 2022) asking the respondent to "indicate your willingness to place your family member in Meadows Care Center" (on a 7-point scale, from 1 ["very unwilling"] to 7 ["very willing"]).

The strategy of analysis will be first to determine if each of the individual treatments is reflected in the individual dimensions of performance (e.g., effectiveness, efficiency, equity, and participation) and then to compare sizes of treatment effects on the four performance dimensions and willingness to get services. Since the treatments are assigned randomly and therefore are uncorrelated with each other, all four treatments can be included in the same regression equation for efficiency of presentation. This set of equations can then be used to both test the four aspects of Hypothesis 1a (1a, 1b, 1c, and 1d) as well as the relative focus on treatments on the targeted outcome (i.e., the impact of great opportunities for participation on assessments of participation). A similar regression can be used to test Hypothesis 2 on the willingness to use the facility that effectiveness (the star rating) has the greatest influence on citizen assessments of performance as well as their willingness to seek services. We then include a series of interactions between various treatments to assess whether respondents are willing to tradeoff one value for another; that is, whether for example the marginal impact of the bureaucratic values (effectiveness, efficiency) is affected by the relative level of the democratic values (participation, equity). This set of models will be used to test Hypothesis 3a (3a, 3b, 3c, and 3d).

Since the balance test results show that the randomization worked well (no significant differences among the groups; see Appendix 2), we do not include demographic control variables in the models. We, however, have run models with control variables and the results are similar (see Tables A6-1 and A6-2 in Appendix 6 for results with control variables).

5 | Findings

Table 1 reports the regression results of the four experimental treatments and illustrates the relative concern that the public has in evaluating the hypothetical nursing home on various dimensions. Hypothesis 1a is supported by the strong positive correlation between the star rating and the assessment of effectiveness (column 1, row 1). The table also demonstrates how the official star rating dominates the evaluation process on all dimensions (with an increase in one star resulting in between one-third- and one-half standard deviation change in measures of effectiveness, efficiency, equity, and participation). The table, in fact, understates this dominance since the star rating can range from 1 to 5 and the other measures only can equal 1 and 0. This greater variation and thus the relative impact of the star

TABLE 1 | Effects of four treatments on four value dimensions.

	Effectiveness	Efficiency	Equity	Participation
Effectiveness (1–5 stars)	0.519*** (0.012)	0.488*** (0.013)	0.366*** (0.015)	0.399*** (0.013)
Efficiency (1 = \$8131, 0 = \$9937)	0.111*** (0.034)	0.209*** (0.036)	0.129*** (0.044)	0.095** (0.039)
Equity (1 = 96%, 0 = 64%)	0.051 (0.036)	0.071* (0.039)	−0.065 (0.047)	0.03 (0.042)
Participation (1 = weekly, 0 = yearly)	0.231*** (0.034)	0.188*** (0.037)	0.169*** (0.044)	0.673*** (0.039)
(Constant)	−1.730*** (0.049)	−1.676*** (0.053)	−1.188*** (0.066)	−1.589*** (0.055)
R^2	0.5735	0.5149	0.2875	0.448
N	1575	1574	1568	1570

Note: Robust standard errors in parentheses. Two-tailed tests of significance: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

rating is best illustrated in the first set of figures (Figure 1a–d), which adjusts the impact by standardizing the coefficients. The credence given the star rating likely reflects that it was assigned by an outside evaluator (the federal government not the nursing home) and that this is a common government rating system in the US (see Meier et al. 2022). These results and Table 2 also support Hypothesis 2 on the overall dominance of effectiveness in public assessments.

The cost of the program also mattered both in terms of efficiency directly, supporting Hypothesis 1b (see column 2, row 2), but also in terms of the other three outcome indicators. This stands in stark contrast to a study in education where costs mattered only for the efficiency rating and then only in one of two cases (Meier, Davis, and Xiaoyang 2023; see also Brunner, Robbins, and Simonsen 2024).² The size of the costs' coefficient in terms of efficiency is also higher than it is for the other dependent variables indicating the ability to respondents to separate out costs as more important in terms of efficiency. Overall, however, the impact of costs on performance evaluations would need to be considered relatively modest, about two tenths of a standard deviation on efficiency and about half that on effectiveness, equity, and participation.

The findings for Medicaid recipients, a treatment designed to tap into concerns about equity given that Medicaid funding is need based, should be characterized as disappointing. It is unrelated to the assessment of equity (column 3, row 3), rejecting Hypothesis 1c. Only for the efficiency measure is the relationship statistically significant and, in that case, relatively modest (less than one tenth of a standard deviation $p < 0.10$). An important caveat should be raised because as noted in the introduction, equity has multiple dimensions. The current test focused on access (the Medicaid recipient percentage) not outcomes, process, treatment or other possible dimensions of equity. There is also a possibility that the treatment variable, although recognized, was not associated with income differences (perhaps confusing Medicaid with Medicare).

The theoretical innovation of adding participation to the performance metric that generally includes effectiveness, efficiency,

and equity generates strong support from the results of Table 1. Increases in participation are positive and significantly related to all four outcomes including the participation dimension of performance (column 4, row 4, supporting Hypothesis 1d). It is also worth noting that participation is generally the second most influential factor after the official performance scores, particularly for respondents' assessments on effectiveness and participation (see Figure 1a,d; the effect of participation treatment does not significantly differ from the effect of efficiency treatment in Figure 1b,c). In addition, participation opportunities are relatively clearly focused with the largest impact by a substantial amount on the participation outcome measure. The result on participation treatment is interesting and promising, given the lack of much attention to the effect of participation in the literature. The respondents value participation more than efficiency (i.e., reducing the costs of operating government programs), which has been considered as important for bureaucratic effectiveness.

Shifting the focus to whether individuals are willing to use the Meadows Care Center to place a member of their family (Table 2 and Figure 2) provides a more concise view of the reactions of the respondents to changes in official performance, costs, Medicaid percentage and participation opportunities. The respondents are more willing to use Meadows Care Center if the official star rating increases, if costs decline, and if participation opportunities for residents increase; the Medicaid percentage generates null results. Consistent with Hypothesis 2, the star rating indicator of effectiveness has the largest impact on the willingness to use a service (see Figure 2 for the comparison of standardized coefficient sizes of the four treatments). This suggests that respondents evaluate the potential use of public services on multiple dimensions and thus, whether they are willing to trade them off is an important policy consideration.

The tradeoff between bureaucratic ethos (effectiveness and efficiency) and democratic ethos (equity and participation) can be assessed by examining four sets of interactions among the treatments—those between the star rating (effectiveness) and the Medicaid percentage (equity), between the star rating and meeting frequency (participation), between costs (efficiency)

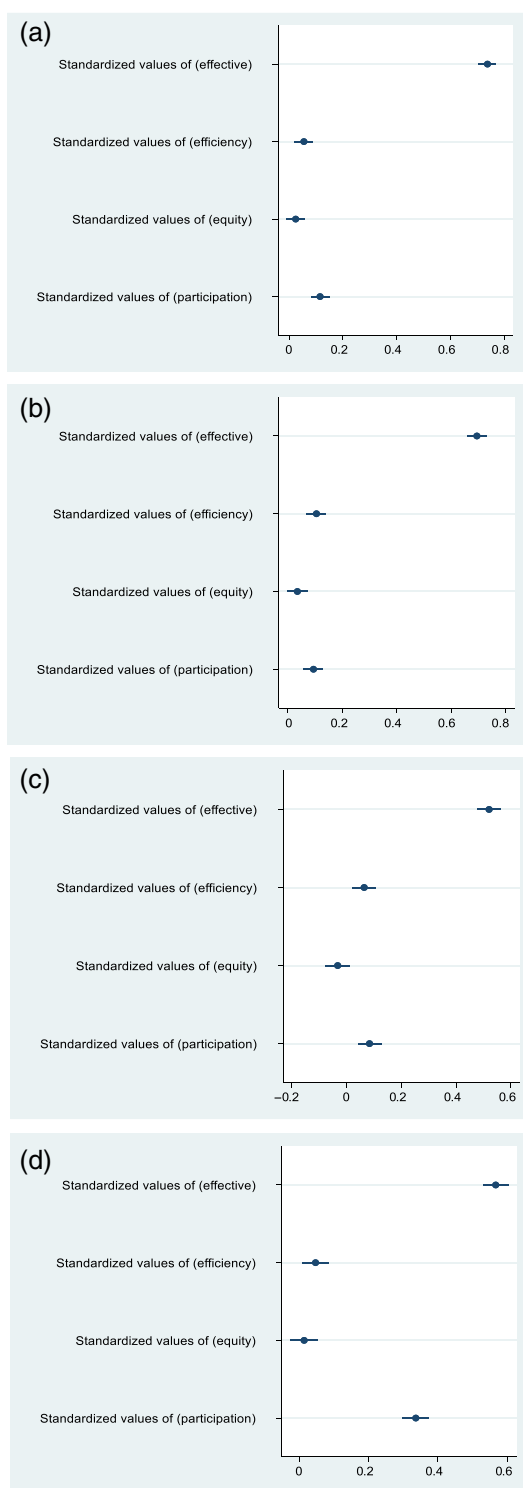


FIGURE 1 | (a) Comparison of effect sizes of four treatments on effectiveness perception. (b) Comparison of effect sizes of four treatments on efficiency perception. (c) Comparison of effect sizes of four treatments on equity perception. (d) Comparison of effect sizes of four treatments on participation perception. [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

and Medicaid percent, and between costs and meeting frequency. Since each of these might affect the overall rating on any dimension, regressions were run with the full set of interactions on each of the four latent variable measures of effectiveness, efficiency, equity, and participation (see Table 3).

TABLE 2 | Effects of four treatments on willingness to get Services.

	Willingness to get services
Effectiveness (1–5 stars)	1.048*** (0.024)
Efficiency (1 = \$8131, 0 = \$9937)	0.339*** (0.072)
Equity (1 = 96%, 0 = 64%)	0.121 (0.076)
Participation (1 = weekly, 0 = yearly)	0.515*** (0.073)
(Constant)	0.230** (0.091)
R^2	0.5524
N	1598

Note: Robust standard errors in parentheses. Two-tailed tests of significance: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The results in Table 3 indicate that three of the sets of interaction terms are statistically insignificant in all equations (the interaction of the star rating with both Medicaid percent and meeting frequency,³ and the interaction of Medicaid access and participation frequency). These null results suggest that the public is unwilling to change their assessment of how well nursing homes effectively perform (the star rating) as factors linked to democracy change (equity and participation) and vice versa. This rejects Hypotheses 3a and 3c. Similarly, there is no tradeoff between costs and Medicaid percentage in assessments of efficiency or equity rejecting Hypothesis 3b in this case.

Table 3, however, shows a significant negative interaction between the frequency of meetings with residents and costs of the nursing home in terms of equity and participation suggesting that the public is willing to tradeoff participation and efficiency in evaluating programs. The public values participation opportunities less when costs increase, providing some support for Hypothesis 3d; all interactions are negative as predicted, but only two attain the 0.05 level of statistical significance. The tradeoffs are best illustrated in Figure 3a–d, which shows the marginal effect of changes in efficiency on the four value dimensions at different levels of participation. As seen in Figure 3a, the effect of being more efficient (spending less cost per resident) on effectiveness perception is only significant when the organization conducts fewer participation (yearly meeting rather than weekly meeting). The same finding holds for the respondents' assessments on organizations' equity and participation dimensions (see Figure 3c,d). In Figure 3b, the effect of efficiency treatment is significant both when the organization conducts more or less participation, but the effect decreases as the organization increases participation. Although the overall performance of the program remains the major factor in the public assessments of nursing homes (see Table 3), at the margins there is an indication of the willingness to tradeoff values that are central to the issues of bureaucracy and democracy.

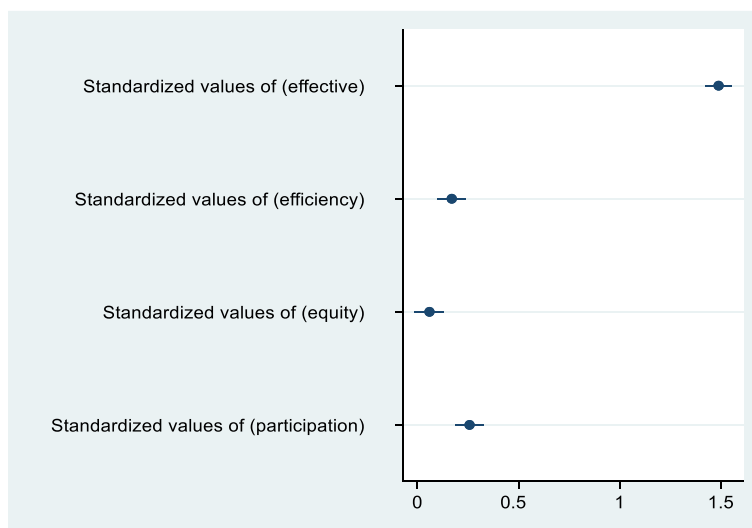


FIGURE 2 | Comparison of effect sizes of four treatments on willingness to get services. [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

TABLE 3 | Tradeoff effects on four value dimensions.

	Effectiveness	Efficiency	Equity	Participation
Effectiveness (1–5 stars)	0.544*** (0.020)	0.516*** (0.022)	0.391*** (0.028)	0.427*** (0.024)
Efficiency (1 = \$8131, 0 = \$9937)	0.189*** (0.058)	0.321*** (0.062)	0.252*** (0.077)	0.247*** (0.071)
Equity (1 = 96%, 0 = 64%)	0.118 (0.102)	0.111 (0.109)	–0.011 (0.134)	0.111 (0.110)
Participation (1 = weekly, 0 = yearly)	0.344*** (0.097)	0.379*** (0.104)	0.325*** (0.125)	0.847*** (0.106)
Effectiveness × equity	–0.025 (0.025)	–0.012 (0.028)	–0.038 (0.033)	–0.028 (0.029)
Effectiveness × participation	–0.017 (0.025)	–0.04 (0.026)	–0.003 (0.032)	–0.021 (0.027)
Efficiency × equity	–0.028 (0.079)	–0.058 (0.084)	0.016 (0.106)	–0.065 (0.092)
Efficiency × participation	–0.128 (0.074)	–0.157 (0.079)	–0.278** (0.098)	–0.232** (0.084)
(Constant)	–1.826*** (0.074)	–1.798*** (0.079)	–1.292*** (0.104)	–1.725*** (0.082)
R ²	0.5752	0.5179	0.2925	0.4527
N	1575	1574	1568	1570

Note: Robust standard errors in parentheses. Interaction coefficients significance calculated using Bonferroni correction for multiple tests. Two-tailed tests of significance: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The acceptance of tradeoffs, however, applies only to the choices among the individual values; it does not appear to affect the willingness to use the service (See Table 4). None of the interaction effects in that equation are statistically significant indicating that a decline in one of the program elements does not affect how the other program elements are evaluated. Overall performance again is the strongest predictor followed by efficiency and participation opportunities.

6 | Discussion

The findings provide varying levels of support to our hypotheses, which merit further discussions. We first find that the public can associate key organizational information with corresponding dimensions of public program performance. When presented with comparable information on overall performance ratings, relative costs, greater access by poorer residents,

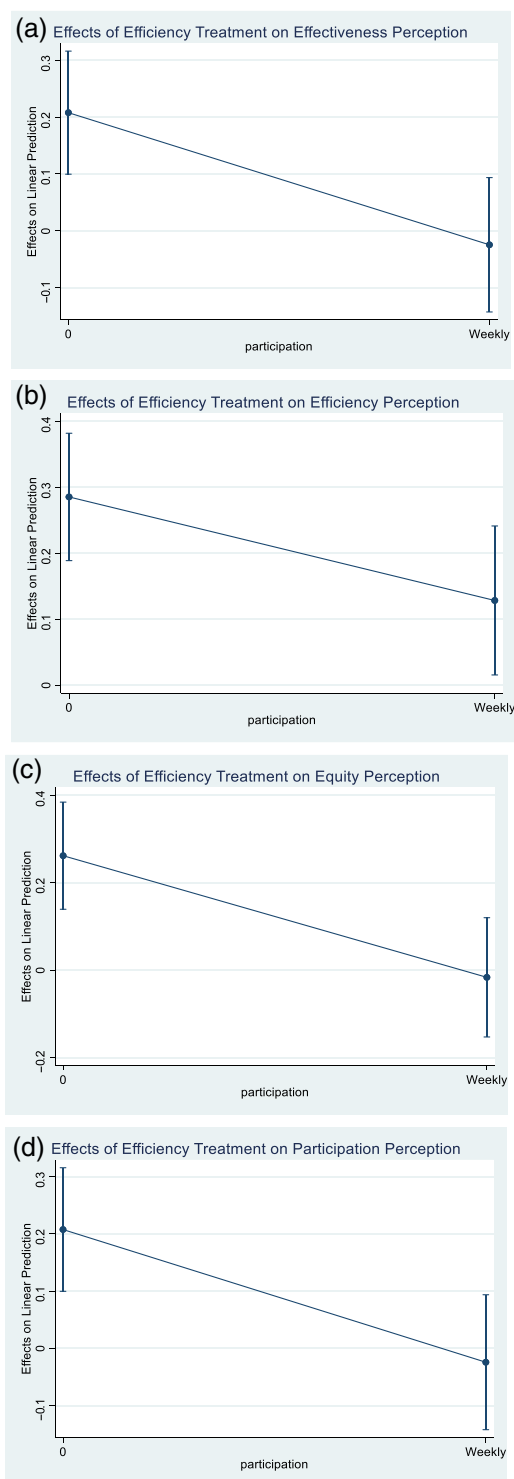


FIGURE 3 | (a) Tradeoff between efficiency and participation on effectiveness perception. (b) Tradeoff between efficiency and participation on efficiency perception. (c) Tradeoff between efficiency and participation on equity perception. (d) Tradeoff between efficiency and participation on participation perception. [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

and level of resident participation opportunities, respondents respond with more favorable evaluations of effectiveness, efficiency, and participation. Only for increases in Medicaid recipients, which is the treatment designed to indicate more

TABLE 4 | Tradeoff effects on willingness to get services.

	Willingness to get services
Effectiveness (1–5 stars)	1.036*** (0.042)
Efficiency (1 = \$8131, 0 = \$9937)	0.482*** (0.125)
Equity (1 = 96%, 0 = 64%)	0.211 (0.187)
Participation (1 = weekly, 0 = yearly)	0.473*** (0.180)
Effectiveness × equity	0.02 (0.051)
Effectiveness × participation	−0.003 (0.048)
Efficiency × equity	−0.24 (0.162)
Efficiency × participation	0.026 (0.154)
(Constant)	−1.826*** (0.074)
R^2	0.5752
N	1575

Note: Robust standard errors in parentheses. Two-tailed tests of significance: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

equitable access, respondents were unable to link greater access with increases in equity. These results lend support to our base set of hypotheses on citizens' abilities to recognize and communicate with relevant information provided by public organizations (Nabatchi and Leighninger 2015). These findings also align with performance information theory (James and Moseley 2014) and are consistent with previous research's findings that the use of relevant performance information can affect organizational performance perceived by citizens (e.g., Holbein 2016; James 2011; Meier, Davis, and Xiaoyang 2023). This again highlights the importance of actively utilizing performance information, especially given that citizens may interact with public agencies only in infrequent and limited occasions (James 2011). Even providing citizens with simple information cues, like the ones used in our experiment, could enhance their perceptions of and attitudes towards public organizations.

Recognizing the various performance dimensions did not mean, however, that the various dimensions were given equal weight. The official performance indicator (the CMS star rating) was the greatest influence not just on the assessment of effectiveness, but also in terms of efficiency, equity, and participation and when individuals seek services from the public organization. This result provides support to our second hypothesis on the value of effectiveness on the public's perceived performance. It also resonates with the recent study's finding that effectiveness significantly matters in the context of government service delivery, as

compared with nonprofit or for-profit service providers (Piatak and Jensen 2024). While there has been extensive literature on the effects of overall performance information on public perceptions, our study is among the first to find the relative importance of information on effectiveness (among the four major administrative values). This suggests that public organizations should first invest efforts to provide quality services (as reflected in official performance ratings) and should also actively communicate that with the public.

The effect of participation is also noteworthy. Our findings suggest that the public regards participation (i.e., engaging key stakeholders and citizens in organizational management) as another important criterion, after effectiveness, in assessing public programs and in making decisions to get services. Except for efficiency and equity dimensions of program performance, participation was valued significantly more than efficiency (i.e., spending less costs given the same level of service provision), which has been the primary focus of traditional public administration (Wilson 1887; Gulick 1937) and the administrative reform movements including the New Public Management (Osborne and Gaebler 1992). Scholars have advocated the need for (re)invigorating democracy and participation given the field's less attention to these democratic values in both the theory and practice of public administration (Bryson, Crosby, and Bloomberg 2014; Nabatchi 2010). The finding on participation treatment provides empirical support to this argument; enhancing participation is not only normatively desirable but also produces instrumental benefits (Amirkhanyan et al. 2024; Jo and Nabatchi 2021), as it can lead to favorable public perceptions of the organization. Public managers, therefore, need to implement participatory processes where feasible as a part of their performance management.

Having said that, the insignificance of equity (which we regard as another key democratic value) should be discussed. It only had a positive and significant effect on respondents' assessment of efficiency; other than that, it was not significantly associated with people's performance assessments and their willingness to get services. We acknowledge that the treatment was not effective, and the respondents may not recognize the percentage of residents on Medicaid as an equity indicator. It might also be that the respondents relate this information as cost and efficiency information rather than equity information, especially given the significant and positive effect of this treatment on efficiency perception. It is also the case that equity in access to services is only one aspect of equity, and previous research has shown that equity in outcomes does matter (Meier, Davis, and Xiaoyang 2023; Amirkhanyan et al. 2023). We regard this as one of the limitations of our study, and call for the need to develop a more effective treatment to measure equity in all its dimensions in future experimental studies.

Lastly, our findings on the trade-off effects yield important lessons. We find a trade-off only between efficiency and participation in public perceptions. The effects of efficiency treatment on public evaluations of organizational effectiveness, efficiency, equity, and participation are negatively moderated by the degree of participatory activities; when an organization conducts more frequent public engagement, the effect of spending less (i.e., promoting efficiency) is either insignificant or is diminished. This result highlights the long-standing tension between

bureaucratic and democratic ethos in public administration (Burke and Cleary 1989; Meier 1997; Nabatchi 2010), specifically between efficiency and participation. This result is meaningful as it suggests that the bureaucracy-democracy tension posited in theory indeed exists in practice, in the general public's assessment of public programs. This, however, does not mean that less participation is better. As discussed above, public values participation as the second important criterion after effectiveness and increasing participation can improve public perceptions of organizations. Considering the importance of participation and recognizing the tradeoff between participation and efficiency in public perceptions, we would contend that public managers should effectively design the performance information in a way that citizens do not necessarily regard participation as costly and as an impediment to organizational efficiency. Costs of conducting participation are not always high, and its effectiveness depends on how the processes are designed and implemented (Nabatchi and Leighninger 2015). Both bureaucratic and democratic ethos—efficiency and participation, for example—should be upheld and promoted, and public organizations should effectively communicate with the public that these values are not necessarily conflict with one another in practice.

7 | Conclusion

Because public programs have multiple goals and multiple stakeholders, they necessarily involve tradeoffs between different values in the design of public policies. Although these tradeoffs are central to policy theory and the ability of elites to design or manage public programs (Fernández-Gutiérrez and Van Walle 2019; Sabatier and Weible 2018; Thomas 1993), there has been little scholarship on whether the general public recognizes the different dimensions of public performance and whether or not tradeoffs among various competing values are a concern. Using a vignette experiment on long term care for the elderly in the United States, this article assesses public responsiveness to the effectiveness, efficiency, equity, and participation of residents matching them with the underlying values of bureaucracy (effectiveness and efficiency) and democracy (equity and participation).

The present study has limitations, which also suggest areas for further research. First, the equity treatment (Medicaid recipients) stood out as relatively weak and did not trigger more positive assessments in terms of equity evaluations. This might result owing to confusion about the means tested aspect of Medicaid for long-term care services or might reflect that it does not deal with unequal outcomes. It is also important to note that our equity treatment focuses on equity in having access to resources; equity has a multidimensional aspect, and public organizations can focus on promoting equity in terms of inputs, resources, outputs, and outcomes (Cepiku and Mastrodascio 2021). The effects of equity in other aspects, therefore, may have different effects on public's performance assessment (e.g., Amirkhanyan et al. 2023). We believe that future studies need to test the effect of other aspects of equity and/or develop a more effective treatment for equity. Second, the experiment covered one public service (long-term elder care) in a single country where the service is delivered primarily through third party vendors. Whether the findings vary according to service (policing, public health, social services, etc.), country or the means of service delivery (by government, by third

party, by voucher) remain open questions that merit additional research. Third, comparing the findings of this article on long term elder care services to a recent study on tradeoffs in education (Meier, Davis, and Xiaoyang 2023) indicates that tradeoffs among values might be context specific. The study of education found an unwillingness to tradeoff equity, efficiency, or effectiveness although the support for greater efficiency appeared relatively weak. The current study shows a more consistent concern with program costs (efficiency), but a willingness to tradeoff costs for participation opportunities (a topic not addressed in the education study). Expansion of similar studies using comparable treatments would be valuable in determining contextual factors that affect the willingness to trade off core values.

Our study makes several important contributions to literature. First, we make one of the first (if not the first) attempts to test the field's longstanding bureaucracy–democracy tension in public's perceptions, focusing on how it is at play when the public assesses government programs. Second, we manipulate different performance dimensions in assessing public perceptions, which has been rarely considered until recently. Last, we extend a few previous experimental studies to a different area of public service (i.e., healthcare) and by adding participation treatment, thereby contributing to the generality of the findings on the public's perspectives on administrative values. The findings, therefore, have broad implications to multiple important public administration literature, including public values management, democratic governance, and performance management.

In addition to the theoretical contributions, the findings also have practical implications for the managers of public programs. First, public managers need to communicate not just general performance information as reflected in official performance criteria but also information that addresses issues of efficiency, equity, and opportunities for participation. Individuals appear to value each of these factors separately and combine them in their evaluations. Although this study indicated that overall performance was the most highly regarded, those factors related to democratic values, particularly participation opportunities, were also valued. This result reflects the multidimensional nature of government performance (Rainey 2003), suggesting the need to effectively design performance information to help the public discern different aspects of government performance. Second, substantial evidence now exists that the best practice is for information to be presented in a comparative manner (Olsen 2017) in ways that are relatively easy to interpret. Public managers could follow this way in conveying key performance information to the public in various public encounters. Third, while respondents appear unwilling to compromise overall performance for other values, they are willing to tradeoff costs and participation opportunities in their assessments of the various performance dimensions. How strong this willingness to tradeoff costs and participation is, however, unclear since it did not show up in the willingness to use the service. It is worth noting that the experiment only reflected differences in program costs, and there might well have been a greater willingness to make such tradeoffs if the costs were borne in part by the respondent rather than via government expenditures. In addition, it is critical that public managers should make some efforts to communicate with the public that participation and efficiency are not necessarily in conflict; engaging citizens and reducing

(unnecessary) costs to provide efficient services are both important for public service effectiveness. Bureaucratic and democratic ethos, eventually, should go hand in hand.

Disclosure

This research was preregistered to the American Economic Association's registry for randomized controlled trials (ACA RCT registry). It is available at <https://www.socialscienceregistry.org/trials/10460>.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Endnotes

¹ There is an extensive literature on framing effects, perceptual biases and other factors that limit the ability of individuals to interpret performance data on government programs (Battaglio et al. 2019; James et al. 2020).

² Two differences in the studies affect any direct comparison. It may be that efficiency is less of a concern in public education than in elder care given that the percentage of public money in education in the US is higher than in elder care. The other possibility is that the treatment items differ somewhat in magnitude; the current study was based on a 20% difference in costs while the education study by Meier, Davis, and Xiaoyang (2023) was approximately 12% in difference.

³ To be conservative and avoid false positives, we adjust the significance levels of the interactions in this table because there are multiple tests using the Bonferroni adjustment. This affects only the efficiency–participation interactions since the other sets are all statistically insignificant without any adjustment. The interaction between effectiveness and participation (star ratings and meeting frequency) is significant at the 90% significance level in the models with control variables (see Appendix 6-2), which provides only modest support to Hypothesis 3b.

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Appendix 1

Experimental Vignette and Manipulations

Meadows Care Center is a government owned nursing home in the Meadows County. It has been owned and operated by the county government since 1999. The nursing home has 85 full-time employees and an average of 94 residents on a given day. The nursing team consists of state licensed registered nurses, practical nurses, and geriatric nursing assistants supervised by a Director of Nursing. Every nursing home resident gets, on average, about 4h of direct nursing care per day. Every resident is under the care of either the medical director or their own physician. Residents pay their nursing home costs from a variety of sources including their own funds, Medicare, and Medicaid. Eligible low-income individuals often pay all the costs using Medicaid.

Meadows Care Center offers long-term care, skilled nursing care, memory care, rehabilitation, respite care, hospice and palliative care, social services, wellness programs, and diverse social, educational and recreational activities. The quality of nursing homes, including the Meadows Care Center, is evaluated on the Five Star Quality Rating Scale from 1 to 5 stars (5 stars best), by the Centers for Medicare and Medicaid Services, federal agency. Meadows Care Center seeks to engage its residents and regularly holds meetings with the patient and family advisory councils (PFACs). Nursing homes, including the Meadows Care Center, must comply with all state laws and regulations on aforementioned activities. The table below provides information about the Meadows Care Center.

	State average	Meadows care center
Five star quality rating	3 stars	[Effectiveness cue]
Expenditures per resident	\$9034 per month	[Efficiency cue]
% of residents on Medicaid	80%	[Equity cue]
Meetings with the patient and family advisory councils (PFACs)	Monthly	[Participation cue]

Effectiveness cue: 1, 2, 3, 4, or 5 stars.

Efficiency cue: \$8131 per month or \$9937 per month.

Equity cue: 64% or 96% on Medicaid.

Participation cue: yearly or weekly.

Appendix 2

Sample Characteristics

Age	Mean age	39.39
	Max age	84
	Min age	18
Education level (% respondents)	Advanced degree	15.49%
	Associate degree	11.43%
	Bachelor's degree	37.91%
	Some college, no degree	20.67%
	High school or equivalent	13.80%
	Less than high school	0.69%
Race (% respondents)	White, non-Hispanic	76.00%
	American Indian/Alaska Native	0.81%
	Asian	6.69%
	Black, non-Hispanic	7.69%
	Hispanic	6.31%
	Native Hawaiian/Pacific Islander	0.31%
	Other	2.19%
Gender (% respondents)	Female	47.90%
	Male	50.34%
	Nonbinary/other	1.75%
	Political affiliation (% respondents)	Democrats
	Republican	20.59%
	Undecided/independent/other	24.50%
Household income (% respondents)	Less than \$20,000	10.64%
	\$20,000–\$34,999	15.08%
	\$35,000–\$49,999	14.96%
	\$50,000–\$74,999	22.03%
	\$75,000–\$99,999	14.33%
	Over \$100,000	22.97%
Location (% respondents)	Rural	19.22%
	Suburban	51.52%
	Urban	29.27%

Appendix 3

Balance Tests

	Education	Age	White	Female	Political ideology	Income	Location
\$9937 per month 96% on Medicaid Weekly	3.010	39.335	0.754	0.492	1.530	2.833	1.153
\$9937 per month 96% on Medicaid Yearly	3.204	39.681	0.805	0.541	1.453	2.875	1.075
\$9937 per month 64% on Medicaid Weekly	3.202	39.062	0.731	0.453	1.432	2.764	1.126
\$9937 per month 64% on Medicaid Yearly	3.107	39.031	0.750	0.492	1.230	2.655	1.046
\$8131 per month 96% on Medicaid Weekly	3.270	40.833	0.752	0.491	1.417	2.843	1.084
\$8131 per month 96% on Medicaid Yearly	3.294	39.130	0.751	0.509	1.623	3.006	1.121
\$8131 per month 64% on Medicaid Weekly	3.231	38.038	0.759	0.481	1.297	2.896	1.129
\$8131 per month 64% on Medicaid Yearly	3.161	39.861	0.776	0.433	1.523	2.787	1.070
Prob > F	0.516	0.653	0.770	0.568	0.093	0.645	0.797

Note: We treat star ratings (1–5 stars; effectiveness treatment) as a continuous variable, and balance tests reported here were conducted on eight groups (2×2×2). The balance test results on 40 groups (5×2×2×2; when treating star ratings as a categorical variable) also reveal no statistically significant differences in terms of the same set of demographic characteristics at the 95% significance level.

Appendix 4

Manipulation Checks

TABLE A4-1 | Effectiveness manipulation check.

		Treatment received					Total
		1 star	2 stars	3 stars	4 stars	5 stars	
Treatment identified by the respondents	1 star	312	1	0	1	4	318
	2 stars	1	256	0	1	1	259
	3 stars	14	20	290	11	8	343
	4 stars	10	9	8	267	8	302
	5 stars	21	23	29	30	277	380
	Total	358	309	327	310	298	1602
Chi ² (16) = 4.6e+03 Pr = 0.000							

TABLE A4-2 | Efficiency manipulation check.

		Treatment received		Total
		\$8131 per month	\$9937 per month	
Treatment identified by the respondents	\$8131 per month	727	37	764
	\$9937 per month	65	771	836
	Total	792	808	1600
Chi ² (1) = 1.2e+03 Pr = 0.000				

TABLE A4-3 | Equity manipulation check.

		Treatment received		Total
		64% on Medicaid	96% on Medicaid	
Treatment identified by the respondents	64% on Medicaid	926	42	968
	96% on Medicaid	52	581	633
	Total	978	623	1601
Chi ² (1) = 1.2e+03 Pr = 0.000				

TABLE A4-4 | Participation manipulation check.

		Treatment received		Total
		Weekly	Yearly	
Treatment identified by the respondents	Weekly	760	48	808
	Yearly	76	715	791
	Total	836	763	1599
Chi ² (1) = 1.1e+03 Pr = 0.000				

Appendix 5

Factor-Analytic Results of Survey Items

	Factor loadings
Effectiveness	
The nursing home is effective.	0.95
The nursing home is effective in accomplishing its core mission.	0.95
The nursing home is effective in delivering a very good service.	0.95
The nursing home is genuinely interested in the well-being of its residents.	0.92
The nursing home acts in the interest of residents.	0.92
The nursing home provides outstanding quality of care.	0.96
The nursing home ensures excellent quality of life for its residents.	0.96
Eigenvalue = 6.25	
Cronbach's alpha = 0.94	
Efficiency	
The nursing home provides care efficiently	0.92
The nursing home makes the most of its monetary and human resources	0.94
The nursing home is not wasteful	0.89
The nursing home resources are well spent	0.95
Eigenvalue = 3.43	
Cronbach's alpha = 0.98	
Equity	
The nursing home delivers care to residents in a fair and impartial way.	0.90
Every resident, regardless of race, religion or income, gets the same quality of care.	0.93
Persons of any race, religion or income have an equal chance of being admitted to this nursing home.	0.90
Eigenvalue = 2.48	
Cronbach's alpha = 0.90	
Participation	
The nursing home keeps residents informed.	0.93
The nursing home seeks to obtain residents' feedbacks on its management.	0.93

	Factor loadings
The nursing home ensures that residents' concerns and interests are heard.	0.94
The nursing home collaborates with residents to provide quality care.	0.93
The nursing home empowers residents by engaging them in its decision making.	0.95
Eigenvalue = 4.36	
Cronbach's alpha = 0.96	

Appendix 6

Results with Controls

TABLE A6-1 | Results with controls (without interactions).

	Effectiveness	Efficiency	Equity	Participation	Willingness
Effectiveness	0.524*** (0.012)	0.492*** (0.013)	0.369*** (0.016)	0.401*** (0.014)	1.055*** (0.024)
Efficiency	0.110*** (0.035)	0.214*** (0.037)	0.115** (0.045)	0.090** (0.040)	0.353*** (0.074)
Equity	0.053 (0.037)	0.082** (0.040)	-0.063 (0.048)	0.032 (0.043)	0.125 (0.078)
Participation	0.244*** (0.035)	0.195*** (0.038)	0.176*** (0.045)	0.690*** (0.040)	0.536*** (0.074)
Age	0.001 (0.001)	0.002 (0.001)	0.004** (0.002)	0.001 (0.001)	-0.003 (0.003)
Race (1 = White)	0.035 (0.043)	0 (0.046)	0.105* (0.054)	0.025 (0.048)	0.188** (0.090)
Gender (1 = female)	-0.052 (0.033)	-0.008 (0.036)	-0.072* (0.043)	-0.135*** (0.039)	-0.143** (0.071)
Education level	0.003 (0.014)	-0.009 (0.015)	-0.017 (0.018)	-0.001 (0.016)	0.039 (0.030)
Household income	-0.011 (0.011)	-0.004 (0.012)	0.022 (0.015)	-0.01 (0.013)	-0.017 (0.024)
Political affiliation (0-4, 4 = republican)	-0.027* (0.014)	-0.036** (0.015)	-0.01 (0.018)	-0.026* (0.016)	-0.089*** (0.030)
Location (1 = rural)	0.085* (0.045)	0.080* (0.048)	0.150*** (0.056)	0.113** (0.050)	0.128 (0.094)
Public sector preference	0.085*** (0.020)	0.070*** (0.022)	0.126*** (0.026)	0.098*** (0.022)	0.147*** (0.040)
Previous experience with public nursing home (1 = yes)	0.095*** (0.036)	0.080** (0.039)	0.073 (0.046)	0.078* (0.042)	0.079 (0.075)
(Constant)	-1.766*** (0.089)	-1.712*** (0.096)	-1.445*** (0.117)	-1.588*** (0.101)	0.209 (0.183)
R ²	0.600	0.536	0.329	0.481	0.576
N	1471	1469	1463	1463	1491

Note: Robust standard errors in parentheses. Two-tailed tests of significance: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

TABLE A6-2 | Results with controls (with interactions).

	Effectiveness	Efficiency	Equity	Participation	Willingness
Effectiveness	0.554*** (0.020)	0.523*** (0.022)	0.402*** (0.028)	0.438*** (0.024)	1.040*** (0.044)
Efficiency	0.177*** (0.059)	0.319*** (0.063)	0.212*** (0.079)	0.236*** (0.072)	0.462*** (0.130)
Equity	0.084 (0.103)	0.082 (0.113)	-0.029 (0.140)	0.088 (0.112)	0.11 (0.186)
Participation	0.417*** (0.097)	0.442*** (0.107)	0.375*** (0.129)	0.930*** (0.108)	0.564*** (0.177)
Effectiveness × equity	-0.021 (0.026)	-0.01 (0.029)	-0.037 (0.034)	-0.028 (0.029)	0.028 (0.052)
Effectiveness × participation	-0.032 (0.025)	-0.048* (0.027)	-0.018 (0.032)	-0.037 (0.028)	-0.006 (0.049)
Efficiency × equity	0.004 (0.081)	-0.015 (0.088)	0.046 (0.109)	-0.035 (0.094)	-0.127 (0.165)
Efficiency × participation	-0.147* (0.076)	-0.200** (0.082)	-0.263*** (0.101)	-0.258*** (0.086)	-0.056 (0.157)
Age	0.001 (0.001)	0.002 (0.001)	0.004** (0.002)	0.001 (0.001)	-0.003 (0.003)
Race (1 = White)	0.037 (0.042)	0.003 (0.046)	0.110** (0.054)	0.029 (0.048)	0.190** (0.090)
Gender (1 = female)	-0.05 (0.034)	-0.006 (0.036)	-0.069 (0.043)	-0.132*** (0.038)	-0.142** (0.071)
Education level	0.002 (0.014)	-0.01 (0.015)	-0.019 (0.018)	-0.002 (0.016)	0.039 (0.030)
Household income	-0.012 (0.011)	-0.005 (0.012)	0.021 (0.015)	-0.01 (0.013)	-0.017 (0.024)
Political affiliation (0-4, 4 = republican)	-0.029** (0.014)	-0.039** (0.015)	-0.013 (0.018)	-0.030* (0.016)	-0.090*** (0.030)
Location (1 = rural)	0.089** (0.045)	0.086* (0.048)	0.156*** (0.056)	0.119** (0.050)	0.128 (0.094)
Public sector preference	0.085*** (0.020)	0.070*** (0.022)	0.125*** (0.026)	0.098*** (0.022)	0.147*** (0.040)
Previous experience with public nursing home (1 = yes)	0.096*** (0.036)	0.081** (0.039)	0.071 (0.046)	0.080* (0.042)	0.08 (0.076)
(Constant)	-1.868*** (0.104)	-1.833*** (0.112)	-1.555*** (0.140)	-1.736*** (0.116)	0.197 (0.209)
R ²	0.602	0.540	0.334	0.487	0.577
N	1471	1469	1463	1463	1491

Note: Robust standard errors in parentheses. Two-tailed tests of significance: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.