What Drives the Perceived Legitimacy of Collaborative Governance?

An Experimental Study

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Abstract

This study explores the perceived legitimacy of collaborative governance from a citizens' perspective. We use a preregistered online survey experiment to test the effect of three factors—representation, performance information, and issue complexity—on the perceived legitimacy of a collaboration. Findings from 1,470 U.S. respondents show that representation and positive performance information influence citizens' perceptions of collaborative governance legitimacy, while issue complexity has little impact. Additionally, heterogeneous treatment effects were found: respondents with low trust in public organizations factor representation more into their legitimacy perceptions of collaborative governance, while those with high trust in public organizations show little influence of representation.

Keywords: legitimacy, collaborative governance, survey experiment, representation, performance information

Introduction

Collaborative governance is increasingly used in diverse policy arenas to address public challenges that unilateral actions cannot solve (Ansell & Gash, 2008; Bryson, Crosby, & Stone, 2015; Emerson, Nabatchi, & Balogh, 2012). We use the term collaborative governance to refer to governing arrangements where people from different sectors or levels of government engage in policy decision-making and management that aims to achieve shared goals (Ansell & Gash 2008; Emerson, Nabatchi, & Balogh, 2012). In collaborative governance contexts, social actors from public, private, and nonprofit sectors engage in policy decision-making and implementation processes. Research has suggested that the potential benefits of collaboration across boundaries include increased effectiveness and efficiency, better knowledge management, and public value creation (Bingham & O'Leary, 2008; Page et al. 2015). Another commonly emphasized argument maintains that collaboration improves legitimacy (Sørensen & Torfing, 2009). The legitimacy of collaborative governance includes both the legitimacy perceived by collaboration members (i.e. internal legitimacy) and the legitimacy perceived by the general public or outside groups (i.e. external legitimacy) (Emerson & Nabatchi, 2015a).

Recent empirical evidence suggests that policymakers tend to avoid collaborative public service delivery models before elections (de la Higuera-Molina et al., 2021). The theory of opportunistic political cycles could explain why this is the case, as policymakers perceive that citizens dislike collaborative arrangements and this can influence their electoral support. At the same time, citizens' perceptions of a governing entity have been noted as critical for obtaining political and financial resources, enhancing citizens' support for policy initiatives, and improving policy compliance and citizen satisfaction with public services (O'Leary & Vij, 2012; Riccucci & Van Ryzin, 2017; Schmidt, 2013). Several studies have examined bureaucratic legitimacy and

legitimacy-building in traditional government contexts. However, the literature offers little discussion about citizens' perceptions of collaborative governance legitimacy (Emerson & Nabatchi, 2015a; O'Leary & Vij, 2012). Moreover, we know very little regarding the mechanisms through which perceived legitimacy is enhanced in collaborative governance.

This study aims to fill this gap in the literature by asking the research question: *What drives the perceived legitimacy of collaborative governance?* To answer this question, we developed hypotheses about the basis of perceived legitimacy in collaborative governance, drawing on the public management literature that discusses citizens' perceptions of governing entities. Three broad theoretical lenses contribute to examining collaborative governance legitimacy. The first relates to representation in collaborative governance (Koski et al., 2018; Leach, 2006), which is expected to enhance governance legitimacy. The second is the logic model approach to performance evaluation applied to collaborative governance, which explains the relationship between performance and legitimacy (Emerson & Nabatchi, 2015b; Thomas & Koontz, 2011). The third is collaboration research that explains the rationale for adopting a collaborative approach, specifically the complexity of the issues in question (Klijn, Edelenbos, & Steijn, 2010; Krueathep, Riccucci, & Suwanmala, 2010). Drawing on these streams of research, this study examines the main factors affecting the perceived legitimacy of collaborative governance from a citizens' perspective.

We use a survey experiment to test the impact of three factors—representation, performance information, and issue complexity—on the perceived legitimacy of collaborative governance among a sample of the U.S. population. In the experiment, we randomly assigned 1,470 survey participants to experimental groups and presented different vignettes about a hypothetical collaborative governing arrangement. Participants were then questioned about their

perceptions of the governing arrangement. Findings suggest that representation and positive performance information have a positive effect on the perceived legitimacy of collaborative governance, while issue complexity has little impact. Further analyses illustrate heterogeneous treatment effects: the effect of representation is significant and positive in the respondents who have low trust in public organizations, while the effect is not significant among participants with high trust in pubic organizations.

This study's main contribution is two-fold. First, it echoes the literature's call to address the legitimacy of a governing entity, given the shift from bureaucratic to collaborative governance processes. Focusing on external legitimacy from a citizens' perspective, this study explicates the importance and challenges of legitimacy building in emerging governance settings. Secondly, this study presents a preliminary theory of the perceived legitimacy in the context of collaborative governance, involving variables such as representation, performance information, and issue complexity. By providing experimental evidence, this study offers both theoretical and practical implications for legitimacy-building in collaborative contexts.

The Legitimacy of Collaborative Governance

Legitimacy refers to "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995, p. 574). The importance of legitimacy for an organization to exist and sustain its status and viability has been well documented (see DiMaggio & Powell, 1991). In public management, for example, government legitimacy has been an important concept due to its role in gaining public support for policy decisions and citizens'

willingness to coproduce, which in turn influences broader policy outcomes (Schmidt, 2013; Riccucci & Van Ryzin, 2017; Tyler, 2006).

While much of legitimacy research in public management has examined organizational legitimacy in traditional government settings, very little research examines legitimacy in networked governance settings. The governing arrangements have shifted from a command-and-control bureaucracy to collaborative network settings (Bryson, Crosby, & Bloomberg, 2014; Getha-Taylor et al., 2019). A network of public agencies and non-state stakeholders comprise a governing entity. Hence, public management research focusing on the legitimacy of governing entities needs to include network legitimacy in the context of collaborative governance settings.[1]

Network legitimacy is a distinct concept from organizational legitimacy, but there has been relatively little research examining the legitimacy of networks (Provan, Kenis, & Human, 2008). Networks in public management, specifically goal-directed networks (Provan, Fish, & Sydow, 2007) or purpose-oriented networks (Nowell et al., 2019), have unique features that raise concerns about the definition of network legitimacy and how to establish and maintain it at the network level, rather than the individual or organizational level (Human & Provan, 2000; Milward & Provan, 2006). For public management networks that have policy decision-making authority and serve as a governing entity, the issue of network legitimacy is particularly important. Network actors need to establish recognition and acceptance conferred by both network members and external groups based on their perception of the network's goals,

[1] Since collaborative governance is based on cross-sector, multi-actor networks for joint decision-making, we draw on network management research to deepen our understanding of emerging governing arrangements. However, the difference between networks and collaborative governance should be noted. As Ansell and Gash (2008) have noted, "the institutionalization of a collective decision-making process is central to the definition of collaborative governance" (548).

processes, structures, and so on (Provan, Kenis, & Human, 2008). That is, network legitimacy must be addressed both internally and externally.

Internal legitimacy has been noted as one of the elements of shared motivation for collaborative governance regimes (Emerson & Nabatchi, 2015a). When participants acknowledge the collaborative network as an organizing form and share a sense of "networkness," they develop a shared motivation that fosters collaborative dynamics (Emerson & Nabatchi, 2015a; Provan, Kenis, & Human, 2008). Van Raaij (2006), in her study of four healthcare service delivery networks, suggests that network legitimacy perceived by network actors is one of the critical indicators for network success. Her findings indicate that internal legitimacy is higher when network participating professionals and managers are the initiators of the network than when a network is initiated by non-network members.

Establishing external legitimacy is also a key concern for network governance (O'Leary & Vij, 2012). External legitimacy refers to the legitimacy of collaborative governance perceived by external stakeholders, funders, clients, and the public. The external "face" of the network is critical in acquiring necessary resources and external support, which in turn influences network sustainability and success (Bryson, Crosby, & Stone, 2006; Milward & Provan, 2006). Emerson and Nabatchi (2015b) suggest that external legitimacy is a critical outcome of a collaboration that needs to be produced over time. Some studies have examined stakeholders' acceptance of collaborative networks (Sandstrom et al., 2014; Saz-Carranza & Longo, 2012), however, very little research directly investigates the external legitimacy of collaborative networks from a citizens' perspective.

Perceived legitimacy of collaborative governance from a citizens' perspective refers to "a generalized perception that the actions of a collaborating entity are desirable, proper, or within

some system of norms, beliefs, and definitions" (O'Leary & Vji, 2012, p. 514). A networked mode of governance has the potential to improve perceived legitimacy derived from enhanced participation and citizen engagement (Sørensen & Torfing, 2009). However, several issues may lead to weakening the legitimacy of the collaborative governing systems. First, public, private, and not-for-profit sector organizations have their own institutional logics they must follow when they seek to garner legitimacy. Thus, a collaboration may have competing institutional logics and different sources of legitimacy from each societal sector (Bryson et al., 2006; Saz-Carranza & Longo, 2012). Second, the public's unfamiliarity with the networked governing arrangements raises complications. Bryson et al. (2006) note that "a network or collaboration is not automatically regarded by others—insiders or outsiders—as a legitimate organizational entity because it is less understandable and recognizable than more traditional forms, such as bureaucratic structures" (47). Lastly, it's unclear in what ways different perceptions of multiple policy actors play a role in the legitimacy perceptions of the governing networks. It has been reported that citizens perceive public and private organizations differently (e.g., anti-public sector bias; see Marvel, 2015a, 2015b). Yet we know very little about how citizens perceive collaborative governing arrangements, which include actors from public, private, and nonprofit sectors. To fill the gap in the literature, this study explores external legitimacy from the citizens' perspective.

Determinants of Perceived Legitimacy of Collaborative Governance

Citizens' perceptions of governing arrangements are influenced by a variety of institutional, political, and societal factors (Lieberherr, 2016; Schmidt, 2013). Given the paucity of empirical research on the perceived legitimacy of collaborative governance, there is no comprehensive

theoretical framework to explain what drives collaborative governance legitimacy. Hence, this research draws from several literatures on legitimacy-building in bureaucracy and collaborative governance settings. Specific factors that have been found to inform the perceived legitimacy of governing arrangements are representation, performance information, and issue complexity that are described further below.[2]

Representation

Representation refers to "the extent to which constituent characteristics are reflected in governance structures, processes, and outputs" (Koski et al., 2018, p. 359). Representation in traditional government settings has been studied in three streams of research: passive, active, and symbolic representation (Riccucci & Van Ryzin, 2017). Passive representation refers to the extent to which public organizations reflect the general population with regard to demographic characteristics. Active representation indicates the interests of different groups within the general populations being represented in the governance processes by the actions of bureaucrats who belong to the group. Finally, the main idea of symbolic representation is that the social origins of a bureaucrat influence citizens' perceptions (who share those social origins) about the government legitimacy, regardless of the actions of bureaucrats (Riccucci & Van Ryzin, 2017). That is, the mere existence of bureaucrats from diverse social origins produces a sense of legitimacy among citizens, independent of the actual performance of government agencies.

[2] We focused on three factors based on our review of studies examining legitimacy in collaborative governance or networked settings. To identify relevant literature, we used Proquest database and searched for 'legitimacy' and 'network or collaboration or partnership or coalition or alliance' in public administration journals. The initial search resulted in twenty eight articles. Reviewing the articles from the search and other collaborative governance research from our own review of the literature, we drew the three elements for legitimacy building in collaborative governance.

The underlying logic behind collaborative governance is that collaboration enhances representation by involving diverse stakeholders in the governance processes, who are expected to advance their interests on the table (Johnston et al. 2011; Leach, 2006). Research has found that the composition of participants has a significant bearing on external legitimacy as well as collaborative processes (Koski et al., 2018; Sandstrom et al., 2014; Van Raaij, 2006).

A growing body of research on symbolic representation provides a theoretical basis for the relationship between representation and perceived legitimacy. Researchers have found that representation in bureaucracy increases citizens' perceptions of an agency's legitimacy, in terms of performance and trustworthiness (Riccucci et al., 2014; 2018), fairness (Roch et al., 2018; Riccucci et al., 2014; 2018), program satisfaction (Gade & Wilkins, 2013), and willingness to coproduce (Riccucci et al., 2016).

In traditional bureaucratic settings, scholars have used demographic characteristics of individual bureaucrats, such as gender and race, to assess representation. However, the notion of representation needs expansion in collaborative governance settings (Sørensen 2002; Taylor, 2018). An important factor to consider is identity at the organizational level (Koski et al., 2016) because the membership of collaborative networks is likely to be "intentionally structured to represent particular interests and types of organizations" (Carboni et al., 2017, p. 137). For example, Koski et al. (2018), in their study of representation in food policy councils in the U.S., examine the participating organizations' sector origin, type (e.g., government, nonprofit, private, tribe, university, etc.), and focus (e.g., food production, anti-hunger, food access, food justice, etc.). Mosley and Grogan (2013) call for more attention to the organizational representation in participatory processes.

This study focuses on sector orientation as an organizational identity variable in examining the effect of representation on the external legitimacy of collaborative governance. Public, private, and nonprofit organizations are subject to different institutional logics and their sector characteristics influence the organization's goal and role orientations (Koliba et al., 2018). They represent different constituencies in the policy-making processes, which in turn shapes the legitimacy perception of a governing entity. For external members including stakeholders and publics, who may lack detailed information about all the participating organizations, organizations' sector orientation can be a salient organizational identity and serve as the efficient information cues for legitimacy perception.

The analytical focus on sector representation is particularly important because collaboration research suggests that collaboratives often exclude important interests at the table and are predominantly composed of government officials (Sørensen & Torfing, 2009). Beierle and Konisky (2001) found that, in some cases of collaborative environmental planning, potential collaborators boycotted the collaborative arrangement "because they perceived it as a government-dominated" network (p. 522). Little is known about sector imbalance in the composition of collaborative governance participants and its impact on collaborative processes and outcomes.

Applying the symbolic representation idea to the context of collaborative governance, we expect that representation of a collaborative governing arrangement influences citizens' legitimacy perceptions. As discussed above, representation in collaborative contexts can be assessed based on organizational identities such as sector orientation. When a collaboration is composed of participants from public, private, and nonprofit sectors and their sector orientation is balanced, the collaboration's legitimacy is likely to increase. Collaborative public management

research also suggests the symbolic effects of the network member composition (Beierle & Konisky, 2001; Van Raaij, 2006). Therefore, we formulate the following hypothesis:

H1: Citizens will perceive a collaborative governance arrangement as more legitimate if it shows balanced sector representation (versus government-dominated).

Performance Information

The performance management literature has reported that government performance information influences citizens' perceptions of government. Citizens factor positive performance information into their attitudes toward government, including satisfaction with public services (James, 2011; Ho & Cho, 2017), trustworthiness (Porumbescue et al., 2019), and evaluation of government effectiveness (James & Moseley, 2014). Public disclosure of performance information empowers citizens to monitor administrative behaviours and hold government organizations accountable.

While several studies have examined the disclosure of performance information in traditional government settings, a notable paucity of empirical research examines the disclosure of performance information in collaborative governance. This is partly due to little agreement on the assessment of collaboration's performance (Emerson & Nabatchi, 2015b) and the multi-dimensions of collaborative outcomes (Page et al., 2015). A few attempts to measure collaboration's performance have explored internal members' perceptions (Van Raaij, 2006; Ulibarri, 2015). However, little is known on how citizens interpret the performance information of collaborative arrangements and how it influences citizens' perceptions about collaborative governing arrangements.

Emerson and Nabatchi's (2015b) performance matrix for collaborative governance regimes suggests that collaborative outputs influence external legitimacy. It suggests that citizens and

external stakeholders believe that a collaborative governing arrangement is useful and worthy when they perceive its actual performance. However, it is worth noting that it is harder for outside groups to assess the actual performance of a collaborative network. Whereas some experts and stakeholders may rely on their sources of data and look for more information at the expense of time and efforts to assess the network performance, it may not be the case for some other groups, particularly for the general public. Research has reported that citizens use information cues to guide their assessment when it is difficult to interpret government performance (James, 2011; James & Mosley, 2014). That is, information cues provide shortcuts for citizens and external stakeholders who lack detailed information about the collaborative actions to assess the performance and legitimacy of collaborative arrangements. Thus, we focus on the performance information that is simple and easy to interpret and expect that positive performance information influences citizens' perceptions of governing arrangements.

H2: Citizens will perceive a collaborative governance arrangement as more legitimate if its performance information is positive (versus negative).

Issue Complexity

One core driver of collaborative public management is the recognition of the complexity of public problems. Many policy problems are described as 'wicked problems' that lack a set of clear definitions, causes and effects, and solutions (Koliba et al., 2018; Rittel & Webber, 1973). Governments often lack adequate capabilities to address those intractable problems and need non-state actors' involvement. The recognition of persistent wicked problems and the limitations of single-sector efforts to address policy problems, particularly governments' unilateral actions, has led to the adoption of collaborative approaches in public management (Bryson et al., 2006;

Emerson, Nabatchi, & Balogh, 2012). Krueathep et al. (2010), in their study of network formation in Thai local governments, suggest that local governments are more likely to form networks when the policy issues are complex, specifically when more diverse stakeholders from different sectors are involved. Kalesnikaite and Neshkova (2021) also find that local governments facing a more severe policy issue, sea-level rise in their study, tend to engage in more cross-sectoral collaboration.

When a collaborative governing arrangement deals with highly complex, wicked problems, the rationale for collaboration is evident. Diverse actors' participation and interaction are expected to produce innovative policy solutions and thus help to deal with complexity constructively (Connick & Innes, 2003; Emerson & Nabatchi, 2015a; Moore & Hartley, 2008). Collaboration, by tackling the problems that unilateral government actions cannot solve, proves its value and builds legitimacy. However, when the policy issue in question is not complex and can be addressed by a traditional approach, the appeal of collaboration declines (Klijn et al., 2010). It is worth noting that collaboration comes at a cost. Coordination of diverse actors requires resource-consuming activities and management of conflicts and tensions, which may not appear in bureaucratic contexts (O'Leary & Vij, 2012). When collaboration is used to address problems that a single sector or fewer organizations can undertake, the collaborative arrangement may not be perceived as a legitimate governing entity. But on the other hand, we argue that when citizens perceive that the policy issues that governments must tackle are complex, they will understand the need to pull the resources from multiple actors in a collaborative venture. Hence, we hypothesize as follows:

> H3: Citizens will perceive a collaborative governance arrangement as more legitimate if its policy problems are complex (versus low issue complexity).

Study Context: Food policy councils

Food system governance provides a promising context for exploring the factors that influence the perceived legitimacy of collaborative governing arrangements. Over the last decades, food systems shifted from traditional government-oriented approaches to collaborative approaches, creating, for example, food policy councils (Bassarab et al. 2019; Koski et al., 2018). This has been construed as a new policy solution to address the increasing complexity of food system challenges. The emerging phenomenon of FPCs has been documented in countries including Germany (Sieveking, 2019), Australia (McCartan & Palermo, 2016), and Turkey (Kurtsal & Viaggi, 2020). FPCs in the U.S., for example, have grown rapidly, from 7 in 2000 to 288 councils in 2020 (Santo et al. 2021).

While FPCs vary in size, governance structure, funding sources, and operation levels (e.g., county, city, state, multi-state), what is common across cases is that FPCs involve diverse stakeholders in communities who work together to build a sustainable and equitable food system (Siddiki et al., 2015). The food council members collaborate to address the issues of maintaining nutritious food supplies, ensuring healthy food access to all demographic groups of the population, developing local food economy, to name a few (see Siddiki et al., 2015; Bassarab, Santo, & Palmer 2019). The membership of FPCs represents the richness of actors across different stages of the life cycle of food, including the phases of production, processing, distribution, and waste disposal, and across different policy priorities such as food procurement, anti-hunger, and food labour (Bassarab, Santo, & Palmer, 2019; Koski et al., 2018). FPCs also contain representatives from public, private, and nonprofit sectors who work in the fields of

public health, education, natural resource management, philanthropy, community development, and so on.

Both academic research and practice-oriented resources examining FPCs discuss the issues of representation, performance information, and issue complexity and also suggest that there is substantial variation in the FPCs' level of the three factors above. Siddiki et al. (2015), in their study of 18 FPCs in the U.S., find substantial variation in the diversity of council members and in issue foci each FPC has. Koski et al. (2018) examine descriptive and substantive representation in a regional food policy council and report discrepancies between the two forms of representation. While some FPCs provide publicly available reports on their collaborative actions and impacts, others provide little information on them (https://www.foodpolicynetworks.org/). To this end, understanding the three factors that are theoretically grounded as discussed above are practically relevant too.

Methods

Experimental Design

This study uses an online survey experiment to examine whether the representation, performance information, and issue complexity of a collaborative governing arrangement causally influence citizens' perceptions of the collaborative. Participants were presented with an announcement about a hypothetical collaborative governing arrangement and then asked about their perceptions and judgments. Local food system governance provided the context for the experiment. We chose food systems as the context for this study to minimize the potential impact of partisanship. We believe food systems are generally perceived as an important policy area, compared to other areas that are heavily affected by participants' predisposed values and beliefs, although they are

inherently complex and politically contentious.[3] To this end, food policy councils are used as an example of collaborative governance in this study.

The experiment began with two warm-up questions about trust in three sectors (public, private, and nonprofit) and the level of importance participants ascribe to the issue of food policy. These questions were included to prime participants to think about the survey topic following Riccucci et al.'s (2014, 2018) experimental design. Next, an attention check item was asked, phrased "To ensure participants read the questions, please select 7 on the scale." On the next screen, participants were informed that they would be asked to read a vignette about a hypothetical city named Addison and to answer questions as if they were residents of Addison. Participants were then randomly assigned to one of nine experimental groups (one control group and eight treatment groups). Once assigned, they read an introductory statement about a food policy council (see Appendix A).

Next, treatment groups read the experimental stimuli vignettes. The vignettes are identical except for the experimental manipulation of three dimensions—representation, performance information, and issue complexity. For the representation dimension, the composition of the council members in terms of the proportion of public, private, and nonprofit sector participants was varied (high representation: 30% government, 35% private, and 35% nonprofit; low representation: 80% government, 10% private, and 10 % nonprofit). Regarding performance information treatment, we chose to use easily interpreted information based on the information cues research in the performance management literature mentioned above. Positive and negative performance information was provided (high performance: a policy assessment score of 8.5 out

[3] For example, food policy councils aim to address social justice in terms of healthy food access and economic development (Bassarab, Santo, & Palmer 2019). For a discussion of social equity and inclusion in food councils, see Clark (2018).

of 10/ranking in the top eight out of 60 cities in the state; low performance: a policy assessment score 3.5 out of 10/ranking in the bottom eight out of 60 cities in the state). In terms of the issue complexity, the design posed two different policy problems (high complexity: ensuring access to healthy foods; low complexity: food service inspection). The result was a between-subject, 2 x 2 x 2 design in which three experimental factors (representation, performance information, and issue complexity) were included and, for each factor, two levels were designated (high and low). The control group did not receive any information about the three treatments.

Appendix A presents the vignettes used in the survey experiment. The values in the treatment information were determined based on a pretest with public management researchers (n=10) and a sample of survey participants from the online service Prolific (n=450) before the experiment (Prolific is described further in a later section). To simulate a realistic setting, we presented the vignettes on a page carefully mimicking a real food policy council web page. Given the online nature of the survey experiment, providing clear-cut instructions and survey design is important (Grimmelikhuijsen & Meijer, 2014). To ensure that participants read the vignettes and comprehended the treatment information presented, we required them to spend 20 seconds on the treatment information page before moving to the next page. Following the presentation of the statement, participants were asked questions about dependent variables and demographic characteristics. These questions appear in the following section.

Measures

The outcome of interest is the perceived legitimacy of collaborative governance. To measure the outcome, we used measures of legitimacy, fairness, trustworthiness, and reputation. Empirical studies of government legitimacy have used survey questions of legitimacy (Grimmelikhuijsen &

Meijer, 2015; Hinds & Murphy, 2007), fairness (Jacobs & Kaufmann, 2021; Licht et al., 2014; Roch et al., 2018), and trustworthiness (Riccucci et al., 2014; 2018). We added measures of bureaucratic reputation based on conceptual similarity to see the robustness of the findings.[4] The question items were adapted to the survey context. The items, their sources, and the Cronbach's alpha values are presented in Table 1. For each question, participants were asked to indicate how much they agree with the statements using a 7-point Likert-type scale. The variables were coded such that 1 represented the strongest disagreement and 7 represented the highest agreement.

Table 1

Following the measurement of the outcome variables, we included items of demographics (gender, race/ethnicity, age), socio-economic status (educational attainment, employment status, work experience sector, income), and political ideologies. We added a few questions about attitudes toward government in general and collaborative governance at the end, adapted from Battaglio (2009). These items were included to see the characteristics of the samples, compared to those of the population, and confirm the balanced assignment of treatment groups. The items were refined based on the pretest results. All of the items used are available in the pre-registration of this study at the Open Science Framework (OSF), available at https://osf.io/hm8wy/?view_only=a26629e2ac1f4ed1a56ae5e061d47cfd.

[4] Bureaucratic reputation is defined as "a set of symbolic beliefs about the unique or separable capacities, roles, and obligations of an organization, where these beliefs are embedded in audience networks" (Carpenter 2010, p. 45). Both bureaucratic reputation and perceived legitimacy refer to a generalized perception and favorable/unfavorable opinion about a governing entity. But the difference is that bureaucratic reputation is defined at the organizational level and has specific subdimensions, including performance, morality, procedure, and technical competence (see Carpenter, 2010).

Participants

The study participants were recruited via Prolific, an online research platform on which people participate in posted data collection initiatives and receive payments in exchange. Researchers have recognized the value of online research platforms, which allows for the recruitment of a large and diverse set of participants at a low cost and simplifies the administration of online survey experiments (Strith et al., 2017). Although this recruitment is not a random sampling process, resulting in an issue of representative sampling, research in the fields of public management, political science, and psychology has reported that experimental findings from online research platforms are as valid and reliable as those from traditional methods (Berinsky et al., 2012; Buhrmester et al., 2011). We limited Prolific participants to representative U.S. adults age 18 and older.

The initial sample of this study includes 1,503 U.S. adults. This sample size was determined from a priori power analysis conducted on G*Power software. The calculation with an effect that is small in size (0.1) at 80 percent power given $\alpha = 0.05$ yielded the number of 1,500. Thirty-three participants were removed based on recommendations from past research (e.g., Stritch et al., 2017): a) 29 participants took an unusually short or long time to complete the survey experiment (i.e. less than 100 seconds or more than 20 minutes; the average completion time is 387 seconds with 564 standard deviation); b) two participants did not answer one of the outcome variable questions, and c) two participants failed to answer the attention check included in this study. The final sample consisted of 1,470 participants. Descriptive demographics for the study sample are shown in Appendix B. Based on the demographic statistics, we conducted a balance test to check for statistically significant differences in sociodemographic characteristics

across the nine experimental groups and found a balanced assignment of nine experimental groups (Appendix C). This indicates that randomization in the experiment was successful.

Analysis and Results

To test the effect of three treatments—representation, performance information, and issue complexity—on the perceived legitimacy of collaborative governance, we compare the outcome variable values by experimental groups. Because survey experiment participants were randomly assigned to each experimental group (eight treatment groups and one control group), and the randomization was successful (as shown in the balance test results), any group mean differences in the outcome variables can be attributed to the treatment effect. First, we present group differences in terms of four outcome variables, and the ANOVA results in Table 2. The ANOVA results indicate that the group mean differences are statistically significant. Interestingly, participants were more positive about the control group vignette without treatment information (Group 9) than when low-performance and/or low-representation information was presented (Group 2-4, 6-8). This could indicate that collaborative governance is generally viewed as legitimate, but this perception is supported or undermined by certain features of collaborative governance such as representation and performance (further discussed below).

Table 2

Table 3 shows the results of regression analyses, which confirm the mean difference results above. To test the effect of each treatment relative to the control group (coded as 0), the representation factor was coded as 1 = “high representation,” -1 = “low representation”; the

performance factor was coded as 1 = “high performance information,” -1 = “low performance information”; and the issue complexity factor was coded as 1 = “high complexity,” -1 = “low complexity.” This way of coding allows us to examine the effect of each treatment in relation to the control group. Model 1 through 4 in Table 3 shows the results, respectively, for legitimacy, fairness, trustworthiness, and reputation.

Table 3

The OLS regression analysis results show a large and positive performance information effect on four outcome variables (Figure 1). The coefficients of representation are positive and significant. These findings lend support for H1 and H2: the sector representation and performance information treatments have a positive effect on the respondents’ perceived legitimacy of the collaborative governing arrangement. These results are shown across the outcome variables included in this study. However, the results do not support H3. The estimates for the issue complexity treatment in relation to the outcome variables are not significant in Models 1 and 4, and negative in Models 2 and 3, as shown in Table 3. That is, when the policy issue is more complex and the interests of council members are tangled (‘ensuring access to healthy foods’ in this study), respondents are less likely to perceive the policy council as fair and trustworthy.

Figure 1

In addition to the main OLS results, we tested interaction effects between treatment factors, and no interaction effects were found. For each of the four outcome variables, we estimated a model specification that includes the demographic variables as control variables (Appendix D). The results show similar treatment estimates to those in models without control variables. Additionally, we ran ordered logistic regressions because four outcome variables are labelled 7-point scales (Appendix E). The results correspond to those shown in Table 3.

Exploratory Analysis: Heterogeneous Treatment Effects

One rationale for this research points to the lack of knowledge on how general perceptions of organizations from different sectors (i.e., public, private, and nonprofit) affect the legitimacy perceptions of collaborative governance. Research has indicated that people have negative implicit attitudes about public organizations, also known as anti-public sector bias (Marvel, 2015a, 2015b; Baekgaard & Serritzlew, 2016). We might expect that respondents with negative attitudes about public organizations are more likely to look for sector representation in the governing arrangements, and to factor sector representation more heavily into their legitimacy judgments on collaborative governance. For this reason, we examined the possible heterogeneous treatment effects across respondents with high versus low trust in public organizations. Using the question, "Please indicate how much trust you have in public organizations (e.g., government) in general. Use a 7-point scale on from 1 ('no trust at all') to 7 ('complete trust')," we split the sample into two subgroups based on the mean value (4.04) of the item: high trust (above the mean) and low trust (below the mean) groups.

Table 4 shows the regressions for two subgroups, one with high trust in public organizations and the other with low trust in public organizations. The results for subgroups

mostly parallel those for the full sample: the performance effect is positive and significant and the issue complexity effect is either not significant or negative. However, interestingly, the effect of representation is different across the two subgroups. The effect of sector representation is significant and positive among the participants who have low trust in public organizations, while the representation effect is not significant among the participants who have high trust in public organizations (except in a model of fairness). In other words, respondents with low trust in public organizations, which can be arguably interpreted as a proxy for anti-public sector bias, factor the composition of collaborative councils (the proportion of public, private, and nonprofit sector actors) into their assessments of collaborative governance legitimacy more heavily than respondents with high trust in public organizations. This indicates that respondents who have low trust in public organizations rated government-dominated collaborative arrangements more negatively.

Table 4

Additional analyses of heterogeneous treatment effects were conducted among participants with different features such as income, political ideology, societal sector of work experience, and the level of political efficacy. The results did not present heterogeneous treatment effects across subgroups and are not reported here.

Discussion and Conclusion

The legitimacy of a governing entity is a critical component of democratic governance. Citizens' perceptions of governance systems determine whether (and how much) they provide support for

the policy decisions or actions in the governance processes. Scholars have paid considerable attention to understanding bureaucratic legitimacy and its determinants or consequences for traditional modes of governance. However, the issue of legitimacy has been understudied in settings where non-state actors participate in policy decision-making and implementation, namely collaborative governance.

To fill this gap in the literature, this study examines what drives the perceived legitimacy of collaborative governance, focusing on three factors—representation, performance information, and issue complexity. Using the context of food policy councils as an example of collaborative governance, we implemented a survey experiment to test hypotheses about drivers of the perceived legitimacy of collaborative governance. The results offer an interesting mix of findings and possible important contributions to legitimacy-building in collaborative governance.

First, the results demonstrate that positive performance information has a robust positive influence on participants' perceptions of collaborative governance. Among the three aspects of collaborative governance examined in this study, performance information has the largest effect on the level of perceived legitimacy and the effect is consistent across four outcome variables. This finding underscores the importance of providing performance information on collaborative governance to the public: such data can shape citizens' attitudes toward the collaborative and better solicit their support. This aligns with the study by Porumbescu et al. (2019), which showed that performance information contributes to improving government trustworthiness and willingness to participate in coproduction programs. A significant body of research explained the impact of performance information on citizens' attitudes and perceptions in traditional government settings. The same seems to apply in this study, but more research is needed to

understand the impact of performance information on the attitudes and perceptions of network members and external stakeholders.

Secondly, the causal effect of representation on legitimacy perceptions is significant and positive in the experiment results. This study focused on three-sector representation and varied the composition of collaborative governance participants by sector origin. The findings indicated that those who were assigned to the balanced sector representation condition assessed the collaborative governing arrangement more favourably. The role of representation in network members' perceptions has been reported in previous research (Beierle & Konisky, 2001; Sandstrom et al., 2014); however, little is known about the effect of representation on external perceptions. This study provides evidence to suggest that involving diverse stakeholders, specifically with a balance of actors from public, private, and nonprofit sectors, is critical for obtaining legitimacy from the public.

In addition, subgroup analysis results suggest that the effect of representation on perceived legitimacy is robust and positive in respondents with low trust in public organizations while respondents with high trust in public organizations do not exhibit the effect of representation. This finding indicates that individuals with low trust in government perceive cross-sector collaborations with greater representation to be more legitimate than do those with high trust in government. It is likely that those who have low trust in public institutions recognize the limitations of the government's unilateral actions and view collaborative governance as a way to address these limitations. In contrast, those with high trust in government might not see a difference between a collaborative network predominantly composed of public officials and one with a more balanced three-sector representation, at least in terms of achieving the network goals. The decline in citizen trust in government over recent decades reinforces the

importance of this heterogeneous treatment effect.

Thirdly, the results lend little empirical support to the expected positive effect of issue complexity on perceived legitimacy. In the analyses of fairness and trustworthiness perceptions, the effect of issue complexity is negative. This finding suggests that people understand the challenges of addressing complex policy issues and expect less fairness or trustworthiness from the governing arrangement when the policy issue is complex and intractable. The results of legitimacy and reputation perceptions indicate that citizens do not associate the legitimacy of collaborative governing arrangements with the complexity of policy issues. These mixed findings suggest that the characteristics of policy issues may not be salient to the general public. Previous research documents the importance of the network's topic and its complexity in network formation and internal members' perceptions (Krueathep et al., 2010; Van Raaij, 2006). It is thus possible that issue complexity influences internal members' legitimacy perceptions, rather than citizens' perceptions. More research is needed to understand how the characteristics of policy issues affect the perceived legitimacy of collaborative governance.

Taken together, the findings provide practical implications. First, collaborative governance participants must pay attention to the perceived legitimacy of their network. Perceived legitimacy of collaborative governance is critical for obtaining support from external stakeholders and the general public (Emerson & Nabatchi, 2015a). Secondly, to garner legitimacy from citizens, collaborative networks need to publish their collective achievements and performance information. The findings might mislead network managers to disseminate performance information selectively, for example, good performance only; however, they should recognize that transparency strengthens legitimacy (Curtin & Meijer 2006). Research has found that performance information with benchmarks is effective in communicating performance

information (Baekgaard & Serritzlew, 2016). Network managers can use as benchmarks the measures of similar collaborative networks (social comparison) or their prior performance (historical comparison). Lastly, collaborative governance participants should pay attention to representation and develop inclusive collaborative practices. Research suggests that representation in collaborations enhance critical outcomes including external legitimacy, problem-solving capacity, and public value creation (Quick & Feldman, 2011; Hui, Ulibarri, & Cain, 2020).

Finally, study limitations need to be considered. Study findings are drawn from an experimental design, which renders high internal validity. A randomized survey experiment allows for a causal interpretation. However, this study's design involves tradeoffs. First, it does not examine citizens' perception of actual collaborative governance cases but instead relies on a hypothetical case in an online survey. The survey experiment, conducted online, did not expose respondents to real governing arrangements and thus limits the ability to generalize findings. Future research may explore the external legitimacy of networks in real settings and different policy contexts, by using field experiments, interviews, or surveys. Besides, the experimental stimuli used in this study involved the manipulation of several sentences of text in the survey. The intensity of treatment might be weak. We did not include manipulation checks, because asking about treatment effects might prime participants to consider particular factors. For example, participants might have not perceived the difference between high and low issue complexity.

In particular, the operationalization of representation in collaborative contexts needs further exploration. While sector-balanced and government-dominated policy councils are compared in this study, the criteria for assessing representation may vary across contexts and

other forms with the lack of representation could be problematic (e.g., industry-dominated environmental planning). Moreover, sector orientation is one of the organizational identities at play in collaborative governance. While sector orientation might be applicable across diverse contexts, future studies might expand to examine what the main organizational identities are in a certain context and if and how organizational identities interact with individual identities such as race and gender. Additionally, while this study focuses on symbolic representation in collaborative contexts, future research is needed to understand the role of both passive and active representation and the potential gap between them (see Koski et al, 2018; Hui, Ulibarri, & Cain 2020) in legitimacy building of collaborative governance. Active representation of diverse stakeholders and inclusive collaboration practices, compared to passive representation, might have a larger effect on legitimacy perception.

Nevertheless, this study is the first study to examine the perceived legitimacy of collaborative governance from a citizens' perspective and invites more research on this topic. Further research on the determinants of collaborative governance legitimacy could lead to a comprehensive model of legitimacy-building in the context of collaborative governance. Legitimacy has been discussed regarding input, throughput, and output (Lieberherr, 2016; Schmidt, 2013). Studies of input legitimacy examine issues of representation, inclusion, and participation, while throughput legitimacy is connected to decision-making rules and process transparency. Output legitimacy is concerned with policy outcomes and effectiveness. While this study illuminated the input and output dimensions of legitimacy, future research can examine throughput legitimacy by exploring the effect of transparent decision-making practices. Procedural legitimacy in collaborations involves procedural rationality, procedural justice, and operational control (Page et al. 2015). Exploring other determinants of collaborative governance

legitimacy would advance our understanding of the issue of legitimacy in contemporary governance settings.

Tables and Figures

Table 1. Measures of perceived legitimacy

Variable	Items (*response options: 1= strongly disagree, 7 = strongly agree*)	Source
Legitimacy	Policy decisions made by the Addison Food Policy Council are legitimate. I have much respect for the work of the Food Policy Council. (*alpha* = .90)	Grimmelikhuijsen & Meijer (2015); Hinds & Murphy (2007)
Fairness	The Addison Food Policy Council is fair in its decision-making processes. The Addison Food Policy Council distributes the benefits of its policy in a fair way. (*alpha* = .94)	Licht et al. (2014); Roch et al. (2018)
Trustworthiness[5]	The Addison Food Policy Council works efficiently. The Addison Food Policy Council is skilful. The Addison Food Policy Council is professional. The Addison Food Policy Council acts in the interest of citizens. The Addison Food Policy Council is genuinely interested in the well-being of citizens. The Addison Food Policy Council is sincere. The Addison Food Policy Council is honest. The Addison Food Policy Council is not corrupt. (*alpha* = .96)	Grimmelikjuijsen & Meijer (2014); Porumbescu (2017)
Reputation	The Addison Food Policy Council performs well in policy-making. The Addison Food Policy Council is good at dealing with complex situations. The Addison Food Policy Council is politically neutral. The Addison Food Policy Council has a positive influence on the city. (*alpha* = .90)	Lee & Van Ryzin (2019); Overman et al. (2020)

Table 2. Perceived legitimacy by group

	Represent-ation	Performan-ce	Complexit-y	Legitimacy Mean SD	Fairness Mean SD	Trustworthi-ness Mean SD	Reputation Mean SD
1	High	High	High	5.63	5.41	5.38	5.11

[5] We use Grimmelikjuijsen & Meijer's (2014) items of trustworthiness that capture three subdimensions of trustworthiness—benevolence, competence, and honesty.

				.99	1.02	.96	.99
2	High	Low	High	3.90	3.96	3.81	3.46
				1.49	1.39	1.37	1.42
3	Low	High	High	5.39	4.98	5.15	4.89
				1.09	1.17	1.09	1.13
4	Low	Low	High	3.88	3.57	3.77	3.36
				1.39	1.37	1.30	1.39
5	High	High	Low	5.87	5.63	5.64	5.44
				.87	.93	.87	.82
6	High	Low	Low	3.76	4.16	3.83	3.43
				1.55	1.37	1.40	1.36
7	Low	High	Low	5.48	5.16	5.34	5.06
				1.22	1.38	1.17	1.15
8	Low	Low	Low	3.86	3.73	3.77	3.30
				1.46	1.40	1.33	1.30
9	Control group			5.55	5.32	5.38	5.08
				.99	1.02	.91	.99
ANOVA F (Prob>F)				89.22 (.000)	67.34 (.000)	84.35 (.000)	98.81 (.000)

Table 3. OLS regression analysis results

	Legitimacy	Fairness	Trustworthiness	Reputation
	1	2	3	4
Representation	.069*	.216***	.079**	.103***
	(1.94)	(6.20)	(2.39)	(3.07)
Performance	.870***	.718***	.790***	.868***
	(24.66)	(20.64)	(23.89)	(25.86)
Issue complexity	-.021	-.096***	-.058*	-.054
	(-.60)	(-2.76)	(-1.76)	(-1.59)
Constant	4.812***	4.657***	4.672***	4.347***
	(144.33)	(141.70)	(149.55)	(137.06)
N=1,470				
R-squared	.29	.24	.28	.31
(F)	(204.04)***	(157.29)***	(193.15)***	(226.92)***

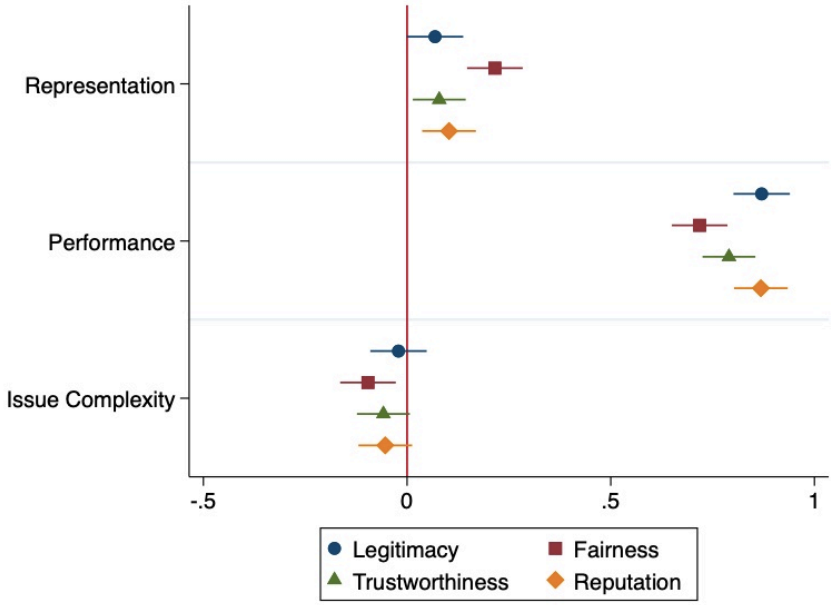
Note: * p<.1; ** p<.05; *** p<.01; t statistics in parentheses.
Reference group is the control group. High and low treatment levels coded 1 and -1 respectively.

Table 4. Heterogeneous treatment effects across respondents with high vs. low trust in public organizations

	Legitimacy		Fairness		Trustworthiness		Reputation	
	High trust	Low trust	High trust	Low trust	High trust	Low trust	High trust	Low trust
Representation	-.02	.12**	.12**	.27***	-.02	.13***	.02	.15**
	(-.33)	(2.57)	(2.27)	(6.04)	(-.35)	(3.09)	(.46)	(3.46)
Performance	.92***	.84***	.78***	.69***	.80***	.79***	.90***	.85***
	(17.68)	(18.03)	(14.78)	(15.18)	(16.75)	(18.23)	(17.58)	(19.77)
Issue complexity	-.05	.00	-.10*	-.09**	-.06	-.06	-.07	-.04
	(-1.05)	(.09)	(-1.90)	(-2.03)	(-1.21)	(-1.39)	(-1.28)	(-1.04)
Constant	5.08***	4.63***	4.94***	4.47***	5.00***	4.44***	4.63***	4.15***
	(103.39)	(105.31)	(100.39)	(104.34)	(110.41)	(108.82)	(95.33)	(102.40)
N	607	863	607	863	607	863	607	863
R-squared	.34	.27	.28	.23	.32	.29	.34	.32
F	105.7***	110.7***	76.9***	89.9***	95.1***	114.2***	104.8***	134.4***

Note. * p<.1; ** p<.05; *** p<.01; t statistics in parentheses;
Reference group is the control group. High and low treatment levels coded 1 and -1 respectively.

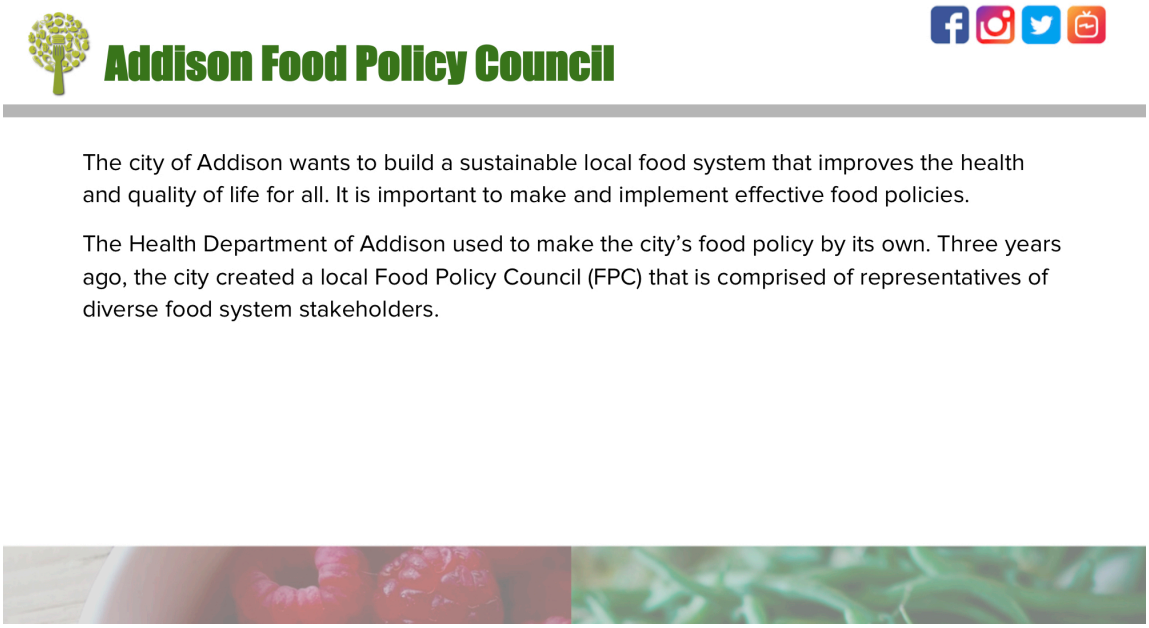
Figure 1. OLS regression coefficient estimates (95% confidence intervals)



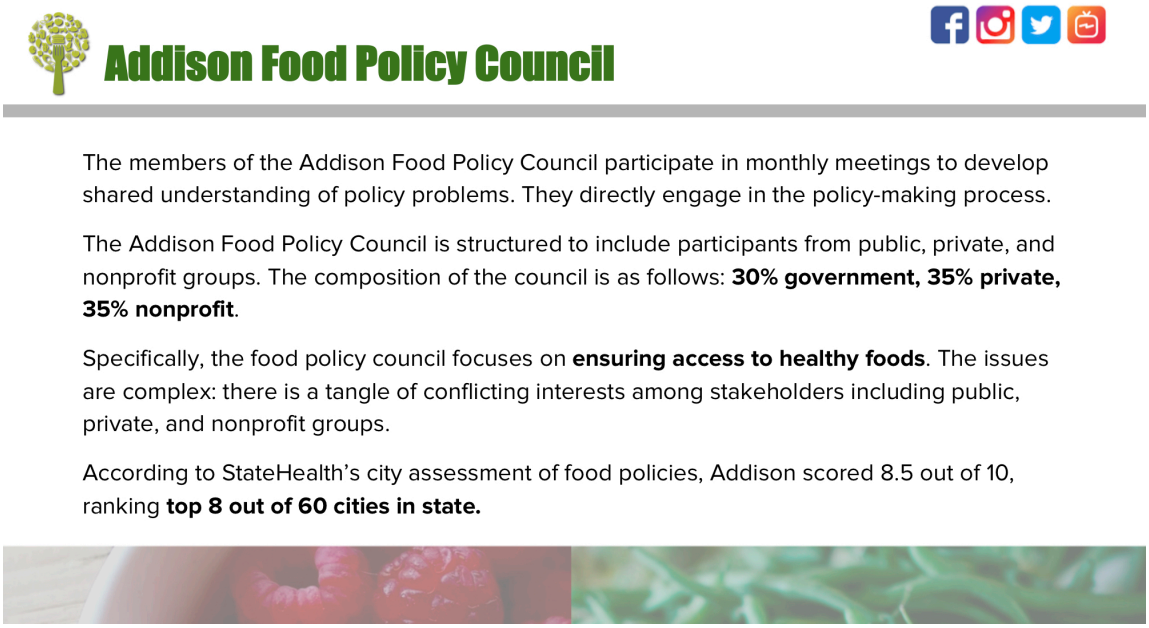
Appendices

Appendix A. Experimental Vignette

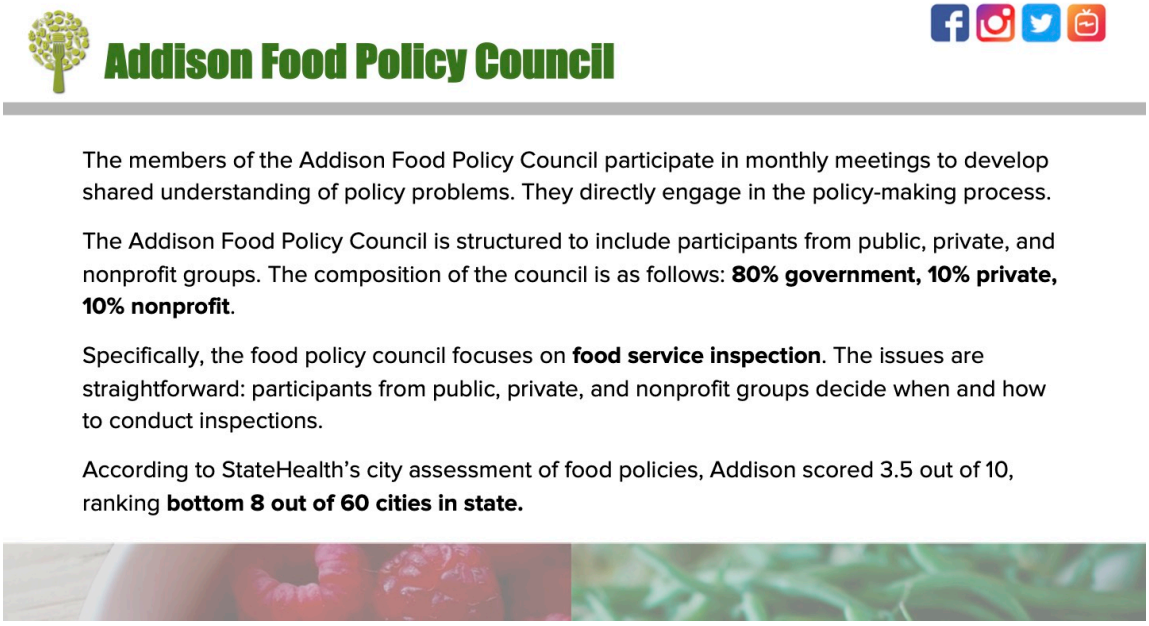
1. Instruction page for both treatment and control groups:



2. On the following page, treatment vignettes are presented. The vignette page for the treatment group of high representation * high performance * high issue complexity appears below:



The treatment group of low representation * low performance * low issue complexity reads the page below:



The control group reads the page below:

Appendix B. Descriptive statistics and comparisons with the General Social Survey (GSS)

	Study sample (Frequency)	Study sample (Percent)	GSS (Percent)
Gender			
Female	747	50.82	54.10
Male	723	49.18	45.68
Age			
18-34	482	32.79	22.4
35-49	362	24.63	26.7
50-64	399	27.14	24.9
65-	227	15.44	26.0
Education			
Less than high school	11	.75	3.88
High school	128	8.74	37.01
Some college	325	22.18	21.15
Two-year college degree	145	9.9	
Four-year college degree	554	37.82	23.76
Postgraduate	302	20.61	14.2
Don't know/Refuse to answer	5	.34	.13
Race/Ethnicity			
White or Caucasian	1,089	74.08	72.10
Black or African American	188	12.79	16.40
American Indian or Alaska Native	6	.41	11.50
Asian or Asian-American	97	6.6	
Hispanic or Latino	64	4.35	
Native Hawaiian or Pacific Islander	1	.07	
Other	18	1.22	
Don't know/Refuse to answer	7	.48	
Party ID			
Democrat	736	50.07	44.84
Independent	389	26.46	17.88
Republican	289	19.66	33.96
Other	38	2.59	3.33
Don't know/Refuse to answer	18	1.22	-
Ideology			
Extremely liberal	203	13.81	
Liberal	425	28.91	
Slightly liberal	200	13.61	
Moderate	241	16.39	

Slightly conservative	147	10	
Conservative	180	12.24	
Extremely conservative	59	4.01	
Don't know/Refuse to answer	15	1.02	
Income			
Less than $30,000	345	23.47	28.52
$30,000 to $60,000	439	29.86	26.16
$60,000 to $90,000	288	19.59	17.75
More than $90,000	377	25.65	27.57
Don't know/Refuse to answer	21	1.43	
Sector worked			
Public	234	15.92	
Private	1,032	70.2	
Nonprofit	139	9.46	
Other	26	1.77	
Don't know/Refuse to answer	39	2.65	
N=1,470			

Note. The last column provides characteristics of the General Social Survey (GSS) 2018 sample (http://gss.norc.org/). Overall, the sample of this study is representative in terms of gender, age, race, and income. Compared to the GSS sample, the sample overrepresents college graduates and Democrats, but the difference is not relatively large.

Appendix C. Balance Test

Group (N)	A (168)	B (165)	C (165)	D (164)	E (165)	F (164)	G (163)	H (157)	I (159)	$\chi 2$/df, p
Gender										
Female	46.42	52.12	57.57	45.12	56.36	57.31	44.17	47.77	50.31	14.8/8, .06
Age										
18-34	30.95	33.94	29.70	34.57	37.20	31.90	37.04	31.21	29.56	14.5/24, .93
35-49	26.79	20.61	29.09	27.16	21.34	22.09	24.69	25.48	25.16	
50-64	27.98	27.88	28.48	26.54	29.88	34.97	28.40	29.30	30.19	
65-	14.29	17.58	12.73	12.96	12.20	11.66	10.49	14.01	15.09	
Education										
Less than high school	.60	2.42	.61	0	1.21	.61	.61	0	.63	
High school	10.71	7.27	10.3	6.71	7.27	9.76	7.36	10.83	8.18	
Some college	21.43	23.03	18.79	21.34	18.18	23.17	26.99	17.2	28.93	

Two-year college degree	13.10	7.88	11.52	10.98	13.94	10.98	4.29	8.92	6.92	44.6/ 40, .29
Four-year college degree	39.29	39.39	36.97	37.8	40	34.15	33.74	43.31	34.59	
Postgraduate	14.88	20	21.82	21.95	18.79	20.73	26.38	19.75	20.75	
Don't know/Refuse to answer	0	0	0	1.22	.61	.61	.61	0	0	
Race/Ethnicity										
White or Caucasian	73.21	75.76	69.7	70.12	75.76	72.56	73.01	78.98	77.99	
Black or African American	17.26	10.91	14.55	13.41	12.73	12.8	11.66	8.92	12.58	
American Indian or Alaska Native	0	0	0.61	1.22	0	1.22	0	0	.63	
Asian or Asian-American	5.95	7.88	7.88	6.1	6.06	6.1	6.75	7.01	5.66	
Hispanic or Latino	2.98	4.24	4.84	7.32	4.24	5.49	5.52	1.91	2.52	39.1/ 48, .82
Native Hawaiian or Pacific Islander	0	0	.61	0	0	0	0	0	0	
Other	.6	1.21	1.21	1.83	1.21	1.22	2.45	1.27	0	
Don't know/Refuse to answer	0	0	.61	0	0	.61	.61	1.91	.63	
Party ID										
Democrat	50.6	50.91	47.27	45.73	52.73	56.1	54.6	46.5	45.91	
Independent	27.38	25.45	29.7	32.32	21.21	19.51	22.7	29.94	30.19	
Republican	18.45	18.18	16.36	18.9	24.85	18.9	19.02	21.02	21.38	27.1/ 24, .30
Other	1.79	4.24	4.85	1.22	1.21	3.66	2.45	1.91	1.89	
Don't know/Refuse to answer	1.79	1.21	1.82	1.83	0	1.83	1.23	.64	.63	
Ideology										
Extremely liberal	16.67	18.79	10.91	9.76	13.94	8.54	13.5	15.29	16.98	
Liberal	28.57	27.27	30.91	29.27	28.48	32.32	32.52	27.39	23.27	
Slightly liberal	10.71	11.52	12.12	15.24	15.76	15.24	14.72	12.1	15.09	
Moderate	18.45	14.55	21.21	20.73	12.12	17.07	15.95	13.38	13.84	48.1/ 48, .46
Slightly conservative	10.12	10.91	9.7	9.76	10.91	9.76	4.91	12.74	11.32	
Conservative	11.31	11.52	10.3	12.2	15.15	9.15	11.04	16.56	13.21	
Extremely conservative	1.79	4.85	4.24	2.44	3.03	6.71	5.52	2.55	5.03	

Don't know/Refuse to answer	2.38	.61	.61	.61	.61	1.22	1.84	0	1.26	
Income										
Less than $30,000	23.81	20.61	29.7	22.56	20.61	26.22	22.09	24.2	21.38	
$30,000 to $60,000	28.57	28.48	29.7	26.83	30.3	33.54	30.06	29.94	31.45	
$60,000 to $90,000	18.45	18.79	18.18	21.34	24.24	14.63	16.56	22.93	21.38	18.9/ 24, .76
More than $90,000	27.38	30.3	20.61	27.44	23.64	25	30.06	21.66	24.53	
Don't know/Refuse to answer	1.79	1.82	1.82	1.83	1.21	.61	1.23	1.27	1.26	
Sector worked										
Public	14.29	16.97	19.39	15.24	11.52	18.9	17.18	13.38	16.35	
Private	70.83	71.52	67.27	71.95	71.52	62.8	73.62	77.07	65.41	
Nonprofit	10.12	7.88	9.09	8.54	12.12	11.59	4.91	6.37	14.47	35.47
Other	.6	.61	.61	3.05	.61	3.05	.61	0	2.52	/24, .06
Don't know/Refuse to answer	10.72	8.49	9.7	11.59	12.73	14.64	5.52	3.2	1.26	

Appendix D. OLS Results (Control Variables Included)

	Legitimacy	Fairness	Trustworthiness	Reputation
Representation	.057	.209***	.075**	.105**
	(1.56)	(5.85)	(2.19)	(3.04)
Performance	.890***	.733***	.800***	.877***
	(24.53)	(20.53)	(23.47)	(25.43)
Issue complexity	-.009	-.10***	-.054	-.052
	(-.25)	(-2.92)	(-1.59)	(-1.53)
Female	.014	-.036	-.030	.027
	(.20)	(-.53)	(-.47)	(.41)
Age	-.001	.000	-.002	-.005*
	(-.32)	(.09)	(-.64)	(-1.83)
Race (reference: white)				
American Indian or Alaska Native	-.381	.444	.269	.466
	(-.66)	(.78)	(.49)	(.85)
Asian or Asian-American	.022	-.068	-.128	.022
	(.15)	(-.48)	(-.94)	(.16)

Black or African American	.007	.149	.140	.201*
	(.07)	(1.40)	(1.37)	(1.95)
Hispanic or Latino	-.474***	-.439***	-.370**	-.251
	(-2.78)	(-2.61)	(-2.31)	(-1.55)
Native Hawaiian or Pacific Islander	.262	.846	.068	-.136
	(.20)	(.67)	(.06)	(-.11)
Other	-.183	-.588*	-.525	-.580*
	(-.53)	(-1.72)	(-1.61)	(-1.76)
Education (reference: less than high school)				
High school	-.034	-.207	-.214	-.283
	(-.07)	(-.42)	(-.45)	(-.59)
Some college	-.136	-.300	-.325	-.366
	(-.27)	(-.61)	(-.70)	(-.78)
Two-year college degree	-.062	-.167	-.278	-.349
	(-.12)	(-.34)	(-.59)	(-.73)
Four-year college degree	.017	-.243	-.258	-.356
	(.03)	(-.50)	(-.56)	(-.76)
Postgraduate	.045	-.246	-.319	-.364
	(.09)	(-.50)	(-.68)	(-.77)
Employment (reference: employed)				
Self-employed	-.157	-.247**	-.264**	-.176*
	(-1.42)	(-2.27)	(-2.54)	(-1.67)
Currently unemployed, looking for work	-.066	-.122	-.156	-.091
	(-.44)	(-.84)	(-1.12)	(-.65)
Currently unemployed, not looking for work	-.232	-.119	-.187	-.099
	(-1.39)	(-.73)	(-1.20)	(-.62)
Retired	-.092	-.132	-.153	-.107
	(-.75)	(-1.10)	(-1.33)	(-.92)
Student	.127	.125	.143	.069
	(.76)	(.76)	(.91)	(.43)
Other	-.082	-.151	-.229	-.255
	(-.43)	(-.79)	(-1.27)	(-1.40)
Sector (reference: private)				
Nonprofit	-.048	-.052	-.136	-.086
	(-.39)	(-.44)	(-1.19)	(-.74)
Public	-.086	-.093	.017	-.019
	(-.89)	(-.97)	(.19)	(-.20)
Other	.304	.108	.116	.226

	(1.01)	(.36)	(.41)	(.79)
Income (reference: Less than $30,000)				
$30,000 to $60,000	.023	.008	-.013	-.095
	(.24)	(.08)	(-.14)	(-1.04)
$60,000 to $90,000	.074	-.019	-.000	-.089
	(.68)	(-.19)	(-.01)	(-.86)
More than $90,000	.003	.035	.028	-.024
	(.02)	(.34)	(.29)	(-.24)
Constant	4.934***	4.999***	5.145***	5.021***
	(9.57)	(9.85)	(10.62)	(10.24)
N=1,405				
R-squared	.308	.255	.293	.332
F	61.96***	47.83***	57.69***	69.13***

Note. * p<.1; ** p<.05; *** p<.01; t statistics in parentheses
Reference group is the control group. High and low treatment levels coded 1 and -1 respectively.

Appendix E. Ordered Logit Results

	Legitimacy 1	Fairness 2	Trustworthiness 3	Reputation 4
Representation	.103**	.294***	.096**	.145***
	(2.11)	(5.98)	(2.02)	(3.05)
Performance	1.177***	.989***	1.123***	1.228***
	(20.84)	(18.33)	(20.38)	(21.52)
Issue complexity	-.060	-.155***	-.114**	-.090*
	(-1.25)	(-3.19)	(-2.38)	(-1.89)
N = 1,470				
Likelihood ratio $\chi 2$	495.19 (df=3)***	400.45 (df=3)***	469.77 (df=3)***	534.96 (df=3)***
Pseudo R^2	.072	.060	.036	.059

Note. * p<.1; ** p<.05; *** p<.01; z statistics in parentheses;
Reference group is the control group. High and low treatment levels coded 1 and -1 respectively.

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