

Different Processes, Different Outcomes?

Assessing the Individual-Level Impacts of Public Participation

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Abstract

This study empirically investigates the relative efficacy of different direct participation processes. Specifically, we compare the effects of three types of participatory processes (public meetings, focus groups, and citizen juries) on participants' issue awareness, competence, empowerment, and trust in service professionals. We hypothesize that all three participatory processes will positively affect these individual outcomes, but that the magnitudes of effects will differ across the three processes. Using data from field experiments, we test and find general support for our hypotheses. This study contributes to understanding of public participation, particularly in terms of the relationship between participatory design and outcomes.

Evidence for Practice

1. This study provides practitioners with theoretical and applied insights about the connections between participatory designs and outcomes that can inform their decision making about which forms of participation to use under which circumstances.
2. The findings suggest the nature and intensity of participant interactions shape individual level outcomes. Thus, when possible, practitioners may look for ways to provide participants with opportunities to listen as spectators, express preferences, develop preferences, engage in aggregation and bargaining, and use deliberation and negotiation. Even small changes in participant interactions may lead to meaningful changes among the participants.
3. The results encourage practitioners to attend not only to macro process design choices (e.g., forms, purposes, targeted issues, information provision), but also to micro design choices (e.g., roles of moderators and facilitators, content and form of information).

Introduction

Around the world, public administration scholars and practitioners are giving increased attention to the issue of public participation (e.g., Avritzer 2012; Dryzek and Tucker 2008; Kim and Lee 2012; King, Feltey, and Susel 1998; Rowe and Frewer 2000; Wang and Van Wart 2007; see also www.participedia.net). Some of this attention is driven by normative concerns (e.g., Denhardt and Denhardt 2000), some of it by practical concerns (e.g., Bryson et al. 2013; Irvin and Stansbury 2004), and some of it by legal concerns (e.g., Nabatchi and Amsler 2014). While arguments for and against public participation are readily available in the literature (see Nabatchi, Gastil, Leighninger, and Weikksner 2012; Roberts 2008), recent attention has turned to the design of public participation processes, with scholars calling for more research on the connections between different participatory designs and outcomes (Abelson et al. 2003; Bryson et al. 2013; Carpini, Cook, and Jacobs 2004; Fung 2003, 2006; Nabatchi 2012; Nabatchi and Amsler 2014; Rowe and Frewer 2000).

This article responds to those calls, offering one of the first (if not the first) empirical investigations of the connection between the designs and outcomes of public participation.[1] Specifically, this article explores whether and how three forms of direct public participation (public meetings, focus groups, and citizen juries) affect four individual-level participant outcomes (issue awareness, competence, empowerment, and trust in public service professionals). We conduct this test in the context of healthcare using a slice of data from a research project that engaged the public in developing recommendations to reduce diagnostic error – an issue of public interest worldwide. The results not only shed light on the relationship between processes and outcomes, but also provide practical insights for public managers who must choose how to use public participation to meet various objectives.

The article proceeds as follows. First, we briefly define public participation and distinguish direct public participation from indirect public participation. We also explain the three different forms of direct public participation examined in this study. Second, we explain the theorized individual-level outcomes of direct public participation and present our hypotheses. Third, we discuss the research design, data, variables, and analysis methods. We then present and discuss the results from the analyses. Finally, we conclude with a discussion about the implications of the findings.

Defining Public Participation and Its Various Types

Among the many definitions of public participation, we adopt a broad one: public participation is “an umbrella term that describes the 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, 14). Under this umbrella are two main categories of public participation: (1) indirect participation, which occurs when individuals select representatives to make public decisions for them (e.g., voting), and (2) direct participation, which occurs when individuals are “personally involved and actively engaged in providing input, making decisions, and solving problems” (Nabatchi and Leighninger 2015, 14).

This article focuses on direct public participation, which generally has more importance in public administration than indirect participation (e.g., Fung 2006). Unlike indirect participation in which citizens delegate decision making authority to politicians, direct participation gives citizens a more personal and immediate connection to policy and administrative decision-making. Thus, direct participation is more strongly associated with administrative efforts to uphold democratic values such as accountability and responsiveness to

citizens. Moreover, direct participation is often a legal requirement for implementing various policies (Nabatchi and Amsler 2014).

Within the category of direct public participation, processes vary along several dimensions, including for example, general purposes or goals, participant recruitment and selection methods, and levels of shared decision-making authority, among many others (Bryson et al. 2013; Fung 2006; Nabatchi 2012; Rowe and Frewer 2000). In this study, we focus on three direct participation processes: (1) *public meetings*, which engage a wide audience in information sharing with question and answer periods, and often are used for educational or informative purposes (see McComas 2001; Nabathchi and Leighninger 2015); (2) *focus groups*, which engage a diverse group of people in a guided discussion about a particular issue, and often are used to gather feedback (see Bishop and Davis 2002; Rowe and Frewer 2000); and (3) *citizen juries*, which engage a small but demographically representative group of people in facilitated deliberation about a particular issue, and often are used for developing recommendations or making decisions (see Crosby and Nethercut 2005) (for descriptions of different public participation processes, see Gastil and Levine 2005; Nabatchi and Amsler 2014; Nabatchi and Leighninger 2015; Rowe and Frewer 2000).

We selected these three processes not only because they were of specific interest to the funder, but also because they share common features (e.g., a face-to-face format), yet vary in terms of the intensity of participant interactions during the process vis-à-vis communication and decision making. Specifically, Figure 1 shows five different modes of participant interactions, from the least intensive to the most intensive: (1) listening as a spectator, (2) expressing preferences, (3) developing preferences, (4) aggregation and bargaining, and (5) deliberation and negotiation (Fung 2006, 68-69).[2] The figure also illustrates how interaction intensity maps

against the three direct public participation processes: (1) public meetings involve the first two to three modes of interaction, (2) focus groups involve the first three to four modes, and (3) citizen juries involve all five modes of participant interaction. This difference in interaction intensity, coupled with the commonalities among the three processes, offers a solid foundation for an empirical comparison of individual-level outcomes. Each of the three forms of public participation and their modes of interaction are discussed in more detail below.

[Figure 1 about here]

First, public meetings aim to inform people about an issue of public importance. These meetings generally entail the provision of information by officials to citizens followed by a comment period during which citizens can express their views and preferences (McComas 2001); however, they provide little opportunity for the public to influence final policy decisions (King, Felty, and Susel 1998; Rowe and Frewer 2000). During the meetings, individual citizens attend as spectators to receive information about an issue or a project (mode 1) and have the opportunity to express their opinions and/or ask questions during a comment segment (mode 2), which may help them develop their preferences about the issue (mode 3). Given that public meetings rarely advance beyond the third mode of participant interaction, they generally are regarded as one of the least intensive forms of public participation (Nabatchi and Leighninger 2015).

Second, focus groups aim to solicit public input on a particular public issue or a policy proposal (Bishop and Davis 2002). During a focus group, participants are arranged into one or more small groups that take part in “managed or facilitated discussions, workshop, or seminar-

based activity” (Rowe and Frewer 2000, 9; Scott 2011, 685). During these facilitated discussions, participants learn about the issue (mode 1) and express and develop their preferences on the issue (modes 2 and 3). Depending on other design choices, focus groups also may involve aggregating and bargaining about participants’ preferences on the issue (mode 4). Thus, focus groups are regarded as having a medium level of intensity.

Finally, citizen juries bring together a single small group of twelve to twenty-four people who are selected to compose a microcosm of the resident population (Crosby and Nethercut 2005; Rowe and Frewer 2000, 9). While purposefully smaller in size than most other forms of direct participation, a citizen jury gives participants an equal opportunity to speak in facilitated discussions on a targeted public issue (Bennet and Smith 2007). One of the distinctive features of the citizen jury process is deliberation, which involves “a thoughtful, open, and accessible discussion about information, views, experiences, and ideas during which people seek to make a decision or judgment” (Nabatchi and Leighninger 2015, 14). Thus, during a citizen jury, participants are educated about the issue (mode 1), express and develop preferences (modes 2 and 3), and work on consensus-building and producing a joint agreement through intensive aggregation and bargaining (mode 4) and deliberation and negotiation (mode 5). Given the use of all five interaction modes, citizen juries are one of the most intensive forms of direct public participation.

In sum, public meetings, focus groups, and citizen juries have varying levels of interaction intensity in terms of how participants communicate and make decisions during the process (see figure 1). Other differences across these three forms exist, including for example, how participants are recruited and the time spent in the process. However, even in these other differences, scholars commonly regard citizen juries as the most intensive and public meetings as

the least intensive (e.g., Gastil and Levine 2005; Nabatchi 2012; Nabatchi and Leighninger 2015). Hence, these three forms of participation – public meetings, focus groups, and citizen juries – offer a solid base for the empirical comparison of individual-level outcomes. The following section discusses the theorized individual-level effects of direct public participation, and focuses on how the three participatory processes might generate different outcomes.

The Individual Level Effects of Different Forms of Direct Public Participation

Advocates of direct public participation assert that it can generate many positive effects for individual participants, administrators, communities, and policy and governance (Carpini, Cook, and Jacobs 2004; Nabatchi and Leighninger 2015; Nabatchi, Gastil, Weiksner, and Leighninger 2012; Thomas 2013; Roberts 2008). This study focuses on the individual-level effects that may occur for participants (for a discussion and review of the literature about these effects, see Pincock 2012). Most individual level effects pertain to perceptual and attitudinal changes, and many fall into one of the four following categories: (1) increased awareness about the issue being addressed (Carpini, Cook, and Jacobs 2004; Rowe and Frewer 2004), (2) greater perceived competence (Barabas 2004; Tolbert, McNeal, and Smith 2003), (3) enhanced self-efficacy and empowerment (Gastil 2000; Morrell 2005), and (4) improved trust in public service professionals (Bloomfield et al. 2001; Bryson et al. 2013; Jo and Nabatchi 2019). Given their frequent appearance in the literature (see Pincock 2012), this study focuses on testing the effects of direct public participation on these four outcomes. Below we present the hypothesized mechanisms for each outcome.

Issue Awareness

One of the key objectives of public participation is to inform the public about a targeted

issue; thus, an increase in individuals' issue awareness is frequently discussed in the participation literature (e.g., Carpini, Cook, and Jacobs 2004; Jo and Nabatchi 2019). Based on their design, participatory processes may augment issue awareness by enabling participants to: (1) obtain basic information about the issue, (2) understand the importance of the issue, (3) develop ideas to better address the issue, (4) discuss and aggregate ideas from different participants, and (5) make decisions for addressing the issue.

[Figure 2 about here]

Different forms of public participation can generate different degrees of issue awareness due to variations in their interaction intensity (see figure 2). First, participants in a public meeting may experience the first three modes of interaction (listening as spectators, expressing preferences, and developing preferences), which correspond to the first three steps of developing issue awareness (obtaining information, understanding importance, and developing ideas). Second, focus group participants may engage in the first three or four modes of interaction (listening as spectators, expressing preferences, developing preferences, and aggregation and bargaining), which correspond to the first three or four steps in developing issue awareness (obtaining information, understanding importance, developing ideas, and discussing and aggregating ideas). Finally, citizen jury participants are exposed to all five modes of interaction (listening as spectators, expressing preferences, developing preferences, aggregation and bargaining, and deliberation and negotiation), which can engender all five steps in developing issue awareness (obtaining information, understanding importance, developing ideas, discussing and aggregating ideas, and making decisions). Based on this reasoning, we offer a first set of

hypotheses:

Hypothesis 1a: All three forms of direct public participation (public meetings, focus groups, and citizen juries) will increase participants' issue awareness.

Hypothesis 1b: The increase in issue awareness will vary across the different forms of direct participation, with citizen juries having the largest increase and public meetings having the smallest increase.

Competence

Within the public sector context, competence can be thought of as “the extent to which an individual has the information, knowledge, and personal capabilities” to influence specific processes or encounters (Finkel 2014, 171). Given that direct public participation provides individuals with information and knowledge about a public issue and a tacit opportunity to influence decisions about the issue, it is reasonable to assert that direct public participation also increases participants' perceived level of competence to engage in situations related to that issue. In part, this is because through a participatory process, individual participants may be exposed to “the construction of the best possible understandings and agreements given what is reasonably knowable to the participants at the time the discourse takes place” (Webler and Tuler 2000, 571). Moreover, competence increases incrementally as participants are given (1) access to relevant information, (2) procedures to evaluate information, and (3) procedures to select and construct knowledge (see Webler and Tuler 2000, 571).

[Figure 3 about here]

Figure 3 depicts the three steps of increasing competence and shows how they relate to

interaction intensity. Specifically, all three forms of participation include the first two interaction modes (listening as spectators and expressing preferences), which align with the first step toward increasing competence (access to relevant information). Furthermore, participants in focus groups also experience the third and often the fourth interaction modes (developing preferences and often aggregating and bargaining), which align with the second step toward increasing competence (procedures to evaluate information). However, only citizen jury participants engage in the fifth interaction mode (deliberation and negotiation), which aligns with the third step toward increasing competence (procedures to select and construct knowledge). In sum, because the three participatory processes have different degrees of interaction intensity, participants are exposed to different steps in the process of increasing competence. Accordingly, we offer a second set of hypotheses:

Hypothesis 2a: All three forms of direct public participation (public meetings, focus groups, and citizen juries) will increase participants' perceived level of competence.

Hypothesis 2b: The increase in perceived competence will vary across the different forms of direct participation, with citizen juries having the largest increase and public meetings having the smallest increase.

Empowerment

Numerous scholars claim that direct public participation can help individuals feel empowered because it enhances the exercise of individual voice and enables them to contribute to public service processes (Bryson et al. 2013; Denhardt and Denhardt 2000; Jo and Nabatchi 2019; Osborne and Strokosch 2013). To further explore the relationship between participation

and empowerment, we adopt a theory from the community psychology literature (Zimmerman 2000). Specifically, the empowerment theory suggests that participation in community decision-making processes enables individuals to acquire several empowering outcomes, including: (1) critical awareness, (2) participatory skills, (3) sense of control, (4) effective competition for a desired outcome, and (5) final influence on community-level decisions (Zimmerman 2000). Given that the nature of direct public participation is akin to collective community decision-making, we apply this theoretical argument to the relationship between direct public participation and participants' sense of empowerment.

[Figure 4 about here]

Figure 4 presents the relationship between direct public participation and empowerment. Once again, the processes for generating the five empowering outcomes are related to the interaction intensity of the participation process. First, participants in public meetings engage in the first two to three modes of interaction (listening as spectators, expressing preferences, and often developing preferences), which may generate the first and second empowered outcomes (critical awareness and participatory skills). Second, focus group participants engage in the first three or four interaction modes (the three previous modes and aggregation and bargaining), which may generate the first three empowered outcomes (critical awareness, participatory skills, and sense of control). Finally, participants in citizen juries experience all five interaction modes (the four previous modes, as well as deliberation and negotiation), which generates all five types of empowered outcomes (critical awareness, participatory skills, sense of control, effective competition, and final influence). In sum, because the different forms of participation entail

different interaction modes, each engenders different empowering outcomes, and ultimately results in different levels of overall empowerment. Thus, we offer a third set of hypotheses:

Hypothesis 3a: All three forms of direct public participation (public meetings, focus groups, and citizen juries) will increase participants' sense of empowerment.

Hypothesis 3b: The increase in empowerment will vary across the different forms of direct participation, with citizen juries having the largest increase and public meetings having the smallest increase.

Trust in Public Service Professionals

Several public administration scholars have argued that public participation could be used to restore declining levels public trust in public service agencies and professionals (King, Felty, and Susel 1998; Kim and Lee 2012; Wang and Van Wart 2007). They argue that public participation enhances trust because it tends to improve perceptions about the performance of the public service organizations and professionals, and particularly those that directly interact with citizens. First, public participation can serve as a venue for informing the public about the accomplishments of public agencies (Wang and Van Wart 2007, 265). Second, public participation may demonstrate a professional commitment to transparency and accountability (e.g., Kim and Lee 2012), which can enable user influence over service outputs and result in services that are more closely aligned with the interests and needs of participating citizens, thereby improving perceptions of performance (e.g., Brudney and England 1983; Thomas 2013). Finally, public participation can help people build a “trust network” with “named relationships, shared rights and obligations, appropriate means to be able to communicate, and boundaries that

separate outsiders from the network” (Fledderus, Brandsen, and Honingh 2014, 435). This trust network can increase satisfaction with the quality of the services being provided, and therefore improve perceptions of service performance (Vigoda-Gadot 2007). In short, direct public participation can have a positive effect on individual perceptions of public service performance, and therefore on trust in service professionals, when participants are able to (1) get information and express opinions, (2) contribute to service outputs, and (3) develop a trust network.

[Figure 5 about here]

As shown in figure 5, the three forms of direct public participation – due to their differences in interaction intensity – may generate different impacts on trust in service professionals. First, participants in public meetings engage in the first two or three interaction modes (listening as spectators, expressing preferences, and developing preferences), which correspond to the first step toward increasing trust in service professionals (the ability to get information and express opinions). Second, focus group participants engage in the first three or four modes interaction (the three previous modes, and often, aggregation and bargaining), which correspond to the first and often second step of increasing trust in service professionals (the ability to get information and express opinions and contribute to service outputs). Finally, citizen jury participants engage in all five modes (the four previous modes, as well as deliberation and negotiation), which means that in addition to the first two steps toward increasing trust in service professionals, they take the third step (developing a trust network). Therefore, we offer a final set of hypotheses:

Hypothesis 4a: All three forms of direct public participation (public meetings,

focus groups, and citizen juries) will increase participants' trust in service professionals.

Hypothesis 4b: The increase in trust will vary across the different forms of direct participation, with citizen juries having the largest increase and public meetings having the smallest increase.

Data and Method

Research Project

This study uses a slice of data from a larger research project, which was funded by the United States Agency for Healthcare Research and Quality (AHRQ). The funder's overarching objectives were to use and test the efficacy of deliberative versus educative participatory processes in a healthcare setting. To meet those goals, our project used three different public participation processes to develop and refine patient-focused recommendations for reducing diagnostic error. The final set of recommendations was given to the Society to Improve Diagnosis in Medicine (SIDM) for transformation into materials that patients and providers could use to improve diagnostic quality in various healthcare settings.

Although diagnostic quality and error are not central issues in American public administration research, they are critical health issues that are gaining attention around the world, particularly in light of mounting healthcare costs and reform efforts. Diagnostic error is known to cause more than 80,000 deaths annually in the United States and is a leading cause of medical malpractice claims (Bishop, Ryan, and Casalino 2011). A recent study by researchers at Johns Hopkins reveals that diagnostic error is the primary trigger of medical error, which is the third leading cause of death after heart disease and cancer (Makary and Daniel 2016). Thus, diagnostic

error has become a critical issue in healthcare and health policy cycles and an increasingly common concern for patients (Singh, Peterson, and Thomas 2006). In sum, diagnostic error is an issue of public interest, and thus an appropriate topic for direct public participation.

We discuss the design of the three participatory processes used in this project in detail below, so here it suffices to say that of the processes, one was designed to mirror a public meeting, one was designed as a citizen jury, and one was designed to resemble focus groups. All participants in the participatory groups and the control group were informed that the project purpose was to create recommendations for reducing diagnostic error, which would be given to SIDM for action and implementation. In addition, all participants were financially compensated, and except for some process satisfaction questions, all participants received identical pre- and post- surveys. Finally, these processes were set up as a series of field experiments, some of which used a randomized and controlled design.

[Figure 6 about here]

Figure 6 shows the participant recruitment and selection procedures for each participatory process and the control group. First, a marketing firm sent letters inviting participation in the project to 15,000 randomly selected households in Onondaga County, New York. The research team also posted recruitment ads on Facebook and Craigslist. Second, individuals who were interested in the project completed an application (either online or by phone) that captured basic demographic characteristics, healthcare experiences, and availability for the project events. Third, the project team placed the 276 applicants into strata based on data from the application questionnaire, and then created 138 matched pairs within the strata using race and gender.

Twenty-four pairs (48 individuals) were randomly selected, and individuals in the pairs were randomly assigned to the public meeting style process or to the citizen jury process. Fourth, the remaining applicants (228 individuals) were placed into the control group. Finally, the project team placed new ads on Facebook and Craigslist to recruit participants for the focus group style process. Of the 136 applicants, 100 people were randomly selected for participation. The demographic characteristics of all participants are presented in appendix 1,[3] and appendix 2 shows that the demographic characteristics of project participants were generally similar to those of the entire population in Onondaga County, New York.

Table 1 shows the number of participants selected for the public meeting, citizen jury, focus group, and control group, as well as the number of people in each group who participated, completed each survey, and are included in the analysis. It is important to note that the analysis only includes data from individuals who answered both the pre- and the post-survey. Thus, for example, 24 people were selected to participate in the citizen jury, but only 18 attended. All of those 18 participants completed the pre-survey and 17 completed the post-survey. However, the analysis only includes responses from 16 people who answered both surveys.

[Table 1 about here]

Public Meeting Group. This group participated in a 3-hour session on August 27, 2015. The process mirrored the design of a conventional public meeting (see McComas 2001; Nabatchi and Leighninger 2015). Specifically, participants, who were seated in a classroom-style arrangement, listened to information about diagnostic error presented by experts and then engaged in a question and answer session. Participants were able to offer ideas about how to

reduce diagnostic error in open ended questions on the post-survey questions. This public meeting style event, which is the least intensive process examined in this study, fostered the first three interaction modes: listening as spectators, expressing preferences, and developing preferences (Fung 2006). Responses from all 21 attending participants in the public meeting group are included in the analysis.

Citizen Jury Group. This group participated in a series of deliberative sessions over a 6-day period (August 27 to 29 and October 8 to 10, 2015). The process was designed as a citizen jury (see Crosby and Nethercut 2005; Rowe and Frewer 2000). Specifically, a small number of demographically representative participants took part in the same information session as the public meeting group, and then engaged in facilitated deliberations – in smaller groups and as a whole – over an extended period of time. These deliberations culminated in the development and refinement of a set of recommendations for reducing diagnostic error, which subsequently were shared with SIDM for action. This citizen jury, which is the most intensive process examined in this study, enabled all five interaction modes: listening as spectators, expressing preferences, developing preferences, aggregating and bargaining, and making decisions (Fung 2006). Although there were 18 attending participants in this group, the analysis only draws on data from the 16 who completed both surveys.

Focus Group. This group participated in a series of facilitated table discussions on February 6, 2016. The process mirrored the design of traditional focus groups (see Bishop and Davis 2002; Rowe and Frewer 2000). Specifically, a large number of participants were randomly assigned to sit at small tables of six to eight people. The participants listened to information about diagnostic error presented by experts and then engaged in a question and answer session. (Though shorter, this information session had content very similar to that provided to the public

meeting and citizen jury groups.) Following the information session, the participants engaged in a series of facilitated discussions about diagnostic error managed by table moderators, and provided feedback on the quality of recommendations developed by the citizen jury group. This focus group-style process, generated a medium level of intensity, enabling participants to experience the first four interaction modes: listening as spectators, expressing preferences, developing preferences, and aggregating and bargaining. Of the 95 attending participants, the analysis draws on data from the 78 who completed both surveys.

Control Group. This group did not engage in any of the participatory events. Pre- and post- surveys, along with stamped and addressed return envelopes, were mailed to everyone in the control group. Of the 228 control group participants,[4] the analysis draws on data from the 66 who completed both surveys.

Data and Variables

Measures for the four individual-level outcomes (issue awareness, competence, empowerment, trust) are constructed using questions in the pre- and post- surveys. Summary statistics for these variables are shown in table 2. More detailed information about the dependent variables, including pre-scores, post-scores, and changes for the four groups, are available in appendix 3.

[Table 2 about here]

Issue Awareness. While there is no agreed-upon construct for issue awareness in the public participation literature, some studies have measured it using participant perceptions about the importance of the issue being discussed (e.g., Carman, et al. 2013). Hence, we use a 5-point

Likert scale survey item, “Diagnostic errors are a serious issue in the medical profession,” where 1 = strongly disagree to 5 = strongly agree.

Competence. Measures of perceived competence vary by context (e.g., political competence, cultural competence, communicative competence, and so forth). Given the context of this study, we use “health literacy,” which refers to “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” (Nutbeam 2008, 2073; see also Institute of Medicine 2004). Specifically, the measure is an indexed average of three Likert scale items where 1 = strongly disagree to 5 = strongly agree: (1) “I am confident that I can review and understand results from diagnostic tests,” (2) “I can communicate with my doctor electronically about my healthcare questions, concerns, or comments,” and (3) “I am willing to ask my healthcare provider to wash his or her hands (if I did not see them do this) before examining me.” The Cronbach’s alpha for the three items based on participants in all four groups is 0.61, which while lower than the common threshold of 0.7, is still regarded as acceptable (e.g., Wren et al. 2005).

Empowerment. Like competence, measures of empowerment also vary by context. Given the context of this study, we measure empowerment with the Patient Activation Measure (PAM), a well-established measure in the health literature licensed by Insignia Health. The PAM assesses individuals’ “knowledge, skills and confidence for managing their own health” (Hibbard et al. 2004). It is composed of 13 items (shown in appendix 4), all on a 4-point scale (disagree strongly, disagree, agree, and agree strongly, with an option of ‘not applicable’). Responses to these 13 items are transformed to a score of 0 to 100, where higher scores indicate greater levels of empowerment. The scores can also be segmented into four activation levels (Insignia Health 2013, 5): (1) the individual “may not yet believe that the patient role is important” (PAM score

of 47.0 or lower); (2) the individual is becoming aware of the patient role, but is still struggling (PAM score between 47.1 and 55.1); (3) the individual is taking action (PAM score between 55.2 and 67.0); and (4) the individual is maintaining behaviors and pushing further to adopt a healthy lifestyle (PAM score of 67.1 or higher). The Cronbach's alpha for the 13 items based on participants in all four groups is 0.79.

Trust in Service Professionals. Given that the study is in the context of healthcare, we measure trust in service professionals as trust in doctors. Though doctors are not policy makers and decision makers at the macro level, they are service providers that interact directly with the public (Cohen 2018). Specifically, we measure trust using an indexed average value of three 5-point Likert scale items where 1 = strongly disagree to 5 = strongly agree. The three items are: (1) "Doctors are extremely thorough and careful," (2) "I trust my doctors' decisions about which medical treatments are best for me," and (3) "All in all, I trust doctors completely." The Cronbach's alpha for the three items based on participants in all four groups is 0.71.

Analysis Method

We run a set of regression models with robust standard errors that include changes (i.e., differences between pre- and post- survey scores) in each of the four dependent variables. Dummy variables indicating each of the three participatory processes (public meeting, citizen jury, and focus groups) are included in each model, and the control group serves as the base category. We also conduct F-tests to see whether there are statistically significant differences in effects among the three participation forms. All models also include the following demographic control variables:[5] (1) *gender* (Female=1, Male=0), (2) *age* (1=18-21, 2=22-35, 3=36-45, 4=46-55, 5=56-65, 6=66-75, 7=over 76), (3) *race* (White=1, non-White=0), (4) *education level*

(1=Some high school, 2=High school graduate; 3=Some college; 4=Associate's degree; 5=Bachelor's degree; 6=Graduate or professional degree), (5) *employment status* (1=Employed; 0=Otherwise), and (6) *annual household income* (1=Under \$10,000; 2=\$10,000 to \$19,999; 3=\$20,000 to \$29,999; 4=\$30,000 to \$39,999; 5=\$40,000 to \$49,999; 6=\$50,000 to \$59,999; 7=\$60,000 to \$69,999; 8=\$70,000 to \$79,999 9=\$80,000 to \$89,999; 10=\$90,000 to \$99,999; 11=\$100,000 or more).

Results

Table 3 presents the results, which are explained in order of the hypotheses. In addition to discussing the results in table 3, which are centered on the differences between changes in each type of participation and the change in control group, we also discuss differences among the three types of participation through the use of F-tests.

The first set of hypotheses assert that all three forms of participation will increase issue awareness, with the citizen jury generating the largest increase and the public meeting generating the smallest increase. The results show statistically significant increases in issue awareness among participants in the focus group ($p < .10$) and citizen jury ($p < .01$), but not among those in the public meeting. Moreover, F-tests show that the increase for the citizen jury is significantly larger than the increases for the public meeting ($p < .05$) and for the focus group ($p < .05$), but that there is no statistically significant difference in the increases of the public meeting and the focus group. These results provide modest support for hypothesis 1a (that all three forms of participation will increase issue awareness and Hypothesis 1b (that the citizen jury will have the largest increase, and the public meeting will have the smallest increase).

[Table 3 about here]

The tests for the second set of hypotheses, which center on competence, produced similar results. Participants in both the citizen jury and focus group experienced significant increases in their perceived competence ($p < .10$ for both), but participants in the public meeting did not. Once again, the F-test results indicate that the increase for the citizen jury is statistically larger than the increase for the public meeting ($p < .10$), but not different from the focus group. In addition, the differences between the citizen jury and focus group, and between the focus group and public meeting are insignificant. Thus, we again find weak support for hypothesis 2a (that all three forms of participation will increase perceived competence) and hypothesis 2b (that the citizen jury will have the largest increase, and the public meeting will have the smallest increase).

The third set of hypotheses focus on empowerment. The results show statistically significant increases in perceptions of empowerment for the public meeting ($p < .01$), focus group ($p < .05$), and citizen jury ($p < .01$). Moreover, the F-test results reveal the increase for the citizen jury is larger than the increase for the focus group ($p < .05$), but that the differences between the citizen jury and the public meeting, and between the focus group and the public meeting are insignificant. These results provide support for hypothesis 3a (that all three forms of participation will increase empowerment), and weak support for hypothesis 3b (that the citizen jury will have the largest increase, and the public meeting will have the smallest increase).

The final set of hypotheses concern trust in service professionals. The results show statistically significant increases in trust for the public meeting ($p < .05$), focus group ($p < .10$), and citizen jury ($p < .01$). The F-test results indicate that citizen jury group had the largest effect, which significantly differs from the public meeting ($p < .05$) and the focus group ($p < .01$). The

difference between the public meeting and the focus group, however, is insignificant. These results provide support for hypothesis 4a (that all three forms of participation will increase trust) and modest support for hypothesis 4b (that the citizen jury will have the largest increase, and the public meeting will have the smallest increase).

Discussion

In general, the findings of this study suggest that direct public participation generates positive individual-level outcomes, including issue awareness, competence, empowerment, and trust, albeit to varying degrees depending on process. The citizen jury and focus group had significant positive effects on all four outcomes, while the public meeting only had significant and positive effects on trust and empowerment. The magnitude of the effects also varied by participatory process – the effect of citizen jury was significantly larger than the effects of both the public meeting and the focus group. Specifically, among the three different forms of participation, the citizen jury had the largest individual-level effects. On average, and as compared to the control group, participants in the citizen jury experienced significantly larger increases in issue awareness (0.62), competence (0.47), empowerment (10.06), and trust (0.73). These effect sizes are not negligible, given that issue awareness, competence, and trust are on 5-point scales, and that empowerment (i.e., the PAM score) is on a 100-point scale. A 10-point increase on the 100-point PAM scale is particularly noteworthy. For example, an individual PAM score increase from a 46 to 56 indicates a meaningful change in empowerment from PAM level 1 (not believing the importance of one's own role in healthcare) to PAM level 3 (taking action to manage one's own health).

These results make sense. Throughout a citizen jury process, individuals engage in a

highly deliberative processes that includes all five participant interaction modes: (1) listening as a spectator, (2) expressing preferences, (3) developing preferences, (4) aggregation and bargaining, and (5) deliberation and negotiation (Fung 2006). These modes provide citizen jury participants with opportunities to obtain information relevant for tackling the issue, develop their own ideas for addressing the issue, discuss and weigh ideas from other participants, and offer input on the final decision, all of which can positively affect the four individual-level outcomes. In this sense, citizen juries can overcome at least two potential weaknesses of direct public participation: (1) citizens' restrained access to critical points in decision-making processes (Kathlene and Martin 1991), and (2) the possibility of making a bad decision due to the influence of opposing interest groups and/or the ignorance of lay citizens (Irvin and Stansbury 2004, 58). The results of this study provide much needed empirical support for theories of direct public participation that advocate the use of deliberative approaches (e.g., Carpini, Cook, and Jacobs 2004; Nabatchi and Leighninger 2015).

Focus groups also generated positive effects across all four outcomes. Moreover, as compared to the control group, focus group participants experienced significantly larger increases in issue awareness (0.24), competence (0.23), empowerment (4.28), and trust (0.20). Again, these results make sense in light of the theory presented earlier in this article. Specifically, although focus groups do not usually involve full-blown deliberation, the participant interaction modes in such processes do include (1) listening as a spectator, (2) expressing preferences, (3) developing preferences, and often (4) aggregation and bargaining (Fung 2006), which in turn suggests the likelihood of experiencing positive changes in all four indicators.

Both citizen juries and focus groups, however, can be costly and time-consuming, making public meetings a more practical choice for many public organizations. The results show that

public meetings increased participants' sense of empowerment and their trust in service professionals. Specifically, as compared to the changes in the control group, the changes in public meeting participants' empowerment (6.26) and trust (0.33), are larger. These findings suggest that simply providing opportunities for the first two to three participant interaction modes (listening as a spectator, expressing preferences, and developing preferences) at public meetings can empower citizens and improve their level of trust in service professionals. Moreover, this finding contradicts some of the negative assumptions about public meetings, including for example that this form of participation can harm individuals' efficacy, trust in public services, and public-spiritedness (e.g., Nabatchi and Leighninger 2015, 23).

Two other findings about public meetings are noteworthy. First, the public meeting did not significantly affect issue awareness, which is unexpected given that one of its purposes is to inform the public about an issue. This result may be due to the content of the informational presentation delivered at the event, which centered on explanations about diagnostic processes and the potential roles of laypeople and other actors, instead of on the seriousness of diagnostic error. Thus, participants might not have given much thought to the significance of the issue itself. This result highlights the importance not only of overall design choices (e.g., whether to provide information), but also of micro-design choices (e.g., what kind of information to provide and how), in that such decisions can shape individual level effects.

Second, it is surprising that the effect of the focus group on issue awareness, empowerment, and trust are not statistically significantly different from the effects of the public meeting. Perhaps this is because discussion-based participatory formats – including focus groups – can have potential disadvantages (Rowe and Frewer 2000, 21), such as domineering of the discussion by certain participants (Lowndes, Pratchett, and Stoker 2001, 447-448). If such

phenomena take place, participatory decision-making processes may be less effective. Therefore, it is important to appropriately design the participatory processes (e.g., by using facilitation, providing an equal chance of speaking, having representation of diverse interests, and so forth) to minimize the occurrence of potential pitfalls (e.g., Bryson et al. 2013). The finding that the citizen jury, which is equipped with appropriate mechanisms for effective deliberation, had the strongest effect, further corroborates this point. Based on the findings, we would encourage public managers to make careful and thoughtful decisions when designing public participation, not only in terms of macro-level factors such as forms, purposes, and targeted issues, but also in terms of micro-level process characteristics including types of information provided, content of presentation materials, and the role of moderators and participation leaders, among many others (cf. Nabatchi and Leighninger 2015).

Conclusion

This study shows that different processes generate different outcomes. To be more specific, the study shows that direct public participation can generate positive effects on individual-level outcomes, and that the magnitudes of such effects can differ by participatory form. To be specific, individuals who participated in a citizen jury (which involves high intensity interactions) and individuals who participated in a focus group (which involves medium intensity interactions) experienced significant and positive increases in their awareness about the issue being addressed, their sense of competence and empowerment, and their level of trust in service professionals. Moreover, individuals who participated in a public meeting (which involves low intensity interactions) experienced significant and positive changes in empowerment and trust. In addition, the citizen jury had a stronger effect on all four outcomes than both the focus group and

the public meeting. These results resonate with theoretical claims and findings from previous studies suggesting that direct public participation can enhance a variety of civic dispositions for participating individuals (e.g., Jo and Nabatchi 2019; Rowe and Frewer 2000; Wang and Van Wart 2007), and that deliberative methods have the strongest outcomes and impacts (e.g., Carpini, Cook, and Jacobs 2004; Nabatchi and Leighninger 2015).

The study is not without limitations. First, participants for focus groups were recruited later than the participants in the public meeting and citizen jury. This was, in part, a function of the grant requirements. Specifically, the goal of the funder was to issue grants that would investigate the different effects of education and deliberation. Thus, the research team designed a strategy that included matched pairs among an education group (i.e., the public meeting participants) and a deliberation group (i.e., the citizen jury participants). The team later decided to add a third participatory process (the focus group) to assess the quality of the work done by the citizen jury. We realize this is not a perfect design, but *c'est la vie*.

Second, there were differences in the number of participants across the groups, and the public meeting and citizen jury groups have relatively smaller numbers of participants. However, we would note the number of participants in each process reflects how the three participatory processes work in principle and practice. Focus groups usually involve several groups of five to twelve individuals (thus, often a total of 100 or more), and citizen juries typically engage twelve to twenty-four people (Rowe and Frewer 2000, 9). In addition, studies on public meetings report generally low turnout, with fewer than 20 to 30 participants (e.g., Handley and Howell-Moroney 2010; Webler, Tuler, and Krueger 2001).

Finally, the study is conducted in Onondaga County, New York, USA, and in the context of healthcare and diagnostic error. Therefore, one should be cautious about generalizing the

study's findings to other geographical locations and other types of public service/policy issues. It is especially worth noting that public participation on more controversial issues or on issues that generate winners and losers (e.g., land planning, immigration, budget allocation, environmental issues, education, and so forth) may produce different outcomes different from those in this study. Thus, future studies may want to test the effects of different public participation processes in other settings and on other issues.

The study also presents opportunities for future research on public participation. First, there should be more testing of the mechanisms hypothesized in this paper to affect individuals' civic dispositions (issue awareness, competence, empowerment, and trust). Both quantitative and qualitative methods may be helpful in doing so. Second, it would be interesting to investigate the policy level effects of different public participation forms. For instance, scholars may want to compare the efficacy of policy outputs generated from different participatory processes, in terms of their feasibility, quality, effectiveness, and impacts on desired policy outcomes. Lastly, an exploration of public administrators' roles, perceptions, and attitudes regarding direct public participation is an important future research area (e.g. Migchelbrink and Van de Walle 2020). Public participation has become a key component of every day work of government agencies, and public administrators play critical roles in designing, managing, implementing, and evaluating various participatory processes. Therefore, more studies (perhaps using surveys or experiments) on administrators' desired roles before, during, and after participatory activities, as well as their perceptions of different participation forms, can help advance the theory and practice of public participation.

Despite limitations, the study makes significant contributions to the field of public administration for several reasons. First, it is one of the few (if not *the* only) to empirically test

the relative efficacy of different methods of direct public participation. In doing so, it provides much needed empirical support to theoretical claims, and responds to the scholarly call for rigorous explanatory research on public participation outcomes (Bryson et al. 2013; Nabatchi and Amsler 2014). Second, it contributes to the theory base on the individual-level effects of direct public participation. Specifically, the study incorporates literature from public administration, community psychology, healthcare management, and political science to explain the causal mechanisms behind how direct public participation can generate individual-level issue awareness, competence, empowerment, and trust in service professionals. These same theoretical ideas and causal mechanisms can be applied to many other participatory and collaborative processes. Third, it sheds light on efforts to better develop and design public participation processes in practice. Public administrators (and others) need to carefully consider whether and how their participatory processes may affect individual attitudes and perceptions. Findings from this study can help them anticipate the potential (positive) consequences of different methods of direct public participation on participating individuals. Finally, it addresses the effects of direct public participation on the generation and cultivation of issue awareness, competence, empowerment, and trust, all of which are important in public administration. Therefore, the study has broad implications for the potential of public participation in making public administration more democratic and accountable to the citizenry.

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Figures

Figure 1: Forms of Direct Public Participation

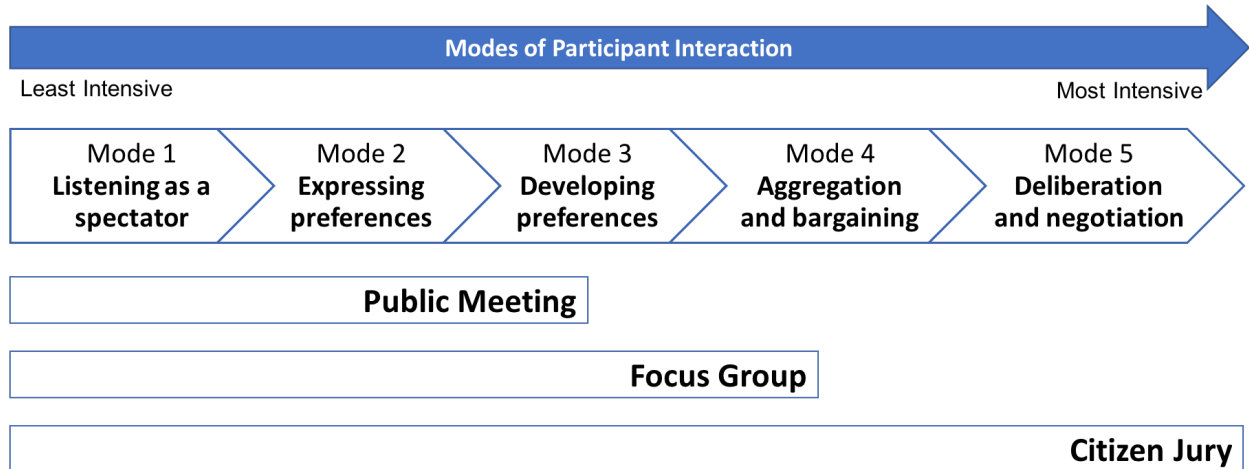


Figure 2: Participation and Issue Awareness

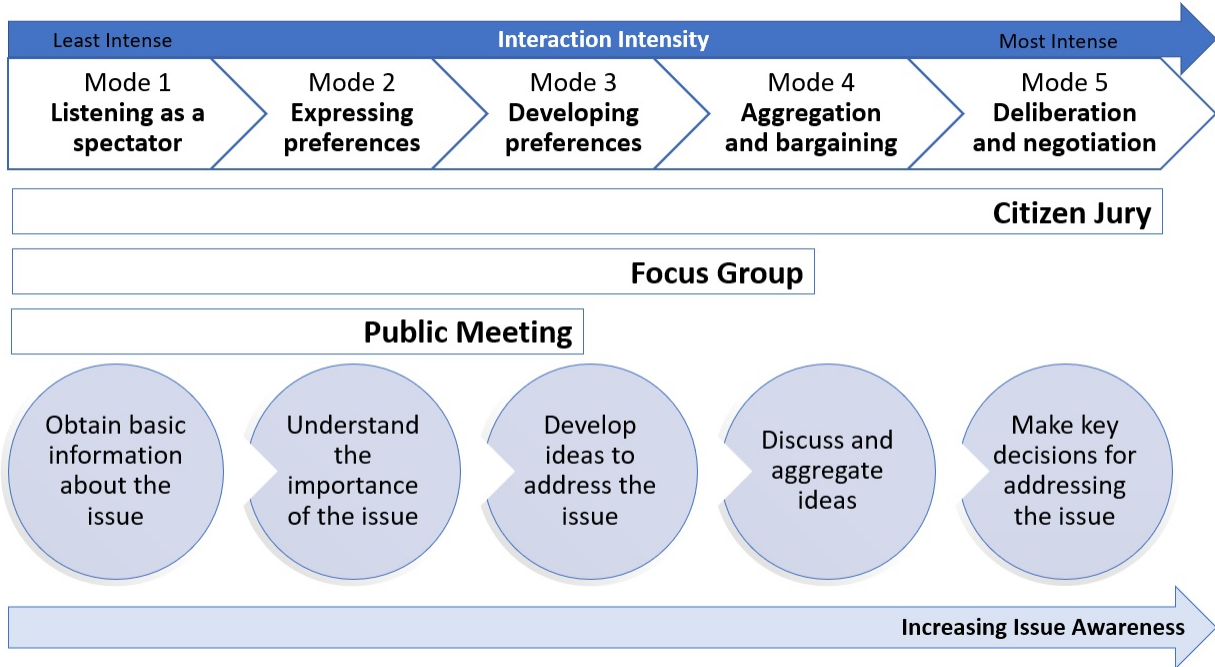


Figure 3: Participation and Competence

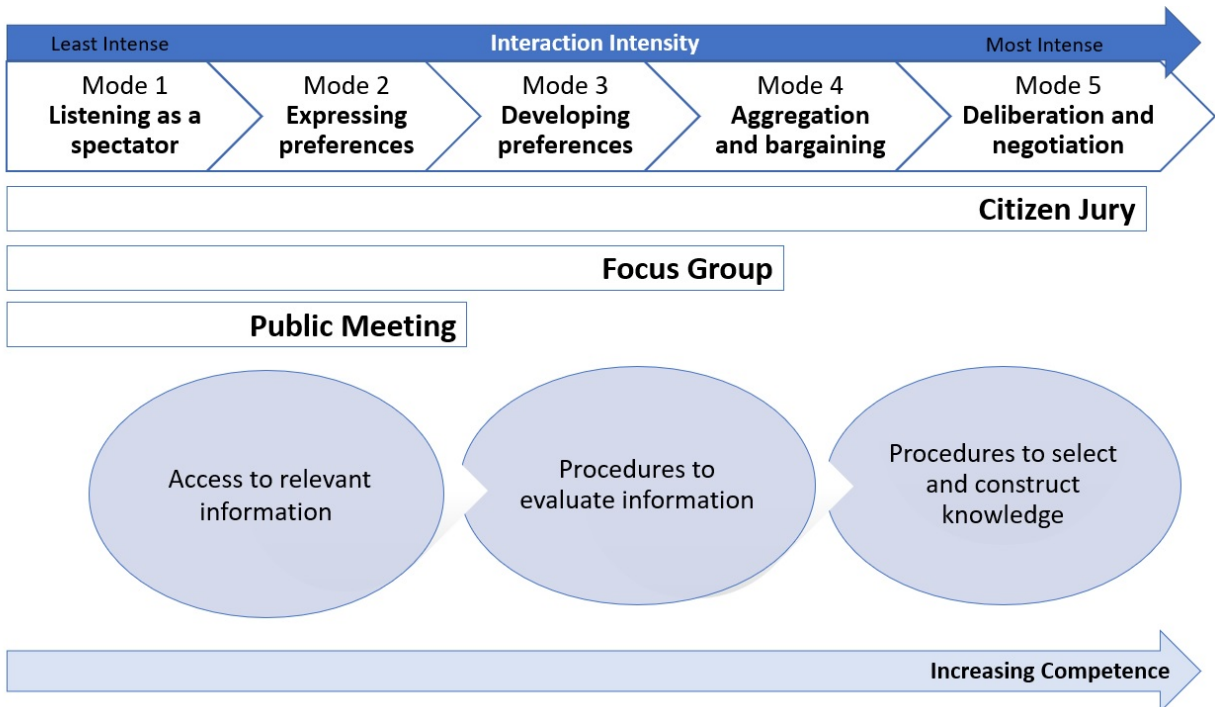


Figure 4: Participation and Empowerment

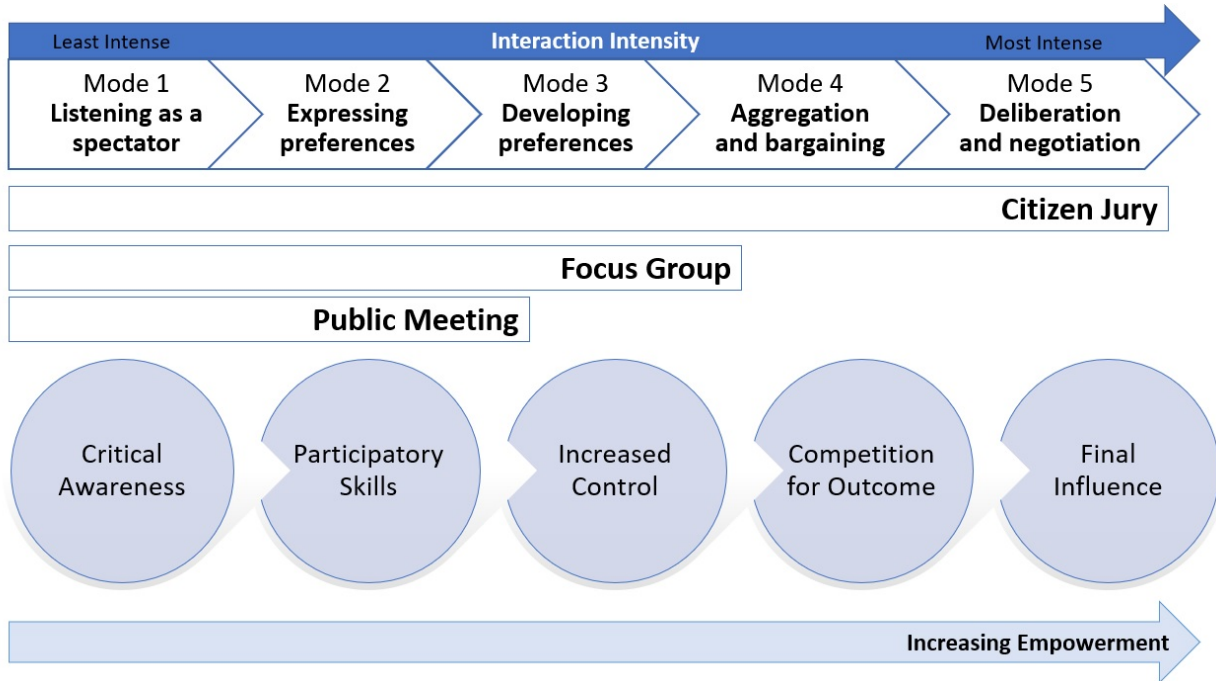


Figure 5: Participation and Trust

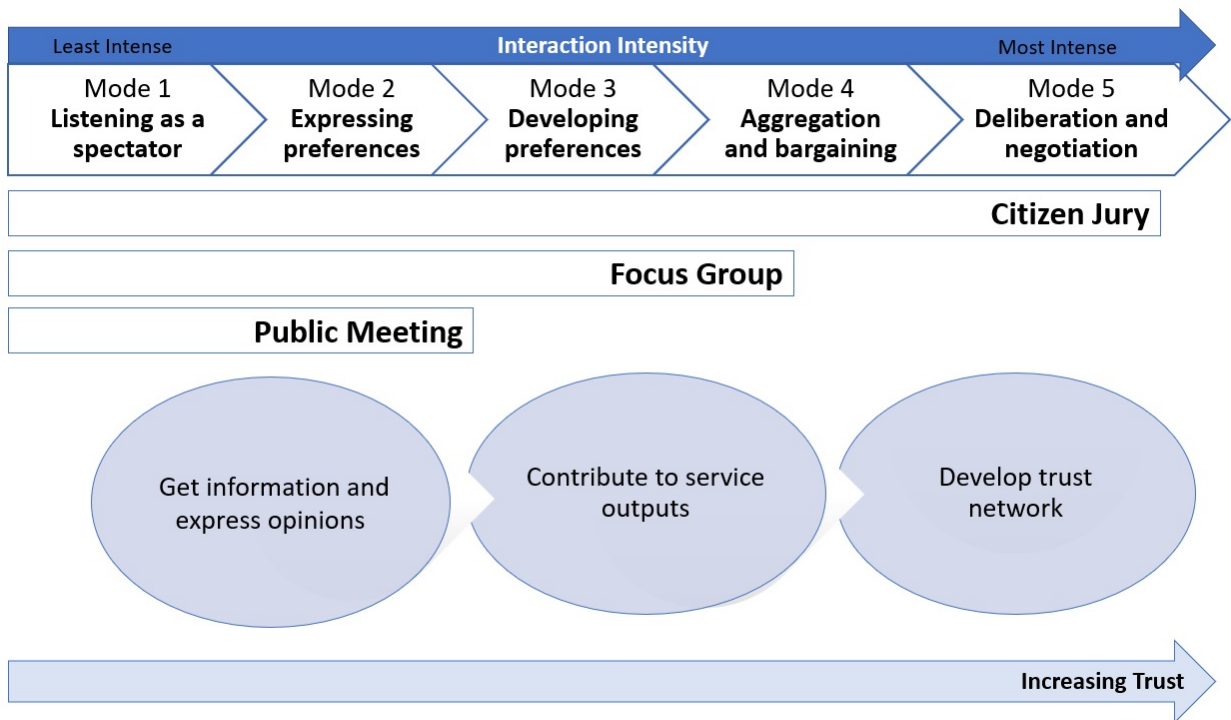
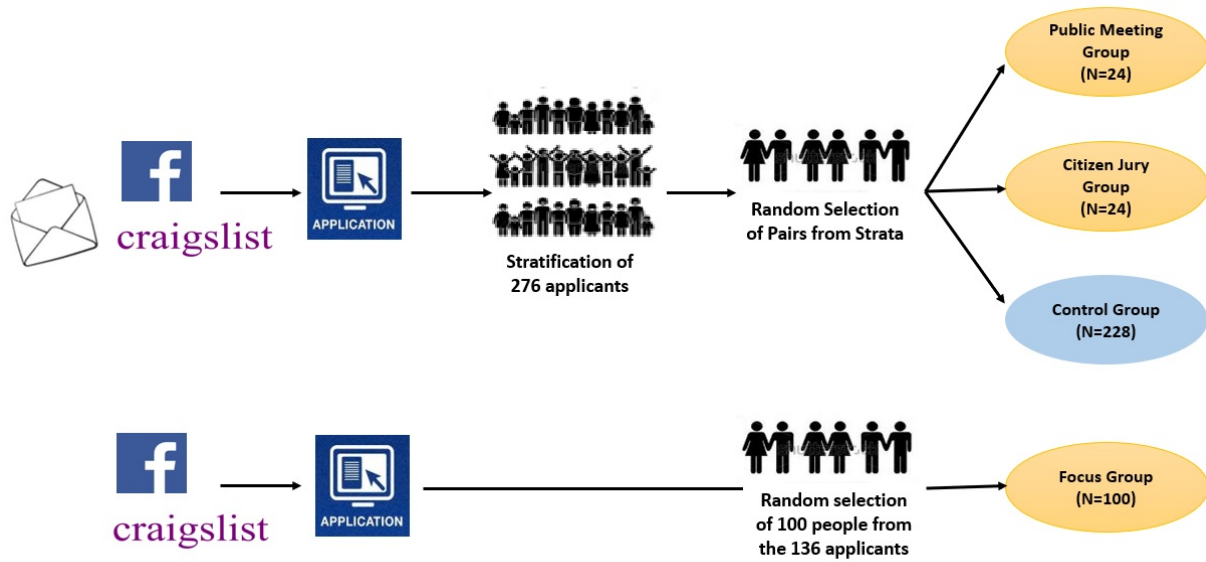


Figure 6: Participant Recruitment



Tables

Table 1: Number of Participants and Survey Respondents in Each Group

	Public Meeting	Citizen Jury	Focus Group	Control Group
# participants selected	24	24	100	228
# participants attended	21	18	95	--
# pre-surveys completed	21	18	93	108
# post-surveys completed	21	17	91	71
# included in the analysis	21	16	78	66

Note. In the analysis, we only include data from individuals who answered both the pre- and post-surveys.

Table 2: Summary Statistics (Dependent Variables)

Variable	N	Mean	Std. Dev.	Min	Max
Issue awareness	181	4.37	0.72	2	5
Competence	160	3.65	0.92	1	5
Empowerment	178	64.60	12.93	35.49	100
Trust in service professionals	181	3.15	0.72	1	5

Note. Some respondents did not answer all survey questions used for constructing each dependent variable. These missing observations result in different numbers of observations across the four dependent variables.

Table 3: Individual-level Effects of Direct Public Participation

	Issue awareness	Competence	Empowerment	Trust
Public meeting	0.070 (0.210)	0.002 (0.170)	6.261*** (2.374)	0.331** (0.157)
Focus group	0.242* (0.136)	0.226* (0.129)	4.277** (2.008)	0.199* (0.113)
Citizen jury	0.617*** (0.190)	0.471* (0.258)	10.056*** (3.165)	0.733*** (0.163)
<i>Controls</i>				
Gender	0.026 (0.113)	0.055 (0.116)	1.969 (1.535)	0.115 (0.096)
Age	-0.033 (0.044)	-0.039 (0.048)	0.031 (0.628)	-0.006 (0.036)
Race	-0.053 (0.134)	-0.199 (0.136)	0.488 (1.989)	0.097 (0.124)
Education level	0.011 (0.041)	-0.019 (0.040)	0.114 (0.527)	0.008 (0.029)
Employment status	0.189 (0.128)	0.034 (0.129)	1.712 (1.739)	-0.179* (0.096)
Income	0.019 (0.017)	-0.001 (0.018)	0.138 (0.261)	0.004 (0.011)
(constant)	-0.069 (0.255)	0.407 (0.285)	-5.595 (3.494)	-0.191 (0.243)
R-Squared	0.072	0.095	0.084	0.152
N	181	160	178	181

Notes: Robust standard errors in parentheses

Two-tailed tests of significance; * p<0.10, ** p<0.05, *** p<0.01

Appendices

Appendix 1: Demographic Characteristics of Participants

		Public Meeting (N=21)	Citizen Jury (N=16)	Focus Group (N=78)	Control Group (N=66)
Gender	Male	10 (48%)	9 (56%)	27 (35%)	23 (35%)
	Female	11 (52%)	7 (44%)	51 (65%)	43 (65%)
Race	Black/African American	3 (14%)	2 (13%)	17 (22%)	8 (12%)
	White/Caucasian	14 (67%)	12 (75%)	46 (61%)	57 (86%)
	Hispanic/Latino(a)	1 (5%)	1 (6%)	4 (5%)	0 (0%)
	Asian/Asian-Indian	1 (5%)	0 (0%)	1 (1%)	1 (2%)
	Multi-Ethnic	0 (0%)	1 (6%)	6 (8%)	0 (0%)
	Other	1 (5%)	0 (0%)	2 (3%)	0 (0%)
	Unknown	1 (5%)	0 (0%)	0(0%)	0 (0%)
Age	18-21	2 (10%)	0 (0%)	4 (5%)	2 (3%)
	22-35	2 (10%)	3 (19%)	26 (33%)	13 (20%)
	36-45	3 (14%)	2 (13%)	15 (19%)	12 (18%)
	46-55	6 (29%)	5 (31%)	16 (21%)	19 (29%)
	56-65	4 (19%)	2 (13%)	11 (14%)	14 (21%)
	66-75	4 (19%)	3 (19%)	5 (6%)	5 (8%)
	Over 76	0 (0%)	1 (6%)	1 (1%)	1 (2%)
Education	Some high school	0 (0%)	1 (6%)	4 (5%)	1 (2%)
	High school graduate	1 (5%)	4 (25%)	13 (17%)	9 (14%)
	Some college, no degree	7 (33%)	5 (31%)	21 (27%)	15 (23%)
	Associate's degree	4 (19%)	1 (6%)	9 (12%)	4 (6%)
	Bachelor's degree	4 (19%)	3 (19%)	9 (12%)	17 (26%)
	Graduate /prof. degree	5 (24%)	2 (13%)	22 (28%)	20 (30%)
Employment	Otherwise	12 (57%)	12 (75%)	20 (30%)	40 (51%)
	Employed	9 (43%)	4 (25%)	46 (70%)	38 (49%)
Income	Under \$10,000	3 (14%)	3 (19%)	16 (21%)	5 (8%)
	\$10,000-\$19,999	6 (29%)	0 (0%)	12 (15%)	9 (14%)
	\$20,000-\$29,999	0 (0%)	3 (19%)	11 (14%)	7 (11%)
	\$30,000-\$39,999	4 (19%)	3 (19%)	11 (14%)	11 (17%)
	\$40,000-\$49,999	1 (5%)	1 (6%)	6 (8%)	8 (12%)
	\$50,000-\$59,999	0 (0%)	1 (6%)	6 (8%)	3 (5%)
	\$60,000-\$69,999	1 (5%)	1 (6%)	2 (3%)	6 (9%)
	\$70,000-\$79,999	1 (5%)	2 (13%)	3 (4%)	5 (8%)
	\$80,000-\$89,999	1 (5%)	0 (0%)	1 (1%)	2 (3%)
	\$90,000-\$99,999	0 (0%)	0 (0%)	0 (0%)	1 (2%)
	\$100,000 or more	4 (19%)	2 (13%)	10 (13%)	9 (14%)

Note: This table reports demographic information of participants who completed all the questions in the pre- and post- surveys (i.e., individuals who are included in our analyses).

Appendix 2: Participant Characteristics vs. Population of Onondaga County

		Public Meeting (N=21)	Citizen Jury (N=16)	Focus Group (N=78)	Control Group (N=66)	Onondaga County
Gender	Male	48%	56%	35%	35%	48%
	Female	52%	44%	65%	65%	52%
Race	Black/African American	14%	13%	22%	12%	11%
	White/Caucasian	67%	75%	61%	86%	81%
	Hispanic/Latino(a)	5%	6%	5%	0%	4%
	Asian/Asian-Indian	5%	0%	1%	2%	3%
	Other/Unknown	10%	6%	11%	0%	0%
Age	18-35	20%	19%	38%	23%	31%
	36-65	62%	56%	54%	67%	50%
	66 & over	19%	25%	7%	10%	19%
Education	Some high school	0%	6%	5%	2%	10%
	High school/Some college	38%	56%	44%	37%	45%
	Associate's or Bachelor's	38%	25%	24%	32%	30%
	Grad. or Prof. degree	24%	13%	28%	30%	15%

Appendix 3: Pre and Post Scores of Dependent Variables for Each Group

		Issue awareness	Competence	Empowerment	Trust in service professionals
Public Meeting	Pre-score	4.48	3.15	59.61	2.84
	Post-score	4.55	3.25	63.65	3.06
	Change	0.07	0.10	4.04	0.22
Focus Group	Pre-score	4.14	3.33	62.92	3.06
	Post-score	4.36	3.76	65.38	3.22
	Change	0.22	0.43	2.46	0.16
Citizen Jury	Pre-score	4.18	3.37	56.44	2.79
	Post-score	4.75	3.91	63.77	3.44
	Change	0.57	0.54	7.33	0.65
Control Group	Pre-score	4.11	3.55	63.81	3.19
	Post-score	4.23	3.59	63.23	3.10
	Change	0.12	0.04	-0.58	-0.09

Appendix 4: Patient Activation Measure (PAM)

a.	When all is said and done, I am the person who is responsible for taking care of my health.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
b.	Taking an active role in my own health care is the most important thing that affects my health.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
c.	I am confident I can help prevent or reduce problems associated with my health.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
d.	I know what each of my prescribed medications do.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
e.	I am confident that I can tell whether I need to go to the doctor or whether I can take care of a health problem myself.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
f.	I am confident that I can tell a doctor concerns I have even when he or she does not ask.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
g.	I am confident that I can follow through on medical treatments I may need to do at home.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
h.	I understand my health problems and what causes them.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
i.	I know what treatments are available for my health problems.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
j.	I have been able to maintain (keep up with) lifestyle changes, like eating right or exercising.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
k.	I know how to prevent problems with my health.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
l.	I am confident I can figure out solutions when new problems arise with my health.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
m.	I am confident that I can maintain lifestyle changes, like eating right and exercising, even during times of stress.	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A

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Notes

[1] Some political scientists have conducted experimental work examining public participation in the political arena (e.g., Iandoli et al. 2018; Spada and Guimarães 2013; see also Prosser et al. 2018) and offered descriptive or case studies on local governments (e.g., Lowndes et al 2001; Prosser et al. 2017). However, these studies mostly focus on elite behaviors and are less relevant in the context of public administration.

[2] Although Fung (2006, 69) presents six modes of interaction, we only use five modes in this article, given that his last mode, “deploying technique and expertise” does not involve the public and is based on the technical / technocratic expertise of officials.

[3] The public meeting and citizen jury groups have a greater number of unemployed people (retired, unemployed, or “other” status) compared to the focus group and control group. We believe that there are two possible reasons for this. First, due to the particular interests of the funder, we oversampled minority populations for the public meeting and citizen jury groups. Second, the public meeting and part of citizen jury were held on a weekday, while the focus group was held on Saturday and control group participants did not have to attend any sessions. Nevertheless, we controlled for employment status (along with other characteristics such as gender, race, age, education level, and annual income) in our analysis.

[4] Although 228 people were assigned to the control group, five people provided incorrect

address information. Surveys mailed to these individuals were not delivered.

[5] Balance tests reveal that there are statistically significant differences in terms of participants' race and employment status ($p < .05$). Demographic characteristics listed here (including race and employment) were included as control variables in all the models, to provide more precise estimates.