

Building Faith in Democracy: Deliberative Events, Political Trust and Efficacy

Shelley Boulianne

NOTICE: This is the peer reviewed version of the following article: Boulianne, S. Building Faith in Democracy: Deliberative Events, Political Trust and Efficacy. Political Studies. Copyright © 2018 (The Author). Reprinted by permission of SAGE Publications. Published at <https://doi.org/10.1177/0032321718761466>.

Permanent link to this version <http://roam.macewan.ca/islandora/object/gm:1569>

License All Rights Reserved

Building Faith in Democracy: Deliberative Events, Political Trust and Efficacy

Shelley Boulianne, Ph.D.
Department of Sociology, MacEwan University
Room 6-398, City Centre Campus
10700 – 104 Avenue
Edmonton, Alberta Canada T5J 4S2
sjboulianne@gmail.com
Phone: 780-633-3243
Fax: 780-633-3636

Acknowledgements: This work was supported by a Community-University Research Alliance grant from the Social Sciences and Humanities Research Council to the Alberta Climate Dialogue group, #833-2009-4011. The author would like to thank David Kahane, Kristjana Lopton, and the Alberta Climate Dialogue Steering Committee for supporting this research.

Author biographical note: Shelley Boulianne is an associate professor of sociology at MacEwan University. She completed her Ph.D. in sociology at the University of Wisconsin-Madison. Her research focuses on media use, civic and political engagement, as well as survey research methodology.

Building Faith in Democracy: Deliberative Events, Political Trust and Efficacy

Abstract: Governments have turned to public deliberation as a way to engage citizens in governance with the goal of rebuilding faith in government institutions and authority as well as to provide quality inputs into governance. This paper offers a systematic analysis of the literature on the effects of deliberative events on participants' political efficacy and trust. The systematic review contextualizes the results from a six-day deliberative event. This case study is distinctive in highlighting the long-term impacts on participants' political trust and efficacy as key outcomes of the deliberative process unfold, i.e., City Council receives then responds to the participants' recommendations report. Using four-wave panel data spanning two and a half years and three public opinion polls (control groups), the study demonstrates that participants in deliberative events are more efficacious and trusting prior to and after the deliberative event. Despite the case study's evidence and the systematic review of existing literature, questions remain about whether enhanced opportunities for citizen engagement in governance can ameliorate low levels of political trust and efficacy observed in western democracies.

Keywords: deliberative democracy; political trust; political efficacy; political participation

Building Faith in Democracy: Deliberative Events, Political Trust and Efficacy

Introduction

Democratic institutions are faced with a crisis of legitimacy. This crisis affects government's ability to create and enforce policies and laws to govern the lives of citizens (Dalton 2004; Levi and Stoker 2000; Marien and Hooghe 2011; Norris 2011). This crisis is most evident in growing levels of distrust of government institutions and authorities (Fournier, van der Kolk, Carty, Blais and Rose 2011; Holbrook 2004; Levi and Stoker 2000; Pew 2017). While some dispute these trends (Thomassen & van Ham 2017), they acknowledge a gap between citizens' expectations for democratic governance and their satisfaction with the performance of democratic systems (Norris 2011). In this context, some governments have turned to public deliberation as a way to engage citizens in governance with the goal of rebuilding faith in government institutions and authority (Marien & Kern 2017; Spada & Ryan 2017) as well as to provide quality inputs into the decision-making process (French & Laver 2009). Deliberative events are thought to be one way to deepen citizens' involvement in governance (Wright 2010).

Deliberative events are not a panacea for the flaws in representative democracy, and given the small scale of these initiatives, their impacts on the broader political system may be limited (Lafont 2015; Warren 2008). One study suggests that hearing about deliberative events increased political efficacy and trust among respondents to a random digit dialing survey (Boulianne 2017). Including citizens in the decision-making process may increase the participants' perceived legitimacy of the democratic system (Grönlund et al. 2010; Halvorsen 2003; Strandberg and Grönlund 2012; Warren 1992). However, this process may also have detrimental effects on legitimacy, if the input is perceived to have no influence on decision-

makers (Halvorsen 2003). In sum, in the short-term, participation in a deliberative event could positively impact faith in government institutions, but the long-term impact may depend on decision-makers' responses to this input.

This paper explores the role of political trust and efficacy in a public deliberation held in Edmonton, Canada in Fall 2012 (n=55). The distinctiveness of this event and its methodological design are illustrated through a systematic review of existing research on the effects of deliberative events on political trust and efficacy. Using four-wave longitudinal survey data of participants and three cross-sectional surveys (control groups), I examine the following questions: How do political trust and efficacy impact the decision to participate in a deliberative event and how does the deliberative event impact political trust and efficacy? This study is distinctive in highlighting the long-term impacts on participants' political trust and efficacy as key outcomes of the deliberative process unfold. Over two and a half years, political trust and efficacy are tracked as the deliberative event concludes, as a recommendations report is presented to City Council (April 2013), and when City Council issues a formal policy response related to the panelists' recommendations (April 2015). The case study is distinctive in its linkage to the policy-making process and the intensity of the deliberative process (six Saturdays). These distinctive characteristics are critical to understanding how deliberative events impact faith in democratic systems in the short and long term.

Literature review

Political Trust

I see trust as an issue of whether particular political actors or institutions are expected to act in citizens' best interests (Holbrook 2004). Trust is based on expectations about future behaviour,

which relate to, but are distinct from, assessments of past behaviour, which are assessed with survey questions about performance, efficiency, and satisfaction (Holbrook, 2004). Political trust is an expectation that government will do “what’s right” (American National Election Study 2015; Munno & Nabatchi 2014; Pew 2017). Political trust is a multi-dimensional concept. Individuals may differ in their trust of political actors (for example, civil servants versus local politicians versus party leaders) compared to institutions. Trust levels may differ based on levels of government as well as the branches of government (Cole et al. 2004; Gallup 2013; Hetherington and Husser 2012; Norris 2011; Pew Research Center 2013; Pickup et al. 2004). However, these nuances are rarely examined in studies about trust and political participation. In the context of deliberation, I believe that a nuanced measure is appropriate, because these events tend to focus on single policy areas, which fall under a specific level and branch of government.

Various studies document a decline in levels of political participation in well-established democracies, particularly around voter turnout (Blais et al. 2004; Norris 2011; Putnam 2000). There has also been a simultaneous decline in trust in government (Citrin and Luks 2001; Levi and Stoker 2000). As such, scholars have examined whether the two trends are related (see literature summary in Levi and Stoker 2000).

Some scholars argue that a degree of scepticism, i.e., distrust or mistrust, might encourage meaningful public engagement (Lenard 2008; Parkins and McFarlane 2015; Warren 1999). If citizens uncritically trust institutions, they may forgo opportunities to get involved, because they assume that the institutions share their interests and will act accordingly (Warren 1999, 2009). Alternatively, high levels of trust mixed with some skepticism may motivate people to get involved in decision-making processes (Parkins and McFarlane 2015). Warren (2009) suggests that democratic institutions should organize meaningful public engagement in domains

where there is contention and possibly mistrust, rather than try to engage citizens in every decision. This structure would allow citizens to more strategically allocate their time and energy around certain issues, while remaining passive and trusting around other issues (Warren 2009).

Participation in a public deliberation is expected to increase levels of trust in political institutions and leaders (Gastil et al. 2012; Grönlund et al. 2010; Halvorsen 2003; Luskin and Fishkin 2002; Nabatchi 2012; Strandberg and Grönlund 2012). Through deliberation, citizens experience firsthand the need for compromises and trade-offs in order to reach a democratic consensus. Simply learning about policy-making processes as part of a deliberative exercise might increase overall trust in institutions (Grönlund et al. 2010). Participants might also learn more about public officials and come to identify with them on the basis of shared personal characteristics (Ulbig 2007). This exchange might also increase levels of trust.

The deliberative process might also increase faith in policy decisions. By learning about arguments supporting standpoints different from their own, participants might view decisions, which they do not personally favour, to be more legitimate than they otherwise would (Grönlund et al. 2010; Warren 1992). Additionally, deliberative events might foster a feeling among participants that their perspectives are being taken seriously by decision makers and that their interests are being fairly represented within the political process (Halvorsen 2003). All of these processes might contribute to increased confidence in the performance of government as well as an overall perception that government is acting in ways that benefit citizens. In other words, these processes contribute to building trust in government.

While the deliberative event, itself, may have positive effects on trust, these positive effects may not endure over the long term. This intense form of participation requires citizens to invest a considerable amount of time and energy. If the decision-makers react favorably to the

deliberative outcomes, e.g., reports or deliberative polls, then the impact will continue to be positive. However, if decision-makers respond negatively or are unresponsive to the input, the participants could become critical about their time investment and the deliberative process, causing them to report lower levels of trust and political efficacy (Fournier et al. 2011). For example, Dyck (2009) suggests that direct democracy initiatives or referendums could diminish trust if politicians or bureaucrats fail to fully implement widely supported initiatives. Indeed, he argues that those citizens who are not exposed to direct democracy may be more trusting of government, than those who are exposed but are unsatisfied with the implementation (Dyck 2009).

Existing research on the role of trust in deliberative events tends to show positive effects, but not consistently (Table 1 exception Tomkins et al. 2010). The studies largely rely on surveys of panelists before and after the deliberative event. The studies treat political trust as an outcome, rather than a motivation for participation, which contradicts how trust is modelled in relation to other forms of engagement (Quintellier and van Deth 2014). As a consequence, the studies cannot address whether participants who are more trusting self-select to engage in deliberative events or whether a degree of mistrust is motivating participation. The studies also cannot determine whether the deliberative event is the cause of increased trust or whether the change is caused by some external stimuli. This analysis requires a survey of a control group to coincide with the post-deliberation survey of participants.

[insert Table 1 about here]

Additionally, existing research on deliberative events focuses on broad or general measures of institutional trust (e.g., trust in Parliament), whereas scholarship on political trust points to the multiple dimensions of political trust. Deliberative events may only impact political

trust in the policy domain under study as well as the level of government involved in the deliberative event. Finally, studies have not examined the long-term impacts of the deliberative process, i.e., tracking changes in participants' views as their recommendations are discussed and acted upon by decision-makers. The single study exploring long-term effects on political trust examines a three-month time span for a one-day deliberative event that was not explicitly tied to the policy-making process (Grönlund et al. 2010). As such, this new study makes a key contribution to the study of political trust in the context of deliberative processes and their outcomes. The hypotheses about general trust (a) and policy domain-specific trust (b) are as follows:

H1a (Selection effect): Compared to non-participating citizens (control group), participants report higher levels of general political trust, on average, prior to the deliberative event, using contemporaneous survey data (September 2012).

H2b (Positive immediate effect): Participants will report higher average levels of domain-specific political trust immediately after the deliberative event (December 2012), compared to before the deliberative event (September 2012).

H3a (Positive long-term effect): Participants will report higher average levels of general political trust at six months and 2.5 years after the event, compared to before the deliberative event (September 2012).

H3b (Positive long-term effect): Participants will report higher average levels of domain-specific political trust at six months and 2.5 years after the event, compared to before the deliberative event (September 2012).

H4a (Deflating effect in the post-deliberation period): Participants' average levels of general political trust will decrease in the post-deliberative period (6 months versus 2.5 years).

H4b (Deflating effect in the post-deliberation period): Participants' average levels of domain-specific political trust will decrease in the post-deliberative period (December 2012, June 2013, June 2015).

H5b (Enduring differences): Compared to non-participating citizens (control group), participants report higher levels of domain-specific political trust, on average, after the deliberative event, using contemporaneous survey data (June 2013).

Political Efficacy

Political efficacy refers to citizens' perceptions that they can influence government. Efficacy can be measured in terms of individuals' perception of their own ability to influence political decisions (internal efficacy) as well as their assessment about whether there is opportunity to influence government (external efficacy). While political trust relates to political actors and institutions' actions in the best interests of citizens, political efficacy refers to citizens' capacity to influence these actors and institutions. While political efficacy and political engagement are correlated (e.g., Gastil and Xenos 2010; Smets and van Ham 2013), the causal direction remains unclear (Fournier et al. 2011; Gastil and Xenos 2010). I expect that people who choose to participate in a deliberative exercise will report higher levels of efficacy, on average, than the general public. The opportunity to influence policy decisions is a prime motivation for their involvement in a deliberative event, particularly an event that involves spending six Saturdays discussing climate change policy. Furthermore, those citizens with high political efficacy may be particularly attracted to this specific deliberative event because of its clear linkages to City government and City Council's decision-making process.

Only a handful of studies have examined political efficacy as a motivation for

participation in deliberative events. Four studies found no differences in political efficacy between participants and control groups (Andersen and Hansen 2007; Fishkin and Luskin 1999; French and Laver 2009; Nabatchi 2010), while another study found that participants' political efficacy was higher compared to a control group (Tomkins et al. 2010). However, these deliberative events all involved considerably less of a time commitment than the event in this current case study (six days). The greater length of this event, as well as its linkage to the policy-making process, might bias the sample in favor of those who feel efficacious.

Deliberative events are expected to increase political efficacy (Delli Carpini et al. 2004; Nabatchi 2010, 2012; Mutz 2008). However, whether or not a deliberative exercise will achieve this result depends on contextual issues related to the deliberation, i.e., whether it is well-organized, has a clear link to a policy-making process, and the participants' overall satisfaction with the deliberative process (Gastil et al. 2008; Grönlund et al. 2010; Morrell 2005). More generally, the effectiveness of these types of events likely depends on perceptions of procedural justice (Marien & Kern 2017). The effect of participation in deliberative exercises on political efficacy has been tested in a variety of contexts (Table 2). More than half of the effects are positive and significant (Table 2). As observed with political trust, the vast majority of studies track participants over time, rather than comparing participants and control groups. This approach makes it difficult to attribute the changes in political efficacy to the deliberative event and its outcomes, which is particularly problematic when trying to assess the enduring and long-term effects. A handful of studies test for long-term effects (Table 2). These studies do not use a post-deliberation control group to determine if the public's level of political efficacy may have changed as well, reflecting the effects of external factors on both the participants and non-participants.

[insert Table 2 about here]

An exception is the Danish Deliberative Poll on the Euro, which involved two control groups and multiple surveys of the panelists including a survey three months after the conclusion of the deliberative event (Andersen and Hansen 2007). Comparing the control groups during the deliberative poll and panelists after the deliberative poll, the researchers found no difference in the levels of political efficacy. Comparing participants at the time of recruitment, immediately before the deliberative poll, at the end of the deliberative poll and three months later, the authors found mixed results about changes in political efficacy (Andersen and Hansen 2007).

As described with political trust, I expect that if participants' input is considered by decision-makers, then their sense of political efficacy may be increased (or sustained if already at elevated levels) in the period following the deliberative event. However, if their input is perceived to be ignored or dismissed, then the deliberative process could have negative impacts on political efficacy in the long term. Halvorsen (2003, pp.539) writes that "high-quality citizen involvement could backfire if the public learns over time that their participation is meaningless. A history of participation with no visible impact on agency decisions can be worse than no participation at all" (also see Dyck 2009). This paper highlights the short and long-term effects of a deliberative event on participants' political trust and efficacy. The case study is unique in the intensity of the deliberative event (six days) as well as its clear linkage to the policy-making process. The hypotheses for external efficacy (a) and internal efficacy (b) are as follows:

H6a (Selection effect): Compared to non-participating citizens (control group), participants report higher levels of external political efficacy, on average, prior to the deliberative event, using contemporaneous survey data (September 2012).

H7a (Positive immediate effect): Participants will report higher average levels of external

efficacy immediately after the deliberative event (December 2012), compared to before the deliberative event (September 2012).

H7b (Positive immediate effect): Participants will report higher average levels of internal efficacy immediately after the deliberative event (December 2012), compared to before the deliberative event (September 2012).

H8a (Positive long-term effect): Participants will report higher average levels of external efficacy at six months and 2.5 years after the event, compared to before the deliberative event (September 2012).

H8b (Positive long-term effect): Participants will report higher average levels of internal efficacy at six months and 2.5 years after the event, compared to before the deliberative event (September 2012).

H9a (Deflating effect in the post-deliberation period): Participants' average levels of external efficacy will decrease in the post-deliberative period (December 2012, June 2013, June 2015).

H9a (Deflating effect in the post-deliberation period): Participants' average levels of internal efficacy will decrease in the post-deliberative period (December 2012, June 2013, June 2015).

H10a (Enduring differences): Compared to non-participating citizens (control group), participants report higher levels of external efficacy, on average, after the deliberative event, using contemporaneous survey data (June 2013).

H10b (Enduring differences): Compared to non-participating citizens (control group), participants report higher levels of internal efficacy, on average, after the deliberative event, using contemporaneous survey data (June 2013, June 2015).

Case Study: Citizens' Panel on Edmonton's Energy and Climate Challenges

In 2005, the City of Edmonton adopted a Public Involvement Framework, setting forth an agenda for integrating citizen engagement more systematically into the City's decision-making process (City of Edmonton 2005). In 2009, the Centre for Public Involvement was formed as a partnership between the City of Edmonton and the University of Alberta. The Centre for Public Involvement has organized several citizen panels to gather input on the topics, such as internet voting, urban food and agricultural policy, as well as energy efficiency and climate change. In this paper, I highlight the work of the Citizens' Panel on Edmonton's Energy and Climate Challenges. This panel was formed through a partnership between the Centre for Public Involvement, the City's Office of Environment and Alberta Climate Dialogue, a university-community research organization. The panel was designed to engage a representative sample of Edmontonians in a deliberation about the City's policies to address climate change.

The deliberative event meets the definition of a citizen jury offered by French and Laver (2009, pp.42). A citizen jury involves a group of citizens who are provided with briefing materials, meet face to face for at least one day and discuss different policy options while interacting with experts and political leaders. This deliberative event involved meeting for six Saturdays from October to December 2012 at the University of Alberta. The participants were tasked with writing a report to City Council about how to address climate and energy issues within the City of Edmonton. This deliberative event is distinctive in the involvement of City administrators and in its formal connection to the policy-making process. While some scholars are concerned that these deliberative events may be public relations exercises (French and Laver

2009), in this case, this event had formal ties to the policy-making process, i.e., the report would be tabled to City Council (April 2013) and City Council would consider the report in developing its policy plan (April 2015).

This case study is distinctive in the intensity of the deliberation and its connection to the decision-making process. Because of these distinctive characteristics, the case study is ideally suited to assess short and long-term effects on political trust and efficacy. The research tracks participants immediately after the deliberative event (December 2012), when the recommendations report is tabled to City Council (April 2013) and finally, when City Council formally responds to the recommendations report (April 2015). In this case study, the possibility of a negative effect could be explained by City Council's reaction to the report. If participants feel that City Council did not give the report full consideration, they may feel disillusioned with democracy and consequently, express lower levels of their own efficacy and the system's openness to citizens' input. In addition, they may distrust government, if they viewed government as failing to act on their recommendations and in their best interests.

Like the Dublin Citizen Jury (French and Laver 2009), participants were recruited by way of a random digit dialing recruitment strategy in September 2012. If they expressed an interest in participating, they were sent additional information. Once their participation was confirmed, they were offered a \$400 honorarium. While panelists were recruited using random digital dialing, quotas were established around age, education, gender, ethnicity, ward, income and employment in energy sector (Boulianne 2018). The quotas ensured that the panel characteristics matched the Census profile for the community. The recruitment process also sought to include those who believe in climate change as well as those who do not (Boulianne 2018; Centre for Public Involvement et al. 2013).

Approximately 66 participants were recruited to participate in the panel and 55 continued their involvement through all six Saturdays of the event. The number may seem small compared to other major deliberative projects such as the Citizens Assemblies on Electoral Reform in Ontario and British Columbia (Fournier et al. 2011) or Fishkin and Luskin's deliberative polls (Fishkin and Luskin 1999; Luskin and Fishkin 2002). However, our population size is much smaller in scale compared to those projects. As such, our sampling ratio is better. Our deliberative group is comparable in size to other key deliberative projects (French and Laver 2009; Fournier et al. 2011 (Electoral Reform in the Netherlands)) and much larger than other deliberative events studying political trust and efficacy (Munno and Nabatchi 2014; Tomkins et al. 2010).

Methods

I use several sources of data to examine my research hypotheses. I use multiple random sample surveys of the general population and I use multiple surveys of panelists before and after the deliberative event. The random sample surveys help us understand how panelists differed from the broader body of citizens. This comparison helps us understand the degree to which trust and efficacy may have motivated participation. In addition, I use the random sample surveys to understand how panelists have changed as a result of participating in the deliberative event. In particular, I compare random samples' reports of trust and efficacy six months (June 2013) and two and a half years (June 2015) after the deliberative event to panelists' responses during the same time period to highlight the enduring effects of the deliberative process. In this sense, the random sample survey respondents serve as a control group, whereas the deliberating panelists

are the experimental group (French and Laver 2009). This comparison helps us understand how the deliberative event transformed these panelists, making them different from their non-participating counterparts in the general population.

I have three random sample surveys of the general population. The first survey was conducted as an Interactive Voice Response (IVR) telephone survey by Probit, a market research firm. The survey was conducted in September 2012. A random sample of 1271 Edmontonians participated in this survey. The American Association of Public Opinion Research (AAPOR) Response Rate #1, which includes only fully completed surveys, is approximately 1 per cent. The second and third random sample surveys were interviewer-led telephone surveys. The surveys were conducted in June to July 2013 and again in 2015, as part of the Alberta Survey series, which are free to download from the University of Alberta's repository: <https://dataverse.library.ualberta.ca/dvn/>. The AAPOR Response Rate #2, which includes partially completed interviews, is approximately 11 per cent for both surveys (Edmonton-based samples). These telephone surveys were conducted by the University of Alberta's Population Research Lab. Approximately 400 Edmontonians completed this survey. However, because of a split ballot experiment embedded within the survey in 2013, the results presented are based on half of the total respondents (see Boulianne 2017). However, in 2015, the results are based on all 400 respondents residing in or around the City of Edmonton. The public opinion surveys coincide with the surveys of the panelists.

For those recruited to participate in the deliberative event (n=66), I compared responses before and after the deliberative event to assess changes in political trust and efficacy over time. All panelists completed a short telephone survey (recruitment survey), then were invited to complete a self-administered (SAQ) web survey (pretest data). Of the 66 panelists, 44 completed

the pretest survey. The short timeline between recruitment and the start of the deliberative event made it difficult to administer the pretest survey as a web survey, reducing the response rate.

As mentioned, panel attrition reduced the number of participants in the six-Saturday deliberative event (66 to 55). Among the 55 remaining panelists, 49 completed the survey on the last day of the deliberative event (Session 6 post-test). I distributed self-administered surveys (web or print depending on panelists' preferences) six months and two and a half years after the deliberative event to determine if the changes were enduring. Surveying deliberative participants at multiple points in the deliberative process is common. What is unique in my design is that participants were surveyed six months (June 2013) and two and a half years (June 2015) after the deliberative event to assess the long-term effects of the deliberative event in the context of their report being tabled to City Council (6 months) and City Council issuing a policy statement, which relates to the panelists' recommendations (2.5 years).

The first question is about trust in the municipal government in general. This question is similar to questions posed by others (see Table 1). Following the literature's findings about the nuances of political trust, I also asked about trust in a particular policy domain. I asked about trust in government around the policy issue (domain) under discussion at the deliberative event, namely, climate change. The two measures provide a holistic picture about how trust in government may shape the motivation to participate in a deliberative event as well as how participation in a deliberative event shapes trust. There were concerns about survey fatigue, given the number of surveys administered in the four months from recruitment to the end of the deliberative event. To minimize the burden of survey response, the two trust questions were asked at different points in time, rather than repeated at each point in time. In the six-month and two and a half year follow-up surveys, both trust questions were asked.

The political efficacy questions were adapted from the American National Election Studies (2015). However, instead of asking a negatively framed, “don't care”, we asked a positively framed question and asked about the portion of politicians who care about what people think. This measure is used as an indication of external efficacy, following Luskin and Fishkin (2002). The second survey question was adapted from “People like me don't have any say about what the government does” to “How much can people like you affect what the government does?” with response options of not at all, a little, a moderate amount, a lot and a great deal. In the literature, this measure is used in both measures of internal efficacy (Luskin & Fishkin, 2002) and external efficacy (Gastil & Xenos, 2010). To distinguish this measure from the other measure, I call this measure - internal efficacy, again, following Luskin and Fishkin (2002). The existing literature uses these two versions of political efficacy equally (see Table 2).

The analysis focuses on aggregate means and t-test of group means. The reason for focusing on aggregate means, instead of individual-level changes, is that a core component of the analysis is comparing panelists' responses to random sample surveys of the general population. This comparison establishes whether panelists reported higher levels of trust prior to the deliberative event, compared to non-participants and whether panelists reported higher levels of trust after the deliberative event, compared to non-participants. In addition, respondents had the option of submitting their surveys anonymously. We offered this option to address concerns about social desirability and privacy. This strategy limits the analysis of individual-level changes, but is expected to increase the validity of the survey responses.

Results

The first set of analysis compares levels of general trust for the general public and panelists, as per Hypothesis 1a (selection effect). Panelists reported higher, on average, levels of political trust in municipal government compared to the general population (Table 3, comparison 1). The difference is approximately 0.32 of a point on a five point scale for the two surveys conducted simultaneously ($t = 3.75, p < .001$).

[insert Table 3 about here]

Figure 1 tracks political trust before the deliberative event (September 2012), six months after the deliberative event when the report was presented to City Council (June 2013) and finally, two and a half years (June 2015) after the deliberation when City Council issued its new Energy Transition Plan, which incorporated the panel's recommendations. Political trust dropped from its elevated level during the pretest to six months after the event, before rebounding two and a half years after the event (Figure 1). In sum, while panelists reported higher levels of trust at the recruitment stage, compared to their non-participating counterparts (Hypothesis 1a), the deliberative event (Hypothesis 3a) and outcomes of the deliberative process did not further increase general political trust (Hypothesis 4a).

[insert Figure 1 about here]

In terms of trust around climate change decisions, panelists reported higher levels of trust after the deliberative event, compared to before the deliberative event. Figure 2 illustrates the trend through the four points of data collection. Average levels of trust around climate change decisions started at 2.55 and ended at 3.05 on a four point scale.

[insert Figure 2 about here]

The increase was observed at the posttest during the last of the six meetings (Table 4, comparison 1) and two and a half years later (comparison 3). Comparing the pretest and

immediate posttest, the increase was 0.45 on a four point scale ($t = 2.77, p = .007$), in line with Hypothesis 2b (positive immediate effect). Comparing the pretest and posttest conducted two and a half years after the deliberative event, when City Council issued a policy statement connected to the panel's report, the increase was .50 on a four point scale ($t = 2.81, p = .006$). This finding is in line with Hypothesis 3b (positive long-term effect).

[insert Table 4 about here]

Looking at the simultaneous surveys of the general population and panelists six months after the deliberation (June 2013), the increased level of trust in climate change decisions is clear (Table 4, comparison 7). The difference was 0.39 on a four point scale ($t = 2.94, p = .004$) in line with Hypothesis 5b (enduring differences). In sum, the general measure of trust demonstrated already high levels of trust before the deliberative event and panelists' levels of trust did not further increase. The nuanced measure of trust in climate change decisions shows an increase in trust immediately after the deliberative event, which continued to remain elevated six months after the event and two and a half years later.

In terms of government officials caring about citizens' opinions, panelists reported higher levels of external efficacy before the deliberative process began, compared to the general public (Table 5, comparison 1). The difference was 0.57 on a five point scale ($t = 4.64, p < .001$). As observed with general trust, panelists began the process with elevated levels of external efficacy, offering support for Hypothesis 6a (selection effect).

[insert Table 5 about here]

However, in the period following the conclusion of the deliberation, panelists' efficacy decreased (Figure 3), as per Hypothesis 9a (deflating effect in the post-deliberation period). From the pretest to the two and a half year posttest (Hypothesis 8a), panelists average rating of external

efficacy decreased by 0.47 on a five point scale ($t = 2.28, p = .025$). This same pattern of decline is evident among the general public (Table 5, comparison 9). Despite the co-occurring decline, panelists' efficacy remained higher than the general public's external efficacy as measured by simultaneous surveys (Table 5, comparison 15), in line with Hypothesis 10a (enduring differences). Six months after the conclusion of the deliberation, panelists reported, on average, 3.09, whereas the general public reported, on average, 2.58 on the question of whether government officials care ($t = 2.95, p = .003$). In sum, panelists' views about politicians' caring were elevated prior to the deliberative event and in the post-deliberation period, external efficacy subsequently decreased at two and a half years after the event. The decrease followed a trend in the general population's views about politicians' caring. However, panelists' views about government caring were more favorable than their non-participating counterparts in the general public.

[insert Figure 3 about here]

In terms of perceived ability to influence government (internal efficacy), panelists reported higher levels immediately after and six months after the deliberative event compared to pretest levels (Figure 4), as per Hypothesis 7b (positive immediate effect) and 8b (positive long-term effect). Internal efficacy increased from 2.89 to 3.38 to 3.43 from the pretest to the last of the six meetings to six months after the deliberative event when the report was presented to City Council. However, two and a half years after the event concluded, when City Council issued its new Energy Transition Plan, the average level of internal efficacy dropped to 2.83, as per Hypothesis 9b (deflating effect in the post-deliberation period). The increased efficacy reported after the deliberation did not endure, as levels of efficacy returned to pretest levels.

[insert Figure 4 about here]

The increases in internal political efficacy described above were significant (Table 6, comparison 1), as per Hypotheses 7b. Comparing two simultaneous surveys of the panelists and the general population demonstrates that panelists report being more efficacious than the general population (Table 6, comparison 8), as per Hypothesis 10b. Six months after the deliberative event, panelists reported, on average, higher levels of internal efficacy, than the general population surveyed at the same time. The difference was 0.84 on a five point scale ($t = 5.18$, $p < .001$). As mentioned, average levels of efficacy decreased two and a half years after the deliberation when City Council issued its new Energy Transition Plan, which incorporated the panel's recommendation, compared to responses gathered after the deliberative event (Table 6, comparisons 9,10), as per Hypothesis 9b. The decrease returned panelists to their original views (comparison 5), which also mimicked average levels observed in the general public at the exact same time period (comparison 15). In sum, the deliberative event and the period of six months after the deliberative event demonstrated an increase in participants' perceived ability to influence government. However, this increase did not persist two and a half years after the deliberative event. For both measures of political efficacy, the deliberative event clearly increased levels of efficacy six months after the deliberation.

Table 7 summarizes the results of hypothesis-testing. Some hypotheses are tested multiple times (e.g., multiple tests about changes in efficacy and trust in the post-deliberation period). The Bonferroni correction is intended to account for the problems of multiple tests and committing Type 1 errors. The adjustment involves dividing the alpha/level of significance by the number of tests of a hypothesis. The alpha/level of significance is set at .05 as per existing research (Tables 1 and 2) and as per guidelines in top political science journals (e.g., *American Journal of Political Science*). For three tests of a hypothesis, the threshold for each individual

test would be calculated as $.05/3 = .017$. Each individual test would need to meet this threshold. There are three tests of the hypothesis about a deflating effect in the post-deliberative period for domain-specific trust, external efficacy, and internal efficacy. The findings suggest that both measures of trust remain constant in the post-deliberation period; internal efficacy deflates in the post-deliberation period as two of the three tests meet the adjusted level of significance.

[insert Table 7 about here]

As for two tests of a hypothesis, the threshold for each individual test would be $.05/2 = .025$ (Bonferroni correction). For the two tests of positive long-term effects of deliberative events on panelists, all but the general trust meet this new adjusted threshold for significance (Table 7). In sum, there is mixed support for the hypothesis about positive, enduring effects of deliberative events on political trust and efficacy.

Finally, there are two tests of internal political efficacy that compare panelists and a control group (random sample of non-participants). One test was completed at six months (June 2013) and the other at two and a half years post-deliberation (June 2015). Six months after the deliberation, panelists reported higher, on average, levels of internal efficacy compared to their non-participating counterparts ($p < .001$). These differences do not continue at two and half years for measures of internal efficacy. At two and a half years, panelists did not differ from their non-participating counterparts in terms of internal efficacy (Table 7).

The remaining hypotheses rely on single tests. For domain-specific trust and external efficacy, panelists report higher levels, than their non-participating counterparts, supporting the hypotheses about enduring differences. For domain-specific trust and internal efficacy, panelists report higher levels immediately after the deliberation, compared to before the deliberation, supporting the hypothesis about positive, immediate effects. As for the selection hypothesis, the

findings are consistent: panelists began the deliberative process with higher levels of trust and efficacy, compared to their non-participating counterparts.

Discussion

In sum, the findings demonstrate that when comparing panelists to the general population, panelists are distinctive in having higher levels of trust and efficacy before the deliberative event (hypothesis about selection effects). The findings suggest a self-selection bias where trust and efficacy are factors influencing the decision to participate. Furthermore, when comparing panelists six months after the deliberation to simultaneously collected polls of the general population, panelists remain distinctive in their high levels of trust and efficacy (hypothesis about enduring differences). This finding is a key contribution since most studies rely on participant surveys and few use control groups composed of a representative sample of the public (Tables 1,2). When studies do use such designs (Tables 1,2), they do not find significant differences. The only study to find significant differences between panelists and a randomly selected group is Luskin and Fishkin (2002). This finding has not been replicated until now. The current study shows significant differences between panelists and a control group. The current study is distinctive in demonstrating that these differences endure in the long term (Tables 4,5).

As to how the deliberative event and the period after this event affect panelists, the findings depend on the specific measure. Like Gastil et al. (2008), I examine a more nuanced measure of political trust. Gastil et al. (2008) look at changes in trust in juries and judges when assessing the effects of deliberative talk among jurors. Likewise, I examine changes in trust around municipal policy-making on climate change amongst panelists who participated in a

deliberative event about climate change policies. This approach is in contrast to other studies that examine general trust in government institutions, such as Parliament (see Table 1). We believe that this more nuanced approach establishes a stronger theoretical connection between changes in trust and participation in a deliberative event. This stronger theoretical connection is matched with stronger empirical evidence (Table 4 versus Table 3). As per the hypothesis about positive immediate effects, participation in a deliberative event increases trust in government decision-making in the policy domain under discussion.

Our findings offer mixed evidence for the hypotheses about long-term effects. I found that six months after the deliberative event, participants still had high levels of trust in the municipal government's policies around climate change when compared to the general population (Table 4). Both measures of efficacy show a similar pattern with panelists reporting higher levels compared to the general population at the six month follow-up, which is when the panelists' report was presented to City Council (Tables 5,6), as per the hypothesis about enduring differences. These findings are a critical contribution to research in this area, which rarely examines enduring effects and when enduring effects are examined, they are not matched to government officials' responses to participants' recommendations. As mentioned, there is a possibility that government's response could deflate or sustain political trust and efficacy depending on their response to the recommendations report. There is some fluctuation in efficacy and trust in the post-deliberation period, but the hypothesis about deflating effects is only supported in relation to internal efficacy.

Can deliberative events help address legitimacy in government? My findings suggest that deliberative events generate a context-specific trust in government and changes in political efficacy. These findings suggest that deliberative events can affect perceived legitimacy in

government. This paper presents systematic evidence of deliberative events' impact on *participants'* political trust and efficacy of (Tables 1,2). However, a full-scale, systematic review of the outcomes of deliberative events is overdue. This review will need to account for the nuances of the deliberative event, such as perceptions of procedural justice and other characteristics of the deliberative event, which might explain the outcomes on trust and efficacy. Furthermore, published studies tend to be biased towards significant findings (Lipsey & Wilson 2001). In the field of deliberative democracy, we should also attend to a positivity bias as Spada and Ryan (2017) point out that few published studies highlight failures or negative impacts of deliberative events. In understanding which events have positive and which have negative effects, the characteristics of the deliberative events as well as participants' perceptions of procedural justice will likely factor into the observed effects. In sum, the degree to which deliberative events can address low levels of faith in democratic systems remains an open question.

References

- American National Election Studies. 2015. *User's guide and codebook for the ANES 2012 Time Series Study*. Available at:
<http://www.electionstudies.org/studypages/anes_timeseries_2012/anes_timeseries_2012_userguidecodebook.pdf#page=1&zoom=auto,-42,798> [Accessed 7 October 2015].
- Andersen, V. N. & Hansen, K. M., 2007. How deliberation makes better citizens: The Danish Deliberative Poll on the euro. *European Journal of Political Research*, 46(4), pp.531-556. doi: 10.1111/j.1475-6765.2007.00699.x
- Blais, A., Gidengil, E., Nevitte, N., & Nadeau, R., 2004. Where does turnout decline come from? *European Journal of Political Research*, 43(2), pp.221–236. doi: 10.1111/j.1475-6765.2004.00152.x.
- Boulianne, S., 2018. Beyond the usual suspects: Representation in Alberta Climate Dialogue's deliberative exercises. In L. Hanson (ed.), *Public deliberation on climate change: Lessons from Alberta Climate Dialogue*. Edmonton: Athabasca University Press.
Retrieved from <https://www.albertaclimatedialogue.ca/chapters/beyondtheusualsuspects>
- Boulianne, S., 2017. Mini-publics and public opinion: Two survey-based experiments. *Political Studies*, Online First, pp.1-18, doi: 10.1177/0032321717723507.
- Centre for Public Involvement, Alberta Climate Dialogue, City of Edmonton, & University of Alberta., 2013. *Citizens' Panel on Edmonton's Energy and Climate Challenges*.
Available at:
<https://www.edmonton.ca/city_government/documents/PDF/CitizensPanel-EnergyClimateChallenge.pdf> [Accessed 5 February 2018].

- Citrin, J., & Luks, S., 2001. Political trust revisited: déjà vu all over again? In: J. R. Hibbing and E. Theiss-Morse, eds. *What is it about government that Americans dislike*. New York: Cambridge University Press.
- City of Edmonton., 2005. *City Policy C513*. Available at: https://www.edmonton.ca/city_government/documents/PDF/city_procedure.pdf (accessed 13 February 2018).
- Cole, R., Kincaid, J., & Rodriguez, A., 2004. Public opinion on federalism and federal political culture in Canada, Mexico, and the United States, 2004. *The Journal of Federalism*, 34(3), pp.189–201.
- Dalton, R. J., 2004. *Democratic challenges, democratic choices: The erosion of political support in advanced industrial democracies*. Oxford: Oxford University Press.
- Carpini, M. X. Delli, Cook, F.L., & Jacobs, L.R., 2004. Public deliberation, Discursive participation, and citizen engagement: A Review of the Empirical Literature. *Annual Review of Political Science*, 7, pp.315-344.
- Dyck, J., 2009. Initiated distrust: Direct democracy and trust in government. *American Political Research*, 37(4), pp.539–68. doi: 10.1007/s11109-008-9081-x
- Fishkin, J. S., & Luskin, R. C., 1999. Bringing deliberation to the democratic dialogue. In M. McCombs and A. Reynolds, eds. *The poll with a human face: The National Issues Convention experiment in political communication*. Mahwah, NJ: Lawrence Erlbaum. pp. 3-38.
- Fournier, P., van der Kolk, H. Carty, R.K., Blais, A. & Rose, J., 2011. *When citizens decide: Lessons from Citizen Assemblies on Electoral Reform*. Oxford: Oxford University Press.

- French, D. & Laver, M. 2009. Participation bias, durable opinion shifts and sabotage through withdrawal in citizens' juries. *Political Studies*, 57(2), pp.422-450. doi: 10.1111/j.1467-9248.2009.00785.x.
- Gallup, 2013. *Trust in government*. Available at: <<http://www.gallup.com/poll/5392/trust-government.aspx>> [Accessed 7 October 2015].
- Gastil, J., Black, L.W., Deess, E.P., & Leichter, J., 2008. From group member to democratic citizen: How deliberating with fellow jurors reshapes civic attitudes. *Human Communication Research*, 34(1), pp.137-169. doi: 10.1111/j.1468-2958.2007.00316.x.
- Gastil, J., & Xenos, M., 2010. Of attitudes and engagement: Clarifying the reciprocal relationship between civic attitudes and political participation. *Journal of Communication*, 60(2), pp. 318-343. doi: 10.1111/j.1460-2466.2010.01484.x.
- Gastil, J., Knobloch, K., & Kelly, M., 2012. Evaluating deliberative public events and projects. In: T. Nabatchi, J. Gastil, G. M. Weiksner and M. Leighninger, eds. *Democracy in motion: Evaluating the practice and impact of deliberative civic engagement*. Oxford: Oxford University Press. pp.205-230.
- Grönlund, K., Setälä, M., & Herne, K., 2010. Deliberation and civic virtue: Lessons from a citizen deliberation experiment. *European Political Science Review*, 2(1), pp.95-117. doi: 10.1017/S1755773909990245.
- Halvorsen, K. E., 2003. Assessing the effects of public participation. *Public Administration Review*, 63(5), pp.535-543. doi: 10.1111/1540-6210.00317.
- Hetherington, M. J., 1999. The effect of political trust on the presidential vote, 1968-96. *American Political Science Review*, 93(2), pp.311-326..

- Holbrook, R. A., 2004. Trust in government. In: J. G. Geer, ed. *Public opinion and polling around the world: a historical encyclopedia*. Santa Barbara, CA: ABC-CLIO. Retrieved from http://ezproxy.macewan.ca/login?url=http://search.credoreference.com/content/entry/abc-opinion/trust_in_government/0?institutionId=2632
- Lafont, C. 2015. Deliberation, participation, and democratic legitimacy: Should deliberative mini-publics shape public policy? *The Journal of Political Philosophy*, 23(1), pp.40-63.
- Lenard, P. T., 2008. Trust your compatriots, but count your change: The roles of trust, mistrust and distrust in democracy. *Political Studies*, 56(2), 312-332. doi: 10.1111/j.1467-9248.2007.00693.x.
- Levi, M., & Stoker, L., 2000. Political trust and trustworthiness. *Annual Review of Political Science*, 3, pp.475-507. doi: 10.1146/annurev.polisci.3.1.475
- Lipsey, M. W., & Wilson, D. B., 2001. *Practical meta-analysis*. Thousand Oaks, CA: Sage.
- Luskin, R.C., & Fishkin, J.S., 2002. Deliberation and “better citizens”. *Joint Sessions of Workshops of the European Consortium for Political Research*, Turin, Italy, March 22-27, 2002. Available at: <http://cdd.stanford.edu/research/papers/2002/bettercitizens.pdf> [Accessed 13 February 2015].
- Marien S., & Kern, A., 2017. The winner takes it all: Revisiting the effect of direct democracy on citizens’ political support. *Political Behavior*, Online First, pp.1-26. doi: 10.1007/s11109-017-9427-3.
- Marien, S., & Hooghe, M., 2011. Does political trust matter? An empirical investigation into the relation between political trust and support for law compliance. *European Journal of Political Research*, 50(2), 267-291. doi: 10.1111/j.1475-6765.2010.01930.x.

- Morrell, M. E., 2005. Deliberation, democratic decision-making and internal political efficacy. *Political Behavior*, 27(1), 49-69. doi: 10.1007/s11109-005-3076-7.
- Munno, G., & Nabatchi, T., 2014. Public deliberation and co-production in the political and electoral arena: A citizens' jury approach. *Journal of Public Deliberation*, 10, pp. 1-29.
- Mutz, D.C., 2008. Is deliberative democracy a falsifiable theory? *Annual Review of Political Science*, 11, pp.521-538. doi: 10.1146/annurev.polisci.11.081306.070308
- Nabatchi, T., 2010. Deliberative democracy and citizenship: In search of the efficacy effect. *Journal of Public Deliberation*, 6, pp.1-47.
- Nabatchi, T., 2012. An introduction to deliberative civic engagement. In: T. Nabatchi, J. Gastil, G. M. Weiksner and M. Leighninger, eds. *Democracy in motion: Evaluating the practice and impact of deliberative civic engagement*. Oxford: Oxford University Press. pp.3-17.
- Norris, P., 2011. *Democratic deficit: Critical citizens revisited*. Cambridge: Cambridge University Press.
- Parkins, J. R., & McFarlane, B.L., 2015. Trust and skepticism in dynamic tension: Concepts and empirical refinements from research on the mountain pine beetle outbreak in Alberta, Canada. *Human Ecology Review*, 21(1), pp.133-153.
- Pew Research Center, 2013. *Trust in government nears record low, but most federal agencies are viewed favorably*. Available at: <<http://www.people-press.org/files/legacy-pdf/10-18-13%20Trust%20in%20Govt%20Update.pdf>> [Accessed 13 February 2015].
- Pew Research Center, 2017. *Public trust in government remains near historic lows as partisan attitudes shift*. Available at: <<http://assets.pewresearch.org/wp->

- content/uploads/sites/5/2017/05/03145544/05-03-17-Trust-release.pdf> [Accessed 18 October 2017].
- Pickup, M., Sayers, S., Knopff, R., & Archer, K. 2004. Social capital and civic community in Alberta. *Canadian Journal of Political Science/Revue canadienne de science politique*, 37(3): 617-645.
- Putnam, R. D., 2000. *Bowling alone: The collapse and revival of American community*. New York: Touchstone.
- Quintelier, E., & van Deth, J.W., 2014. Supporting democracy: Political participation and political attitudes: Exploring causality using panel data. *Political Studies*, 62(S1), pp.153-171. doi: 10.1111/1467-9248.12097
- Smets, K., & Van Ham, C., 2013. The embarrassment of riches? A meta-analysis of individual-level research on voter turnout. *Electoral Studies*, 32(2), pp.344-359. doi: 10.1016/j.electstud.2012.12.006
- Spada P., & Ryan, M., 2017. The failure to examine failures in democratic innovation. *PS: Political Science & Politics*, (July), pp.772-778. doi:10.1017/S1049096517000579
- Strandberg, K., & Grönlund, K., 2012. Online deliberation and its outcome—Evidence from the Virtual Polity Experiment. *Journal of Information Technology & Politics*, 9(2), 167-184. doi: 10.1080/19331681.2011.637709.
- Thomassen J., & van Ham, C., 2017. A legitimacy crisis of democracy? In: Carolien van Ham, Jacques Thomassen, Kees Aarts, and Rudy Andeweg (eds) *Myth and Reality of the Legitimacy Crisis: Explaining Trends and Cross-National Differences in Established Democracies*. Oxford University Press.

- Tomkins, A., Pytlik Zillig, L.M., Herian, M., Abdel-Monem, T., & Hamm, J.A., 2010. *Public input for municipal policymaking: Engagement methods and their impact on trust and confidence*. 11th Annual International Conference on Digital Government Research.
- Ulbig, S.G., 2007. Gendering municipal government: Female descriptive representation and feelings of political trust. *Social Science Quarterly*, 88(5), pp.1106-1123.
10.1111/j.1540-6237.2007.00494.x
- Warren, M. E., 1992. Democratic theory and Self-transformation. *American Political Science Review*, 86(1), 8-23.
- Warren, M. E., 1999. Introduction. In: M.E. Warren, ed. *Democracy and Trust*. Cambridge: Cambridge University Press. pp.1-21.
- Warren, M. E., 2008. Citizen representatives. In M. E. Warren and Hilary Pearse, eds. *Designing deliberative democracy: The British Columbia Citizens' Assembly*. Cambridge: Cambridge University Press.
- Warren, M., 2009. Two trust-based uses of minipublics in democracy. Paper presented at the American Political Science Association Annual Meeting, Toronto.
- Wright, E.O., 2010. *Envisioning real utopias*. New York: Verso.

Table 1: Summary of Literature on Political Trust in Deliberative Events

Author	Duration, Mode, & Topic	Measure	Pre-post design	Exp-control design	Sign at .05 level
Luskin & Fishkin 2002	One weekend, Face to face, Australian Referendum	Trust government	no	yes	yes
Grönlund et al. 2010	One day, Face to face, Nuclear power in Finland	How much do you trust the following Finnish institutions? Scale 1-4 (1=just a little, 4=a great deal) -The parliament	yes t1 vs t4	no	yes
			yes t1 vs t5	no	yes
Munno & Nabatchi 2014	3 days, Face to Face, Reclaim November Ohio	How much of the time can you trust government to do what is right? Jury 1	yes	no	yes
Munno & Nabatchi 2014	3 to 4 days, Face to Face, Reclaim November Ohio	How much of the time can you trust government to do what is right? Jury 2	yes	no	yes
Strandberg & Grönlund 2012	Two hours, online, Energy policy in Finland	How much do you trust the following Finnish institutions? Scale 1-4 (1=just a little, 4=a great deal) -The parliament	yes	no	no
Tomkins et al. 2010	One day, Face to face, Lincoln's budgeting priorities	Lincoln City government can usually be trusted to make decisions that are right for the residents as a whole.	yes	no	yes

*Literature summary is restricted to studies examining institutional trust, which relate to measures used in the current study. For a full literature summary of political trust and deliberation, contact the author. Studies are excluded if they did not report statistical tests.

Table 2: Summary of Literature on Political Efficacy in Deliberative Events

Author	Duration, Mode, & Topic	Measure	Pre-post design	Exp-control design	Sign at .05 level
Andersen & Hansen 2007	One weekend, Face to face, Euro	Citizens like you have no say on decisions made by the government and parliament	no	yes	no
		Citizens like you have no say on decisions made by the government and parliament	yes t1 vs t2	no	yes
		Citizens like you have no say on decisions made by the government and parliament	yes t2 vs t3	no	yes
		Citizens like you have no say on decisions made by the EU	no	yes	no
		Citizens like you have no say on decisions made by the EU	yes t1 vs t2	no	no
		Citizens like you have no say on decisions made by the EU	yes t2 vs t3	no	no
Fishkin & Luskin 1999	Weekend, Face to face, National Issues Convention	I have no say in what government does (reverse coded)	yes	no	yes
		Officials care about what I think	yes	no	yes
Fournier et al. 2011	20 days, Face to face, Electoral reform in the Netherlands	MPs do not care about opinions of people like me	no	yes	no
		MPs do not care about opinions of people like me	yes	no	yes
	Three events (British Columbia 26 days; the Netherlands, 20 days; Ontario 24 days), Face to face, Electoral Reform	Government does not care what people like me think	no	yes	yes
		Government does not care what people like me think	yes	no	yes
Grönlund et al. 2010	One day, Face to face, Nuclear power in Finland	An ordinary citizen cannot influence politics	yes, t1 vs t2	no	no
			yes, t1 vs t3	no	no
Luskin & Fishkin 2002	Three days, Face to face, British monarchy	People like me have no say in government	yes	no	no
Luskin & Fishkin 2002	Three days, Face to face, Australian referendum	People like me have no say in government	yes	no	yes
Luskin & Fishkin 2002	Three days, Face to face, National Issues Convention	People like me have no say in government	yes, t1 vs t2	no	yes

		People like me have no say in government	yes, t1 vs t3	no	no
		People like me have no say in government	no	yes	yes
		People like me have no say in government	yes, t1 vs t2	no	yes
		Public officials care what people like me think	yes, t1 vs t3	no	yes
		Public officials care what people like me think	no	yes	yes
Munno & Nabatchi 2014	3 days, Face to Face, Reclaim November Ohio	People like me don't have any say in government	yes	no	yes
		Elected officials don't care about what people like me think	yes	no	yes
Munno & Nabatchi 2014	3 to 4 days, Face to Face, Reclaim November Ohio	People like me don't have any say in government	yes	no	no
		Elected officials don't care about what people like me think	yes	no	yes
Nabatchi 2010	One day, Face to face, Children	Four-item efficacy index including elected officials don't care what people like me think and people like me don't have any say about what the government does	yes, t1 vs t2	no	yes
			yes, t2 vs t3	no	no
			yes, t1 vs t3	no	no
Strandberg & Grönlund 2012	Two hours, Online, Energy policy	An ordinary citizen cannot influence politics	yes	no	no
Tomkins et al. 2010	One day, Face to face, Lincoln's budgeting priorities	Public officials in Lincoln City government care about what people like me think.	yes	no	yes
		Residents have a great say in important Lincoln City government decisions.	yes	no	yes

*Literature summary is restricted to studies examining measures of efficacy similar to those used in the current study. For a full literature summary of political efficacy and deliberation, contact the author. Studies are excluded if they did not report statistical tests.

Table 3: General Trust in Government

	General Population IVR Sept 2012 n = 1271	Recruitment Phone Sept 2012 n = 65	Six Month Survey SAQ June 2013 n = 46	2.5yr Survey SAQ June 2015 n = 45	Difference, <i>t</i> -test, <i>p</i> -value	
1	<i>M</i> = 3.16 <i>SD</i> = 1.11	<i>M</i> = 3.48 <i>SD</i> = 0.64			+0.32 3.75 <i>p</i> < .001	H1a
2	<i>M</i> = 3.16 <i>SD</i> = 1.11		<i>M</i> = 3.15 <i>SD</i> = 0.89		-0.01 0.07 <i>p</i> = .941	
3	<i>M</i> = 3.16 <i>SD</i> = 1.11			<i>M</i> = 3.38 <i>SD</i> = 1.03	+0.22 1.40 <i>p</i> = .162	
4		<i>M</i> = 3.48 <i>SD</i> = 0.64	<i>M</i> = 3.15 <i>SD</i> = 0.89		-0.33 2.15 <i>p</i> = .034	H3a
5		<i>M</i> = 3.48 <i>SD</i> = 0.64		<i>M</i> = 3.38 <i>SD</i> = 1.03	-0.10 0.58 <i>p</i> = .564	H3a
6			<i>M</i> = 3.15 <i>SD</i> = 0.89	<i>M</i> = 3.38 <i>SD</i> = 1.03	0.23 1.14 <i>p</i> = .258	H4a

* The reported *t*-test is the absolute value based on a two-tailed test. The last column denotes the relevant hypotheses being tested. If there is a blank, the comparison does not relate to a specific hypothesis.

Table 4: Trust in Government related to Climate Change Decisions (Domain-specific)

	Pretest Survey SAQ October 2012 n = 38	Posttest Survey SAQ December 2012 n = 45	Six Month Survey SAQ June 2013 n = 47	General Population Phone June 2013 n = 210	2.5yr Survey SAQ June 2015 n = 43	Difference, <i>t</i> -test, <i>p</i> -value	
1	<i>M</i> = 2.55 <i>SD</i> = 0.76	<i>M</i> = 3.00 <i>SD</i> = 0.71				+0.45 2.77 <i>p</i> = .007	H2b
2	<i>M</i> = 2.55 <i>SD</i> = 0.76		<i>M</i> = 2.83 <i>SD</i> = 0.82			+0.28 1.63 <i>p</i> = .107	H3b
3	<i>M</i> = 2.55 <i>SD</i> = 0.76				<i>M</i> = 3.05 <i>SD</i> = 0.84	+0.50 2.81 <i>p</i> = .006	H3b
4		<i>M</i> = 3.00 <i>SD</i> = 0.71	<i>M</i> = 2.83 <i>SD</i> = 0.82			-0.17 1.06 <i>p</i> = .292	H4b
5		<i>M</i> = 3.00 <i>SD</i> = 0.71			<i>M</i> = 3.05 <i>SD</i> = 0.84	+0.05 0.30 <i>p</i> = .765	H4b
6			<i>M</i> = 2.83 <i>SD</i> = 0.82		<i>M</i> = 3.05 <i>SD</i> = 0.84	-0.22 1.26 <i>p</i> = .211	H4b
7			<i>M</i> = 2.83 <i>SD</i> = 0.82	<i>M</i> = 2.44 <i>SD</i> = 0.83		+0.39 2.94 <i>p</i> = .004	H5b
8		<i>M</i> = 3.00 <i>SD</i> = 0.71		<i>M</i> = 2.44 <i>SD</i> = 0.83		-0.56 4.65 <i>p</i> < .001	
9	<i>M</i> = 2.55 <i>SD</i> = 0.76			<i>M</i> = 2.44 <i>SD</i> = 0.83		-0.11 0.81 <i>p</i> = .419	
10				<i>M</i> = 2.44 <i>SD</i> = 0.83	<i>M</i> = 3.05 <i>SD</i> = 0.84	+0.61 4.35 <i>p</i> < .001	

* The reported *t*-test is the absolute value based on a two-tailed test. The last column denotes the relevant hypotheses being tested. If there is a blank, the comparison does not relate to a specific hypothesis.

Table 5: Government Officials Care (external efficacy)

	General Population IVR Sept 2012 n = 1273	Recruitment Phone Sept 2012 n = 66	Posttest Survey SAQ December 2012 n=49	Six Month Survey SAQ June 2013 n = 46	General Population Phone June 2013 n = 210	2.5yr Survey SAQ June 2015 n = 45	Difference, <i>t</i> -test, <i>p</i> -value	
1	<i>M</i> = 2.79 <i>SD</i> = 1.19	<i>M</i> = 3.36 <i>SD</i> = 0.96					+0.57 4.64 <i>p</i> < .001	H6a
2	<i>M</i> = 2.79 <i>SD</i> = 1.19		<i>M</i> = 3.41 <i>SD</i> = 0.91				+0.62 4.62 <i>p</i> < .001	
3	<i>M</i> = 2.79 <i>SD</i> = 1.19			<i>M</i> = 3.09 <i>SD</i> = 1.05			+0.30 1.89 <i>p</i> = .059	
4	<i>M</i> = 2.79 <i>SD</i> = 1.19					<i>M</i> = 2.89 <i>SD</i> = 1.13	+0.10 0.58 <i>p</i> = .562	
5		<i>M</i> = 3.36 <i>SD</i> = 0.96	<i>M</i> = 3.41 <i>SD</i> = 0.91				+0.05 0.28 <i>p</i> = .780	H7a
6		<i>M</i> = 3.36 <i>SD</i> = 0.96		<i>M</i> = 3.09 <i>SD</i> = 1.05			-0.27 1.38 <i>p</i> = .170	H8a
7		<i>M</i> = 3.36 <i>SD</i> = 0.96				<i>M</i> = 2.89 <i>SD</i> = 1.13	-0.47 2.28 <i>p</i> = .025	H8a
8				<i>M</i> = 3.09 <i>SD</i> = 1.05		<i>M</i> = 2.89 <i>SD</i> = 1.13	-0.20 0.87 <i>p</i> = .387	H9a
9	<i>M</i> = 2.79 <i>SD</i> = 1.19				<i>M</i> = 2.58 <i>SD</i> = 1.12		+0.21 2.49 <i>p</i> = .013	
10		<i>M</i> = 3.36 <i>SD</i> = 0.96			<i>M</i> = 2.58 <i>SD</i> = 1.12		-0.78 5.52 <i>p</i> < .001	
12			<i>M</i> = 3.41 <i>SD</i> = 0.91	<i>M</i> = 3.09 <i>SD</i> = 1.05			-0.32 1.58 <i>p</i> = .118	H9a
13			<i>M</i> = 3.41 <i>SD</i> = 0.91		<i>M</i> = 2.58 <i>SD</i> = 1.12		+0.83 5.49 <i>p</i> < .001	
14			<i>M</i> = 3.41 <i>SD</i> = 0.91			<i>M</i> = 2.89 <i>SD</i> = 1.13	-0.52 2.44 <i>p</i> = .017	H9a
15				<i>M</i> = 3.09 <i>SD</i> = 1.05	<i>M</i> = 2.58 <i>SD</i> = 1.12		+0.51 2.95 <i>p</i> = .003	H10a
16					<i>M</i> = 2.58 <i>SD</i> = 1.12	<i>M</i> = 2.89 <i>SD</i> = 1.13	+0.31 1.67 <i>p</i> = .096	

* The reported *t*-test is the absolute value based on a two-tailed test. The last column denotes the relevant hypotheses being tested. If there is a blank, the comparison does not relate to a specific hypothesis.

Table 6: Ability to Affect Government (internal efficacy)

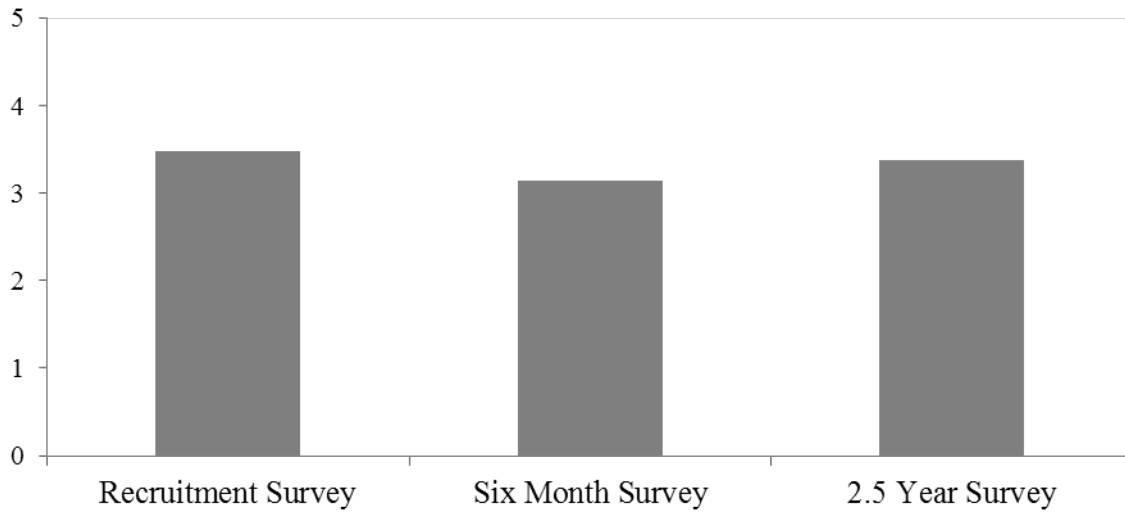
	Pretest Survey SAQ October 2012 n = 44	Posttest Survey SAQ December 2012 n = 48	Six Month Survey SAQ June 2013 n = 44	General Population Phone June 2013 n = 210	2.5yr Survey SAQ June 2015 n = 42	General Population Phone June 2015 n = 400	Difference, <i>t</i> -test, <i>p</i> -value	
1	<i>M</i> = 2.89 <i>SD</i> = 0.87	<i>M</i> = 3.38 <i>SD</i> = 0.94					+0.49 2.60 <i>p</i> = .011	H7b
2	<i>M</i> = 2.89 <i>SD</i> = 0.87		<i>M</i> = 3.43 <i>SD</i> = 1.00				+0.54 2.70 <i>p</i> = .008	H8b
3	<i>M</i> = 2.89 <i>SD</i> = 0.87			<i>M</i> = 2.59 <i>SD</i> = 1.07			-0.30 1.99 <i>p</i> = .048	
4	<i>M</i> = 2.89 <i>SD</i> = 0.87				<i>M</i> = 2.83 <i>SD</i> = 0.94		-0.06 0.31 <i>p</i> = .757	H8b
5	<i>M</i> = 2.89 <i>SD</i> = 0.87					<i>M</i> = 2.97 <i>SD</i> = 1.13	-0.08 0.56 <i>p</i> = .576	
6		<i>M</i> = 3.38 <i>SD</i> = 0.94	<i>M</i> = 3.43 <i>SD</i> = 1.00				+0.05 0.25 <i>p</i> = .803	H9b
7		<i>M</i> = 3.38 <i>SD</i> = 0.94		<i>M</i> = 2.59 <i>SD</i> = 1.07			+0.79 5.00 <i>p</i> < .001	
8			<i>M</i> = 3.43 <i>SD</i> = 1.00	<i>M</i> = 2.59 <i>SD</i> = 1.07			+0.84 5.18 <i>p</i> < .001	H10b
9		<i>M</i> = 3.38 <i>SD</i> = 0.94			<i>M</i> = 2.83 <i>SD</i> = 0.94		-0.55 2.77 <i>p</i> = .007	H9b
10			<i>M</i> = 3.43 <i>SD</i> = 1.00		<i>M</i> = 2.83 <i>SD</i> = 0.94		-0.60 2.87 <i>p</i> = .005	H9b
11				<i>M</i> = 2.59 <i>SD</i> = 1.07	<i>M</i> = 2.83 <i>SD</i> = 0.94		+0.24 1.47 <i>p</i> = .143	
12		<i>M</i> = 3.38 <i>SD</i> = 0.94				<i>M</i> = 2.97 <i>SD</i> = 1.13	+0.41 2.79 <i>p</i> = .005	
13			<i>M</i> = 3.43 <i>SD</i> = 1.00			<i>M</i> = 2.97 <i>SD</i> = 1.13	+0.46 2.86 <i>p</i> = .004	
14				<i>M</i> = 2.59 <i>SD</i> = 1.07		<i>M</i> = 2.97 <i>SD</i> = 1.13	-0.38 4.09 <i>p</i> < .001	
15					<i>M</i> = 2.83 <i>SD</i> = 0.94	<i>M</i> = 2.97 <i>SD</i> = 1.13	-0.14 0.90 <i>p</i> = .369	H10b

* The reported *t*-test is the absolute value based on a two-tailed test. The last column denotes the relevant hypotheses being tested. If there is a blank, the comparison does not relate to a specific hypothesis.

Table 7: Summary of hypothesis-testing

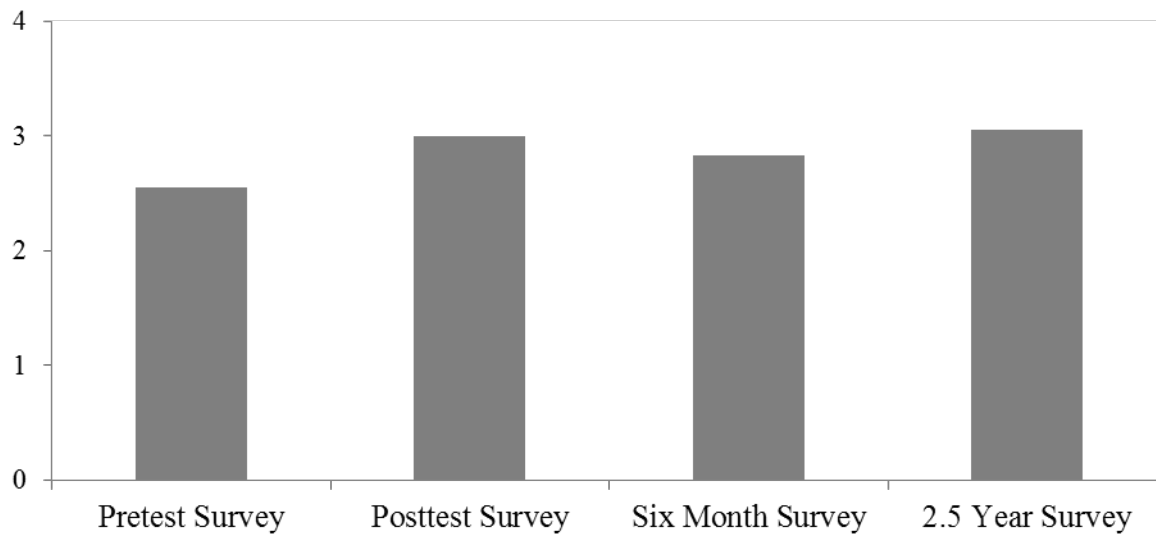
	General political trust (Table 3, Figure 1)	Domain-specific trust (Table 4, Figure 2)	External efficacy, (Table 5, Figure 3)	Internal efficacy, (Table 6, Figure 4)
Hypothesis: Selection effect September 2012	Hypo 1a $p < .001$	No data	Hypo 6a $p < .001$	Hypo 6b No data
Hypothesis: Positive immediate effect Sept 2012 (pretest) & Dec 2012 (posttest)	No data	Hypo 2b $p = .007$	Hypo 7a $p = .780$	Hypo 7b $p = .011$
Hypothesis: Positive long-term effect Sept 2012 (pretest) & June 2013 (6 months) Sept 2012 (pretest) & June 2015 (2.5 years)	Hypo 3a $p = .034$ $p = .564$	Hypo 3b $p = .107$ $p = .006$	Hypo 8a $p = .170$ $p = .025$	Hypo 8b $p = .008$ $p = .757$
Hypothesis: Deflating effect in the post-deliberation period Dec 2012 (posttest) & June 2013 (6 months) Dec 2012 (posttest) & June 2015 (2.5 years) June 2013 (6 months) & June 2015 (2.5 years)	Hypo 4a $p = .258$	Hypo 4b $p = .292$ $p = .765$ $p = .211$	Hypo 9a $p = .118$ $p = .017$ $p = .387$	Hypo 9b $p = .803$ $p = .007$ $p = .005$
Hypothesis: Enduring differences June 2013 June 2015	No data	Hypo 5b $p = .004$	Hypo 10a $p = .003$	Hypo 10b $p < .001$ $p = .369$

Figure 1
General Trust in Government



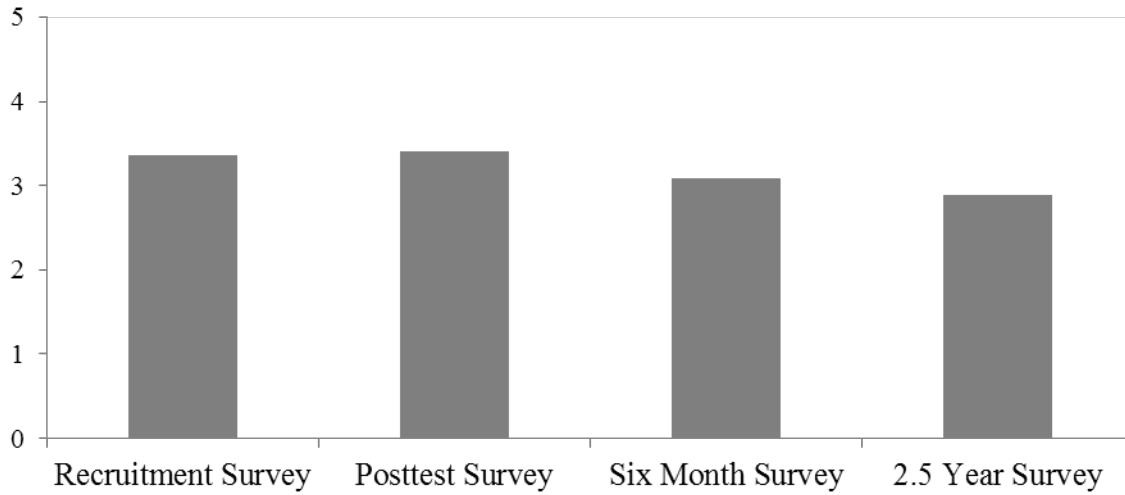
Note: Generally speaking, how much trust do you have in the municipal government in Edmonton? Please answer on a scale of 1 to 5 where 1 is no trust at all, 3 some trust, and 5 is a great deal of trust.

Figure 2
Trust in Government related to Climate Change Decisions (Domain-specific)



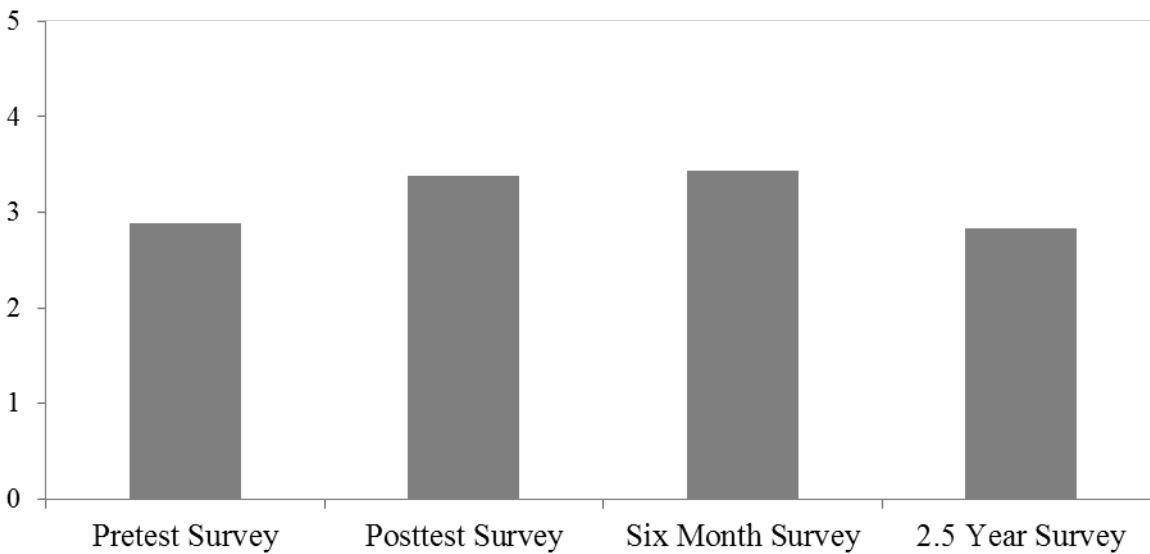
Note: How much do you trust the following levels of government to make good decisions about climate change? Municipal Government. 1 Not at all, 2 A little, 3 Some, 4 A lot.

Figure 3
Government Officials Care (external efficacy)



Note: For the following question, please answer on a 1 to 5 scale, where 1 means 'hardly any do', 3 means 'some do' and 5 means 'most do'. In general, do you think that politicians care what people like you think?"

Figure 4
Ability to Affect Government (internal efficacy)



Note: How much can people like you affect what the government does?" 1 Not at all, 2 A little, 3 A moderate amount, 4 A lot, 5 A great deal.