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# Public input methods impacting confidence in government

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## Abstract

**Purpose** — Municipalities commonly ask the public to give input by answering questions about their preferences. There is some belief that input enhances the public's confidence in government. The purpose of this paper is to examine whether different types of input activities (obtained by phone or online surveys, or via face-to-face engagements) differentially impact confidence.

**Design/methodology/approach** — Data were collected over two years from different input activities undertaken to inform a city's budgeting and performance measures' determinations.

**Findings** — Significant amounts of variance in the public's confidence in municipal governments are accounted for by independent predictors such as current satisfaction, perceived trustworthiness, legitimacy, and loyalty to the institution. Compared to online and phone surveys, face-to-face input methods seem to have a particularly strong, positive relationship with the public's perceptions of the trustworthiness (e.g. competence, integrity, benevolence) of municipal government officials. Persons who participate in face-to-face, online, or phone events differ both in extent of confidence and, to a small extent, in the *bases* of their confidence.

**Research limitations/implications** — The study design is correlational rather than experimental and data were not originally gathered to test the identified hypotheses. In addition, it is not prudent to put too much stock in results from only one jurisdiction that relied primarily on convenience samples.

**Originality/value** — In instances in which enhancing confidence in the institution is a specific objective of public input, this work provides researchers and practitioners with guidance to better anticipate which input technique(s) works best and why.

**Keywords:** United States of America, citizen participation, local government, trust, confidence, public input, public participation, municipal government

## 1. Introduction

Governments are increasingly using a multitude of public input methods to inform their policy decisions on a wide range of issues (Berner and Smith, 2004; Besley, 2010; Daley, 2008; Johnson and Hein, 2008; Syme *et al.*, 1999; Walters, 2007). In addition to phone surveys and face-to-face (FTF) engagements, technological advances have prompted localities to experiment with online surveys (City of Clearwater, 2008; Res-

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ton, 2008) and internet-based public input efforts (Robbins *et al.*, 2008), adding to the varieties of possible public input options available. Given this variety, it would be useful to know what types of public input techniques work best, for what purposes, and why (PytlíkZillig and Tomkins, 2011), especially with regard to impacts on the public's confidence in government (Besley, 2010; Lauber and Knuth, 1997; Syme *et al.*, 1999; Tomkins *et al.*, 2010). To date, there simply is not much scholarship devoted to studying differences in input types. To address this gap in the literature, this research examines different input types and whether there are implications for confidence judgments toward the governmental entity that offers the input opportunities.

This article explores whether and why certain types of public input methods are more likely to increase the public's positive attitudes toward government, in the local budgeting context. Specifically, the article builds on a previous article that identified a number of sub-dimensions of public trust and confidence, and examined their relationships to general confidence assessments (Tomkins *et al.*, 2010). In these input efforts, the public provided the city with perspectives pertaining to a variety of budgeting and spending issues via three different input techniques: telephone surveys, online surveys, and FTF discussions. In light of procedural fairness theory, the prior research examined the association between different input methods and four critical factors of procedural fairness: voice, respect, neutrality, and benevolence. The present article revisits the same data, but expands the original analyses in two ways:

- (1) A broader consideration is given to other theoretically important sources or bases of institutional confidence, including current satisfaction with the institution, perceived trustworthiness (including perceptions of competence and motivation), perceived legitimacy, and loyalty to the institution (Hamm *et al.*, 2011).
- (2) The article explores the possibility that, rather than (or in addition to) impacting confidence directly, different input methods may attract persons who differ in the bases for their confidence in institutions.

### **1.1 Potentially important sources or bases of confidence**

One of the most common ways to assess institutional confidence is through the use of *unspecified confidence* questions such as the following:

I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say that you have a great deal of confidence, quite a lot of confidence, only some confidence, or very little confidence?

Unspecified confidence questions such as this, which have been used in a wide range of studies (Brehm and Rahn, 1997), do not require respondents to indicate the source(s) of their reported confidence. Do people say they have confidence in the government, for example, because of their current satisfaction with the government? Or are they loyal to the government and thus maintain their confidence in the face of dissatisfaction?

In the present study, satisfaction, perceived trustworthiness, perceived legitimacy, and loyalty were examined as potential bases for participants' unspecified confidence. Potential bases of confidence were identified from the psychological, organizational, and political science literatures. For example, *satisfaction* and confidence in institutions

are often related, and some institutional theories of trust conceive of trust/confidence as directly stemming from satisfaction with institutional performance (Mishler and Rose, 2005). *Trustworthiness*, another likely basis for confidence, has been a key topic of study in numerous realms (Bhattacharjee, 2002; Hoy and Tschannen-Moran, 2003; Levi and Stoker, 2000; Van Slyke *et al.*, 2009). Trustworthiness beliefs include beliefs about both the competence and motivations of others, and are thought to contribute to beliefs that the institutions will live up to specific expectations (Hardin, 2006; Hoy and Tschannen-Moran, 2003; Mayer *et al.*, 1995). Perceived *legitimacy* and personal *loyalty* may also be bases for one's confidence in institutions. Though some equate legitimacy and loyalty (Gibson *et al.*, 2003), in this article the phrase "perceived legitimacy" is used to refer to judgments that the institution has and uses their power rightly and justly. Thus, procedural justice theory relates to the construct of legitimacy, as defined here, as one explanation for perceived legitimacy (Tyler and Huo, 2002). Meanwhile, loyalty refers to a person's willingness to support, believe in, and have confidence in an institution even in the face of evidence to the contrary or in the face of dissatisfaction (Gibson *et al.*, 2003).

The premise of this article is that when people are asked, "How much confidence do you have in [institution]?", their answers will usually reflect some combination of the above constructs. Nonetheless, if each of these constructs is an important and separable basis for confidence in municipal government, then it should be possible to assess these bases in a manner that separates them, and each basis should also independently account for unique variance in institutional confidence. Although different bases may be activated by different modes of input, each source of confidence should account for independent variance at least under some conditions. This line of reasoning led to the following hypothesis:

*H1. Satisfaction, perceived trustworthiness and legitimacy, and loyalty to city government will each account for independent variance in responses to unspecified confidence questions under some (but not necessarily all) conditions.*

### **1.2 Input experiences: Impacts vs. associations**

The prior work most relevant to this article (Tomkins *et al.*, 2010) used procedural justice theory to explain the finding that FTF engagements were associated with greater confidence. That work also found that between-method differences in confidence could be attributed to differences in personal perceptions that the government "cares what I think." However, the prior work did not test whether the pre-post FTF increase confidence was also mediated by *care what I think* assessments, nor did it rule out that the observed differences might be due to selection bias. Selection bias could occur, for example, if FTF participants were the sort of people who were more likely than phone respondents to use *care what I think* judgments as a basis for their confidence judgments. If this were the case, then the impact of FTF discussion on perceptions that city government officials *care what I think* might not result in increased confidence for phone respondents even if they did participate in FTF engagements.

In light of this possibility, the present study expands prior analyses in two ways: first, focusing only on the unspecified confidence questions, additional *within-group* analyses are conducted to see whether the same mediators that account for *between-group* differences can account for within-group pre-post changes. Second, analyses are conducted to explore differences between people who were involved in different methods of input to examine whether their bases for confidence in city government vary. Thus, the following hypotheses are tested:

H2. Within group analyses will reveal that the same mediators responsible for between-group differences (e.g. between FTF engagements and phone input) also account for changes in confidence observed pre- to post-FTF engagements.

H3. If different types of input attract persons who use different bases for their confidence in government, there will be significant interactions between confidence bases and later participation in specific input methods, when predicting unspecified confidence.

## 2. Methods [1]

### 2.1 Participants and procedures

2.1.1 *Telephone survey (2008)*. Lincoln residents ( $n = 605$ ) took part in a 20-minute phone interview about the city's service priorities and other related questions, including their confidence in government. The phone survey used a mixed sampling design, including a random-digit-dial (RDD) sampling procedure of the City of Lincoln, a RDD sample of Lincoln neighborhoods that have higher than average proportions of minority residents, and a directory-listed oversample of minority residents, and was conducted over a six-week period in the winter/spring of 2008. Participants were randomly selected from among all city residents over 19 years of age living in each household. A total of 38 percent of the total 1,586 residents contacted completed the interview.

2.1.2 *FTF discussions (2008)*. A subset of the 605 respondents from the 2008 winter/spring telephone survey ( $n = 286$ ) were invited to participate in FTF deliberative discussions regarding the city's budget with representatives from the city. Respondents were offered \$75 to compensate them for their time. A total of 102 (36 percent) residents accepted the invitation, and 51 (50 percent of those accepting) attended the discussion and stayed the entire day (7 hours).

Residents were provided with background materials about the city's budget and services prior to the day of the event. Upon arrival at the FTF event, participants completed a pre-event survey and then listened to a budget briefing by Lincoln's Mayor. Next, participants were randomly assigned to small groups of six to ten people to discuss city budget and service matters and identify questions for city officials, assisted by trained facilitators. Small groups then asked their questions of city officials and department heads during a plenary panel discussion[2]. Following the question and answer session, small groups reconvened to formulate a list of budget prioritizations, which they then presented to city officials in another plenary session. Finally, the residents individually completed a post-event survey.

2.1.3 *Online Survey (2009)*. All 605 random telephone survey respondents from Lincoln's 2008 public input project were recontacted and invited to take an online survey (also available in paper) in the spring of 2009 and to provide the Mayor and department heads with their perspectives on city budget issues. In addition, the general Lincoln population was invited to participate (e.g. using press releases)[3]. A total of 1,812 surveys were completed, including 33 (2 percent) completed on paper. Of the online respondents, 498 respondents reported they had been involved in one or more of the previous year's public input activities. Relevant to the present analyses, 86 indicated having been part of the 2008 phone sample, and 36 had attended the 2008 FTF event[4].



**2.1.4 FTF discussions (2009).** The 2009 day-long (7-hours) FTF deliberative discussion was held on a Saturday approximately two weeks after the online survey closed. Everyone who took the 2009 online survey was invited to participate. Residents were offered \$35 as an incentive and compensation. Of the 1,812 online participants, 234 indicated they might attend, 180 agreed to participate, and 111 individuals (6 percent of survey respondents) showed up to participate. Of the attendees, four had to leave during the course of the day, and therefore only completed pre-measures. The procedures used in 2009 FTF discussions were identical to those used in 2008, though the small groups ranged from five to ten people per group.

## **2.2 Measurement: Item administration and scale construction**

The items used to assess unspecified confidence and the potential bases of that confidence are given in Table I along with the context in which they were administered and the number of individuals completing each item. These items were similar to items used by others to assess confidence-related constructs in the literature (Hamm *et al.*, 2011; Tyler and Huo, 2002; Wenzel *et al.*, 2003). For ease of interpretation, all items were recoded so that higher values would indicate greater confidence and more positive attitudes toward the government.

**2.2.1 Telephone survey (2008).** Eight items pertaining to unspecified institutional confidence and its bases were administered in the 2008 phone survey. Each participant was randomly assigned to answer four of the eight items. Thus, the question assessing unspecified confidence (*great confidence*, Table I) was administered to one-half of the phone participants, along with the following three items: *satisfaction with city government* (assessing satisfaction), *the city government cares what I think* (reflecting the perception of trustworthy, specifically benevolent, motives), and *respectful treatment* (relating to procedural fairness). Respondents answered these items using a five-point scale (1 = strongly agree to 5 = strongly disagree).

**2.2.2 FTF discussions (2008).** The same items and response scale used in the telephone survey were also administered to all of the participants in the FTF discussion, on the day of and just prior to the FTF event. However, to reduce fatigue on the post-survey, the items were once again only administered to one-half of the FTF participants, reducing the sample size per item as shown in Table I.

**2.2.3 Online survey (2009).** All but three of the items in Table I were used in the 2009 online survey. The response scale used in the online survey was again 1–5 (1 = strongly agree to 5 = strongly disagree). The complete online survey in 2009 assessed a very large number of items using a split sample design. Specifically, items were grouped *a priori* according to the construct or subconstruct they were presumed to assess (e.g. competence, integrity, loyalty) and then a prescribed number of (usually 1–3) items relating to each construct were randomly administered to each participant.

Because no participants completed all items of a given type, all of the predictor variables were subject to z-score transformations, and scores were imputed for constructs based on similar items that were:

- face valid for the same construct;
- showed similar patterns of correlations with other items; and
- loaded on the same factor in factor analyses conducted using the FTF data (Section 2.2.4).

**Table I.** Confidence-related constructs, variables, items, and sample sizes for each input technique

Construct Variables	Items	Phone 2008 (n)	FTF 2008 pre/post (n)	Online 2009 (n)	FTF 2009 pre/post (n)
<b>Unspecified confidence</b>					
<i>Great confidence</i>	I have great confidence in the Lincoln City government	297	51/27	1,714	—
<i>Confidence in</i>	Please tell us how much confidence you have in each of the following STATE and LOCAL government institutions to do their job: Lincoln City government	—	—	—	111/106
<b>Satisfaction</b>					
<i>Satisfaction with</i>	I am satisfied with the Lincoln City government (officials)	297	51/27	—	108/105
<b>Trustworthiness</b>					
<i>Cares what I think</i>	Public officials in Lincoln City government care about what people like me think	295	51/27	—	109/106
<i>Integrity (Moral)</i>	Most Lincoln City government officials lack integrity (reversed)	—	—	861	—
<i>Honest (Moral)</i>	Lincoln City government officials are, for the most part, honest			858	
<i>(Trustworthiness)</i>					
<i>Competent (Capable)</i>	Most Lincoln City government officials are competent to do their jobs	—	—	874	107/106
<i>(Trustworthiness)</i>					
<i>Qualified (Capable)</i>	The Lincoln City government is made up of highly qualified individuals	—	—	845	109/106
<i>(Trustworthiness)</i>					
<b>Legitimacy</b>					
<i>Respectful treatment</i>	Lincoln City government officials treat residents with respect	290	51/27	1,139	107/105
<i>Fairly elected (Legitimacy)</i>	Lincoln City government officials are chosen through fair elections			1,132	109/105
<i>Legitimate (Legitimacy)</i>	The Lincoln City government is a legitimate governing body			1,180	105/105
<i>Lawful procedures (Legitimacy)</i>	The procedures followed by the Lincoln City government are lawful			1,124	108/106
<b>Loyalty</b>					
<i>Deserves respect</i>	Even when I disagree with a decision made by the Lincoln City government, I still believe the government deserves respect			865	108/106
<i>(Loyalty)</i>					
<i>Should support (Loyalty)</i>	Citizens should support their government even if they disagree with some of its specific decisions or policies			854	109/106
<i>(Loyalty)</i>					

In the leftmost column, bolded titles refer to the construct the items were intended to assess, titles not in parentheses are titles pertaining to the specific item in the column to the right, and titles in parentheses refer to the variable or scale to which the item contributed when relevant; italics are used for titles of variables assessed with a single item, and non-italics are used to refer to scales created from multiple items; whether or not variables were multiple or single item-scales depended on the item administration as described in the text.

For example, approximately half of the online sample had completed the *integrity* item and half of the online sample had completed the *honest* item. None of the participants completed both of these items. However, these items are face valid for relating to perceived moral motives (*moral*), showed highly similar patterns of correlations with other items, and loaded on the same factor (titled trustworthiness) in the FTF data. Thus, the variable *moral* was created and equaled the z-score of *honest* or the z-score of *integrity*[5]. Similarly, the variable *capable* equaled the z-scores for either *competent* or *qualified*; and the variable *loyalty* equaled the z-scores for either *support* or *deserves respect*. Legitimacy scale scores were similarly computed based on the average of the z-scores of the *fairly elected*, *legitimate*, and *lawful procedures* items. All participants had completed two of these three items, the items had been chosen *a priori* to reflect legitimacy, and loaded on the same factor in the FTF data. The *respectful treatment* item was intended to be part of the legitimacy scale; however, it did not load on the legitimacy factor in the FTF data, and so it was analyzed separately.

**2.2.4 FTF discussions (2009).** As shown in Table I, many of the items used in the 2009 online survey were also used in the FTF survey. In addition, all FTF participants completed all items, allowing the examination of the factor structure of the items and the internal reliability of the scales. However, there were some differences in the items. First, the unspecified confidence question was somewhat different and administered separately from the other confidence-relevant items, as part of a group of items also assessing confidence in other state and local institutions. In addition, the response scale for this confidence item was a four-point (rather than a five-point) scale ranging from 0 = no confidence to 3 = a lot of confidence. Also, the response scales for the other confidence-relevant items were changed from five-point to seven-point scales, valenced in the same direction as the confidence question (1 = strongly disagree to 7 = strongly agree), but in the opposite direction as response scales used in the online survey.

Prior to combining the items used in the 2009 FTF deliberation, principal components analysis (using oblique rotation, because of expected correlations among the target constructs) was used to investigate the appropriateness of reducing the items to the *a priori* scales. These analyses supported the creation of the perceived *trustworthiness* (pre- and post-Cronbach's  $\alpha = 0.86, 0.86$ , respectively), *loyalty* ( $\alpha = 0.70, 0.62$ ) and *legitimacy* ( $\alpha = 0.73, 0.67$ ) scales by averaging across those items indicated in Table I. The *satisfaction*, *respectful treatment*, and *cares what I think* items, each of which had their second highest loadings on the trustworthiness component, were left to be examined individually.

### 3. Results

#### 3.1 Evidence for separable bases of confidence

**3.1.1 Results from 2008 input data.** To test *H1*, that the identified potential bases would account for independent variance in confidence under at least some conditions, three multiple regression analyses were conducted, one for each survey in 2008 (phone, pre-FTF, and post-FTF). In these regressions, *great confidence* was regressed on the three predictors, *satisfaction*, *care what I think*, and *respectful treatment*. The results from all three models are presented in Table II, and were highly similar: the *satisfaction* and *care what I think* items accounted for statistically significant independent variance in *great confidence* in all three models. *Respectful treatment* was the poorest predictor, accounting for the smallest amount of variance and only statistically significant in the model with the greatest power. In addition, although the evidence is suggestive only, the *care what I*



**Table II.** One model, five contexts: Multiple regression models investigating separable bases of the unspecified confidence questions in 2008 and 2009 input activities

Models Predictors	Unstan. B	SE	$\beta$	t-value	p	Simple (r)	Partial (r)	Indep. var. (%)
2008 Phone model: $F(3, 283) = 132.52, p < 0.001, R^2 = 0.584$ , Criterion = <i>great confidence</i>								
<i>Satisfaction with</i>	0.180	0.051	0.186	9.369	0.000	0.716	0.359	12.9
<i>Cares what I think</i>	0.160	0.055	0.162	2.922	0.001	0.620	0.112	1.3
<i>Respectful treatment</i>	0.253	0.056	0.228	4.541	0.000	0.593	0.174	3.0
2008 Pre-FTF model: $F(3, 47) = 39.00, p < 0.001, R^2 = 0.713$ , Criterion = <i>great confidence</i>								
<i>Satisfaction with</i>	0.440	0.122	0.435	3.595	0.001	0.786	0.281	7.9
<i>Cares what I think</i>	0.261	0.101	0.283	2.598	0.012	0.713	0.203	4.1
<i>Respectful treatment</i>	0.267	0.141	0.231	1.890	0.065	0.735	0.148	2.2
2008 Post-FTF model: $F(3, 23) = 18.72, p < 0.001, R^2 = 0.709$ , Criterion = <i>great confidence</i>								
<i>Satisfaction with</i>	0.410	0.160	0.406	2.557	0.018	0.762	0.287	8.2
<i>Cares what I think</i>	0.341	0.140	0.404	2.430	0.023	0.771	0.273	7.5
<i>Respectful treatment</i>	0.158	0.143	0.153	1.100	0.283	0.585	0.124	1.5
2009 Pre-FTF model 1: $F(3, 102) = 29.23, p < 0.001, R^2 = 0.462$ , Criterion = <i>confidence in</i>								
<i>Satisfaction with</i>	0.196	0.044	0.423	4.414	0.000	0.634	0.320	10.2
<i>Cares what I think</i>	0.122	0.050	0.268	2.465	0.015	0.586	0.179	3.2
<i>Respectful treatment</i>	0.037	0.049	0.077	0.763	0.447	0.489	0.055	0.3
2009 Post-FTF model 1: $F(3, 100) = 41.04, p < 0.001, R^2 = 0.552$ , Criterion = <i>confidence in</i>								
<i>Satisfaction with</i>	0.325	0.059	0.567	5.550	0.000	0.703	0.372	13.8
<i>Cares what I think</i>	-0.057	0.053	-0.106	-1.084	0.281	0.490	-0.073	0.5
<i>Respectful treatment</i>	0.193	0.054	0.326	3.561	0.001	0.628	0.238	5.7

Text for the wording of specific items is given in **Table I**; Unstan. B — unstandardized beta weight, SE — standard error of the unstandardized beta weight, Indep. var. — independent variance accounted for in the model by the predictor; variables comprised of single item scales are in italics

*think* item appeared to become an increasingly important basis (accounting for more variance) as exposure to city government increased from the phone survey, to being present at the FTF event, to having participated in the FTF event[6].

**3.1.2 Results from 2009 engagement data.** The last two models presented in Table II resulted from conducting the same regressions as were conducted on the 2008 data, this time using the 2009 pre- and post-FTF event data[7]. These analyses were conducted to investigate the replicability of the 2008 findings. Recall that in the 2009 pre- and post-FTF surveys, a somewhat different unspecified confidence item (with a more restricted scale ranging from 0 to 3) was used to assess unspecified confidence. Examination of the pre- and post-FTF results (see bottom two models of Table II) showed both similarities and differences to the regressions from the 2008 data analyses. Once again, *satisfaction* with the city government was the best predictor of confidence at both pre and post. Interestingly, however, while *cares what I think* was a significant predictor just prior to the FTF survey, it was reduced to non-significance by the time of the post-event survey, and perceptions of *respectful treatment* for the city government increased in predictive power.

The 2009 data, from both the online and FTF surveys included a greater number of items that were more specifically chosen to be relevant to the constructs predicted as bases for institutional confidence. Therefore, regressions using the scales and items described in Table I and Sections 2.2.3 and 2.2.4 were conducted next. Specifically, using the online survey data, the *great confidence* item was regressed on variables *moral*

**Table III.** 2009 input to the city: Additional multiple regression models investigating separable bases of the unspecified confidence questions

Models Predictors	Unstan. B	SE	$\beta$	t-value	p	Simple (r)	Partial (r)	Indep. var. (%)
2009 Online model 1: $F(4, 1709) = 400.99, p < 0.001, R^2 = 0.487$ . Criterion = <i>great confidence</i>								
<i>Integrity / honest (moral)</i>	0.353	0.024	0.330	14.545	0.000	0.614	0.252	6.4
<i>Competent / qualified (capable)</i>	0.337	0.021	0.320	13.777	0.000	0.610	0.239	5.7
<i>Support / deserves respect (loyalty)</i>	0.146	0.021	0.138	6.845	0.000	0.434	0.119	1.4
Perceived legitimacy (scale)	0.066	0.026	0.007	2.529	0.012	0.472	0.044	0.2
2009 Online model 2: $F(5, 1129) = 241.98, p < 0.001, R^2 = 0.517$ , Criterion = <i>great confidence</i>								
<i>Integrity / honest (moral)</i>	0.279	0.030	0.265	9.404	0.000	0.607	0.194	3.8
<i>Competent / qualified (capable)</i>	0.252	0.031	0.239	8.062	0.000	0.612	0.167	2.8
<i>Support / deserves respect (loyalty)</i>	0.106	0.026	0.100	4.120	0.000	0.427	0.085	0.7
Perceived legitimacy (scale)	0.018	0.031	0.015	0.577	0.564	0.407	0.012	0.0
<i>Respectful treatment</i>	0.293	0.032	0.261	9.093	0.000	0.614	0.188	3.5
2009 Pre-FTF model 2: $F(4, 103) = 26.22, p < 0.001, R^2 = 0.505$ , Criterion = <i>confidence in</i>								
<i>Satisfaction with</i>	0.196	0.043	0.418	4.561	0.000	0.630	0.316	10.0
Perceived trustworthiness (scale)	0.243	0.066	0.380	3.666	0.000	0.630	0.254	6.5
Loyalty (scale)	0.087	0.051	0.133	1.686	0.095	0.346	0.117	1.4
Perceived legitimacy (scale)	-0.085	0.062	-0.123	-1.367	0.175	0.362	-0.095	0.9
2009 Post-FTF model 2: $F(4, 100) = 29.24, p < 0.001, R^2 = 0.521$ , Criterion = <i>confidence in</i>								
<i>Satisfaction with</i>	0.294	0.064	0.513	4.613	0.000	0.704	0.313	9.8
Perceived trustworthiness (scale)	0.134	0.090	0.164	1.493	0.139	0.584	0.101	1.0
Loyalty (scale)	0.181	0.063	0.228	2.884	0.005	0.472	0.196	3.8
Perceived legitimacy (scale)	-0.077	0.083	-0.077	-0.931	0.354	0.332	-0.063	0.4

Names of single item measures of variables are italicized (Table I for text of items); scale names are not italicized; Unstan. B – unstandardized beta weight, SE – standard error of the unstandardized beta weight, Indep. var. – independent variance accounted for in the model by the predictor

and *capable* (two aspects of trustworthiness), *loyalty*, and the perceived legitimacy scale. As shown in the first model in Table III, all predictors accounted for significant variance in *great confidence*, however the variance accounted for by the legitimacy scale was very small (0.2 percent), smaller than most of the prior estimates of *respectful treatment* (which was theorized to be relevant to legitimacy) (Table II). Therefore, another model was analyzed, like the first but adding *respectful treatment* as a predictor (Table III, online model 2). In this model, *respectful treatment* accounted for variance similar to that which it accounted for in other models as reported in Table II, but reduced the independent variance accounted for by the legitimacy scale to zero.

Examination of the FTF event survey data allowed the inclusion of, once again, the most important predictor found for the 2008 data (*satisfaction*) in the models along with more reliable scale measures of the other potential bases of confidence. As shown in the bottom of Table III, *satisfaction*, though assessed with a single item, continued to account for the majority of independent variance in (and usually also had the strongest simple correlation with) unspecified confidence. Perceived legitimacy as assessed in the 2009 FTF surveys, continued to be the poorest predictor of unspecified confidence. Somewhat surprisingly, although perceived trustworthiness is sometimes equated with confidence (and used as a measure of confidence), it did not account for a significant amount of independent variance after the 2009 FTF engagement, but the loyalty scale did.

### 3.2 Evidence for impacts: FTF experiences impact bases that impact confidence

Data from 2008 was used to examine evidence for H2, that impacts of input experiences upon confidence are mediated by the potential bases of confidence. As previously noted, in 2009, different unspecified confidence items were used for the online input vs. FTF engagements, preventing us from comparing levels of unspecified confidence between those types of public.

*3.2.1 Results from 2008 input data: Between-group analyses.* A prior article (Tomkins *et al.*, 2010) described differences in reported *great confidence* reflected in phone surveys compared to post-FTF engagements, and reported two mediation analyses: one supporting that the *care what I think* variable could account for the difference between modes of input, and the other finding that perceptions of *respectful treatment* was not a likely mediator. Expanding consideration of possible mediators by looking for other bases that differed between the two input modes revealed that, in addition to *care what I think*, the *satisfaction* variable was also related both to mode of input ( $t(300) = 1.99, p = 0.047$ , with FTF participants expressing more satisfaction) and to *great confidence* ( $r(300) = 0.737, P < 0.001$ ). Thus, satisfaction was a potential mediator of the impact of input type on *great confidence* (Baron and Kenny, 1986).

To test whether satisfaction might mediate the impact of input type on *great confidence*, multiple regression procedures were used to estimate the paths from participation condition (phone vs. FTF engagement) through reported satisfaction, to unspecified confidence (controlling for the direct effect of participation condition on confidence). The results are shown in Table IV (including results for *care what I think*, which was also reported in Tomkins *et al.* (2010), but coded in the opposite direction). In Table IV, Model 1 is a model in which the mediator was regressed on input type (phone = 0, FTF = 1), to obtain the path A(xm) from input type (x) to the mediator (m, e.g. *satisfaction*) and its standard error. In Model 2, unspecified confidence is the criterion regressed on both the mediator (m) and the input type dummy code (x); path B (my.x) is the path from the mediator (m) to the criterion (y), controlling for input type (x); and path C (xy.m) indicates the remaining direct effect of input type (x) on unspecified confidence (y), after controlling for the effect of the mediator (m). Finally, Sobel's test (Preacher and Hayes, 2004, 2008) was used to test whether the indirect effect (represented by paths A and B) was statistically significant. As shown in Table IV, results revealed that, as was the case for the *care what I think* variable, *satisfaction* with the city government also completely mediated the impact of phone vs. FTF engagement type on the *great confidence* question.

*3.2.2 Results from 2008 engagement data: Within-group analyses.* Within-group analyses were next conducted to investigate the possibility that the reason why *great confidence* increased pre-post FTF engagement might also be because *satisfaction* and/or *care what I think* perceptions increased. Such a finding would bolster (but not completely verify) the supposition that different engagement events have different effects through their differential impacts on various bases of confidence. Although perceptions of *respectful treatment* did not mediate the different input mediums (phone vs. FTF), it was still examined as one alternative explanation for the pre-post changes in confidence. To conduct the within-group mediation analyses, the data were converted to a stacked data set that would allow the use of multilevel modeling procedures and inclusion of the potential mediators as time-varying covariates. Once again, separate analyses were conducted to test each mediation effect, and two models were examined in each analy-

**Table IV.** Mediation analyses using 2008 data

Mediator variable (m)	Model 1 mediator regressed on x		Model 2 criterion regressed on mediator and x		Sobel test indirect effect of x through mediator to criterion	
	Path XY $x \Rightarrow y$	Path A $x \Rightarrow m \Rightarrow x$	Path B m $\Rightarrow y$ ym.x	Path C x $\Rightarrow y$ yx.m	Test-statistic	p
<b>x = Input type (phone vs. post-FTF)</b>						
<i>Cares what I think</i>	0.421*	0.445*	0.608***	0.161	2.24*	0.024
<i>Respectful treatment</i>	0.421*	0.144	0.655***	0.328*	0.84	0.401
<i>Satisfaction</i>	0.421*	0.386*	0.716***	0.146	1.99*	0.047
<b>x = Time (pre- vs. post-FTF)</b>						
<i>Cares what I think</i>	0.355*	0.606*	0.649***	-0.001	3.36***	< 0.01
<i>Respectful treatment</i>	0.355*	0.113	0.775***	0.269*	0.79	0.428
<i>Satisfaction</i>	0.355*	0.307†	0.792***	0.121	1.94†	0.053

Significant at: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; †  $p < 0.10$ ; paths are unstandardized beta weights; SE — standardized errors for the beta weights reported in the column to the left of the SE column; results reported in Tomkins *et al.* (2010) were previously coded in the opposite direction but were recoded here for ease of interpretation across studies; Sobel tests were computed using the free calculator available at <http://people.ku.edu/~preacher/sobel/sobel.htm>

sis: Model 1 estimated the direct effect of the time-varying (potential) mediator on *great confidence* (path A), and Model 2 estimated both the fixed effect of the mediator while controlling for time (path B) and the effect of time controlling for the potential mediator as a time-varying covariate (path C). SPSS's MIXED procedure was used, specifying *great confidence* as the dependent variable, time (pre- vs. post-FTF) as a two-level categorical predictor, the potential mediator as a time-varying covariate, and using a compound symmetry covariance structure.

As shown in Table IV, the results from these within group analyses looked very similar to the results from the between group analyses. That is, the simple relationship between time and *great confidence* (path XY) was diminished to non-significance (path C) when either the *care what I think* or *satisfaction* variable was included as a mediator, but not when *respect* was included. However, the relationship between time and *satisfaction* was only marginal (path A), resulting in a marginally significant indirect effect.

### 3.3 Evidence for associations: Individual differences in bases of confidence

**3.3.1 Results from 2008 phone survey data.** To explore the possibility that different input types might attract participants who rely on different bases for their confidence, multiple regression procedures were used to test for interactions between type of input participation and confidence bases, predicting unspecified *great confidence*. Using the 2008 data from the phone survey, *great confidence* was regressed on eventual attendance at the FTF event (0 = did not attend, 2 = did attend), on each of the original predictors after centering at their means (centered versions of the *satisfaction*, *cares what I think*, and *respectful treatment* items), and on the interactions between each centered predictor with attendance. Results from the full regression model are shown in Table V. As shown, only *cares what I think* showed even a marginal interaction with eventual attendance at the FTF event, with the direction of the effect such that, for attendees, on average, the *cares what I think* item was more predictive of *great confidence* than for non-attendees. Application of backward removal processes also did not result in discovery of any significant interactions.

**3.3.2 Results from 2009 online engagement data.** Table V also shows the results of similar analyses conducted using the 2009 online data. For these analyses, online participants were separated into groups that eventually attended or did not attend the FTF engagement. *Great confidence* was regressed on eventual attendance at the FTF event (0 = did not attend, 1 = did attend), on each of the centered original predictors (i.e. *moral*, *capable*, *loyalty*, and *legitimacy*), and on the interactions between each centered predictor with attendance at the FTF event (attendee). Results from the full model indicated that none of the interactions were significant. Use of backward removal procedures were again employed. Specifically, the variables (or interaction terms) with the largest non-significant *p*-values were dropped one at a time (but always leaving in main effects that corresponded to a still-included interaction effect, regardless of significance[8]), and the model was reexamined between each dropped variable to determine which, if any, additional variables (or interaction terms) should be dropped. Removal of variables stopped when all remaining variables had significant or marginal effects on *great confidence* or were main effects accompanying an interaction. Following these procedures resulted in the model shown in Table V, which indicates a



**Table V.** Regression models predicting great confidence and including future attendance at the FTF event as a predictor

Models Predictors	Unstan. B	SE	$\beta$	t-value	p	Simple (r)	Partial (r)	Indep. var. (%)
2008 Phone data model: $F(7, 279) = 57.14, p < 0.001, R^2 = 0.585$ , Criterion = <i>great confidence</i>								
Eventual FTF attendee	0.108	0.149	0.030	0.728	0.467	-0.011	0.028	0.1
Satisfaction with (centered)	0.503	0.054	0.509	9.261	0.000	0.716	0.355	12.6
Cares what I think (centered)	0.126	0.059	0.127	2.141	0.033	0.620	0.082	0.7
Respectful treatment (centered)	0.263	0.058	0.237	4.494	0.000	0.593	0.172	3.0
Attendee $\times$ satisfaction	-0.091	0.190	-0.025	-0.477	0.633	0.181	-0.018	0.0
Attendee $\times$ cares what I think	0.310	0.180	0.094	1.724	0.086	0.195	0.066	0.4
Attendee $\times$ respectful treatment	-0.160	0.218	-0.045	-0.733	0.464	0.183	-0.028	0.1
2009 Online data model: $F(6, 1707) = 272.32, p < 0.001, R^2 = 0.489$ , Criterion = <i>great confidence</i>								
Eventual FTF attendee	0.112	0.079	0.025	1.428	0.153	0.033	0.025	0.1
Integrity/honest (moral)	0.352	0.024	0.334	14.498	0.000	0.614	0.251	6.3
Competent/qualified (capable)	0.337	0.024	0.320	13.777	0.000	0.610	0.238	5.7
Support/deserves respect (loyalty)	0.147	0.021	0.139	6.902	0.000	0.434	0.119	1.4
Perceived legitimacy (scale)	0.056	0.027	0.047	2.069	0.039	0.472	0.036	0.1
Attendee $\times$ legitimacy (scale)	0.166	0.082	0.036	2.015	0.044	0.147	0.035	0.1

Attendee was coded 0 = no, 1 = yes; Unstan. B — Unstandardized beta weight; SE — standard error of the unstandardized beta weight; Indep. var. — independent variance accounted for in the model by the predictor

significant attendee  $\times$  legitimacy interaction (those who eventually attended the FTF event had a closer relationship between their judgments of confidence and assessments legitimacy than those who did not attend) accounting for one-tenth of one percent of variance.

Finally, comparisons were made of groups of 2009 online survey respondents who stated that they had attended various events in the past year's (2008) public input opportunities, and tests were conducted for significant interactions between type of event attended and bases for confidence, predicting *great confidence*. Three models were created, one comparing past FTF (attendance at either the town hall meetings or the deliberations) to past online participation, one comparing past FTF to past phone participation, and one comparing past phone and past online participation. Very few of the 2009 online participants indicated that they had participated in more than one of each of the paired past events, and these participants were not included in the analyses for that model. Once again, full models provided a starting point for analyses, and backward removal procedures were used until all remaining variables were marginal or significant predictors of *great confidence* or were main effects accompanying an interaction term.

The resulting three models are presented in Table VI. As shown, for both of the FTF (vs. online surveyor vs. phone survey) models, *capable* interacted with input type such that past FTF participants' estimates of their confidence was more closely related to their estimates of the city government's capability (competence or qualifications) than it was for the other two groups. In addition, the interaction between in-

**Table VI.** Regression models predicting confidence and including different types of participation in 2008 (as reported on the 2009 online survey)

Models Predictors	Unstan. B	SE	$\beta$	t-value	p	Simple (r)	Partial (r)	Indep. var. (%)
2009 Online model 1 (phone vs. FTF): $F(6, 146) = 29.34, p < 0.001, R^2 = 0.547$ , Criterion = <i>great confidence</i>								
Input type: Phone (0) FTF (1)	- 0.026	0.131	- 0.012	- 0.201	0.841	0.146	- 0.011	0.0
<i>Integrity/honest (moral)</i>	0.530	0.118	0.480	4.486	0.000	0.609	0.250	6.3
<i>Competent/qualified (capable)</i>	0.194	0.123	0.176	1.571	0.118	0.636	0.088	0.8
Perceived legitimacy (scale)	0.199	0.082	0.175	2.424	0.017	0.560	0.135	1.8
Input type $\times$ <i>capable</i>	0.315	0.151	0.224	2.086	0.039	0.525	0.116	1.3
Input type $\times$ <i>moral</i>	-- 0.258	0.151	- 0.173	- 1.711	0.089	0.408	- 0.095	0.9
2009 Online model 2 (online vs. FTF): $F(6, 362) = 66.09, p < 0.001, R^2 = 0.523$ , Criterion = <i>great confidence</i>								
Input type: Online (0) FTF (1)	0.061	0.119	0.021	0.511	0.609	0.127	0.019	0.0
<i>Integrity/honest (moral)</i>	0.324	0.057	0.305	5.706	0.000	0.613	0.207	4.3
<i>Competent/qualified (capable)</i>	0.366	0.053	0.357	6.843	0.000	0.645	0.248	6.2
<i>Support/deserves respect (loyalty)</i>	0.220	0.044	0.202	5.016	0.000	0.456	0.182	3.3
Input type $\times$ <i>capable</i>	0.283	0.134	0.104	2.116	0.035	0.285	0.077	0.6
Input type $\times$ <i>moral</i>	- 0.261	0.144	- 0.093	- 1.815	0.070	0.206	- 0.066	0.4
2009 Online model 3 (phone vs. online): $F(6, 411) = 79.82, p < 0.001, R^2 = 0.538$ , Criterion = <i>great confidence</i>								
Input type: Phone (0) Online (1)	- 0.051	0.100	- 0.017	-0.509	0.611	- 0.015	- 0.017	0.0
<i>Integrity/honest (moral)</i>	0.530	0.102	0.540	5.682	0.000	0.641	0.190	3.6
<i>Competent/qualified (capable)</i>	0.372	0.047	0.352	7.952	0.000	0.636	0.267	7.1
<i>Support/deserves respect (loyalty)</i>	0.008	0.113	0.007	0.071	0.943	0.478	0.002	0.0
Input type $\times$ <i>moral</i>	- 0.253	0.110	- 0.215	- 2.302	0.022	0.567	-0.077	0.6
Input type $\times$ <i>loyal</i>	0.239	0.121	0.195	1.972	0.049	0.438	0.066	0.4

Unstan. B — unstandardized beta weight; SE — standard error of the unstandardized beta weight; Indep. var. — independent variance accounted for in the model by the predictor

put type and *moral* (integrity or honesty) was marginally or statistically significant for all three models, with the pattern of effects suggesting that past phone respondents had the closest relationships between estimates of *moral* and their confidence ratings, followed by online participants (who appeared to be considering their loyalty to the institution more than the phone participants), and then the FTF participants. Table VI indicates the independent variance accounted for by these interactions is typically less than 1 percent.

## 4. Discussion

### 4.1 Hypotheses

This research examined three hypothesis that arose from a consideration of potential bases of confidence in institutions. *H1*, that *satisfaction*, *perceived trustworthiness* and *legitimacy*, and *loyalty to city government* will each account for independent variance in responses to unspecified confidence questions under some conditions, was supported (Tables II and III). However, it was also revealed that, across input techniques, the item most predictive of people's reported confidence in city government, was satisfaction,

which shared up to about 65 percent of its overall variance and about 10 percent of independent variance, with unspecified confidence. Second in importance as a basis for unspecified confidence, was trustworthiness. Trustworthiness judgments such as assessments of benevolence (*cares what I think*), integrity, and competence, typically ranked among the top predictors of unspecified confidence with correlations averaging around 0.6, but accounting for substantially less independent variance (typically < 5 percent) than satisfaction. Finally, across contexts, items assessing constructs relating to loyalty and legitimacy appeared to account for the least variance in confidence estimates. Nonetheless, each variable, at times, did account for small amounts of statistically significant and independent variance not accounted for by other measured variables.

These results suggest that people's bases for responding to the question: "how much confidence do you have in city government?" are, across input types, based largely on their satisfaction and perceptions of government trustworthiness. This finding has implications for interpreting what residents mean when they report their level of confidence in government, at least within city budget and performance reporting input contexts. Essentially, people are stating they are satisfied with the government and think that it is relatively trustworthy. However, they are not necessarily saying that they are loyal to the government or that they would continue to support it in the face of disagreement. Consistent with others' findings (Gibson *et al.*, 2003) unspecified confidence in the present study is more reflective of current satisfaction than of a more diffuse and stable form of support (Easton, 1965).

These findings also advance scientific knowledge and have broader implications for government officials in that they suggest that input types which can promote participant satisfaction and the perceived trustworthiness of government may also promote citizen reports of confidence. In the present data, it seems that FTF events are particularly well-suited for these purposes. However, this research does not investigate why that is the case. FTF meetings, phone surveys, and online surveys differ in numerous ways. For example, because phone and online surveys offer no interaction with government *per se*, the idea that government *cares what I think* may be implied by the existence of the surveys, while FTF engagements may allow government officials to *demonstrate* that they care what residents think by how they respond to residents at the time that they make their FTF suggestions. Future research could investigate whether specific features (e.g. discussion, interaction with public officials, two features lacking in phone or online surveys) are important for increasing satisfaction with and other bases of reported confidence in government. In addition, given the variation in the predictive ability of the *cares what I think* and *respectful treatment* items across contexts, future research should be conducted to see if there are specific influences and variations in types of public engagements that might result in increasing or decreasing the salience or impact of different bases of institutional confidence.

The H2 was that within group analyses would reveal that the same variables that appeared responsible for between-group differences (e.g. between FTF engagements and phone survey input in 2008) *would also account for changes in confidence observed pre- to post-FTF engagement*. As shown in Table IV, *cares what I think* and *satisfaction* (marginally), the two variables that were best able to account for differences between phone respondents and FTF participants' confidence levels, were also able to account for pre- to post-FTF differences in confidence. Meanwhile, *respectful treatment* was neither able to

account for differences between groups nor able to account for changes in confidence over time. These results provide additional support that the differences in confidence previously observed between input types (Tomkins *et al.*, 2010) may be a function of participation in FTF interactions with fellow residents and city government rather than merely an associative relationship due to the different confidence levels of people who are attracted to different types of input opportunities.

An alternative hypothesis that the within groups analyses (Table III) could not account for, however, was whether persons attracted to certain types of engagement rely on different bases to make their confidence judgments. If this were the case, then encouraging online participants to attend FTF events, or attempting to increase online respondents' confidence by increasing specific perceptions of government trustworthiness, might not work. If people are using different bases to estimate their confidence in government, then different types of input techniques may be more confidence-building for some persons than others.

Given this possibility, tests were conducted to see if there were statistically significant interactions between eventual participation (participants/non-participants) in different input activities and the bases that predict level of unspecified confidence in institutions. As was shown in Tables V and VI, such statistically significant interactions were present. Notably, however, all but one of the interactions accounted for less than 1 percent of variance in unspecified confidence. Thus, while it may be true, for example, that persons who have attended FTF events in the past are basing their confidence judgments to a slightly greater extent on their perceptions of the capability (competence and qualifications) of city government than those who participated in phone surveys or online surveys, the difference, as assessed in this study, accounts for only very small amounts of the variability in unspecified confidence overall.

## 5. Conclusions

The analyses of the data collected over two years of public input activities in Lincoln, Nebraska are a start, but not in themselves definitive. On the positive side, multiple input techniques were used, and the analyses show important differences in the impacts on confidence assessments, with, for example, FTF engagements being associated with not only more end-of-engagement confidence in government, but also greater perceptions that the government cares what residents think, and greater satisfaction, compared to phone surveys. Moreover, the analyses presented here show that it is possible to disentangle correlated confidence constructs (e.g. trustworthiness perceptions and loyalty), theoretically and empirically. Further, of the bases tested here, the primary basis upon which most residents judge their confidence in city government is satisfaction; and yet FTF events can impact confidence by increasing perceptions that the government cares what residents think. Findings are convergent and (mostly) consistent on these points, and thus can inform managers and policymakers who are interested in enhancing the public's confidence in municipal government. On the other hand, one would not want to place too much emphasis on one correlational study, from only one jurisdiction, that relied on convenience samples. Future studies should investigate these questions more thoroughly (e.g. using more reliable scales rather than single items, or mixed method approaches allowing one to triangulate results). The results presented, thus, are enticing but suggest the need for the research community to take advantage of these kinds of activities, which are not limited to public input on municipi-

pal budgeting and performance measures. Moreover, it is important for both scientific knowledge and broader implications for government officials to test the impacts of intentionally and experimentally varying input activities (e.g. internet-based discussions vs. more expensive, FTF discussions). The issues of public input and confidence in government cry out for carefully-constructed, systematic, programs of input/engagement and research.

### Notes

1. These are the same samples and methods reported in studies 1 and 2 in Tomkins *et al.* (2010). They have been revised to describe in more detail the measures and procedures most relevant to our expanded and additional analyses.
2. This procedures followed are very similar to the ones used by Stanford Professor James Fishkin and his colleagues. See <http://cdd.stanford.edu/>
3. [www.youtube.com/watch?v=fFbW\\_S82mHM](http://www.youtube.com/watch?v=fFbW_S82mHM)
4. An additional 95 were involved in town hall meetings, and 365 took an online survey in 2008. Totals do not sum to 498 because some residents participated in multiple activities.
5. Use of z-scores eliminated differences in the statistical difficulty of the items and ensured that persons were not systematically assigned, on average, a higher or lower score (e.g. on the *moral* or *capable* variables) merely as a function of the item that they were randomly assigned.
6. Within Study 1, there was some evidence that reliance on *care what I think* might vary between phone and post-FTF predictions of *great confidence* such that persons in the phone survey tended to rely less on *care what I think* as a bases for their *great confidence* while respondents to the post-FTF survey allowed *care what I think* estimates to influence their *great confidence* to a greater extent. The interaction effect, detected using SPSS's MIXED procedure was marginal ( $p = 0.06$ ) and was only detected at that marginal level when other confidence bases and attitudes toward taxes were included as control variables.
7. Because the *cares what I think* and *satisfaction* items were not used in the 2009 online survey, the regression analyses could not be applied to the online data, only to the FTF data.
8. The main effects corresponding to an interaction effect in the model were always left in, regardless of significance, in order to facilitate interpretation of the interaction effect.

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