

ABSTRACT

CROUSE, ERIN YVONNE. Exploring Relationships between Social Networks and Vested Interest in a Municipal Parks and Recreation Participatory Planning Process. (Under the direction of Dr. Roger L. Moore).

Civic engagement is a key element of democracy, but citizens who engage often do so at varying levels, and those who participate may not be representative of their community. Participatory planning processes, by design, often utilize differing methods of collecting public input to promote widespread engagement. Understanding why the amount of citizen engagement varies among potential participants can help agencies reach out to underrepresented parts of their communities and increase social capital between citizens and government. This exploratory study examined possible relationships between participants' vested interest, social network size, and strong and weak network ties with their method and frequency of engagement in a municipal planning process. Methods of engagement included online (using an engagement tool called MindMixer), in-person (focus groups, meetings, and stakeholder interviews), and participants using both online and in-person methods. Frequency of engagement was gauged by three self-reported measures: number of comments posted online; ideas shared online, and meetings attended.

Participants in the 2013–2014 City of Raleigh Parks, Recreation, and Cultural Resources Department's park system planning process were contacted via email with an invitation to complete an online quantitative survey. Pearson's correlation, ANOVA, chi-square tests, and descriptive statistics were used for analysis. Two hundred and fifty-six surveys were completed (an 11% response rate for the 2,335 eligible emails). There was a significant correlation between engagement method and vested interest, network ties, and most measures of network size. A significant correlation was also found between engagement frequency and vested interest. Some engagement frequency measures were significantly associated with network ties and network size. While additional research is needed in order to generalize these findings beyond this dataset, this study should be useful for both researchers and practitioners as they attempt to evaluate current engagement strategies and plan outreach for future participatory planning processes.

Exploring Relationships between Social Networks and Vested Interest in a Municipal Parks
and Recreation Participatory Planning Process

by
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BIOGRAPHY

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TABLE OF CONTENTS

LIST OF TABLES	vi
LIST OF FIGURES	vii
INTRODUCTION	1
LITERATURE REVIEW	8
METHODS	16
Participants.....	16
Instrumentation.....	19
Procedures	23
Analyses	25
RESULTS	32
Participant Demographics.....	33
Research Question Results.....	38
DISCUSSION, IMPLICATIONS, LIMITATIONS AND CONCLUSIONS	78
Demographics	79
Method of Engagement.....	83
Vested Interest.....	84
Social Networks.....	86
Implications for Future Research.....	88

Implications for Practice	90
Study Limitations.....	94
Conclusion	98
REFERENCES.....	99
APPENDICES.....	112
Appendix A	113
Appendix B	122
Appendix C	127

LIST OF TABLES

Table 1. Overview of Study Analyses	28
Table 2. Gender of Participants	34
Table 3. Age of Participants in Years	34
Table 4. Race of Participants ¹	35
Table 5. Ethnicity of Participants.....	35
Table 6. Education Level Attained of Participants	35
Table 7. Participant Frequency by Citizens Advisory Council District.....	37
Table 8. Presence of Children under the Age of 18 in Household	37
Table 9. Annual Household Income of Respondents.....	38
Table 10. Methods of Engagement in System Plan ¹	39
Table 11. Number of Engagement Methods Used to Participate.....	40
Table 12. Type of Engagement Method Used	40
Table 13. Engagement on MindMixer Site after System Plan Adoption	40
Table 14. Cross-tabulation of Engagement Method by Citizens Advisory Council District..	42
Table 15. Chi-Square Test of Participant Race and Engagement Method Used	47
Table 16. Chi-Square Test of Participant Age and Engagement Method Used.....	47
Table 17. Analysis of Variance of Participant Age by Engagement Method Used.....	48
Table 18. Engagement in Plan by Phase ¹	49
Table 19. Number of Phases Participated.....	49
Table 20. Number of Times Respondents Shared an Idea on MindMixer	50
Table 21. Number of Time Respondents Posted Comments on MindMixer.....	51
Table 22. Number of Meetings and/or Focus Groups Attended.....	51
Table 23. Respondent Engagement Method Preferences ¹	52
Table 24. How Respondents Prefer to Get Information from the Department ¹	53
Table 25. Frequencies of Vested Interest Components and Composite	57
Table 26. Has Approval of the Plan Affected your Life.....	58
Table 27. Attitude toward Need for System Plan ¹	59
Table 28 Personal Attitude toward System Plan ¹	59
Table 29. Correlation between Vested Interest and Attitude.....	61
Table 30. Discussion of Plan with Network Ties	62
Table 31. Size of Respondent's Networks.....	64
Table 32. Number of Name Generated Memberships	65
Table 33. Types of Name Generated Memberships.....	66
Table 34. Analysis of Variance of Vested Interest by Engagement Method Used ¹	67
Table 35. Pearson's Correlations of Vested Interest and Engagement Frequency ¹	68
Table 36. Chi-Square Test of Strong Ties and Engagement Method Used.....	70
Table 37. Chi-Square Test of Weak Ties and Engagement Method Used	72
Table 38. Pearson's Correlation of Network Ties and Engagement Frequency ¹	74
Table 39. Analysis of Variance of Network Size and Engagement Method Used ¹	75
Table 40. Pearson's Correlation of Network Size and Engagement Frequency ¹	76

LIST OF FIGURES

Figure 1. Number of Participants in Citizens Advisory Council District	43
Figure 2. Participant Online Engagement by Citizens Advisory Council District	44
Figure 3. In-Person Engagement by Citizens Advisory Council District	45
Figure 4. Engagement Using Both Methods by Citizens Advisory Council District	46

INTRODUCTION

The philosophical foundation of democracy is that all people are granted equal access to, and equal say in, government. However, in practice, there is often inequity in both who participates and how their voices are heard. This problem is evident in participatory planning processes, even though by using multiple engagement methods, the effort may be intended to solicit feedback from the largest number of people possible. Studies of this phenomenon have focused on why people choose to participate in planning processes, but little research has been completed on how this affects the way and amount that people participate.

Understanding such potential relationships could help researchers and managers address inequities in future planning processes.

This exploratory study is intended to improve understanding of participation inequities by using the conceptual frameworks of vested interest and social capital. Vested interest, “the extent to which an attitude object is deemed hedonically relevant by the attitude holder” (Crano, 1995, p. 132), can be used to understand types and intensities of participant motivation. Social capital, the “features of social life—networks, norms, and trust—that enable participants to act together more effectively to pursue shared objectives” (Putnam, 1995, p. 664-65) can provide a framework for understanding the impacts of participants’ ties with other social actors on their method and frequency of civic engagement, as well as how individuals and social networks interact with government to help or hinder engagement.

For centuries, the active engagement of citizens in society has been considered one of the foundations of democracies. From Aristotle’s 4th century BC promotion of civic virtue as a pathway to happiness (1999) to de Tocqueville’s (1899) beatification of American civic

engagement, the idea of people coming together for the greater good has endured to this day. While the United States Constitution set forth principles for public representation and protections for individual expression, it was not until the late 20th century that guidelines for civic engagement in natural resource planning were codified into U.S. law, notably with the National Environmental Policy Act of 1969 (*National Environmental Policy Act of 1969*, 1994). Today, the U.S. has a more inclusive view of who is encouraged to participate in government than Aristotle or de Tocqueville suggested, but many people are unable or choose not to engage (OECD, 2009). In addition, the definition of “civic engagement” continues to be debated and to evolve.

After discussing four ways that civic engagement can be defined (i.e., community service, political involvement, collective action, and social change), Adler and Goggin (2005) described it as “how an active citizen participates in the life of a community in order to improve conditions for others or to help shape the community’s future.” (p. 241). Ideally, all citizens would be active in their communities and all of their engagement would be constructive and successful. However, not all citizen engagement is successful and participation is often not equitable or representative of the total population. Three major reasons for inequality in engagement are: 1) differing levels and types of motivation for citizens to become civically engaged; 2) public input policies that knowingly or unknowingly discourage engagement; and 3) citizen engagement by people who gain an advantage in the political process through exploiting flawed public input policies, and/or banding together in social networks to have a greater voice (Brunner, 2002). Such inequality can often be seen in local government planning processes. Understanding the underlying motivations for

participation could provide insights into the outcomes of planning processes, as well as help managers understand how, if necessary, to adapt their engagement processes in order to overcome inequities.

A primary reason why inequalities exist in planning processes relates to the motivations of potential participants. Motivations are a key predictive component for civic engagement, and can vary widely in type and strength (Blamey, 1998; James & Blamey, 1999). Some of the most common motivations for civic engagement are financial interest (Manturuk, Lindblad, & Quercia, 2012), desire for power and/or change (Stephan, 2005), empathy (Rader Olsson, 2009), adequate time and resources to engage (Moore, McBride, Sherraden, & Pritzker, 2006), concern for the natural environment (Kang & Kwak, 2003; Luloff, et al., 2011), and level of trust in the governing body guiding the planning process (John, Fieldhouse, & Liu, 2011). This list is not exhaustive, and a person participating in a planning process may have any, all, or none of these motivations, depending on their experience and circumstances. While motivations are important, they are not the sole predictor of civic engagement. One model, vested interest, can be used as a tool for quantifying the likelihood of behavior based on motivations and other factors.

In addition to differing types and strengths of motivations to participate in a planning process, there can also be inequalities in participation due to the type of public input process being used. Arnstein's (1969) "ladder of citizen participation" was one of the first models proposed to discuss the differing levels of engagement of citizens in planning processes, from non-participation, to tokenism (the public being asked to simply take on a consulting role), to truly citizen-driven processes. The type of input requested (or not requested) by an agency

can vary widely depending on the nature of the planning process. Since the introduction of the “ladder of citizen participation”, there has been movement from planners to include more input from citizens. All contemporary planning models have considered public participation to be an integral part of the planning and decision-making process, though how they utilize public input varies (Lane, 2005). Communicative (or participatory) planning, in particular, considers public engagement as fundamental to the success of the planning process.

Participatory planning processes are often large-scale efforts that incorporate multiple avenues for public input. Completing such planning processes can involve a significant time commitment (up to a year or more in many situations) and cost in terms of taxpayer dollars. Participatory planning has been shown to be an effective planning method when there is a large amount of vested interest in the project or when hostility between citizens and government is high (Irvin & Stansbury, 2004); however, because of the cost and time involved, this approach is not feasible for every planning project. Strategies for conducting participatory planning processes can include public meetings, online engagement tools, focus groups, and surveys. The intent of having a lengthy and open planning process is generally to allow adequate time for citizens to feel that they have been heard and to provide a process whereby conflicts between agencies and citizens can be identified and addressed in advance of a plan’s implementation.

A third reason for potential inequalities of engagement is that citizens who engage may not be representative of their respective communities. This could be due to constraints on participation, or because certain people are more vested in the process than others. In addition, a citizen’s voice may be magnified when they connect with like-minded groups of

people through one or more social networks to promote their political desires. These social networks are often called “stakeholder” or “special interest groups” and, in order to be considered a legitimate part of the planning process, they must possess both economy (a stake or vested interest in the process) and competence (at least minimal understanding of the issue) (Brunner, 2002). In a society where the majority of the populace chooses not to engage in government, those who speak up and get involved are poised to gain more political power than their counterparts. Such disparities in representation can sometimes undermine the planning process and deter other individuals or groups from taking part. In addition, any perceived bias on the part of the planners or managers can result in a lack of trust among citizens or between citizens and government.

Understanding why there are differing levels of civic engagement is worthy of investigation because citizen engagement is a key element of democracy. Not everyone will run for office, but those who are actively engaged are more likely to vote to help decide who that officeholder will be. Government is only as successful as its participants, and if those who participate are not representative of the citizenry, then government may not be serving the common interest. Some may choose not to participate because they feel their voice is already being represented. That is understandable, but finding a way to measure how and why people are involved, and the impact they are able to have collectively as members of a social group is an important step in bringing those who do not currently participate in government to the table. Participatory planning is a good-faith effort by a government agency to engage openly with residents about the future of an area (Crawford, Kotval, Rauhe, & Kotval, 2008; James & Blamey, 1999; Selin, Pierskalla, Smaldone, & Robinson, 2007).

People who may not normally participate may decide to join in. Some people may choose to only take part in a limited portion of the process. If participatory planning is implemented correctly, it can increase the proportion of citizens involved in their government and build social capital among different stakeholders (Crawford et al., 2008). Thus, participatory planning may be one of the most inclusive types of civic engagement that can be studied.

Recognizing the value of participatory planning, and keeping in mind its potential to address inequality in civic engagement, the goal of this study was to understand the vested interest of people who participate in a municipal parks and recreation participatory planning process, and their connections to social networks within their community. In addition, this study examined the correlations (if any) of participants' vested interest and social networks with their method of participation (online tools, in-person meetings, or both), and the frequency and duration of their participation in the planning process. The five research questions for this study were:

1. How do participants engage in a park system planning process?
2. What is the level of vested interest of participants in a park system planning process?
3. What are the types and number of social ties park system planning participants use for gaining information about community issues?
4. Is vested interest in a park system planning process related to method or frequency of engagement?
5. Are participants' social network ties related to their method or frequency of engagement in a park system planning process?

Two conceptual frameworks guided this research: vested interest and social capital. The literature related to these frameworks is reviewed in the next chapter. Chapter three describes the methods for this study and the analyses used. In chapter four, the results of the study are shared. The final chapter includes discussion of the results, limitations of the study, and implications for future research and planning practice.

LITERATURE REVIEW

Participation in a planning process is an action influenced by internal and external factors. This section introduces vested interest theory as part of a review of internal motivations for engagement. External factors on engagement will be discussed using the social capital framework. Finally, gaps in the planning literature related to these frameworks will be discussed.

Civic engagement (or lack thereof) is a behavioral action undertaken based on one's beliefs or attitudes. Motivation is the link between these attitudes and behavior. Many attempts have been made to understand how attitudes are linked to action, with the most well-known example being the Theory of Planned Behavior (Ajzen, 1991). In the Theory of Planned Behavior, behavior is guided by behavioral beliefs, attitude toward the behavior, normative beliefs and subjective norms, and beliefs about the difficulty of the action. These lead to the intention to perform the action, and then the actual behavior.

While these factors are all at work when behavior occurs, not all beliefs lead to the manifestation of a behavior. Research on attitude strength (the degree to which an attitude is persistent, resistant to change, impacts processing and judgement, and guides behavior) tries to identify why (Krosnick & Petty, 1995). Stronger attitudes have durability and impact, and are more likely to lead to action (Krosnick & Petty, 1995). Crano (1995) expanded on this notion by introducing the concept of vested interest. In vested interest theory, as in the Theory of Planned Behavior, beliefs impact behavior, but they are more likely to lead to action if the person feels the potential outcomes of the decision will affect them greatly. This is called attitude-behavior consistency. Studies by Glasman and Albarracín (2006), and

Crano and Prislin (1995) support the influence of vested interest on behavior. Components of vested interest include stake in the outcome, salience of the attitude, certainty of the outcome, immediacy between the behavior and its consequences, and self-efficacy (the perceived ability of the person to have an impact on the outcome) (Crano 1995). Later research (Johnson, Siegel, & Crano, 2012) expanded the theory, positing that in addition to higher levels of vested interest when a person believes that potential outcomes will have a direct influence on their lives, there is also a higher level of vested interest when outcomes are perceived to have indirect implications on a person (such as through a close family member or friend). Their initial findings showed support for this extension of vested interest theory.

The applications of vested interest theory are numerous. The framework has been used to explore father's attitudes toward child care (Moon, 2012), organ and tissue donation (Anker, Feely, & Kim, 2010; Siegel, Alvaro, Lac, Crano, & Dominick, 2008), mandatory senior high school exams (Thornton & Tizard, 2010), risk management (Miller, Adame, & Moore, 2013), environmental risk communication (De Dominicis et al., 2014), health care services (Benning, Breugelmans, & Dellaert, 2012), and political views (Lehman & Crano, 2002). Two studies (Thornton & Knox, 2002; Thornton & Tizard, 2010) have particular significance for this present research project. They focused on policy changes that may have adverse consequences for the study participants. In Thornton and Knox's 2002 work, "Not in my backyard" (NIMBY) attitudes were consistent between groups, but people with higher levels of vested interest expressed greater intention to fight against the plan. Their later study (2010) found that arousal can serve as a moderating factor in behavior for those with lower levels of vested interest. However, arousal had little effect on the behavior of individuals who

were already highly vested. The ability of arousal to incite action among those with low vested interest could be an important factor in addressing inequalities in civic engagement.

As noted in the literature above, vested interest and motivations do not exist in a vacuum. Outside influences, such as arousal or the effect of a perceived outcome on a loved one, can affect behavior. Individuals who have high levels of vested interest, or who are aroused to take action on a particular issue may seek out other individuals with similar desires to join or create a stakeholder group. Stakeholder groups are social networks, and may influence behavior within the group, behavior among stakeholder groups, and behavior between the group and the management agency, which can build or hinder the development of social capital (Wagner & Fernandez-Gimenez, 2008). There are a limited number of studies that address external influences on motivations and/or vested interest in planning processes. These studies fall into two categories: influences on the stakeholder from the group they are affiliated with (Leach, Mearns, & Scoones, 1999), and from interactions among stakeholders in the process (Lauber, Decker, & Knuth, 2008; C. W. Lee, 2007; Westermann, Ashby, & Pretty, 2005). Such behaviors are influenced by arousal, indirect influence, and/or the information that the person is provided.

The second conceptual framework that guides this research project is social capital: the development of networks and trust that allow people involved to more effectively pursue shared goals (Putnam, 1995). The social capital framework defines two major types of social capital: *bonding* (or intragroup), and *bridging* (or intergroup) (Uslaner & Brown, 2005). In citizen engagement literature, social capital is often quantified though analyzing the social networks of individuals (La Due Lake & Huckfeldt, 1998). Social networks can include:

family (Luloff et al. 2011); friends (La Due Lake & Huckfeldt, 1998); non-governmental organizations (Wollebaek & Selle, 2002); and shared interest groups such as user groups (Paletto, Ferretti, & De Meo, 2012), religious groups (Lewis, MacGregor, & Putnam, 2013), and neighborhood groups (Dekker, 2007; Hays & Kogl, 2007; Kang & Kwak, 2003). These network ties can vary in their intimacy or closeness (Gil de Zúñiga & Valenzuela, 2010); “strong ties” have high degrees of intimacy, while “weak ties” do not. In addition, the composition of a social network can affect its ability to build social capital (Anthony, Knuth, & Lauber, 2004; Leach et al., 1999; C. W. Lee, 2007; Wagner & Fernandez-Gimenez, 2009; Westermann et al., 2005). Social networks have been studied in terms of many types of citizen engagement including neighborhood engagement (Dekker, Völker, Lelieveldt, & Torenvlied, 2010; R. A. Hays, 2009), heritage planning (MacMillan, 2010), and natural resource planning (Bodin & Crona, 2009; Wagner & Fernandez-Gimenez, 2008). Participatory planning has been found to have the potential to create social capital amongst network members, and reduce the transaction cost for future planning actions (Rader Olsson, 2009).

Social networks can exist both in-person and virtually. Online tools can be designed to connect people in general, or to rally them around a specific purpose. This is a growing area of research. Studies have found that online networks generally have weaker ties, but that these ties can also motivate a person to civic engagement and help develop social capital (Gil de Zúñiga, Jung, & Valenzuela, 2012; Gil de Zúñiga & Valenzuela, 2010; Mandarano, Meenar, & Steins, 2010; Valenzuela, Kim, & Gil de Zúñiga, 2012). However, just because an engagement opportunity is online does not mean it will succeed (Chadwick, 2011), and many

agencies still prefer in-person engagement to online participation (Aikins & Krane, 2010). An agency that is unsure of how to manage online engagement, or unwilling to embrace it (Aikins & Krane, 2010), can undermine social capital formation for the entire outreach effort.

Fortunately, a recent surge of online engagement tools, such as MindMixer (now called MySidewalk), allow for a greater variety of grassroots, crowdsourcing (sometimes referred to as “citizensourcing”), and/or two-way communication between the agency and citizens (Seltzer & Mahmoudi, 2012; Vreede et al., 2013). Some research has been conducted on the motivations of participants using these tools. Vreede, et al. (2013) found three antecedents for participating in online engagement tools like MindMixer: personal interest in the topic, clarity in the goal of the process, and motivation to contribute. Goal clarity serves as a moderating factor between personal interest and motivation to contribute. There is also some anecdotal evidence that these tools have increased citizen participation in planning processes, both online and in-person, but no research seems to have been completed to verify these claims (Seltzer & Mahmoudi, 2012). In addition, MindMixer and other engagement tools appear to have great potential to bring in citizens who have not been civically engaged before, but no research has been completed so far to measure the efficacy of these tools at soliciting input from underrepresented populations.

Though online engagement tools may be a nascent research area, they do offer potential for increased civic participation. By using the Internet, these tools allow for temporal and geographical flexibility in the collection of feedback (Mandarano et al., 2010). In-person engagement events, even when scheduled over a variety of days and times, do not provide an opportunity for participants to contribute feedback at all times of day, or when

they are out-of-town or do not have adequate transportation to attend the meetings. In addition, many of these online tools provide the opportunity to integrate incentives into the process. Material incentives can increase participation (Brabham, 2010; Nam, 2012), and can be provided through contests, random drawings, or the participant's activity level on the site (e.g., by accumulating points that can be redeemed for prizes). Such incentives have the potential to increase vested interest in the process, as well as strengthen social network ties by increasing interaction among participants' weak ties.

Despite the promise of this new technology, none of these tools are meant to serve as a standalone means of citizen engagement, but are one of many options for agencies conducting a planning process (including public meetings, focus groups, and intercepts, among others). There are also some potential drawbacks to note in terms of the use of online tools. Online crowdsourcing can obscure the identity of citizens and stakeholder groups (Mandarano et al., 2010). Depending on how the online engagement opportunity is set up, some anonymity may be allowed, including the use of username pseudonyms. This can make it difficult for the agency to determine the identity and motivation of the participant; while this may not always be a drawback, it could be a concern for agencies who are trying to evaluate the effectiveness of their planning outreach efforts. In addition, stakeholder groups with strong online social networks may be able to mobilize large amounts of support quickly and affect the results of the online engagement tool in a way that is contrary to the views of the majority of the community (Mandarano et al., 2010). Finally, there are also some concerns that online participation, similarly to in-person participation, may decrease the diversity in civic participation (Nam, 2012). Due to self-selection, participants are more

likely to be interested in government, and may be unrepresentative of the entire community. And similar to some issues with in-person participation, disparities in infrastructure (in this case, access to the internet) and income may also make it difficult for some members of the community to participate in an online crowdsourcing planning process (Brabham, 2009). The potential drawbacks of lack of diversity of participation and difficulties in identifying participants are important for agencies to consider when soliciting and analyzing data collected through online engagement tools.

While agencies must consider the quality of the data they are collecting using online tools, they should also realize that their use of such data can affect participants' perceptions of the engagement process. The agency must be transparent in who is analyzing the data, and how this data is incorporated into the final plan (Mandarano et al., 2010). Lack of transparency in online engagement (and its consequences) is an emerging research area, but one study found that online participants' perceived influence on decision making was positively correlated with their assessment of government transparency (Soonhee, Lee, Kim, & Lee, 2012). In addition, positive perceived influence in terms of government transparency, combined with satisfaction with the online participation process, have the potential to positively affect participants' trust in government. While this was only one study, there is case-based evidence suggesting that increased transparency and participation may, over time, lead to more ubiquitous engagement (G. Lee & Kwak, 2012).

Although research related to civic engagement is wide-ranging, gaps in the literature remain. First, there has been little research completed about social networks in municipal-level planning processes. In resource management, researchers have examined regional and

national social networks (e.g., Gil de Zúñiga & Valenzuela, 2010; La Due Lake & Huckfeldt, 1998; Lauber, Decker, & Knuth, 2008; Mandarano, 2009; Valenzuela et al., 2012). However, more exploration into the number, types, and possible strengths of various network ties at the municipal level would be an important contribution to the field.

A second gap in the existing literature is that there is little research so far on the use of social networking tools like MindMixer in planning processes. Most of the research is about the technology itself, and no studies have examined how effective these tools are at bringing different types of people into the planning process. This study compared the social network ties of people engaged in the planning process online with those engaged through in-person meetings, which will be a first step in assessing the ability of planners to solicit feedback from underrepresented segments of society using online tools.

A final gap in the literature is that there is limited information about how individuals and groups interact in a planning process. Some studies (Lee, 2007; Westermann et al., 2005) have examined how people in a network affect the collective group experience in a planning process, but there is a gap in literature examining why the effect of individuals on a network occurs. This project attempted to consider how external factors such as the intensity of social network ties and vested interest might influence the behavior of those participating in the planning process. These differences in behavior may include the method (online posts, in-person meetings, or both) of engagement and/or the frequency of participation. How these topics were addressed is discussed in more detail next in the methods section.

METHODS

This section describes the methodology of this study. Considerations for selection of the study site are addressed, as well as the development of a quantitative instrument to measure vested interest and social network ties, and the procedures for data collection and analysis.

Participants

Several factors were important in selecting a location and sample for this research. First, the governmental agency must have used both online and in-person participatory planning procedures. Planning processes can vary dramatically, depending on their scope, available time, available financial resources, and desire (or lack of desire) of the agency to use public engagement (James & Blamey, 1999). Prolonged public engagement may not be feasible for many agencies, and may only be used sparingly by those with the financial resources to do so because of the personnel time required to manage the process. Hiring a consultant can help alleviate the burden on agency personnel, but the cost of consultants is prohibitive for many.

In addition to the type of planning process being utilized, the agency must have adequate records and contact information for citizens who have participated in the planning process. Having public meetings which citizens can attend allows them to be involved in the process, but it is difficult to tell which people in the community are participating if there are inadequate records. For a quantitative study, it is important to have a listing of all people who participated in at least one part of the process so it can be used to select and contact a sample of study participants.

Third, the timeframe of the planning process is important. Participatory planning processes can last a year or more, which makes collection of data over time difficult or infeasible for a thesis project. Study participants were only contacted during one period of time about their involvement. To ensure the most complete sample of citizens who took part in the planning process, the data should be collected near the end, or relatively shortly after, the plan has been completed. This factor further narrows the number of eligible agencies.

Inquiries were made through the North Carolina Recreation Resources Service and the North Carolina Recreation and Park Association to identify parks and recreation agencies in North Carolina that met the above criteria. There were few municipalities that met the above criteria, and the City of Raleigh Parks, Recreation, and Cultural Resources Department had the largest number of participants

The City of Raleigh chose to develop a system plan in order to “help shape the direction, development and delivery of the city’s parks, recreation and cultural resource services over the next 20 years” (City of Raleigh, 2014). A system plan differs from a master plan in its focus on the delivery of services in addition to the development of facilities. This plan is intended to be a supplement to Raleigh’s 2030 comprehensive plan, which sets the vision for all city departments. A city council-appointed planning committee guided the development and implementation of the planning process, following the department’s Public Participation Policy for Park Planning (City of Raleigh North Carolina, 2012). The system planning process, which took place between January 2013 and May 2014, consisted of five phases: an analysis of the Parks, Recreation, and Cultural Resources Department’s existing systems; an assessment of needs and priorities; development of long range vision, creation of

an implementation plan for the vision, and review of the draft system planning document. The first phase of the plan was completed by staff and department stakeholders, but the subsequent phases solicited public input. The adopted system plan guides the department's service and capital improvement priorities. A bond referendum was passed in November 2014 that provided funding for the first phase of implementation of this plan (City of Raleigh, 2016).

Raleigh's system planning process used both in-person and online methods of gathering citizen input. Citizen feedback was solicited through five community meetings, 19 focus groups, 15 visioning workshops, a web-based SurveyMonkey survey, and the MindMixer online citizen engagement tool (<http://www.yourparksyourfuture.com/>). MindMixer (now called MySidewalk) is similar to a message board, but allows for different types of two-way communication among citizens and the agency. It also allows citizens to discuss concerns with each other, share photos, add and rate ideas, fill out surveys, and suggest how to allocate department funds. Participants "earn" "points" for each interaction, and could compete to be included on a "top contributor leaderboard" (<http://www.yourparksyourfuture.com/top-contributors>).

The participant roster data that the Raleigh Parks, Recreation, and Cultural Resources Department and MindMixer collected through these methods was used to identify and contact study participants using email. There were over 5,300 participants in their system planning process who volunteered a total of 8,400 hours of their time to work on the plan's development (City of Raleigh, 2014). However, only a portion of these participants had or shared an email address as part of the process. Approximately 1,200 of these participants

created accounts on MindMixer, and the rest of the participants gave their email address at an in-person meeting. The City of Raleigh provided access to their email list to the research team; however, the email addresses associated with MindMixer accounts are the property of MindMixer. The research team, through the City of Raleigh, requested access to MindMixer's records for this study, which they granted.

These participants were asked to take an online survey, which is described in detail below. As part of their invitation to participate, all emails that the participants received included a section informing them of their rights in considering taking the survey, which was approved by the NC State University Institutional Review Board. No limitations were made in the selection of participants, other than being 18 years of age or older.

Instrumentation

Past research involving the frameworks chosen for this study, vested interest and social capital, have utilized both qualitative and quantitative methods. Due to time and budget constraints this study used an online quantitative instrument, but included an open-ended question for participants to list their organizational affiliations. This project utilized and/or modified survey questions from a number of sources.

The instrument was divided into four sections. The first section focused on the behavior of the participant. After an initial screening question, several questions were asked, measuring: how they engaged in the system plan (website, online survey, community meeting, focus group, and/or stakeholder interview); in what phase(s) of the planning process they participated (existing systems analysis, needs and priorities assessment, long range vision, implementation plan, or system plan review); and their self-reported frequency of

engagement. Three measures of engagement frequency were used: number of ideas shared on MindMixer; number of comments made on MindMixer; and number of meetings attended. Ideas were content generated by the participant, while comments shared were responses to content produced by others (either City of Raleigh staff or the ideas of other plan participants). The meetings attended measure was used to quantify all offline engagement frequency.

The second section included vested interest measures adapted from Thornton and Knox (2002), who modified the original measures used by Crano and Prislin (1995). Each of the five measures of vested interest (i.e., stake, salience, certainty, immediacy, and self-efficacy) were represented by one question each. For this study, the Thornton and Knox (2002) questions were altered to improve internal consistency and to change the object of the questions from school exams to the system planning process. Each of these questions were measured using a seven point Likert-like scale with appropriate endpoint measures. Stake was measured by the question “*Overall, how will you be affected by the system plan?*” (1 = “very negatively” to 7 = “very positively”). Salience of the attitude was measured by the question “*During the planning process, how much thought did you devote to the plan?*” (1 indicated “very little” to 7 “very much”). Certainty of the outcome was gauged by the following question: “*To what extent do you believe the plan’s actions will impact your desired recreational opportunities?*” (1 = “very little” to 7 = “very much”); measure of immediacy of the outcome was: “*Now that the plan is approved, how long will it be before it begins to affect your life?*” (1 = “it already has”, 2 = very soon” to 7= “not soon at all”). The final measure, self-efficacy, was assessed using the following question: “*If you had done*

nothing during the planning process, how different do you think the plan would be?" (1 = "not different" to 7 = "very different").

Thorton and Knox (2002) also included attitude and intended behavior measures in their study. Two questions, modified for this study, were included in this study to measure the participant's attitude toward the plan. These questions also utilized seven-point Likert-like scales as described above: "*Do you think it is a good or a bad idea for the Raleigh Parks, Recreation and Cultural Resources division to have a system-wide master plan?"* (1= "bad idea" to 7= "good idea") and "*Did you favor or oppose the plan?"* (1 = "opposed" to 7= "favored").

It should be noted that in the original studies from which these vested interest and attitudinal measures were adapted (Crano & Prislin, 1995; Thornton & Knox, 2002), vested interest measures were used as a way to check for the effect of attitude manipulation on future behavior. Since the Raleigh system plan process had been completed at the time of data collection, the behavior (engagement in the planning process) had already taken place. The purpose of using vested interest in this study was to identify whether there was any difference in the intensity of vested interest among the three methods of engagement (online, in-person, or both). Vested interest was a better option in this study than other measures of attitude-behavior consistency because the focus was on the antecedents of the behavior, rather than the participant's feelings toward the object (in this case, Raleigh's park system plan). The hope was that using vested interest would yield a richer data set for comparisons among the sample categories.

The third section of the survey instrument focused on examination of social networks. Data on network size and ties were collected using social network measures developed by Gil de Zúñiga and Valenzuela (2010). The network ties questions were divided into two types: strong, or intragroup, ties (family and friends); and weak, or intergroup, ties (coworkers, extended family, and acquaintances). Each of these types were assessed with a similar question using an ordinal scale measuring frequency of communication, from “never” to “several times a week”. The “strong ties” questions read: *"During your participation in the Raleigh system planning process, how frequently did you discuss the plan (in person, by phone, or through Internet-based interaction) with immediate family and/or close friends?"* The question on “weak ties” was: *"During your participation in the Raleigh system planning process, how frequently did you discuss the plan (in person, by phone, or through Internet-based interaction) with non-immediate family and close friends such as coworkers and infrequent contacts?"* Network size was measured using two questions: one for online network size and another for offline network size. Participants were asked to provide an estimate of the number of different people they were in contact with about the system plan in each category. Offline networks included in-person or phone-based contacts. Online networks included e-mail, social networks, and other Internet-based contacts.

In order to obtain more specific data about the social networks of participants, an additional open-ended question was used as a name generator. Using guidelines for name generation in egocentric network studies developed by Marsden (2011), participants were asked to name the groups within the community (religious, neighborhood, civic, user group,

or other groups) of which they considered themselves a member. There was enough space on the instrument in order to list every association the participant chose to mention.

At the request of the City of Raleigh Parks, Recreation, and Cultural Resources staff, two questions were included about participants' communications with the department. The first question asked for the participant's preferences for engagement methods in future planning processes (including meetings, mailed and online surveys, websites, and presentations). The second question asked the participants how they would prefer to receive information about the Parks, Recreation, and Cultural Resources department (such as email, neighborhood meetings, TV and radio, departmental publications, and social media).

The final section of the instrument contained demographic questions. Age, gender, household income, education level, presence of children under the age of 18 in the household, and race were used for descriptive purposes, as well as to compare participant data to the current demographics of the city of Raleigh. In addition to these standard demographic questions, one additional measure was collected: the City of Raleigh Citizens Advisory Council district in which the participant resided. The data from this question was used to determine spatial representation of participants across the city.

Procedures

Using the email addresses obtained from the City of Raleigh and MindMixer, the instrument was distributed by email using the Qualtrics software to all of the participants who provided an email address. Dillman's guidelines for internet survey implementation were followed (Dillman, Smyth, & Christian, 2009). Data collection took place between May 26 and June 16, 2015, a year after the adoption of the system plan in May 2014. Due to

concerns about the volume of the study emails and privacy of participants, City of Raleigh staff limited the researchers to three email contacts with participants. The first contact was sent under the name of Cassie Schumacher-Georgopoulos, senior planner with the Raleigh Parks, Recreation, and Cultural Resources Department at noon on May 26th, informing participants of the survey about their experience with the system plan process and provided them with the link to the survey itself. Up to two additional contacts were made by the research team to each participant, and all three contacts varied in their message and the time of day at which they were sent. The second contact, sent the afternoon of June 1st to participants who had not completed the survey, thanked the participants for their service to the City of Raleigh, and reminded them of the usefulness of completing the survey in order to improve future planning efforts. The final contact, emailed to remaining non-respondents on the morning of June 10th, began with an appeal for help, and stressed that time to take the survey was running out. All three contacts contained a link to the survey that was unique to each participant, so that only non-respondents were contacted in subsequent emails.

To increase the response rate, an incentive was offered. There is some debate about the efficacy of lottery-based incentives in online surveys, especially in comparison to prepaid token incentives, (a small financial payment sent with the survey during the initial contact). Dillman et al. (2009) recommends token incentives, though he notes that research shows that lottery incentives may raise response rates when respondents find out the results of the lottery immediately after completing the survey. More recent literature shows a slightly higher response rate for token incentives in online surveys (Gajic, Cameron, & Hurley, 2012; Toepoel, 2012), but one study found that their use could produce data that is less

representative of the population (Parsons & Manierre, 2013). Some studies of lottery based incentives suggest that they may have differential effects in terms of gender and other population subgroups (Heerwegh, 2006; Laguilles, Williams, & Saunders, 2010). However, lottery-based incentives have been shown to positively impact response rates (Laguilles et al., 2010), and a lottery with a low number of high value prizes can be more cost-effective than token incentives (Gajic et al., 2012).

Keeping cost in mind, a lottery incentive of four \$25 Amazon gift cards was offered to survey respondents. By selecting gift cards from a company that sells a wide variety of products, winners of the drawing would be able to use the cards on almost anything they wish. The incentives were awarded after data collection was completed, using the randomizer feature in Microsoft Excel. An email was sent to the four selected respondents, thanking them for their time, and letting them know that they had won the drawing.

Since the survey was based on a variety of models, it was field tested before it was sent out to the participants. The pilot survey was sent to the Raleigh Parks, Recreation and Cultural Resources staff for their review and approval. The final instrument and email correspondence with participants can be found in the appendices of this thesis.

Analyses

The data collected through the survey underwent several types of analyses. An overview of the analyses for the study can be found in Table 1. All quantitative data was analyzed using the SPSS version 22.0 statistical software package. Before analysis began, the data was cleaned. The cleaning process included reviewing the data for any impossible codes or outliers, as well as examining standard deviations to identify respondents who might

simply provided the same answer for groups of related questions rather than answering each independently. During this process, one response was removed because the online social network size listed was an order of magnitude larger than the other results. All of the other responses met the criteria to be included in analysis.

There were also several specifications that were made to the raw dataset. In the frequency and social network size variables, several respondents estimated a range of numbers for the people they had contacted. When a range of numbers was given for a question, the lowest number was used, in order to give a conservative estimate of respondent's actual behavior and network size. Another specification was made due to an error made by the research team. Social media was inadvertently listed twice in the question about the participant's preferences in receiving future information from the City of Raleigh Parks, Recreation, and Cultural Resources Department. These two variables were combined into a single variable once data collection was complete. In addition, after reviewing the responses in the "other" category for this question, there were similarities in the responses. Two new variables were created from this data to further define information preferences: websites and newspapers.

In the vested interest question set, one variable, immediacy, was reversed coded (with higher intensity responses having a lower scale values). This variable was recoded to match the other vested interest variables so that a new composite variable could be created. This composite measure was the mean of all the responses for each of the five vested interest components.

For the first set of questions about how people participated in the system planning process, the question about method of engagement was recoded from five different categories (website, online survey, community meeting, focus group, and/or stakeholder interview) into three (online engagement methods, in-person engagement methods, and both online and in-person methods). These three categories were used as the categories for one of the independent variables. In addition, two other new variables were created for similar purposes. The first determined the number of different engagement methods the participant chose to take part in. The second variable calculated the number of phases of the planning process in which the participant was involved. These descriptive statistics were designed to address the first research question.

Table 1. Overview of Study Analyses

Dependent Variable	Independent Variable: Engagement Method Used	Independent Variable: Engagement Frequency
Vested Interest Composite	ANOVA	Pearson's Correlation
Strong Network Ties	Chi-Square Test	Pearson's Correlation
Weak Network Ties	Chi-Square Test	Pearson's Correlation
Online Network Size	ANOVA	Pearson's Correlation
Offline Network Size	ANOVA	Pearson's Correlation
Number of Name- Generated Memberships	ANOVA	Pearson's Correlation
Demographics	Descriptive statistics, cross tabulations and spatial analysis	Descriptive statistics

Demographics of the sample (e.g., age, sex, income, race, presence of children in household, and education) were determined and compared to census data to discern if the respondents were demographically similar to the population of Raleigh. In order to determine the age of the study respondents, a new variable was created, which subtracted the birth year data collected in the survey from the study year: 2015. Cross tabulations were completed on the demographic data by engagement method used (online, in-person, or both). In some cases, this required recoding the demographic variables to meet the conditions for chi-square tests.

In addition to descriptive statistics in SPSS, spatial analysis of this data was completed in ArcGIS. Using the data collected on the respondent's Citizens Advisory Council district, analysis was completed on the number of respondents by district, as well as the number of respondents for each of the engagement methods used by district. Cartograms were created to present the completed analysis of this data.

After the descriptive and spatial analyses were completed, some preparation of the data was needed in order to analyze the vested interest and attitude variables examined in research question two. A vested interest composite variable was created by calculating the mean of the five components of vested interest that were assessed through multiple questions in the instrument (i.e., stake, salience, certainty, immediacy, and self-efficacy). The attitude composite was constructed similarly, by determining the mean of the two attitude variables. Reliability tests of the composites were conducted to gauge internal consistency. Once the composites were complete, correlation (if any) between the vested interest composite and the attitude composite was determined using Pearson's correlation. To answer research question four, ANOVA was used to determine if there were differences in vested interest among the three engagement method groups. Pearson's correlation was used to determine if there was a correlation between the frequency of engagement and vested interest.

Analysis of social ties to address research question three began with univariate measures of central tendency (mean, median, standard deviation) for strong (bonding) and weak (bridging) ties. Descriptive statistics were also completed to determine the percent of total answers for each response category, and chi-square tests were used to examine associations between social network ties and engagement method used. Online and offline

social network size underwent univariate analysis and descriptive statistics were reported. For the open-ended name generator question, the number of groups specified was manually coded into a new variable which was analyzed using descriptive statistics, and univariate analysis. In addition, frequencies were determined for organizations listed in the name generator in order to gauge whether there were any organizations that had multiple members active in the planning process. Organization names were manually coded by the type of organization, including religious, neighborhood, civic, arts, or user groups. User group organizations were further categorized into park user groups, sports team or club, Citizens Advisory Council member, professional organization, or other.

Additional analyses were conducted to answer research question five. To determine any difference between social network ties and engagement method used, an ANOVA was employed, using engagement method as the independent variable and network ties as the dependent variable. This was completed for both strong and weak networks. Variance in network size by engagement method used were also examined by using ANOVA for both online and offline networks. For the name generator, ANOVA was used to determine differences in the networks listed by method of engagement. In addition, a list of the organizations named (and their frequency) was created for later use by Raleigh Parks, Recreation, and Cultural Resources.

Correlations between frequency of engagement and network ties were determined using Pearson's correlation. Six of these analyses were completed to encompass all the possible correlations between the three measures of engagement frequency (ideas shared on MindMixer, comments made on MindMixer, and meetings attended) and network ties (strong

and weak). Pearson's correlation was also utilized to examine relationships between engagement frequency measures and the two measures of network size (online and offline). Six of these analyses were completed. Finally, data from the qualitative name generator were also used to determine the number of organizations given by each respondent. Pearson's correlation was completed to determine if there was any relationship between the frequency of engagement and the number of organizations generated by the respondents. This was completed for each of the three measures: frequency of ideas shared, comments shared, and meeting attended.

RESULTS

The survey was distributed by email to 2,751 unique email addresses. These email addresses came from two different locations. One list was the 1521 email addresses gathered by MindMixer. The other list included 467 email addresses from the sign-in sheets used at the in-person community meetings and focus groups. Of those participating in-person, duplicate entries were removed, leaving a total of 437 unique in-person participants, of which 359 provided an email address. A small number (six) of these email addresses were listed by multiple participants (presumably members of the same households, since all but one of the duplicates had matching surnames). These six duplicates were also removed, which left a total of 353 email addresses in the sample (80.1% of the total 437 unique in-person participants). Of the 84 participants who did not provide an email address, a little over half (45) supplied a phone number. There were three duplicate phone numbers, which left the research team with 42 unique numbers (9.6% of all unique in-person participants). The remaining 39 participants (8.7%) listed their name, but no email address or phone number. The City of Raleigh did not have additional data about participants not included on these lists. This study was approved by the NCSU Institutional Review Board and the City of Raleigh with the expectation that all data would be collected without any of the participants' personal identifying information. The online survey was set up in a way that responses could not be connected to the email addresses of respondents. Because of the desire of the City of Raleigh for anonymity in data collection, participants who submitted only phone numbers on the sign-in sheet were not contacted.

Of the 2751 email addresses contacted, 155 emails were sent back as undeliverable, and 43 participants opted out of the survey. This left 2,553 email addresses. However, the research team discovered after the contacts were made that many of the email addresses provided by MindMixer did not belong to people who participated in the system plan. Instead, they had participated in a later Parks, Recreation, and Cultural Resources planning process for Moore Square, a downtown Raleigh park. While 698 people began the survey, 218 did not pass the screening question that explicitly asked whether they had participated in the system planning process. Of the 480 respondents who were screened as eligible, 256 surveys were completed for an effective response rate of 11% of the 2,335 eligible emails (2,553 minus the 218 who had not actually participated in the system planning process). The low response rate is likely due to a variety of factors, including the issues with the email list, possible underrepresentation of participants using in-person methods, and the length of time (a year) between the close of the system planning process and data collection. Due to the low response rate, caution should be used when considering how representative these results are of all Raleigh system plan participants.

Participant Demographics

The respondents in the study were slightly more likely to be female than male with 53% of them female and 47% male (Table 2). They ranged in age from 18 to 84 years old, with a mean age of 49.5 years. Over half (53%) of respondents were between the ages of 40 and 60 (see Table 3). They overwhelmingly (89%) self-identified as White, with only 10% identifying themselves as Black or African-American (Table 4). In regard to ethnicity (Table 5), very few respondents (3%) identified as being of Hispanic, Latino, or Spanish origin.

Respondents were also tended to be highly educated; 94% reported obtaining a bachelor's degree or higher, and nearly half (48%) had obtained advanced degrees (Table 6).

Table 2. Gender of Participants

Gender:	Frequency	Percent
Female	132	53
Male	117	47
Other	1	0
Prefer not to respond	1	0
TOTAL	251	100

Table 3. Age of Participants in Years

Participant Age:	Frequency	Percent
18-29	18	7
30-39	40	16
40-49	63	25
50-59	68	28
60-69	40	16
70-79	15	6
80 or more	1	0
TOTAL	244	100

Mean = 49.5; Median = 50; Standard Deviation = 13.2; Range 18-84

Table 4. Race of Participants¹

Race:	Frequency	Percent
White	215	89
Black or African American	24	10
American Indian or Alaskan Native	2	1
Asian Indian	1	0
Some other race	4	2
TOTAL	242	100

¹ Study subjects could select more than one option to indicate their race.

Table 5. Ethnicity of Participants

Ethnicity:	Frequency	Percent
Not of Hispanic, Latino, or Spanish origin	240	96
Mexican, Mexican American, Chicano	3	1
Cuban	1	0
Another Hispanic, Latino, or Spanish origin	5	2
TOTAL	249	100

Table 6. Education Level Attained of Participants

Education:	Frequency	Percent
Did not complete high school	1	0
High school graduate	2	1
Some college	8	3
Associates Degree	5	2
Bachelors Degree	113	45
Professional degree beyond Bachelors degree	19	8
Masters Degree	80	32
Doctorate Degree	22	9
TOTAL	250	100

Several questions were asked about the participants' households. As shown in Table 7, participants lived throughout the city, with the largest numbers of people residing in the North and Northwest Citizens Advisory Council districts. Surprisingly, 12% of participants lived outside of the City of Raleigh. Most (61%) of the participants did not have children under the age of 18 living in their homes (Table 8). Most respondents were relatively well-off financially (Table 9), with 55% reporting annual household incomes of over \$100,000.

Table 7. Participant Frequency by Citizens Advisory Council District

Citizens Advisory Council District:	Frequency	Percent
Northwest	39	16
North	35	14
Do not live in Raleigh	30	12
Midtown	14	6
Wade	14	6
West	14	6
Northeast	13	5
Southwest	13	5
Central	11	4
Glenwood	11	4
Southeast	11	4
Five Points	7	3
Hillsborough	7	3
Mordecai	7	3
Atlantic	6	2
East	6	2
North Central	6	2
South	3	1
Forestville	2	1
South Central	2	1
TOTAL	251	100

Table 8. Presence of Children under the Age of 18 in Household

Children Present:	Frequency	Percent
No	152	61
Yes	99	39
TOTAL	251	100

Table 9. Annual Household Income of Respondents

Income:	Frequency	Percent
Under \$15,000	2	1
\$15,000-\$24,999	6	2
\$25,000-\$34,999	3	1
\$35,000-\$49,999	17	7
\$50,000-\$74,999	46	19
\$75,000-\$99,999	32	14
\$100,000-\$149,999	75	32
\$150,000-199,999	27	11
\$200,000 and over	29	12
TOTAL	237	100

Comparing these demographic characteristics to US Census Bureau data for the city of Raleigh (United States Census Bureau, 2014b), the study participants were richer, more likely to be white, older, and better educated than the general population of Raleigh. Given how different these demographics are from the city as a whole, and that participant demographic data was not collected during the actual system planning process but a year later, the ability to generalize the results of this study to all participants in planning processes in Raleigh is likely limited. With this caveat in mind however, below are the results of the study, organized by its five research questions.

Research Question Results

Question 1: How do participants engage in a park system planning process?

Participants used a variety of methods to engage in the Raleigh park system planning process (Table 10). The highest engagement frequency was for online methods, such as the

MindMixer site (53.9%), or the online survey (44.8%). Community meetings (41.4%) were the most popular form of in-person engagement. The number of methods participants used to engage (Table 11) varied, with a mean of 1.7 and standard deviation of 0.9. Most participants (52.7%) only chose to participate in one method of engagement, though 17% participated through three or more methods. The engagement methods, categorized by online or in-person engagement, are presented in Table 12. Most (72.7%) participants engaged in the planning process online, while close to half (44.5%) chose to do so exclusively. Only 27.3% participated solely through in-person methods. Although the City of Raleigh has kept their MindMixer site open for subsequent planning processes, fewer than half (43.8%) of participants continued to use the MindMixer site after the system plan was officially adopted in May 2014 (Table 13).

Table 10. Methods of Engagement in System Plan¹

Engagement Method:	Frequency	Percent
Website	172	53.9
Online Survey	143	44.8
Community Meeting	132	41.4
Focus Group	78	24.5
Stakeholder Interview	22	6.9
TOTAL	335	

¹Note. Study subjects could select more than one option for methods of engagement.

Table 11. Number of Engagement Methods Used to Participate

Number of Methods:	Frequency	Percent
1	168	52.7
2	97	30.4
3	36	11.3
4	13	4.1
5	5	1.6
TOTAL	319	100.0

Mean= 1.7; Median = 1.0; Standard Deviation = 0.9

Table 12. Type of Engagement Method Used

Method:	Frequency	Percent
Online	142	44.5
In-person	87	27.3
Both Online & In-person	90	28.2
TOTAL	319	100.0

Table 13. Engagement on MindMixer Site after System Plan Adoption

Engagement:	Frequency	Percent
No	174	52.9
Yes	144	43.8
TOTAL	330	100.0

Method of participant engagement was also analyzed spatially. A crosstab of engagement method by Citizens Advisory Council districts (Table 14) was conducted in

SPSS. Using a shapefile of Citizens Advisory Council districts obtained from the Wake County Open Data portal, the crosstab was spatially joined using the names of the districts. Figure 1 shows the total number of participants in each Citizens Advisory Council district (the 12% of participants living outside the City of Raleigh are not included in this or the following cartograms). There were participants in every district, though study representation was not consistent throughout the city. Forestville and South Central had lowest number of participants (two each), while the North and Northwest districts appeared to be overrepresented with 39 (North) and 35 (Northwest) representatives, respectively.

Table 14. Cross-tabulation of Engagement Method by Citizens Advisory Council District

Name	Online		In-Person		Both		Total	
	Frequency	(%)	Frequency	(%)	Frequency	(%)	Frequency	(%)
Atlantic	2	33.3	2	33.3	2	33.3	6	100.0
Central	4	36.4	5	45.5	2	18.2	11	100.0
East	3	50.0	0	0.0	3	50.0	6	100.0
Five Points	2	28.6	0	0.0	5	71.4	7	100.0
Forestville	1	50.0	0	0.0	1	50.0	2	100.0
Glenwood	3	27.3	6	54.5	2	18.2	11	100.0
Hillsborough	3	42.9	4	57.1	0	0.0	7	100.0
Midtown	9	64.3	2	14.3	3	21.4	14	100.0
Mordecai	2	28.6	3	42.9	2	28.6	7	100.0
North	20	57.1	9	25.7	6	17.1	35	100.0
North Central	2	33.3	2	33.3	2	33.3	6	100.0
Northeast	5	38.5	1	7.7	7	53.8	13	100.0
Northwest	16	41.0	9	23.1	14	35.9	39	100.0
South	0	0.0	2	66.7	1	33.3	3	100.0
South Central	0	0.0	1	50.0	1	50.0	2	100.0
Southeast	4	36.4	7	63.6	0	0.0	11	100.0
Southwest	4	30.8	5	38.5	4	30.8	13	100.0
Wade	7	50.0	2	14.3	5	35.7	14	100.0
West	6	46.2	1	7.7	6	46.2	13	100.0
Do not live in Raleigh	14	46.7	9	30.0	7	23.3	30	100.0
TOTAL	107	42.8	70	28.0	73	29.2	251	100.0

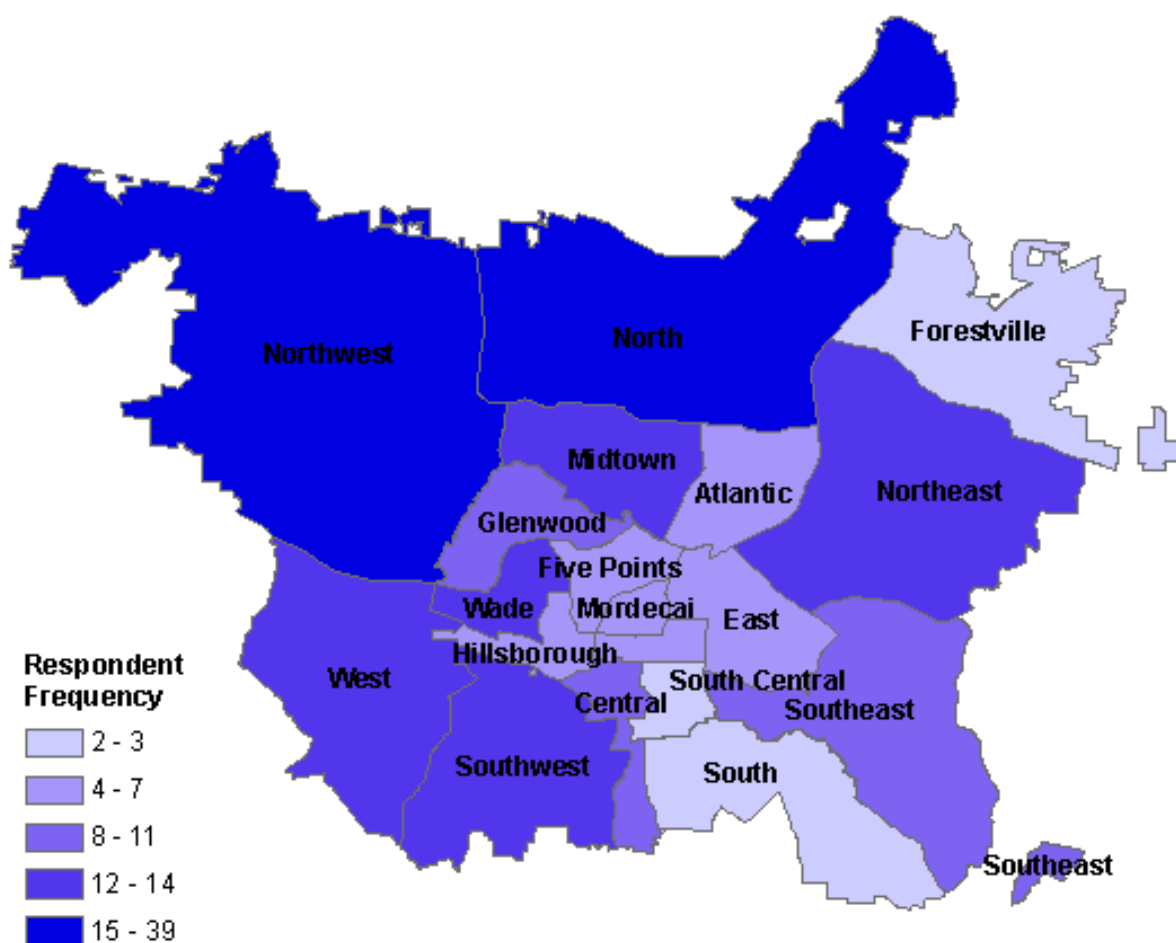


Figure 1. Number of Participants in Citizens Advisory Council District

The apparent overrepresentation of the North and Northwest districts continued when the participants were analyzed by method of engagement. Among participants using solely online engagement methods (Figure 2), North and Northwest were the most prevalent, though Wade and Midtown also appeared to be overrepresented, with over half of their 14 total participants (seven and nine, respectively) using solely online methods. South and South Central had no online-only engagement.

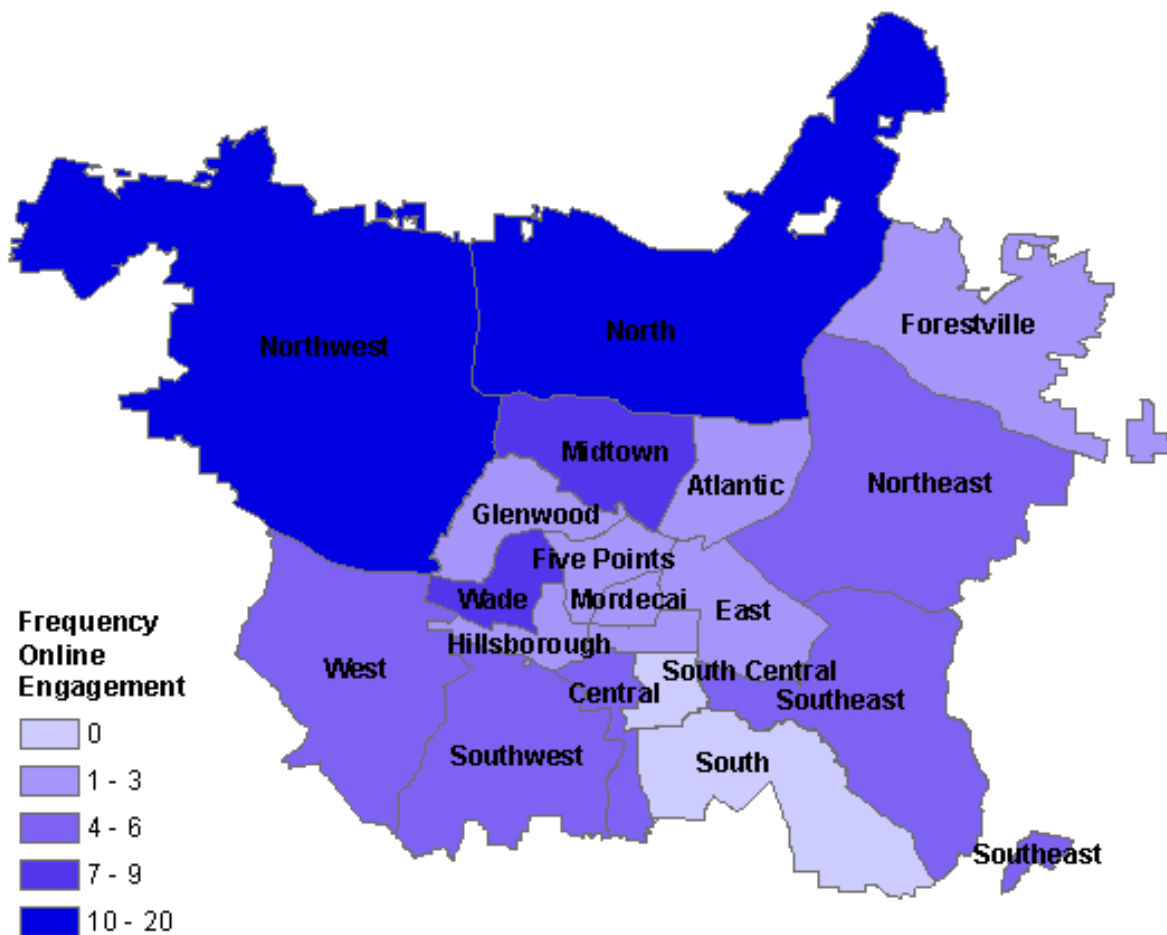


Figure 2. Participant Online Engagement by Citizens Advisory Council District

Once again, while the largest number of participants using in-person engagement methods were in the North and Northwest (Figure 3), the Southwest and Central districts also had a significant number of participants using this method. In addition, the Southeast, Hillsborough, and Glenwood districts had a large percentage of their total participants engaging in-person. East, Five Points, and Forestville districts had no participants using solely in-person methods.

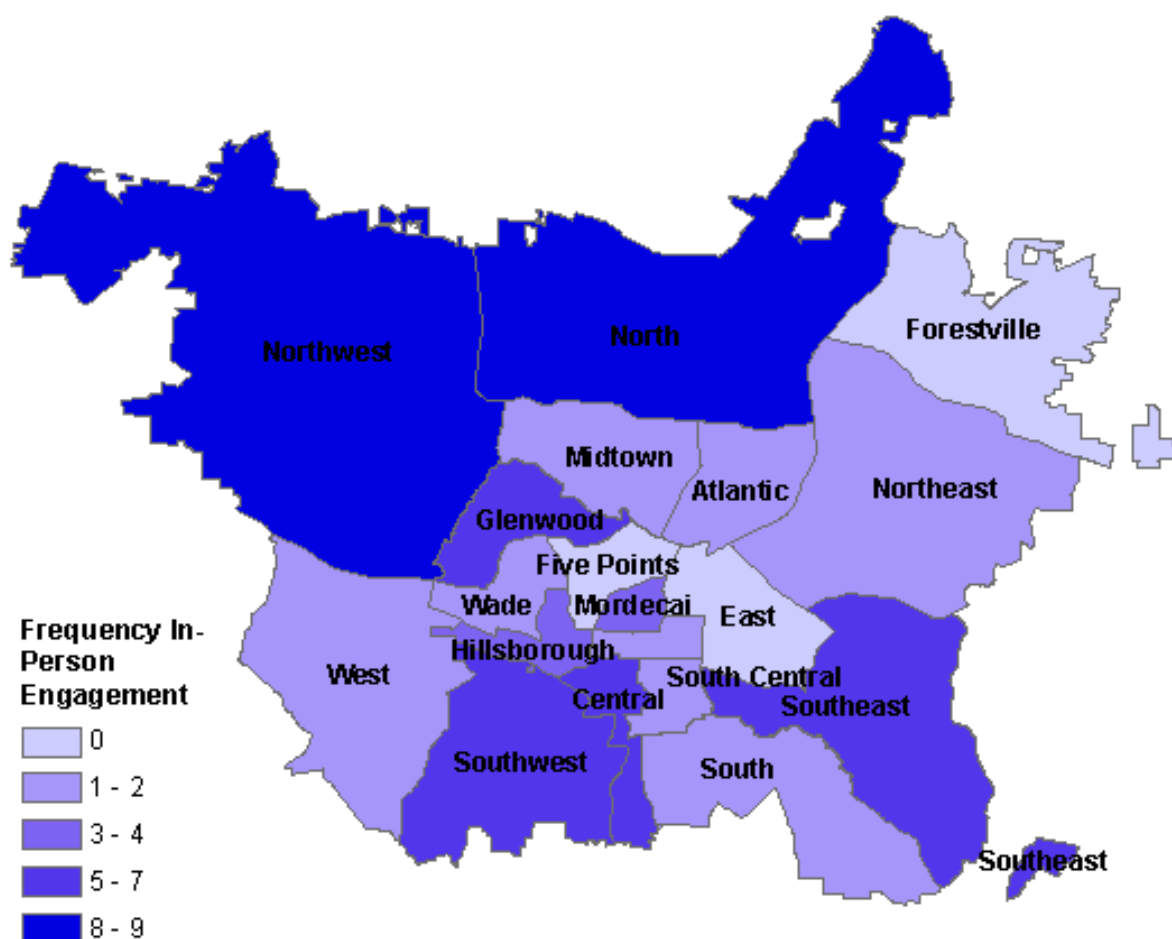


Figure 3. In-Person Engagement by Citizens Advisory Council District

The results for participants using both online and in-person methods were different than the previous comparisons (Figure 4). While the Northwest district was dominant in the number of participants (14), the Northeast districts had the second greatest number of participants, with seven. West (five participants), Five Points (five participants), and Wade (six participants) were also well represented. Southeast and Hillsborough districts had no study participants using both engagement methods.

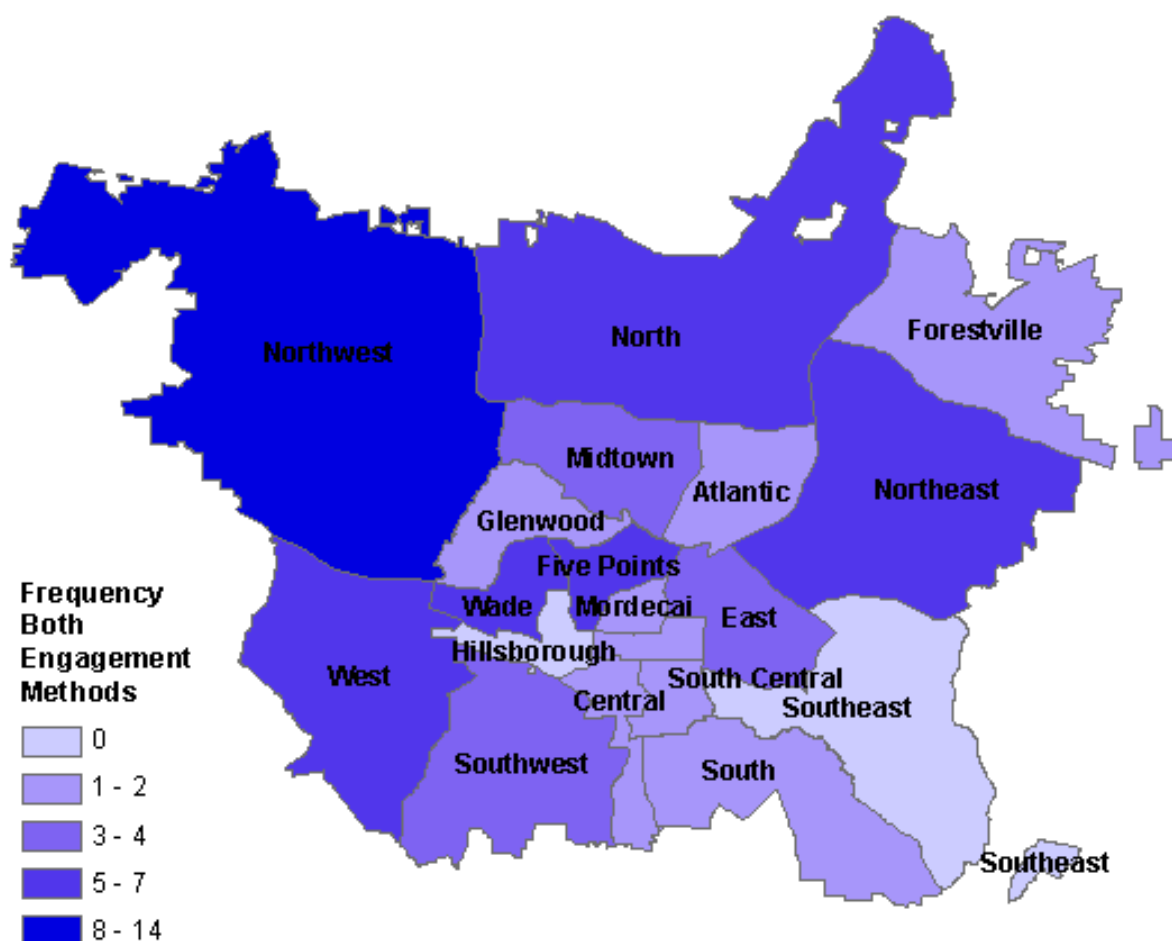


Figure 4. Engagement Using Both Methods by Citizens Advisory Council District

Additional demographic data was used to further explore possible relationships between other demographics (race, household income, educational level, gender, and age) and method of participation (online, in-person, and both). To meet the requirements for chi-square test of independence, race was recoded into two variables (white and other), household income into three variables (less than \$50,000 annually; \$50,000-\$100,000 annually; over \$100,000 annually), educational level into three variables (no bachelor's

degree; bachelor's degree; degree above bachelor's), gender into two variables (male and female), and age into three variables (less than 40 years; 40-60 years; 61 years or greater). Participant race (Table 15) and age (Table 16) were independent at the .05 and .01 levels, respectively. No independence was found for household income, educational level, or gender. A one-way ANOVA was used to determine if there was a significant relationship between age for each of the three methods of engagement (Table 17); the mean age for participants using online engagement (45.7 years) was six years fewer than the means for in-person engagement, or those using both online and in-person methods. This difference was significant at the .01 level.

Table 15. Chi-Square Test of Participant Race and Engagement Method Used

	Online		In-person		Both		Total	(%)
	n	(%)	n	(%)	n	(%)		
White	94	43.9	53	24.8	67	31.3	214	100.0
Other Race	8	29.6	13	48.1	6	22.2	27	100.0
	102	42.3	66	27.4	73	30.3	241	100.0

Chi-Square = 6.60; $p < .05$

Table 16. Chi-Square Test of Participant Age and Engagement Method Used

	Online		In-person		Both		Total	(%)
	n	(%)	n	(%)	n	(%)		
Less than 40 years	39	60.9	14	21.9	11	17.2	64	100.0
40- 60 years	54	42.9	30	23.8	42	33.3	126	100.0
61 years or greater	11	20.8	22	41.5	20	37.7	53	100.0
	104	42.8	66	27.2	73	30.0	243	100.0

Chi-Square = 21.14; $p < .01$.

Table 17. Analysis of Variance of Participant Age by Engagement Method Used

Dependent Variable	n =	Method of Engagement:			F
		Online Mean ¹	In-Person Mean	Both Mean	
Participant Age	254	45.7 ^a	52.2 ^b	52.3 ^b	7.8 ^{**}

**p < .01.

¹Note. Mean scores with different superscripts are statistically significant at the .05 level.

In addition to questions about the engagement method they utilized, participants were also asked about which of the five phases of the plan they participated in (Table 18). The most common response (39.1%) was that the respondent was unsure of which phase(s) they participated in. Over a third of the respondents participated in the needs and priorities assessment phase (36.6%), and the long range visioning phase (34.7%). The mean for the number of phases participated in was 2.0 (Table 19), with over a third (36.3%) of respondents taking part in 2 or more phases. Given that a year had passed between the adoption of the system plan and when the survey was distributed, the difficulty some respondents had in recalling the phases they participated in is unsurprising.

Table 18. Engagement in Plan by Phase¹

Phase:	Frequency	Percent
Not sure	124	39.1
Needs and priorities assessment	116	36.6
Long range visioning	110	34.7
Draft plan review	85	26.8
Implementation planning	57	18.0
Existing systems analysis	54	17.0
TOTAL	317	100.0

¹ Note. Participants could select more than one option for phases in which they participated

Table 19. Number of Phases Participated

Number of Phases Participated:	Frequency	Percent
0 (not sure)	109	34.4
1	93	29.3
2	58	18.3
3	34	10.7
4	4	1.3
5	19	6.0
TOTAL	317	100.0

Mean = 1.3; Median = 2.0; Standard Deviation = 1.4

Three measures were used to gauge frequency of engagement in the system planning process: number of ideas shared on MindMixer (Table 20); number of comments posted on MindMixer (Table 21); and number of meetings attended in-person (Table 22). More ideas were shared (M = 2.3) than comments posted (M = 1.6) or meetings attended (M = 1.6).

Ideas shared and comments posted both had higher standard deviations and maximums than meetings attended as well. Since there were a finite number of meetings that a participant could have attended, it makes sense that these numbers would generally be lower than the online engagement methods, where there was no upper limit for engagement.

Sharing ideas on MindMixer was the most common way of engaging in the process, with 72.2% respondents posting an idea at least one time (Table 20). Posting comments on MindMixer was the least common way; only half of respondents did so at least once (Table 21). Attending meetings and/or focus groups was more common than posting comments, with 60.9% attending at least one (Table 22). It should be noted that frequency of engagement was somewhat low across all of the behaviors. Less than 10% of the respondents completed any of these three actions more than 5 times.

Table 20. Number of Times Respondents Shared an Idea on MindMixer

Ideas shared:	Frequency	Percent
0 times	81	27.8
1 time	72	24.7
2-5 times	118	40.5
6-10 times	10	3.4
11-19 times	8	2.7
20 or more times	2	0.6
TOTAL	291	100.0

Mean = 2.3; Median = 1.0; Standard Deviation = 3.6; Range = 0 – 32

Table 21. Number of Time Respondents Posted Comments on MindMixer

Comments Posted:	Frequency	Percent
0 times	146	50.0
1 time	53	18.2
2-5 times	77	26.5
6-10 times	10	3.4
11-19 times	2	0.7
20 or more times	3	1.0
TOTAL	292	100.0

Mean = 1.6; Median = 0; Standard Deviation = 3.3; Range = 0 – 30

Table 22. Number of Meetings and/or Focus Groups Attended

Meetings Attended:	Frequency	Percent
0 meetings	118	39.1
1 meeting	75	24.8
2-5 meetings	90	29.8
6-10 meetings	15	5.0
11 or more meetings	4	1.3
TOTAL	302	100.0

Mean = 1.6; Median = 1.0; Standard Deviation = 2.4; Range = 0 – 15

At the request of the City of Raleigh, two questions were included in the survey instrument about participants' engagement preferences and information sources. These results fit best in this section. Table 23 outlines respondent's preferences for engagement methods for future City of Raleigh planning processes. "Presentations to

neighborhood/community groups” was the most preferred method, with two-thirds (66.5) of the respondents in support. Other engagement methods with over 50% of support included community meetings, websites, online surveys, and focus groups. Most of these engagement preferences (with the exception of presentations) are already used by the City of Raleigh to reach out to the public.

Table 23. Respondent Engagement Method Preferences¹

Preferred Engagement Method:	Frequency	Percent
Presentations	161	66.5
Community meetings	156	64.5
Websites	142	58.7
Online surveys	141	58.3
Focus groups	126	52.1
Social media	118	48.8
Tables at community events	98	40.5
Workshops	96	39.7
Stakeholder interviews	82	33.9
Mailed surveys	45	18.6
Other	18	7.4
TOTAL	242	

¹Note. Study subjects could select more than one preference for future engagement methods.

The second question addressed how respondents preferred to get information from the City of Raleigh Parks, Recreation, and Cultural Resources Department in general (Table 24). Email was overwhelmingly (83.8%) the most preferred method, with social media (41.7%) the second most preferred. The *Leisure Ledger* (the department’s print recreational catalog)

was the most preferred offline information source, with nearly a third (32.4%) wanting to use it to get information from the department.

Table 24. How Respondents Prefer to Get Information from the Department¹

Method of Information:	Frequency	Percent
Email	207	83.8
Social media	103	41.7
Leisure Ledger	80	32.4
TV and radio	44	17.8
Citizen Advisory Council meetings	44	17.8
Family and friends	35	14.2
Bulletin boards	12	4.9
² Other: Websites	13	5.2
Other	7	2.8
² Other: Newspapers	4	1.6
TOTAL	247	100.0

¹ Study subjects could select more than one option for how they prefer to get their information.

² These two variables were listed by respondents in the “Other” category.

The first research question asked how participants engage in a park system planning process. In general, respondents used online engagement methods the most, either as their only method, or in conjunction with in-person engagement methods. While online methods were used more frequently, most respondents did not continue to engage online after the system plan was adopted. Sharing ideas on MindMixer was the most frequent way respondents engaged overall. All engagement methods were used to some extent throughout the City of Raleigh, but the highest numbers of respondents were concentrated in the North

and Northwest Citizen's Advisory Council districts. No relationship was found between engagement method and respondent income, education, gender; however a relationship between engagement method and age and race were observed. For future planning processes, respondents prefer the engagement methods already being used by the City of Raleigh, and would most prefer to receive information from the department via email.

Question 2: What is the level of vested interest of participants in a park system planning process?

There are five components of vested interest: stake, salience, certainty, immediacy, and self-efficacy. Each of these components was assessed with a separate question measured on a Likert-like scale with scale points 1 through 7, with a higher number signifying a higher level of vested interest (Table 25). Stake (M = 4.8) and certainty (M = 4.7) were the components for which the respondents reported the highest levels. Salience (M = 4.5), and immediacy (M = 4.0) were held less strongly, but were of similar intensities. However, the self-efficacy of respondents overall was fairly low (M = 2.6).

For the purposes of discussion of the results, scale points will be described using the following approach and terminology: scores of 1 and 2 as "low" levels, 3-5 as "moderate" levels, and 6 & 7 as "high" levels. Stake assessed how respondents expected the plan to affect them. Most respondents (72.6%) reported having a moderate stake in the plan (Table 25). One quarter (25.9%) had high stake in the plan, and just 1.5% had low stake, in other words, felt that the plan would affect them negatively.

Since some time had passed between adoption of the system plan and when the survey was conducted, an additional question regarding stake was asked. This question produced nominal level data, and was not included in the vested interest composite for later analysis. The results from this question showed that over a third (35.5%) of respondents said that the plan had already affected their life, while most (64.5%) reported that it had not.

Salience was measured by the amount of thought devoted to the plan. Over half (53.0%) of respondents had moderate levels of salience in the plan. Almost a third (31.7%) had high levels of salience, and 15.3% had low levels of salience. Respondents had stronger stake in the plan than they did salience. While the respondents thought the plan affected them greatly, this did not translate into them thinking about it a great deal overall.

Certainty was measured by how much participants believed the plan would impact their desired recreational opportunities. Most respondents (56.0% answering 3, 4, or 5) had moderate levels of certainty. Almost twelve percent (11.8%) of the respondents had low certainty in the plan, and nearly a third (32.2%) had high levels of certainty (i.e., felt that their recreation opportunities would be greatly affected by the plan).

Immediacy was measured by how quickly respondents thought the plan would affect their life. Most (71.8% answering 3, 4, or 5) had moderate levels of immediacy. A minority (7.3%) thought that the plan would affect them very soon, or that it already had affected them (8.0%). Only thirteen percent (answering 1 or 2) had low levels of immediacy related to the plan. Since the plan will take several years to implement, moderate to lower levels of immediacy were not surprising.

The self-efficacy variable gauged how different the respondents felt the plan would have been if they had taken no action. Over half (55.2% answering 1 or 2) of respondents had low levels of self-efficacy. Most of the other respondents (41.0% answering 3,4, or 5) had moderate levels of self-efficacy, and just 3.8% had high self-efficacy. The low self-efficacy results are quite different than those of the other vested interest values. Though respondents engaged in the planning process, very few felt that their input made a substantive difference in the outcome of the system plan. The City of Raleigh may want to take this into account in their development of engagement methods for future planning processes.

Table 25. Frequencies of Vested Interest Components and Composite

	1	2	3	4	5	6	7										
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	M=	SD=	n=							
Stake ¹	0	0.0	4	1.5	16	6.0	86	32.3	91	34.2	50	18.8	19	7.1	4.8	1.1	266
Saliency ²	18	6.7	23	8.6	35	13.1	52	19.4	55	20.5	52	19.4	33	12.3	4.5	1.7	268
Certainty ³	10	3.8	21	8.0	32	12.1	50	18.9	66	25.0	44	16.7	41	15.5	4.7	1.6	264
Immediacy ⁴	16	6.1	18	6.9	51	19.5	93	35.5	44	16.8	19	7.3	21	8.0	4.0	1.5	262
Self-Efficacy ⁵	85	32.6	59	22.6	43	16.5	46	17.6	18	6.9	5	1.9	5	1.9	2.6	1.5	261
Composite															4.1	1.0	254

¹ Measured using the question, “Overall, how will you be affected by the system plan”, with 1 = “very negatively” and 7 = “very positively”.

² Measured using the question, “During the planning process, how much thought did you devote to the plan”, with 1 = “very little” and 7 = “very much”.

³ Measured using the question, “To what extent do you believe the plan’s actions will impact your desired recreational opportunities”, with 1 = “very little” and 7 = “very much”.

⁴ Measured using the question, “Now that the plan is approved, how long will it be before it begins to affect your life”, with 1 = “not soon at all,” 6 = “very soon,” and 7 = “it already has”. These values are after reverse coding of the raw data.

⁵ Measured using the question, “If you had done nothing during the planning process, how different do you think the plan would be”, with 1 = “very little” and 7 = “very much”.

Table 26. Has Approval of the Plan Affected your Life

Plan Affected Life?:	Frequency	Percent
No	169	64.5
Yes	93	35.5
TOTAL	262	100.0

Two variables measuring attitude toward the system plan were included in this study. Like the vested interest components, these questions were measured on 7-point Likert-like scales. As noted above regarding the self-efficacy results, most respondents felt that their engagement in the plan did not make a difference in the plan's outcome; however, respondents had a positive attitude toward the need for a system plan ($M = 6.5$) (Table 27), and most favored the plan ($M = 5.6$) (Table 28). Over two thirds (68.0%) reported that the plan was a good idea (Table 27). In fact, only two respondents (0.8%) did not think the plan was a good idea. The second variable assessed respondents' personal attitude toward the plan ($M = 5.6$). Most (59.0% answering 6 or 7) favored the system plan (Table 28). Most of the other respondents (38.7% answering 3, 4, or 5) were neutral, and only 2.3% were opposed.

Table 27. Attitude toward Need for System Plan¹

	Bad Idea						Good Idea							
	1	2	3	4	5	6	7							
	(%)	(%)	(%)	(%)	(%)	(%)	(%)							
Plan	1	0.4	1	0.4	4	1.5	8	3.0	23	8.6	48	18.0	181	68.0

Mean = 6.5; Standard Deviation = 1.0; n= 266

¹ Measured using the question, “Do you think it is a good or a bad idea for the Raleigh Parks, Recreation and Cultural Resources division to have a system-wide master plan”.

Table 28 Personal Attitude toward System Plan¹

	Opposed						Favored							
	1	2	3	4	5	6	7							
	(%)	(%)	(%)	(%)	(%)	(%)	(%)							
Attitude	1	0.4	5	1.9	8	3.1	54	20.7	39	14.9	56	21.5	98	37.5

Mean = 5.6; Standard Deviation = 1.4; n = 261

¹ Measured using the question, “Did you favor or oppose the plan”.

Composite measures were created for both the vested interest and attitude variables by calculating the means for the five vested interest and then the two attitude variables. The mean of the Vested Interest index was 4.1 on the 7-point scale with a standard deviation of 1.0 and the mean of the attitude index was 6.0 on the 7-point scale, also with a standard deviation of 1.0. Reliability testing was conducted for each of the two composites using Cronbach's alpha. The vested interest composite had an acceptable level of internal consistency ($\alpha = .702$). Deletion of the immediacy variable would have increased the internal consistency slightly ($\alpha = .707$). However, the decision was made to retain the variable in the composite, based on its inclusion in the vested interest literature and the acceptable level of internal consistency with all five variables included. Internal consistency for the attitude composite was questionable ($\alpha = .643$; correlation coefficient = .473), so the decision was made to reject its use. The vested interest composite was used to examine (using Pearson's Correlation) if there was any relationship between vested interest and the two attitude variables (Table 29). There was a statistically significant ($p < .01$) positive correlation for each variable, but the relationship between vested interest and personal attitude toward the system plan (.39) was stronger. Given this correlation was greater than 0.3, it may well be of practical significance as well.

Table 29. Correlation between Vested Interest and Attitude

	Vested Interest
Attitude toward Need for System Plan	.22** (n = 252)
Personal Attitude toward System Plan	.39** (n = 250)

Note. ** p < .01.

In summary, research question two asked about the level of vested interest of participants in a park system planning process. The results for four out of the five measures of vested interest (stake, salience, immediacy, and certainty) were similar with moderate levels for each variable, while self-efficacy was lower. Despite comparably low self-efficacy levels, respondents had positive attitudes toward the need for a system plan, and overwhelmingly approved of the final plan. There were significant positive correlations between vested interest and both attitude toward the need for the system plan and personal attitude toward the plan. With a Pearson's r of over .3 ($r=.39$), the correlation between vested interest and personal attitude toward the system plan is likely of practical significance as well.

Question 3: What are the types and number of social ties park system planning participants use for gaining information about community issues?

Social network ties were broken down into two categories (strong and weak) and measured by the frequency of contacts made with others about the plan. Strong ties included immediate family and close friends while weak ties included extended family and other acquaintances. Table 30 shows network ties measured by how frequently respondents

discussed the plan with people from each of the two categories. In terms of strong network ties, over a quarter (26.1%) of respondents talked to their family and close friends about the plan at least several times a month, while almost another quarter (23.2%) discussed the plan with such people about once a month. More than one in five (20.9%) never discussed the plan family or friends at all.

Weak network ties included extended family, coworkers, and other acquaintances. One quarter (25.3%) of respondents spoke to others, such as coworkers and infrequent acquaintances, at least several times a month, and 20.8% did not discuss the plan with their coworkers and acquaintances at all. These results are similar to those of the strong network ties. However, a larger percentage (36.3%) spoke to their weak ties less than once a month. A smaller percentage (17.6%) spoke to their weak network contacts once a month.

Table 30. Discussion of Plan with Network Ties

	Never		Less than once a month		Once a month		Two to three times a month		Once a week		Several times a week		TOTAL	
Discussion:	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Strong Ties	52	20.9	74	29.7	58	23.3	48	19.3	10	4.0	7	2.8	249	100.0
Weak Ties	51	20.8	89	36.3	43	17.6	38	15.5	15	6.1	9	3.7	245	100.0

Social network size was measured by two variables: offline size (number of people the participants talked to face-to-face, on the phone, or via text message), and online size

(people contacted using email, chat rooms, social network sites, or other internet-based tools). Offline network size (Table 31) had a mean of 9.4 people (SD = 19.0) while online network size had a mean of 18.2 people (SD = 67.3). The high standard deviations indicate the larger spread of values in the dataset. The median for offline network size was 5.0, while the median online network size was 2.0

Offline network size for the plan was generally small (Table 31). Over a third of respondents (37.5%) spoke to 2-5 people about the plan, and only 10.4% spoke to more than 20 people. There were some respondents (15.5%) who spoke to no people about the plan. For online networks, there were more respondents with networks of more than 20 people (12.5%), yet almost half (44.2%) of respondents did not talk to anyone about the plan online. Over one in five (21.6%) respondents talked about the plan online to 2-5 people.

Table 31. Size of Respondent's Networks

Discussed Plan With:	Offline Networks ¹		Online Networks ²	
	Frequency	Percent	Frequency	Percent
0 people	36	15.5	103	44.2
1 person	15	6.5	12	5.2
2-5 people	87	37.5	50	21.6
6-10 people	46	19.8	20	8.6
11-20 people	24	10.3	18	7.8
21-40 people	19	8.2	9	3.9
41-60 people	2	0.9	8	3.4
61-100 people	1	0.4	7	3.0
101+ people	2	0.9	5	2.2
TOTAL	232	100.0	232	100.0

¹Mean = 9.4; Median = 5.0; Standard Deviation = 19.0; Range = 0 – 200

²Mean = 18.2; Median = 2.0; Standard Deviation = 67.3; Range = 0 – 500

Participants were also asked to name groups to which they considered themselves a member. Since the question was open ended, the responses were hand-coded to quantify the number of memberships listed by each respondent (Table 32). If a respondent wrote “none” as a response, it was coded as a 0. Most respondents (88.6%) had organizational network ties in the community, but they were generally limited in number, with one (34.7%) or two (26.7%) memberships being the most prevalent. Nearly a quarter (22.7%) listed 3-5 memberships, while 4.6% listed more than 5 memberships. These memberships were then sorted into categories (Table 33). Park user groups (e.g. dog walkers, mountain bikers), were the most prevalent type of membership, while civic organizations, sports clubs and teams,

and neighborhood associations were also common. A list of all the organizations respondents provided can be found in Appendix C.

Table 32. Number of Name Generated Memberships

Memberships:	Frequency	Percent
0	20	11.4
1	61	34.7
2	47	26.7
3	16	9.1
4	16	9.1
5	8	4.5
6	4	2.3
7	1	0.6
9	2	1.1
10	1	0.6
TOTAL	176	100.0

Mean = 2.1; Median = 2.0; Standard Deviation = 1.8

Table 33. Types of Name Generated Memberships

Membership Type	Frequency	Percent
Park user groups	38	17.4
Civic organizations	34	15.6
Sports teams and clubs	30	13.8
Neighborhood groups	28	12.8
Religious organizations	25	11.5
Other groups	21	9.6
Citizens Advisory Councils	18	8.3
Arts groups	17	7.8
Professional organizations	7	3.2
TOTAL	218	100.0

In summary, research question three asked about the type and number of social ties park system planning participants used. Generally, respondents spoke more to their strong network members (immediate family and close friends) about the plan than to their weak network members (extended family, coworkers, and acquaintances), though over 20% did not speak to anyone at all about the plan. Offline network size was smaller, but more respondents discussed the plan offline than they did with their online networks. Finally, the organizational memberships of respondents were generally few (with most only listing one or two memberships), but varied widely in terms of type.

Question 4: Is vested interest in a park system planning process related to method or frequency of engagement?

One-way ANOVA was used to examine possible differences in the vested interest composite variable across the different methods of engagement respondents might have used (online, in-person, and both) (Table 34). There was a statistically significant, but not large, difference among the engagement methods ($p = .02$). A Scheffe post-hoc analysis revealed that the level of vested interest was significantly higher for respondents participating in person ($M = 4.3$) than for those participating using online methods ($M = 3.9$).

Table 34. Analysis of Variance of Vested Interest by Engagement Method Used¹

Dependent Variable	n =	Method of Engagement:			F
		Online Mean ¹	In-Person Mean	Both Mean	
Vested Interest	254	3.9 ^a	4.3 ^b	4.2	4.0*

* $p < .05$.

¹Note. Mean scores with different superscripts are statistically significant at the .05 level.

To determine any possible relationship between vested interest and frequency of engagement, Pearson's Correlation was conducted using the vested interest composite and each of the three variables measuring frequency of engagement (Table 35). There was a statistically significant (.05 level) but weak positive correlation ($r = .15$) between vested interest and ideas shared on MindMixer. A similar significant (.01 level) but weak positive

correlation ($r = .18$) was found for vested interest and comments made on MindMixer. A stronger correlation ($r = .31$) was found between vested interest and meetings attended, which was also significant at the .01 level. While vested interest had a significant relationship with all three frequency measures, meetings attended is likely to be the only relationship that is strong enough to be of practical importance.

Table 35. Pearson's Correlations of Vested Interest and Engagement Frequency¹

	Frequency of Engagement		
	Ideas Shared	Comments Made	Meetings Attended
Vested Interest	.15* (n = 239)	.18** (n = 239)	.31** (n= 247)

¹Note. * $p < .05$; ** $p < .01$.

In summary, research question four asked if vested interest in park system planning was related to method or frequency of engagement. There was a significant relationship between vested interest and engagement method; in-person engagement methods had the highest mean, and this was significantly higher than the mean for those using online methods. There was also a significant positive relationship between vested interest and engagement frequency for each of the three frequency measures. Number of meetings attended had the strongest positive correlation with vested interest, and is likely a relationship of practical importance.

Question 5: Are participants' social network ties related to their method or frequency of engagement in a park system planning process?

To examine possible relationships between social network ties and engagement method used, two Chi-Square tests of independence were run: one for strong network ties (family and friends), and one for weak network ties (coworkers and acquaintances). In order for the strong and weak network data to meet the criteria for a Chi-Square test, the six network ties categories were recoded into five categories; "Once a week" and "Several times a week" were consolidated into the category "Once a week or more." Frequency of communication for strong network ties was found to have a significant ($p < .001$) relationship with engagement method used (Table 36). Those who participated in both engagement methods discussed the system plan with their friends and family more frequently than did those using online or in-person methods alone. Nearly a third (32.7%) of participants using only online methods did not discuss the system plan with family and friends at all, and another third (33.6%) talked about the plan with their friends and family less than once a month. This frequency was much lower than those who participated using solely in-person methods.

Table 36. Chi-Square Test of Strong Ties and Engagement Method Used

Mode of engagement:	Never		Less than once a month		Once a month		Two to three times a month		Once a week or more		Total	n (%)
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)		
Online	35	(32.7)	36	(33.6)	22	(20.6)	11	(10.3)	3	(2.8)	107	(100.0)
In-Person	7	(10.4)	21	(31.3)	19	(28.4)	17	(25.4)	3	(4.5)	67	(100.0)
Both	9	(12.2)	17	(23.0)	17	(23.0)	20	(27.0)	11	(14.9)	74	(100.0)
	51	(20.6)	74	(29.8)	58	(23.4)	48	(19.4)	17	(6.9)	248	(100.0)

Chi-Square = 34.47; $p < .001$

A statistically significant relationship ($p < .001$) was also found for frequency of communication of weak network ties and engagement method used (Table 37). Those who participated using both engagement methods talked about the plan more frequently with their coworkers, extended family, and acquaintances. Over a third (37.1%) of those who participated using online methods did not speak about the plan to their coworkers, extended family, and acquaintances, and another 41% discussed the plan with their weak network ties less than once a month. Respondents using in-person engagement methods discussed the plan more frequently than respondents participating online alone, but both were engaged less frequently than those utilizing both methods.

Table 37. Chi-Square Test of Weak Ties and Engagement Method Used

Mode of engagement:	Never		Less than once a month		Once a month		Two to three times a month		Once a week or more		Total	(%)
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)		
Online	39	(37.1)	43	(41.0)	10	(9.5)	8	(7.6)	5	(4.8)	105	(100.0)
In-Person	4	(5.9)	25	(36.8)	16	(23.5)	16	(23.5)	7	(10.3)	68	(100.0)
Both	7	(9.9)	21	(29.6)	17	(23.9)	14	(19.7)	12	(16.9)	71	(100.0)
	50	(20.5)	89	(36.5)	43	(17.6)	38	(15.6)	24	(9.8)	244	(100.0)

Chi-Square = 48.17; $p < .001$.

Possible relationships between network ties (the frequency of discussing the system plan with others) and the three measures of engagement frequency (ideas shared on MindMixer, comments posted on MindMixer, and meetings attended) were examined using Pearson's Correlations (Table 38). There was a statistically significant positive correlation between frequency of communication with strong network ties (immediately family and close friends) and each of the three engagement frequency measures. Comments made ($r = .16$; $p < .05$) was the weakest correlation of the three, while ideas shared ($r = .24$; $p < .01$) and meetings attended ($r = .46$; $p < .01$) were stronger. A statistically significant correlation ($p < .01$) was also found for frequency of communication with weak network ties (extended family, coworkers, and acquaintances) and two of the frequency measures: ideas shared ($r = .18$) and meetings attended ($r = .46$). There was no significant relationship between weak network ties and comments made. While almost all of these frequency measures had significant relationships with network ties, the relationship between network ties and the number of meetings attended is the only relationship strong enough to be considered meaningful (i.e., Pearson's $r > .3$).

Table 38. Pearson's Correlation of Network Ties and Engagement Frequency¹

	Frequency of Engagement		
	Ideas Shared	Comments Made	Meetings Attended
Strong Ties	.24** (n = 231)	.16* (n = 232)	.46** (n = 240)
Weak Ties	.18** (n = 232)	.04 (n = 232)	.46** (n = 238)

¹Note. Values are Pearson's r coefficients. * p < .05; ** p < .01.

Participants self-reported their online and offline network sizes (Table 31) and the number of groups to which they considered themselves a member (Table 32). ANOVA was used to examine the possible relationship between these three network size measures and engagement method used (Table 39). A significant ($p < .01$) relationship was found between online network size and engagement method. A Scheffe post-hoc analysis indicated a significant difference in the means between those using both engagement methods ($M = 45.4$) with those using online methods ($M = 5.6$) and in-person methods ($M = 5.7$) only. There was also a significant ($p < .01$) relationship between offline network size and engagement method used. A Scheffe post-hoc analysis showed a significant difference in the means of those utilizing both methods of engagement ($M = 17.0$) with those using online methods only ($M = 4.5$) and with those using in-person methods only ($M = 8.5$). No significant relationships were found between engagement method and number of memberships reported.

Table 39. Analysis of Variance of Network Size and Engagement Method Used¹

Dependent Variable	n	Method of Engagement:			F
		Online	In-Person	Both	
Online Network Size	231	5.6 ^a	5.7 ^a	45.4 ^b	9.4 ^{**}
Offline Network Size	233	4.5 ^a	8.5 ^a	17.0 ^b	9.8 ^{**}
Number of Name Generated Memberships	177	2.0	1.7	2.5	2.7

^{**} $p < .01$;

¹Mean scores with different superscripts are statistically significant at the .05 level.

Pearson's Correlation was used to examine possible relationships between social network size and engagement frequency (Table 40). Significant ($p < .01$) relationships were found for online networks and frequency in two measures: ideas shared ($r = .27$) and meetings attended ($r = .37$) There were similar results for offline network size, although these relationships (ideas shared $r = .33$ and meetings attended $r = .38$) were slightly stronger than the online relationships. Both online and offline correlations were weaker than the results found for social network ties and engagement frequency, but the significant relationships between network size and meetings attended (as well as offline network size and ideas shared) were strong enough to likely be of practical significance. No significant relationship was found for number of memberships and frequency.

Table 40. Pearson's Correlation of Network Size and Engagement Frequency¹

	Frequency of Engagement		
	Ideas Shared	Comments Made	Meetings Attended
Online	.27** (n = 225)	.08 (n = 227)	.37** (n = 230)
Offline	.33** (n = 224)	.11 (n = 225)	.38** (n = 230)
Name-Generated Memberships	.14 (n = 170)	-.03 (n = 172)	.14 (n = 175)

¹Note. Values are Pearson's r coefficients. ** p < .01.

In summary, research question five asked if participants' social network ties were related to their method or frequency of engagement in the park system planning process. There was a significant positive relationship between social network ties and method of engagement, as well as network ties and most measures of engagement frequency. Significant relationships were also found between network size and engagement method, and with online and offline network size and engagement frequency. There was no significant relationship between name-generated memberships and either engagement method used or any of the frequency measures.

Overall, the results of this study revealed some significant relationships between the engagement method used by respondents' and their frequency of engagement in the system planning process with vested interest, attitudes, network size, and network strength. There were several differences among respondent groups based on the engagement method they used to participate in the plan. There were significant differences in age and race and engagement method used; most respondents under the age of 40 used solely online engagement methods, and nearly half of non-white respondents used solely in-person

engagement methods. Respondents using in-person methods had higher levels of vested interest in the plan. There were also significant relationships between engagement method used and social network size and strength. These findings have implications for both researchers and practitioners in planning and studying future planning processes. There were fewer significant relationships between network ties and network size and engagement frequency. Vested interest had a significant relationship with all frequency measures. Network strength was significant for all but one of the engagement frequency measures, as was offline network size. While these measures were significant, meetings attended was the strongest, and likely most meaningful measure across all dependent variables. There was no significant relationship between online network size or name generated memberships and engagement frequency.

DISCUSSION, IMPLICATIONS, LIMITATIONS AND CONCLUSIONS

This study set out to explore possible relationships between both participants' vested interest and social network size and their method and frequency of engagement in a municipal planning process. The inclusion of measures for both vested interest and social networks made this study unique, and yielded more information about participants' behavior than using either framework as a stand-alone measure. In addition, this study was one of the first to explore the efficacy of online tools (such as MindMixer) as opposed to in-person methods (such as public meetings) in engaging different types of people in a planning process.

Raleigh system plan participants who participated in both online and in-person engagement methods were found to have higher levels of vested interest, stronger social networks, and larger offline and online networks than those who engaged through only one method. Those who engaged frequently in sharing ideas, posting comments, and attending meetings had higher levels of vested interest and talked about the plan more frequently with their immediate family and close friends. Participants who shared more ideas and attended more meetings had larger social networks and talked more often with their extended family, coworkers, and acquaintances about the plan than those who engaged less frequently. However, there were no statistically significant relationships between these weak network ties (extended family, coworkers, and acquaintances) and network size with the engagement frequency measure of comments posted on MindMixer. In addition, no relationship was found between number of memberships and engagement method or frequency. These findings should help City of Raleigh staff better evaluate the success of their planning

process and understand how participants engaged in their system planning process, their vested interest in the plan, and their social networks in the community.

Demographics

Respondents in this study were overwhelmingly white, well-educated, and had relatively high incomes. The City of Raleigh did not record any demographic data about participants on MindMixer or at in-person meetings during the system planning process, so there is no way to compare respondents' results to those for all participants in the system planning process. However, by comparing the study's findings to U.S Census Bureau data for the City of Raleigh (United States Census Bureau, 2014b), we know that there was a smaller percentage of non-white respondents, as well as a larger percentage of respondents with at least a bachelor's degree and a higher median income in the sample than in the population of Raleigh overall. It may be that the demographic makeup of all system plan participants was skewed from the population of Raleigh, but this cannot be confirmed due to the low response rate. In addition, using census data as a stand-in for demographics of system plan participants is somewhat problematic, given that participants did not have to live in the City of Raleigh to participate in the planning process. In the future, it may be useful for researchers replicating this study to work with the local government agency to collect basic demographic data during the planning processes so they can more easily generalize their results.

Though caution needs to be exercised in generalizing the demographic findings to all system plan participants and the population of Raleigh, there are several results that are useful for understanding relationships between respondent demographics and participation in the plan. Race and age had a significant relationship with engagement method used.

Respondents who were not white were more likely to participate in the plan using in-person methods. There are several things that might help explain this. While the gap is closing, African-Americans and Hispanics are less likely to have access to the internet than whites (Perrin & Duggan, 2015). Respondents with limited access to the internet may be more likely to participate using in-person methods or feel more comfortable doing so. Another explanation could be that participating in-person was more convenient due to the design of the planning process. The City of Raleigh chose to hold two of their community meetings and several focus groups at the Chavis Community Center, which is in a historically African-American neighborhood in Southeast Raleigh (City of Raleigh, 2014). If respondents lived near this community center, they may have decided that it was easier to attend the meeting rather than participate online.

In addition to race, age was significantly related to method of engagement used, with respondents under the age of 40 being more likely to participate solely online than either in-person or using both methods. This may be due to internet usage being more common for young adults than older Americans (Perrin & Duggan, 2015). Another reason may be that in-person meetings are less convenient. A citizen can participate online any time of the day, instead of being available for an in-person meeting scheduled for a fixed time and place (Mandarano et al., 2010). Younger adults may have school, work shifts, or other responsibilities that are incompatible with in-person meeting times, or cannot find child care for their young children so they can attend (Rydin & Pennington, 2000). This study did not examine motivations for participating; however, it would be helpful to add an additional

question about motivation to the instrument in future studies to better understand why some respondents chose to engage using the method or methods they did.

Another finding of interest in terms of the demographic data was the result for geographical distribution of respondents. While some variation across Citizens Advisory Council districts was expected, 12% of respondents did not live in the City of Raleigh at all. While it may seem odd that so many people chose to participate in a system plan for a municipality in which they do not reside, there are three possible explanations. The respondents may have participated because of their organizational affiliations or work locations. They could have served as a representative in the planning process for their organization, or chose to participate because they spend large amounts of time in Raleigh because their office is headquartered there and value the recreational opportunities provided in the city. The second possibility is that in the length of time (12 months) between the end of the planning process and data collection some respondents may have moved out of the city. A third possibility is that the high quality and diversity of the City of Raleigh parks system attracts visitors from neighboring areas. These may be people who live relatively close to a Raleigh park and find it more convenient to visit than parks in the municipality in which they reside. In addition, some of the City of Raleigh's premier parks (such as Pullen Park and Lake Johnson Park) have unique features and may attract visitors from neighboring municipalities. This is also true for the city's greenway system, which is more extensive than most in the area, and connects to nearby towns. In future studies, a follow-up open-ended question could be added for these respondents to share more information about why they chose to engage in the Raleigh system planning process. In addition, two additional

demographic questions should be asked of all respondents in order to better understand their motivations for participating: whether they work in Raleigh; and the recreational activities in which they participate in Raleigh parks. The first question was included in the City of Raleigh's non-scientific online Public Opinion Survey (City of Raleigh, 2014), and should have been replicated in this study. Having this information would help researchers better understand respondents' participation in the plan, as well as any disparities among different park user groups.

In addition to respondents who were not Raleigh residents, there was wide variation in the number of respondents from each Citizens Advisory Council district. While all districts had some representation, the response was much higher in the North and Northwest districts. In addition, no respondents in the South and South Central districts participated only using online tools. Since participant geographic data was not collected throughout the system planning process, it is not clear whether this imbalance in respondents across geographic region is representative of the participation in the system plan itself or due to possible nonresponse bias in the study. In addition, there may have been external constraints on participants in the districts of which the research team was not aware. Though the cause is not known, this imbalance in geographic representation is unfortunate since imbalances in geographic representation may point to variations in social capital (Mohan & Mohan, 2002). The Citizen's Advisory Council districts with low response rates could be targeted for more intensive outreach by City of Raleigh staff in future planning processes to help ameliorate this issue and increase the number, diversity, and interest of stakeholder involved.

Method of Engagement

This study is one of the first attempts to evaluate possible differences among respondents in terms of the engagement method they chose to use to get involved in a planning process. In addition to the differences in age and race discussed above, there were significant differences in vested interest, and network strength and size across the engagement methods used. Respondents who participated using both methods had a wider reach in the community, and talked more frequently to others about the plan than those using only one method of engagement. In addition, respondents who participated solely in-person were the most vested in the process. Understanding how people participate can assist the City of Raleigh in refining their outreach strategies and cultivating this interest into long-term engagement. Sustaining interest in planning and management of parks and open space can help strengthen bridging social ties and build trust and social capital (Crawford et al., 2008; Hampton, 2011; Rader Olsson, 2009). Such respondents (if they aren't already) are poised to become champions of parks in their community, and can rally others to their cause.

Long-term interest in planning may be more difficult for respondents participating online. Fewer than half of respondent used the MindMixer site after the system plan was adopted. Given the year that has passed between plan adoption and study data collection, these system plan participants may have become fully disengaged. In future planning processes, ongoing online gamification that continues after the close of the planning process may be able to help sustain this interest and increase trust and civic learning (Gordon & Baldwin-Philippi, 2014; Lehner & Baldauf, 2014).

Vested Interest

More significant relationships were found between vested interest and engagement method used and frequency of participation than for any other dependent variable in this study. Despite the consistency in the variable's importance, some vested interest results were surprising. While the positive relationship between vested interest and the frequency of participation was expected (e.g., higher levels of vested interest corresponded with greater frequency of ideas shared, comments posted, and meetings attended), the relationship between vested interest and method of engagement was not expected. The mean vested interest for in-person engagement was somewhat higher than those for respondents utilizing both methods, and significantly higher than those using only online methods. Since this study was the first to examine differences in vested interest with online engagement method, there was little guidance from the literature about why this may have occurred. Based on the literature, two theories are presented might be suggestive. Previous studies have identified that lack of transparency in how online input is used in planning document is a concern and a concern for participants engaging using online methods (Mandarano et al., 2010). It may be that respondents who are most vested in the process may be more inclined to attend meetings because they believe that is the most effective way to have their input included in the final outcome. In addition, attending in-person meetings is often a larger time commitment than engaging online. Given that other time commitments can limit individuals' participation in planning processes (Rydin & Pennington, 2000), those most vested in the process may be spending the most time overall on the planning process by attending in-per meetings only, rather than adding on-line participation as well. This explanation is also supported by the

finding that the strongest correlation between vested interest and engagement frequency was with the number of meetings attended.

Determining causality in the relationships between vested interest and engagement method and frequency is extremely difficult from the results of this study. In fact, it is possible this relationship may be bidirectional. Prior studies have shown that vested interest can be aroused in participants (Thornton & Tizard, 2010). It is likely that higher levels of vested interest led to increased participation. However, it may also be that participants' participation could have increased their levels of vested interest. Further research is needed to better understand causality.

Also worth noting are respondents' somewhat low self-efficacy levels. While some other studies have found self-efficacy means to be the lowest of the five vested interest variables (Thornton & Knox, 2002), it is still concerning that so many people felt that their input did not make much difference in terms of the final system plan. Of even greater interest is how self-efficacy levels corresponded with the support of respondents for the system plan. Respondent attitudes toward the system plan were overwhelmingly positive, and the correlation of the vested interest and attitude composites was significant and positive. Based on these findings, the low levels of self-efficacy found in this study may be due to agreement with the final system plan document and other participant input, and respondents' belief that their particular individual input made little overall difference in what was in the final plan. Low self-efficacy could also be due to the large number of participants (5,300) in the planning process. One person might feel that their voice was not heard over those of other participants.

While strong support of the plan may help explain the findings of this study, the larger issue of low self-efficacy in planning processes remains. The City of Raleigh spent significant time and money in engaging the community through this system planning process, but most people did not feel that their contribution made much of a difference. Participatory planning processes are designed to engage large numbers of people (Lane, 2005) and there are multiple metrics that can be used to establish planning process success (Bryson, Quick, & Crosby, 2012). While a completed and adopted plan or the number of people engaged can be used as metrics of success (and have been used by the City of Raleigh), they do not tell the whole story. Quality of engagement should also be assessed in addition to quantity, particularly if the agency wishes to build engagement over time. Measures of vested interest could be used in future studies to help assess quality of engagement in a planning process. In particular, increased self-efficacy could be used as a metric for success in the planning process. Participants' believing that their voice is being heard could lead to increased trust in government and increased levels of social capital (Wagner & Fernandez-Gimenez, 2008).

Social Networks

The findings regarding social network ties and size and engagement method were somewhat expected (those who participated using both engagement methods had larger and stronger social networks), but there was less consistency in the results regarding engagement frequency. There was a significant positive correlation with network ties and engagement method and two of the frequency measures: number of ideas shared on MindMixer and number of meetings attended. However, with the exception of the strong ties variable, none of the social network measures were significantly related to the third frequency measure

(number of comments posted on MindMixer). Participants' time constraints might help explain these findings. Comments can be more time consuming to create and post than simply sharing an idea, but generally take less time than attending a meeting. In addition, some participants might have felt that a high volume of their comments might risk alienating other MindMixer users, who may believe this behavior to be a type of trolling (Alexander & West, 2016). Quality of content may be more important than the quantity of comments for some participants.

It should also be noted that number of meetings attended variable had the strongest positive correlation with both social network ties and size. As mentioned before, attending meetings is a significant time commitment (Rydin & Pennington, 2000). Participants who have the time to attend meetings might also have more time to discuss the system plan with family, friends, and acquaintances. They may also have more time to call, text, or use social media to share information about the plan with their networks. It may be that these participants feel that attending meetings is a more effective way to have their voices heard, and that participants with large social networks are able to encourage their connections to speak out as well, amplifying their impact on the process.

While most social network size and ties measures had significant relationships with engagement method and frequency, there was no significant relationship between engagement method and frequency and the number of organizations respondents considered themselves to be members of. This finding differs from other studies, where number of memberships was related to increased engagement (Wollebaek & Selle, 2002). Since the organizational name generator question was open-ended, there was wide variation in the

number of memberships listed. It may be that there was some confusion with the word “member”. While the word is common in some contexts (such as religious and professional organizations), other, often more informal, groups may not have a formal membership process. While the survey question did not ask only for groups that maintained formal membership lists, it is possible that some respondents limited themselves to this subgroup of organizations anyway. In addition, although respondents who left this question blank were coded as having no organizational affiliations, it is possible that some of them simply chose to not answer the question. In future studies, it may be useful to follow up this question with another closed-ended question asking about level of engagement in particular subcategories of groups to see if there is any difference in the results.

Implications for Future Research

This study has numerous implications for researchers, planners, and managers. As stated earlier, there is little literature concerning online engagement tools like MindMixer (now MySidewalk). While there is anecdotal evidence that such engagement tools aid in outreach to underrepresented populations, this was the first study to compare participants who engage solely using online tools (or a mixture of online and in-person engagement) with those who only participate through in-person meetings. By utilizing both vested interest and social network measures, the results documented potential differences in how vested each of these participant subgroups (online engagement, in-person engagement, or both) were in the process, as well as differences in their affiliations in the community. While online engagement tools are generally free for citizens to use, most agencies must pay a fee to bring

such services to their community. This study was a first step toward better understanding if such online tools actually bring new participants into the planning process, and whether their use is an effective way to spend taxpayer dollars.

The results of this study show a difference in the vested interest, networks ties, and network size of participants using only online methods. Further research is needed in order to make generalizations from the significant relationships of both vested interest and social networks with method of engagement. However, these results are encouraging, and online engagement tools should be considered as an option for data collection by researchers working with municipalities that are involved in future planning processes.

Another gap in the existing literature is the study of social networks in municipal-level resource planning. This research examined how social networks relate to method and frequency of engagement, as well as the specific network ties of participants in a municipal planning process. By using a large sample in a major municipality, the information generated from this study will hopefully be useful for researchers evaluating planning processes for other jurisdictions, despite the study's low response rate.

There are other implications for future research that can be drawn from these results. The vested interest and social capital frameworks used to ground this study were chosen because past studies did not include ways to gauge attitude-behavior consistency with social networks. Prior research has focused on motivations for civic engagement, but there has been very little exploration of how attitude, behavior, and social networks work together in a planning process. This study took a first step by examining relationships between these research areas. Some relationships were supported by the findings of this research, but future

research is needed to further refine these relationships and more fully explore participants' motivations. An important next step for moving this research forward would be the completion of multi-level regression analyses of the data collected in this study. Subsequent studies should include both quantitative and open-ended questions about respondents' motivations for participating in the planning process, to help determine whether there are other factors affecting the engagement method used and frequency of engagement. In addition, researchers could evaluate possible changes in attitudes and behavior as the planning process progresses by collecting data on vested interest and social ties at multiple times throughout the course of a planning effort.

The instrument used in this study could be used for evaluating planning processes in other municipalities. Given that each municipality has different demographics, park systems, and social networks, the findings of this study may not be applicable elsewhere, so generalization of these results should only be made with caution. However, future research might show some similarities in engagement across different municipalities.

Future studies could also include qualitative data collections focused on demographic or behavioral groups that are typically underrepresented in municipal planning processes. Such research could help provide insights into why their vested interest or social networks might differ from others engaging in the process, and could help researchers suggest methods of engagement that might be best leveraged to improve participation among these groups.

Implications for Practice

In addition to future research, this study also has numerous implications for practitioners. As mentioned above, this was the first evaluation of participants' vested

interest and social networks using online engagement tools. This study showed significant differences in vested interest, network ties, and network size for those who engaged online compared to those using both online and in-person methods. These findings suggest that the City of Raleigh may have been successful in increasing the number of participants with lower levels of engagement frequency by utilizing the MindMixer tool for this planning process. If these results could be replicated in other municipalities, it would assist planners in making the case to their managers and elected officials that these tools (which can have significant costs) offer a good return on investment.

This study's scope did not include measures for determining if participants utilizing online engagement methods were new participants in City of Raleigh engagement processes. A portion of them were likely regular participants utilizing another method due to preference or time constraints. A planner who works daily with these citizens could be able to identify some regular participants, but it would also be helpful for researchers to include such a measure in the survey instrument for future studies. Based on the results of this study, practitioners should continue to utilize online tools as part of their park system planning efforts when possible. However, many agencies may lack resources for utilizing a service such as MindMixer. While alternative software may not be as robust as MindMixer, agencies with limited resources could take advantage of free tools, such as Google forms (www.google.com/forms) or SurveyMonkey (www.surveymonkey.com) to solicit input through an online survey, or gather input via social media or through an online wiki service (Nam, 2012). The success of such outreach may be dependent on the digital literacy and demographics of the participants, as well as the agency's experience and prior success

engaging its residents online (Chadwick, 2011). Agencies without a strong online presence may find that keeping online engagement small initially is more effective than dedicating large amounts of staff time and resources to an online engagement platform that generates little interest from residents.

As mentioned earlier, low levels of self-efficacy have implications for practitioners as they plan and execute their planning process. The literature provides some guidelines for conducting successful planning processes (Bryson et al., 2012; Crawford et al., 2008; King, Feltey, & O'Neill Susel, 1998; Webler, Tuler, & Krueger, 2001), but there is no widely accepted set of best practices, due, in part, to the different goals and types of engagement processes. While appreciating the need for flexibility in the process, there should still be an attempt made by practitioners to clearly specify their goals prior to developing and beginning the process. This should include the type of engagement desired (general feedback vs. expertise), number and individuals and groups in the community to be targeted, and the desired engagement experience for participants. The City of Raleigh did this successfully in the system planning process. In addition to developing goals, a feedback loop should be instituted to respond to participant input and discuss the inclusion of this input in the final document. This would hopefully raise self-efficacy levels, as well as help assure online participants that their feedback was considered (Mandarano et al., 2010).

Understanding that respondents who participate in-person (either exclusively or in conjunction with online methods) are more likely to talk to others about the planning process and have larger online and offline networks has numerous implications for practitioners. The City of Raleigh should think about ways they may expand their reach in the community by

using this knowledge. For example, providing informational flyers at in-person meetings and asking participants to share them with family, friends, and acquaintances could introduce new people to the planning process. In addition, knowing that respondents are more likely to discuss the plan with family members, agency staff could set up intercepts at local parks (particularly in Citizen's Advisory Council districts with low response rates) to talk with families as they use the park. While this study focused solely on adults in the system planning process, the City of Raleigh also held a workshop for teens to give input, and this should be continued in future planning processes. All members of the family, including children, are able to participate and share valuable input for park and open space planning (Derr, Tarantini, Derr, & Tarantini, 2016).

Finally, practitioners should take the time to collect basic demographic data as part of their planning processes. The results of this study showed a difference in race and age by methods of participation used. In order to conduct evaluations of their outreach efforts, practitioners should be aware of the basic demographics characteristics of participants. While race cannot be determined in an online setting without asking the participant directly, age can be assessed if the online engagement system asks for a birthday. Gathering some demographic information at in-person meetings can be done by using simple observations. Having this data can aid practitioners in addressing issues and adding additional engagement opportunities to seek input from underrepresented groups. This data would also be helpful for any researchers that are contracted to help evaluate the planning processes.

Study Limitations

While the implications of this study are potentially far-reaching and important, there were limitations as well. Due to its exploratory nature and its focus on a single municipality, caution should be used when attempting to generalize findings to civic engagement efforts in other cities. Raleigh is larger, more educated, and more technologically savvy than many municipalities. It is the 43rd largest city in the United States (United States Census Bureau, 2014a). Nearly 47% of Raleigh adults have a bachelor's degree or higher (United States Census Bureau, 2014b), and it has been rated as one of the top cities for internet access and usage (Woyke, 2010). Given the online nature of the data collection for this study, Raleigh's well educated and technologically literate population may have yielded different results than similar efforts in other cities with less internet access, or smaller, older and/or less educated populations. In addition, this study focused on a single online engagement tool – MindMixer. The large variations in the capabilities of such tools could make the findings from participants utilizing MindMixer somewhat different than those coming from other tools in other planning processes.

In addition to differences in the population and engagement process, implementing this survey online may have influenced who responded. Using an online method to assess both online and in-person participation may have led to underrepresentation in the data of people who participated solely in-person, due to limited access to the internet or lower levels of digital literacy. In particular, the online format of the survey may have led to an undersampling of older adults. While the number of adults over the age of 65 who utilize email and the internet has grown rapidly in the past few years (from 14% in 2000 to 59% in

2013), over half of Americans 75 years or older do not use the internet (Smith, 2014). Older adults who use the internet also tend to be more educated and wealthier than non-users of comparable age. By using an online survey, older adults with limited education and means may have been underrepresented.

Another possible limitation relates to the sampling frame that was available. By using the City of Raleigh's participant email address list as the sampling frame for those participating through in-person meetings, that portion of the sample did not include participants who did not have or did not supply an email address to the city. These people did not have a chance to participate. Hence, it is also possible that the use of email addresses could have skewed who responded to the survey by favoring those who used MindMixer to participate in the system plan. Every MindMixer user was required to supply an email address to create an account, but this was not the case with those who attended in-person meetings. In-person participants could choose to opt out of sharing their contact information with the City of Raleigh entirely by choosing to not fill out the form when they attended a public meeting or focus group or could have provided incomplete or inaccurate information. There is no way to gauge the number of people who did not use the sign-in form, but 76 of the 437 in-person participants who utilized the sign-in sheet did not provide an email address.

In addition to possibly underrepresenting those participating in the process using in-person methods, there were some issues with the sample that might have led to additional limitations. The City of Raleigh estimated 5,300 people participated in the system planning process overall, but the research team received two lists with only 2,751 email addresses, a little more than half of the total participants estimated by the City. The difference in these

numbers may be due to the same person participating in multiple methods, or it could be that the research team did not receive contact information for the entire population of participants, which could skew the results. While there was no way for the research team to contact participants who were not listed on the sign-in sheet or who did not give contact information, there were some participants (42) that submitted a phone number in lieu of an email address. Due to the City of Raleigh's desire for responses to be anonymized, participants using a phone number were not included in this study. Future research should include mixed methods for data collection in order take advantage of contacting participants with phone numbers or mailing addresses if that is the only contact information available for some participants. This would also allow any differences between phone or mail respondents and respondents who participate in the study using online methods to be examined.

Along with the weaknesses related to using an online survey instrument, the design of the study also had some limitations. Raleigh's system planning process took over a year to complete. While collecting data at the end of this process provided an overall view of participants' vested interest, social networks, and experiences, it could not account for any changes in the amount or method of engagement participants used over time. In addition, this study did not include nonparticipants in the system planning process. The 5,300 participants in the planning process comprise only about 1% of the total population of the City of Raleigh, and their views may not be the same as those who did not participate. Non-response bias could have skewed the results as well. With additional resources, a comparison of participants' and non-participants' attitudes toward the plan could yield additional information about engagement (or lack thereof) in the community.

The timeline of the study also presented a potential limitation. Due to delays in the development of this study, as well time needed to go through the City of Raleigh's research approval process and obtain the data from MindMixer and the City, data collection took place a full year after the adoption of the system plan. About half a dozen respondents contacted the research team expressing difficulty in recalling the information asked about in the survey questions and declined to complete the survey as a result. In the future, data collection should take place as soon after the close of the planning process as possible to capture information while there is still interest in the plan, which would hopefully lead to higher response rates and make it easier for respondents to recall details about their participation.

Finally, there is some risk of bias in using email addresses as a sampling frame. While these addresses were volunteered to the City of Raleigh by participants (either through MindMixer or in-person on signup sheets at meetings/focus groups), there is the potential for individual participants to have multiple email addresses (i.e., a different email address for MindMixer than the email address used on a community meeting sign-in form), which might have resulted in multiple study contacts for some participants. In addition, if a person received the survey under multiple email addresses and responded to each, there is some potential for the data to be skewed. These issues were mitigated somewhat by checking the sampling frame for multiple entries prior to contacting participants in order to limit the number of participant invitations being emailed to a single person.

There are also some validity concerns associated with online surveys. Much like a mailed survey, online surveys rely on good faith that the person responding to the survey is

the person for which it was intended. If the survey is not being completed by the intended recipient, this could lead to skewing of the data, or even the potential of a minor completing the survey without parental consent. In this study, a screening question about participation in the system plan was used to help reduce responses by unintended recipients.

Conclusion

Despite its limitations, this unique study lays the groundwork for better understanding of public engagement in a municipal park planning process, as well as providing information about Raleigh's success in engaging people during this plan. More importantly, this study is one of the first to examine the use of online engagement tools (such as MindMixer) to engage different types of people in a major planning process, and to explore difference between those using different types of engagement methods. The results showed significant relationships between vested interest and all measures of engagement method used and frequency of engagement, as well as relationships between social network strength and offline network size. There is much potential for future research to further refine and understand what these relationships mean. The hope is that researchers and practitioners alike will find this study useful as they evaluate their current civic engagement processes and develop future engagement opportunities that are more effective and equitable and that build social capital in their communities.

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APPENDICES

Appendix A

Survey Instrument

We are interested in better understanding how people participated in the development of the Raleigh Parks, Recreation and Cultural Resources system plan. The questions in this section of the survey ask you about the ways you participated in the plan and how frequently you participated.

Did you participate in the Raleigh Parks, Recreation and Cultural Resources system planning process?

- Yes
- No

How did you participate in the Raleigh Parks, Recreation and Cultural Resources system planning process? (Mark all that apply)

- Website (YourParksYourFuture.com)
- Online survey
- Community meeting
- Focus group
- Stakeholder interview

In which phases of the system planning process did you participate? (Mark all that apply)

- Existing systems analysis (January - April 2013)
- Needs and priorities assessment (January - May 2013)
- Long-range vision (May - October 2013)
- Implementation plan (November 2013 - March 2014)
- Draft plan review (March - May 2014)
- Not sure

About how many times did you share an idea on YourParksYourFuture.com?

[Text Box]

About how many times did you post a comment on YourParksYourFuture.com?

[Text Box]

About how many meetings and/or focus groups about the system plan did you attend in person?

[Text Box]

Have you visited YourParksYourFuture.com since the system plan was adopted in May 2014?

- Yes
- No

We are interested in understanding your feelings about the planning process and the outcomes of the approved system plan.

Please answer the following questions using the scales provided:

	Very little						Very much
During the planning process, how much thought did you devote to the plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what extent do you believe the plan's actions will impact your desired recreational opportunities?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Has approval of the plan affected your life?

- Yes
- No

	Opposed						Favored
Did you favor or oppose the plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

We are interested in learning more about how you might have discussed the system plan with other people.

During your participation in the Raleigh system planning process, about how frequently did you discuss the plan (in person, by phone, or through Internet-based interaction):

	Never	Less than once a month	Once a month	Two or three times a month	Once a week	Several times a week
With immediate family and/or close friends?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With other non-immediate family and close friends, such as coworkers and infrequent contacts?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please provide an estimate of the number of different people you talked to face-to-face, over the phone, or by text message about the system plan.

[Text Box]

Please provide an estimate of the number of different people you talked to using the Internet (including e-mail, chat rooms, and social networking sites) about the system plan.

[Text Box]

From time to time, people choose to join groups in their community that align with their interests and beliefs. What are the groups in your community of which you consider yourself a member?

[Text Box]

What types of engagement opportunities would you like to see in future City of Raleigh planning processes? (Mark all that apply)

- Community meetings
- Focus groups
- Presentations to neighborhood/community groups
- Workshops
- Stakeholder interviews
- Tables at community events
- Mailed surveys
- Social media outreach (Twitter, Facebook, Instagram, etc.)
- Online surveys
- Websites
- Other (please specify) _____

In general, how do you prefer to get information from the City of Raleigh Parks, Recreation and Cultural Resources Department? (Mark all that apply)

- Leisure Ledger
- Email
- Social Media
- TV/Radio
- Social Media
- Citizen Advisory Council Meetings
- Bulletin Boards
- From Family and Friends
- Other (please specify) _____

Finally, we would like to ask you a few questions about your background.

In what year were you born?

[Text Box]

What is your gender?

- Male
- Female
- Other
- Prefer not to respond

In which Citizen Advisory Council district do you live?

- Atlantic
- Central
- East
- Five Points
- Forestville
- Glenwood
- Hillsborough
- Midtown
- Mordecai
- North
- North Central
- Northeast
- Northwest
- South
- South Central
- Southeast
- Southwest
- Wade
- West
- Do not live in Raleigh

What is your combined annual household income?

- Under \$15,000
- \$15,000 to \$24,999
- \$25,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 to \$199,999
- \$200,000 and over

What is the highest level of education you have completed?

- Did not complete high school
- High school graduate (or equivalent)
- Some college (1-4 years, no degree)
- Associate's degree (including occupational or academic degrees)
- Bachelor's degree (BA, BS, AB, etc)
- Master's degree (MA, MS, MENG, MSW, etc)
- Professional degree beyond a bachelor's degree (MD, DDC, JD, etc)
- Doctorate degree (PhD, EdD, etc)

Do you have children under the age of 18 in your household?

- Yes
- No

Are you of Hispanic, Latino, or Spanish origin?

- No, not of Hispanic, Latino, or Spanish origin
- Yes, Mexican, Mexican American, Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, another Hispanic, Latino, or Spanish origin

What is your race? (Mark all that apply)

- White
- Black or African American
- American Indian or Alaska Native
- Asian Indian
- Chinese
- Filipino
- Japanese
- Korean
- Vietnamese
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Asian
- Other Pacific Islander
- Some other race

Would you like to be entered into a drawing to win one of four \$25 Amazon gift cards? If you answer yes, you will be redirected to a site where you can enter your email address. This will keep your responses in this survey confidential and anonymous.

- Yes
- No

Appendix B

Correspondence with Participants

First contact:

Reply-to Email: eycrouse@ncsu.edu

Subject: Thank you and simple request

Dear System Plan participant,

First of all, thank you very much for your participation in the City of Raleigh Parks, Recreation and Cultural Resources Department's System Planning process from 2012 to 2014. Your input was and continues to be essential to creating and maintaining high quality parks and recreational opportunities in Raleigh.

To better meet your needs in future planning processes, we are working with researchers from North Carolina State University to understand how participants engaged in the system plan process, and how our department might improve communication with you. Participation in this study is completely voluntary, and your responses will remain completely anonymous and confidential. The survey will take 10-15 minutes to complete, and at the close of the survey, you will be offered the opportunity to enter a lottery for one of four \$25 Amazon gift cards. More details about your rights and the nature of this study can be found here [[LINK to Informed Consent](#)].

By accessing the survey through the link below you are consenting to participate in this study with the understanding that you may choose not to participate or to stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.

Follow this link to the Survey:

[[LINK](#)]

Or copy and paste the URL below into your internet browser:

[[LINK](#)]

Thank you for your time and support of the Raleigh Parks, Recreation, and Cultural Resources Department!

Sincerely,

Cassie Schumacher-Georgopoulos

Senior Planner
City of Raleigh Parks, Recreation, and Cultural Resources Department

Second contact:

Reply-to Email: eycrouse@ncsu.edu
Subject: Raleigh System Plan Study

Dear System Plan Participant,

Several days ago you received an email from the City of Raleigh Parks, Recreation, and Cultural Resources Department introducing a study being conducted by researchers at North Carolina State University that will help the Parks, Recreation, and Cultural Resources Department better understand how participants engaged in the system planning process, and how the Department might better communicate with potential participants for future planning efforts. Participation in this study is completely voluntary, and your responses are anonymous and confidential. The survey will take 10-15 minutes to complete, and at the close of the survey, you will be offered the opportunity to enter into a lottery for one of four \$25 Amazon gift cards.

By accessing the survey through the link below you are consenting to participate in this study with the understanding that you may choose not to participate or to stop participating at any time without penalty or loss of benefits to which you are otherwise entitled. More details about your rights and the nature of this study are provided in the information in the remainder of this email.

Follow this link to the Survey:

[LINK]

Or copy and paste the URL below into your internet browser:

[LINK]

Thank you for your time and ongoing support of Raleigh Parks, Recreation, and Cultural Resources!

Sincerely,

Roger L. Moore, Associate Professor

Erin Crouse, Research Assistant

North Carolina State University**INFORMED CONSENT FORM for RESEARCH****Dr. Roger Moore****Erin Crouse****What are some general things you should know about research studies?**

You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. The purpose of research studies is to gain a better understanding of a certain topic or issue. You are not guaranteed any personal benefits from being in a study. Research studies also may pose risks to those that participate. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. Please feel free to retain this email if you would like as documentation of the study. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above.

What is the purpose of this study?

The purpose of this study is to better understand how and why citizens participated in the City of Raleigh Parks, Recreation and Cultural Resources system planning process. Understanding why citizen engagement varies among potential participants can help the City of Raleigh ensure that all members of the community are effectively encouraged to engage in future planning processes.

What will happen if you take part in the study?

If you agree to participate in this study, you will be asked to complete an online questionnaire that should take 10-15 minutes. Questions will be asked about your involvement in the Raleigh system plan, as well as your attitudes toward the plan and how much you might have discussed it with others. You will also be asked to provide some basic demographic information

Risks

There is essentially no risk involved in participating in this survey. All data collected in this study is anonymous.

Benefits

There will be no direct benefit to you, but this information will help the City of Raleigh Parks, Recreation and Cultural Resources Department better understand how people in their community participate in government, and help the agency do a better job soliciting participants' input in the future.

Confidentiality

The information in the study records will be kept confidential to the full extent allowed by law and neither researchers nor city staff will be able to link any responses to email addresses. Data will be stored securely in a password protected folder on a password protected computer. No reference will be made in oral or written reports which could link you to the study. You will NOT be asked to write your name on any study materials so that no one can match your identity to the answers that you provide.

Compensation

For participating in this study you will receive the opportunity to enter into a drawing for one of four \$25 Amazon gift cards. If you withdraw from the study prior to its completion, you will not be eligible to enter the drawing.

What if you have questions about this study?

If you have questions at any time about the study or the procedures, you may contact the researcher, Erin Crouse, at eycrouse@ncsu.edu, or (919) 442-8514.

What if you have questions about your rights as a research participant? If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Deb Paxton, Regulatory Compliance Administrator at dapaxton@ncsu.edu or by phone at 1-919-515-4514.

Consent to Participate

By accessing the survey through the link in this email you are consenting to participate in this study with the understanding that you may choose not to participate or to stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.

Third Contact:

Reply-to Email: eycrouse@ncsu.edu

Subject: Raleigh System Plan Study Final Request

Dear System Plan Participant,

We recently emailed you with an invitation and a link to a survey about your participation in the City of Raleigh Parks, Recreation, and Cultural Resources system planning process. So far we have not received your response. We will not trouble you again with this request, but we do hope you participate since the impact of the results depends on having a high response rate. By participating in this study you will be able to help the City of Raleigh better engage with the community in future planning processes.

Participation in this study is completely voluntary, and your responses will remain anonymous and confidential. The survey will take 10-15 minutes to complete, and at the close of the survey, you will be offered the opportunity to enter into a lottery for one of four \$25 Amazon gift cards.

Follow this link to the Survey:

[LINK]

Or copy and paste the URL below into your internet browser:

[LINK]

Your opinions are important to us. Thank you for your time and ongoing support of Raleigh Parks, Recreation, and Cultural Resources!

Sincerely,

Roger L. Moore, Associate Professor

Erin Crouse, Research Assistant

[Informed consent information copied here]

Appendix C

Organization memberships named by study participants (duplicates in parenthesis):

ACI Support Specialists
Adopt a highway
Advocates for Health in Action
AIA North Carolina
Aim Higher NC
Ainsleys Angels of Central Carolina
ALPES - Alianza Latina Pro- Educacion y Salud - Latino Alliance for Health
and Education
American Legion
American Rivers
American Tobacco Trail
Artspace
Athens Drive High School Band
Autism Society of NC
Autism Speaks
Baptist Grove Church
Big Boss Run Club
Black Girls Run!
Boylan Heights Neighborhood Association
C.S.Lewis book discussion meetup group
Capital Area Friends of Transit
Capitol Area Greenway Volunteers
Caraleigh Community Watch
Cardinal Grove Neighborhood
Carolina Canoe Club (3)
Carolina Kayak Club (4)
Cary Greenway Committee
Catholic Diocese of Raleigh
Chavis Advisory Group
Children Think Tank
Church of the Nativity
Clark Nexsen
Coalition of Concerned Citizens for African American Children
COR Museum
Crossroads Fellowship
CVNC.org

DAV Knightdale
DDNA
Democratic Women of Wake Co.
District D Neighborhood Association
DIX360 (2)
Downtown Raleigh Alliance (2)
East CAC
Fairview Baptist Church
Fallon Park Garden Club
Fayetteville Street neighborhood committee
Five Points
Food Bank of Central and Eastern NC
Food Policy Council
Friends of Dorothea Dix Park (3)
Friends of Lake Johnson
Friends of State Parks
Friends of the Mountains to Sea Trail
Friends of Umstead Park
Galloway Training Program
GBCI
Glenwood South Neighborhood
GRCVB Volunteer
Gregg Museum
Handmaidens of Raleigh
Hillsborough CAC
Hillsborough St. Partnership
Holly Springs Run Club
Homeschool Extension Gardening meetup group
Innovate Raleigh
International Festival of Raleigh
JETAA-NC
Junior League of Raleigh
Lake Park Swim Club
Lineberry
Loaves and Fishes
Marsh Creek Hockey group
Mature Singles
Moms Demand Action for Gun Sense
Mount Peace Baptist Church
Mountains to Sea Trail

Nancy McFarland for Mayor
NC Track Coaches Association
NCHSAA
NCMA
Newcomers of Raleigh
Nextdoor (4)
NOG Run Club
NORCHOA
North Carolina Master Chorale
Oak City Cycling Project
Oak City Outreach Center
Oaks and Spokes (2)
Oakwood
Oakwood List Serve
Osher Institute
Parks board
Partners for Environmental Justice (2)
PENC
Pleasant Ridge Community Watch
Quail Hollow Tennis and Swim Club
Raleigh Bike Polo
Raleigh Boychoir
Raleigh Chamber of Commerce
Raleigh Environmental Advisory Board
Raleigh Galloway Marathon Training Program
Raleigh Greenway Volunteer
Raleigh Jaycees
Raleigh NECAC
Raleigh Parks and Rec Senior group
Raleigh Recreational Hikers Meetup group
Raleigh Rowing Center (2)
Raleigh Tamale Festival
Raleigh Trail Runners
RCAC
Red Cross
Rex Blood Services
Root Elementary
Running in the Triangle
SAME
Sertoma Artists

Shaw Alumni
Sierra Club
Slow Spokes Road Cycling
Southeast CAC
Southeast Raleigh Assembly
Southeastern Masters Track & Field
Southern Environmental Law Center
Southernbridge International
SouthWest CAC (3)
Sovereign Grace Church
Special Olympics
Special pops
SpiceLine, a yahoo group for homeschoolers in the Triangle area
St. Michael's Episcopal Church
Stone Ridge Neighborhood
Strengthening The Black Family
TFDA (2)
The Conservation Fund
The Exploris School
The Justice Theater Project
The Serving Cup
The Spiritual Spinners biking group
Theatre in be Park
Tour D'Coop
TRI Sports (2)
Triangle AIA
Triangle Greenways Council (2)
Triangle Land Conservancy (2)
Triangle Off Road Cyclists
Triangle Rowing Club (2)
Triangle Youth Philharmonic
Trust for Public Lands
Umstead Park- Park Advisory Committee
University park
UPHA
USA Track & Field
Vacant 2 Vital
Visual art exchange
Viva Raleigh
Voices in Action

Wade CAC
Wade CAC (3)
Wake Audubon Society
Wake County Extension Master Gardener Volunteer
Wake County Missionary Baptist
Wake County School Committee
Wake Democrats
Wake Nature Partnership (2)
WakeMed Cary postpartum support group
WCPSS
Wooten Park planning committee
YMCA
YMCA of the Triangle
You Call This Yoga Non-Profit
Young Nonprofit Professionals Network