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ANALYZING GOVERNMENT-RESIDENT COMMUNICATION METHODS IN THE  
CITY OF BANGOR

by

Jaymi Thibault

A Thesis Submitted in Partial Fulfillment  
of the Requirements for a Degree with Honors  
(Political Science)

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University of Maine

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## ABSTRACT

The objective of this study is to analyze the communication preferences of Bangor residents, with a particular focus on two of Bangor's largest demographics, renters and residents aged 60 or older. Based on results from existing literature, it was hypothesized that both renters and elderly residents of Bangor would be less satisfied with the city's communication efforts than the general population, due to less knowledgeability of municipal information and limited internet access, respectively. 510 residents participated in an online survey that asked residents to describe their preferences regarding city communication methods. In addition to the survey, a series of six focus groups were held in which eleven renters and eleven residents aged 60 or older were interviewed. These focus group participants were asked questions that were meant to supplement the survey data by determining why or why not the original hypotheses were correct. The results suggested that the elderly age group is relatively satisfied with city communications compared with other age groups, and that a lack of computer or smartphone access has virtually no effect on satisfaction. In addition, while renters are generally less knowledgeable in terms of city-related information, they are no less satisfied than homeowners. Furthermore, the survey results as well as the focus group interviews both suggested that many residents are unaware of certain channels of communication used by the city, such as the email alerts or the Go Bangor app. However, Bangor is doing an overall excellent job of relaying important information to residents.

## ACKNOWLEDGEMENTS

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## CHAPTER I

### INTRODUCTION

When Peter Ramsay, a Bangor resident of roughly twenty-five years, walked outside of his apartment building near Pickering Square one morning in 2014, it was no different than any other ordinary day in downtown Bangor -- except for one unnerving fact: Peter's car, which he had parked along the street, was nowhere to be found.

As it turns out, Peter's car had been ticketed multiple times and then towed by the city after officials had attempted to notify residents that there would be no street parking allowed on this particular day. City officials had attempted to communicate this by sending out mass emails and text messages to those who had subscribed to Bangor's alert system. In addition, electronic road signs had been posted on some of Bangor's major streets several days in advance. With this in mind, why is it that this important information failed to reach Peter, an engaged resident of Bangor for well over two decades?

Unfortunately, Peter had no idea that his car had even been ticketed prior to being towed. A downtown resident who lived within walking distance of many businesses, he did not need to use a car to travel every day, so he did not see the tickets that had been placed on his windshield or the road signs. Peter appealed the tickets in court and won, but it was only during his court case that he discovered the existence of Bangor's email and text messaging alert system. The judge had asked him, "why didn't you get the parking email or the text message alert?" (Ramsay 2016).

Municipal government communication is a topic to which one might not give much thought, until they find themselves in a situation like Peter Ramsay's. Peter's predicament, however, is just one of many that some Bangor residents have confronted as a result of not receiving important municipal information and announcements. Residents interviewed as part of this project have told stories of water being unexpectedly shut off in their homes, unanticipated road work delaying their daily commutes, and important city events passing by without their knowledge. These personal stories call to mind a very significant question faced by the city of Bangor and all municipal governments: what are the best ways to communicate with residents to ensure that important information is received and understood in a timely, effective manner – and to minimize the occurrences of situations like Peter's?

It is essential for the city of Bangor to address this issue as it is currently undergoing citywide revitalization efforts. Bangor has great potential to enrich its business environment as well as its population, as it seeks to “create a lively center” with an inviting environment for “residents, workers, customers and visitors” alike (Page 2012). For instance, Bangor has made recent attempts to revitalize the local economy through entertainment efforts like the “Kahbang! Music Festival, the Waterfront Concert Series, ...the American Folk Festival and the newly built Cross Insurance Center” (Huston et al. 2015). Since 2014, the city has also built over fifty new apartments in downtown Bangor, and it has also formed a program aimed at revitalizing low to moderate income neighborhoods (Brooks 2015, City of Bangor Maine: “Facade Improvement Grant” 2016). These efforts demonstrate the value that the city of Bangor places on improving perceptions of Bangor “as a destination” (Brooks 2015). Ensuring

effective communication is just one of many ways that the city of Bangor can create this desired environment, particularly for residents and businesses.

To provide a bit of background, the city of Bangor currently utilizes a variety of communication channels to relay different types of information to its residents. Many of these channels are web- or mobile-based. For instance, the city website provides various information about core aspects of city administration such as tax payments, vehicle registrations, and city budget information. Bangor City Hall's Facebook page provides followers with reminders about upcoming deadlines for recycling pick-up, voter registration deadlines, and announces the dates and agendas of committee and council meetings. The Go Bangor smartphone app provides users with quick links to the city's website, Facebook, and Twitter; displays information regarding city meetings, recent news, and traffic alerts; and even allows residents to submit work requests directly to the Public Works department. The city's email and text messaging alert system allows residents to sign up for different categories of information, including things like parking and traffic notices, emergency alerts, and volunteer activities, to name a few.

Of course, the above methods are all examples of more modern, digitized communication efforts. It is important to note that several more traditional communication channels are used by the city as well. For instance, Bangor's city councilors typically make their personal phone numbers and email addresses public for direct communication purposes. In terms of media, the *Bangor Daily News* has its own section dedicated to Bangor community news. WABI-TV, Bangor's local CBS-affiliated television station, as well as other local television and radio stations, often discuss Bangor-related news including local events and city council actions. Furthermore, as

mentioned above, electronic road signs are often posted on major streets within the city to notify residents about upcoming road work or parking bans.

So far, despite all of these community outreach efforts, both digital and traditional, no systematic research has been conducted to gauge the public's opinion on these different methods of communication within the city of Bangor. Even so, there are many reasons why researching this topic is of great importance. For one, it is important for the city to make sure that there are ways to reach all residents so that the population is kept well-informed. A municipality could not possibly have an active, engaged population if its residents are uninformed. This study hopes to reveal whether or not Bangor's current efforts are effective at maintaining an informed population. It also seeks to determine if certain demographic groups are more satisfied with communication and outreach efforts than others. Furthermore, communication methods are not free; if city staff and councilors are allocating part of their budget toward communication channels that are ineffective, awareness of this fact could lead to a more targeted allocation of limited city resources.

This paper examines the effectiveness of these different communication channels in Bangor by combining quantitative survey data and qualitative focus group data. The objective of this study is to determine which types of communication methods are effective when it comes to relaying information to residents, as well as which types of information residents value the most. This will be determined by asking residents to rate their satisfaction with these forms of communication, as well as by asking residents how often they utilize these different communication mediums. Demographic data will also be analyzed to determine if there are any significant correlations between communication

preferences and variables like income, length of residency within the city, or smartphone/computer ownership. Though a sample of Bangor's entire population is surveyed, extra attention is given to two demographic groups in particular, the elderly (residents aged sixty or older) as well as renters, due to the fact that both groups individually make up significant portions of Bangor's population. The results of this study will be publicly presented to city staff and city councilors to help guide their communication efforts and to assist in focusing on the methods of outreach that residents find most useful.

This paper begins by reviewing basic concepts and the theoretical framework surrounding municipal government communication. It will then move into a review of the existing literature on the subject of resident-government interactions, and how matters of digitization, accessibility, and demographic factors have related to municipal communication efforts in previous research. The paper will then move into a discussion of the methodology used in this study, both in the qualitative and the quantitative components of the research. Participant recruitment procedures as well as the methods of data analysis will be evaluated. The actual results of both the survey and the focus group interviews will then be examined in detail. Finally, this paper will provide an in-depth analysis and discussion of the findings, which will be utilized to summarize and synthesize major findings from the research. The conclusion will offer policy suggestions for the city of Bangor that can utilize existing strengths and address the most significant gaps uncovered in the research, mindful of the city's existing resources and capabilities.

## CHAPTER II

### THEORETICAL FRAMEWORK

In the modern world and throughout history, many have asserted that the role of government within society is to promote the general welfare of its people; in the words of the seventeenth century English philosopher John Locke, its purpose is to ensure that all members of the commonwealth “live together comfortably, safely, and peaceably” (Locke 1689 [2008], p.32). In order to do this effectively within a democratic society, governments must engage in an open dialogue with their citizens to determine how their needs can be fulfilled. Communication between citizens and their governments has always been a necessary component of any functional democracy, regardless of the level of government. For instance, federal governments must inform their citizens of things like federal election days and changes to federal laws. State governments must hold hearings and invite public testimony in order to gauge public opinion. On a local level, municipalities must ensure that residents are aware of things like road closures, or actions being considered by the city/town council. Without these government-resident interactions, residents would be disengaged and uninformed, and governments would be failing to take their constituents’ opinions and interests into account when crafting policy.

In general, the more two-way interaction that exists between a government and its residents, the better; one primary reason for this is because communication has been found to increase citizen perceptions of government accessibility (Rho 2004).

Government accessibility can be defined as how easy or difficult it is for a resident to

approach or interact with government officials. For instance, the Maine state government has a reputation of being accessible due to the fact that Maine has a part-time citizen legislature, and senators and representatives often make their mailing addresses and telephone numbers public. In addition, Maine has relatively small state senate and house districts, with each senator representing an average of 37,953 residents, and each representative representing an average of just 8,682 residents (Altic and King 2016). Maine's Clean Election Act, established in 1996, also incentivizes candidates to "demonstrate community support" by providing them with "full public financing of political campaigns" so long as they are able to collect a certain number of five dollar donations from their constituents (Maine Commission on Governmental Ethics and Election Practices 2016). Collectively, these factors have resulted in most Maine politicians having "close, neighbor-like relations...with their constituents" (Palmer et al. 2009, p. 81). On the contrary, federal U.S. Representatives tend to be more difficult to reach directly, since they are often career politicians with significantly larger constituencies and greater responsibilities, who typically have "about four staff people handling constituent communications" on their behalf (Friends Committee on National Legislation 2007). According to scholars, direct government-resident interaction leads to higher levels of resident satisfaction, because it gives residents an outlet to voice their thoughts, while simultaneously providing governments with an opportunity to gauge the public opinion (Porumbescu 2015, Kolsaker and Kelley 2008, Ronaghan 2002, Larsen and Rainie 2002). These interactions help to portray governments as approachable, with easy-to-reach leaders who place a high value on input from residents. Because of this

increased accessibility, communication between governments and citizens is typically viewed in a positive manner by both parties involved.

Increased government transparency is another potential positive outcome of government-resident communication. To have a transparent or open government means that the public is easily able to locate, understand, and use information about governmental activities (Burton 2013). For example, the fact that United States Congress often televises floor debates, or the way in which many municipal governments provide information about town ordinances online, are both acts of government-resident communication that simultaneously promote government transparency. Transparency differs significantly across the globe, and across history; countries like North Korea and Somalia are known to have low levels of government transparency, whereas countries like Denmark and Finland are known to have high levels (Transparency International 2004). The United States government has claimed to have a relatively high level of transparency that has increased over the years; President Obama has stated himself that his “Administration is committed to creating an unprecedented level of openness in government,” which he has demonstrated through transparency initiatives like Open Government and Government 2.0 (Obama 2009).

There is no shortage of options for governments when it comes to selecting communication channels. Some channels allow for two-way communication, while other channels are informative by nature. Traditional methods of interaction that facilitate one-way communication involve distributing fliers or posters, televising government events, and sending out newsletters; these methods would likely be more effective when trying to inform a large population of upcoming tax deadlines or road closures, for example.



Traditional methods that facilitate back-and-forth discussion include methods such as telephone calls and door-to-door communication, and methods like these would be the better choice if a government official was trying to gather constituent opinions.

The emergence of e-government, however, has recently provided leaders - from the municipal to federal levels - with a relatively efficient way of promoting both transparency and accessibility. E-government is an abbreviation for electronic government, and it involves the use of the Internet, computers, or any other electronic communication device such as smartphones or tablets (Heeks 2008). E-government seeks to accomplish three main goals: streamline and improve governmental processes, connect residents to their governments by providing various web-based services, and link governments with other institutions like businesses, schools, community organizations, and so on (Heeks 2008). By connecting residents to their governments online, e-government efforts are able to provide residents with a variety of opportunities for interaction. Online forums, for instance, give residents the chance to directly submit their views to relevant government officials, therefore promoting accessibility, while a state senator posting their legislative voting record is an example of transparency. E-government potentially provides countless new opportunities for residents and their governments to communicate with one another.

Of course, along with any new method of government communication comes new challenges to address. Perhaps one of the biggest challenges that governments face is the digital divide. The digital divide “refers to the gap between individuals, households, businesses and geographic areas at different socioeconomic levels with regard both to their opportunities to access information and communication technologies and to their

use of the Internet” (Organisation for Economic Co-operation and Development 2001). E-government services obviously require access to the internet, which some people may not be able to afford and others may not know how to use. As of 2016, roughly 12% of Americans do not have an internet connection (Internet Live Stats 2016). Aside from those who simply do not have the ability to utilize e-government services, others may choose not to use e-government due to concerns about privacy or security. A large number of e-government websites do not have privacy policies, which is an important measure to take to ensure the protection of confidential data when it comes to certain e-government services, like paying a tax online or registering a car (Inderscience 2009).

Clearly, these methods of communication are only useful insofar as the residents of a community are aware of them, view them as valuable and desirable, and actually utilize them. The review of literature that follows will examine existing data on government-resident communication channels, while bearing in mind the fact that Bangor has higher-than-average populations of both renters and the elderly (United States Census Bureau 2010). Is the emergence of e-government useful for all residents, or just certain demographics? Or, are traditional methods preferred? The results found within existing studies have implications for policy and practice not only for Bangor, but for other municipalities across the United States and even around the world, especially those that share Bangor’s relatively high populations of renters and the elderly.

## CHAPTER III

### REVIEW OF LITERATURE

#### Government Communication: Offline Versus Online Methods

Communication between government officials and residents is vital for any democratic municipality, state, or nation to function successfully, and there are a number of channels available for governments to use. While more traditional methods include face-to-face interactions, telephone calls, or distributing informational flyers, e-government services are becoming increasingly more popular. This raises the question of which particular method of electronic communication is the most effective, and there are a number of ways to measure this. Before delving into a discussion regarding electronic communication, however, it is important to take note of one significant caveat. Technology changes rapidly, and many of the studies referenced in this discussion are between five and ten years old. Such studies pre-date the creation of Twitter or the widespread use of Facebook, and smartphone apps had a narrower range of capabilities up until recent years. These older studies still yield valuable information, but to rely on them exclusively would fail to acknowledge the fact that technology has evolved rapidly throughout the past decade or so.

Assessing communication efforts solely in terms of cost, e-government is clearly one of the most cost-effective communication channels (Carter and Belanger 2005, Deakins and Dillon 2002, Bonson et al. 2012); however, when it comes to resident

satisfaction, seeking out the best channel is more complex. Research suggests that for problem-solving and two-way interactions, more traditional methods are the best option (Horrigan 2004, Deakins and Dillon 2002) but online services are better for distributing information (Deakins and Dillon 2002, Reddick and Turner 2012). Therefore, there is no black-and-white answer as to which method is best overall; people's preferences regarding communication methods are likely dependent on the specific nature of what is being communicated.

One 2004 study surveyed 2,925 Americans to gather opinions on which channel of communication residents prefer. The research asserts that “40% of Government Patrons say they would prefer to use the phone to contact government” (Horrigan 2004), while only 11% would choose email and 24% would choose to use the web. The study also found that the biggest reason why Americans contact the government (aside from sending in tax returns) is to get answers to specific questions or problems.

A potential explanation for these results could be that, while people prefer the telephone for more specific issues, e-government services are better for those seeking broad answers to general questions. There are several studies that support this explanation. One analysis conducted in New Zealand (Deakins and Dillon 2002) examined local authority websites and determined that nearly all of the sites provided “details of Council’s responsibilities...a search engine and downloadable documents and forms,” but only “24% of Web sites” had a visitor survey or any other way for residents to offer feedback (Deakins and Dillon 2002 p.394). Another study, conducted in Canada, undertook extensive public opinion research to determine that “the phone is a more

effective service channel for solving problems” but “the website is more effective for getting information” (Reddick and Turner 2012 p.1).

It is important for governments to be aware of these insights when making decisions about which communication channels to use for different services. Broader services that don’t require a conversation might be more effectively offered as an e-government service, whereas something like contacting a public official for a very specific issue might be better done through a telephone conversation. In order for a government to function in a true democracy, it must solicit input from its residents; this is a capability that is only gradually becoming possible through e-government.

### The Digitization of Governments

There is universal scholarly agreement that global Internet use is increasing at a rapid pace. As of September of 2015, 13.5 billion devices were connected to the Internet; In 2020, a mere four years away, that number is projected to climb to 50 billion (Chambers and Elfrink 2014). Therefore, it is no surprise that municipal governments are finding new ways to digitize governmental services. The benefits of digitization are clear; existing literature shows that e-government services, like federal or municipal websites, can make governments seem more transparent and trustworthy in the eyes of its residents (Porumbescu 2015, Kamel 2014, Andersen 2008, Horrigan 2004). E-government is generally seen as an effective and beneficial communication tool, and its effectiveness in providing a satisfactory service can be measured through factors like relevance, user attitudes, and public trust.

There are many studies that prove just how beneficial e-government services can be, particularly for municipalities. One study surveyed 1,100 Seoul residents about the

Seoul Metropolitan Government and found that “greater use of public sector social media accounts was found to have a significant positive relationship with perceptions of government competence, benevolence, and honesty” (Porumbescu 2015). It is worth noting that South Korea, where this study was conducted, currently has one of the highest Internet access rates in the world, with 90% of the population connected to the Internet (The World Bank 2015). Therefore, these results may be an indication of what other areas might see in their future as Internet access rates continue increasing. Because of these measurable benefits, current literature regarding the digitization of municipal government services suggests that municipal governments are utilizing e-government more and more as time goes on. For instance, one study that surveyed American adults found that 77% of all Internet users within the sample utilized an e-government service in 2003; a 50% growth rate from 2002 (Larsen and Rainie 2002). Some more recent data shows that from just 2009 to 2011, the United States’ 75 biggest municipal governments had increased utilization of Twitter by 62%, Facebook by 74% and YouTube by 59% (Mossberger and Wu 2012).

Measuring e-government adoption by municipalities over time is a relatively easy task; measuring the effectiveness of these services becomes a bit more complex. This is because e-government’s rates of use can be measured using quantitative analytics data built into these tools, but its effectiveness at providing a useful service often must be gauged through more time-consuming qualitative techniques or public opinion research. One way of measuring effectiveness is to look at residents’ attitudes toward e-government. Kamel (2014) utilized a survey to gather responses from residents about their attitudes towards two of Jordan’s e-government services, specifically its Income and

Sales Tax Department, and its Driver and Vehicle Licenses Department. Researchers found that “trust in the Internet, website design, religious beliefs, Internet and computer skill confidence, word of mouth, resistance to change, perceived usefulness, relative advantage and complexity” are all important factors in determining the effectiveness of e-government. This demonstrates that determining the effectiveness of an e-government service is far more than black-and-white; there are a number of different factors at play.

Another qualitative study conducted in England (Kolsaker and Kelley 2008) found that e-government “users appreciate personalisation, user friendliness and the ability to communicate” when it comes to ranking the service’s effectiveness. While these studies (Kamel 2014, Kolsaker and Kelley 2008) are certainly helpful in determining why certain individuals may have negative or positive reactions towards e-government services, they do not necessarily reveal whether or not there is a link between particular demographic groups and their attitudes toward e-government. However, these studies are still important in determining what criteria residents use to judge e-government service.

Measuring user reactions and attitudes toward e-government, as the previously mentioned studies have done, certainly yields valuable results, but one must note that there are still other factors contributing to a government’s effectiveness online. Across the world, e-government’s effectiveness is measured in ways other than just feedback from users. For instance, the United Nations conducted a 2002 report of all member states’ e-government progress in which they were rated on three main factors: “application and service relevance, residents and business satisfaction, and preservation of public trust” (Ronaghan 2002). By these standards, North America has the highest e-

government index, a rank of 2.6 compared to the global rank of 1.62. Another unique way to measure e-government's effectiveness on a global scale is to examine its relation to corruption in different nations. One analysis (Andersen 2008) used existing research to study the correlation between e-government services and corruption in 126 different countries from 1996 to 2000. Andersen's research concluded that "increases in the use of e-government" resulted in "improvements in levels of corruption" (Andersen 2008). This shows that the transparency of e-government is reflected not just in positive perceptions of resident users, but in the actual character of the governments adopting these communication channels.

Is e-government in general an effective means of communication? Existing literature on the subject suggests that the answer is yes. One rather simple way of measuring the effectiveness of an e-government service is to determine how many users were able to find the information they were seeking. Larsen and Rainie (2002) looked at what percentage of e-government website viewers were able to find what they needed when searching local, state, or federal government websites. Out of 815 American adults, 80% of viewers said that the website provided the information that they needed. This study, along with previously mentioned literature, suggests that e-government typically has a high rate of usability, and it is certainly capable of providing residents with a convenient means of finding information. Again, the concern that the literature does not address, however, is whether or not certain demographics that are less likely to use e-government services are missing out on important communications.

It seems reasonable to arrive at the conclusion that e-government is a beneficial tool with few, if any, drawbacks. There are numerous studies with valid reasons to



support this; e-government has a role in decreasing corruption (Andersen 2008), it generally has a high level of usability (Larsen and Rainie 2002), and it can improve users' attitudes toward government (Porumbescu 2015), just to name a few of its benefits. However, there is not enough research yet to determine whether the push towards e-government is leaving less digitally-inclined demographic groups out of the loop, an issue that is addressed in greater detail later on in the literature review. All of the research above focuses on how Internet users affect e-government and vice versa, but none of the studies examine how non-Internet users feel about their governments becoming more digitized. As government becomes more digitized, does this mean that traditional methods of communication like telephone services or face-to-face meetings will no longer be offered? More research clearly needs to be conducted before governments become too immersed in the world of e-government in order to ensure that no demographic group is being systematically neglected.

### Social Media as a Means of Communication

Many of the studies mentioned above refer to Internet use in general, as well as e-government in the form of online government services and municipal websites, but a significant portion of the existing literature focuses specifically on social media in relation to civic engagement. Nearly all local governments have websites today, but literature suggests that political and civic activity on social media is increasing, too. However, the literature also suggests that although social media can be useful for municipalities, the audience is rather limited in that it is more effective at reaching some demographic groups than others.

According to a Pew Research Center survey (Smith 2014), the number of registered voters who follow political figures on social media accounts more than doubled from 2010 to 2014. Democrats, Republicans, and Independents are equally likely to follow these accounts. In looking at this data, there is no denying that social media's reputation as a place to engage civically online is growing. However, the study does indicate that as of 2014, only 6% of individuals over the age of 65 have followed political figures on social media, compared to 16% of the general population (Smith 2014 p.1). These findings suggest that it is important for governments or government officials who utilize social media to recognize these demographic differences so they know what sort of audience they are reaching (or not reaching) online.

This assertion that social media accounts have rather limited audiences is reiterated in several other studies. Smith (2010) found that government-related social media use actually correlated with an individual's education and income. To illustrate, "nearly half (46) of government media social media users [in other words, those who have used social media for governmental purposes] have graduated from college, compared with around one third of all adult Internet users (35%)," and "36% of government media social media users have a household income of \$75,000 or more per year, compared with 27% of the online population" (Smith 2010). Another group of scholars utilized results from a telephone survey to determine that the younger demographic is "more likely to engage in online activism using applications such as blogs and social networking sites than are their elders" (Smith et al. 2009). This particular study found that 37% of 18-29 year olds have used blogs or social networking sites as a venue for political or civic involvement, compared to "17% of online 30-49 year olds,

12% of 50-64 year olds and 10% of Internet users over 65” (Smith et al. 2009). So, for governments who wish to communicate specifically with low-income individuals, the non-college-educated, or the elderly, communication through social media would likely be a poor choice.

However, just because the audiences of social media are limited by factors like education, income, and age does not necessarily mean that social media cannot serve as a valuable tool when trying to gauge public opinion. One case study about the Supreme Court’s Ruling on the Affordable Care Act in 2012 has proven just how valuable social media can be. The study examined Twitter, Facebook, and other blog websites to monitor people’s online reactions to the ruling. 2.1 million people ended up posting to Twitter about the ruling over just a four-day period, and their responses were passionate; “users were evenly split between those who favored the ruling and those who opposed it” (Pew Research Center: Journalism & Media 2012). The study also concluded that the reactions of social media users “matched closely the divided public opinion over the health care ruling” (Pew Research Center: Journalism & Media 2012). This particular case study shows that, even though social media has a limited audience, political and governmental figures can still use social media to gather valuable opinions from the general public.

### Citizen Participation on the Web

As mentioned above, current literature states that the presence of e-government within municipal governments has been increasing rapidly, and there are measurable benefits related to its implementation; however, perhaps e-government acts as more of a one-way street in which municipal governments provide information to residents, rather than an effective forum to engage residents and promote civic participation. Scholarly

analysis regarding this subject suggests that, as of the past decade, e-government has primarily served as a means for governments to relay information to residents, but not typically the other way around. E-government applications themselves are rarely used as a way for residents to engage in communication. However, existing research also suggests that, despite e-government's failure to facilitate two-way conversations, those who use e-government are more likely to engage in offline civic activities.

Some studies conducted in the United States reveal that web or mobile-based methods of community outreach do not necessarily stimulate web-based civic activity (Simpson 2005, Mossberger and Wu 2012). Simpson has claimed that electronic services have so far mostly “involved one-way information transfer, with limited evidence of transactional and interactive features” (2005, pg. 26). The study (Simpson 2005) surveyed municipal planning agencies in the U.S. with a population of 25,000 or greater in order to examine how agencies are utilizing Internet technologies. Based on over 500 survey responses, Simpson found that while many of the agencies were using web-based services (95%, to be precise), “most planning agencies are not using it to engage the public in discourse (such as discussion forums) but rather to provide a one-way communication channel” (Simpson 2005).

One report conducted from the University of Illinois, Chicago reiterates this same notion of e-government being informative, but not engaging. The researchers scanned and observed the websites of America's 75 largest cities to determine whether or not e-government services were being used to inform or engage residents. The report, conducted in 2009, determined that “local governments generally have not used their websites as a venue for resident participation” (Mossberger and Wu 2012). While

municipal social networks and websites may seem to promote engagement, “a scan of activity on the websites doesn’t indicate much active discussion” (Mossberger and Wu 2012). It is important to note that this study, as well as Simpson’s, both focus solely on larger municipalities (America’s 75 largest cities and agencies with populations over 25,000); it is a very real possibility that these larger municipalities could be deliberately utilizing strategies that are less likely to engage their residents by generating active discussion, since they are dealing with relatively large populations.

One study determined that even if e-government applications fail to engage people in online discussion, e-government users are still more likely to engage in civic activities in other ways. The study found that “those who use social media... for political and civic purposes are much more engaged with offline civic activities”; for instance, these users are 85% more likely to sign petitions and 67% more likely to contact an elected official (Rainie 2011). Thus, even if social media websites do not necessarily facilitate a two-way flow of information between people and municipalities, social media activity could very well serve as a catalyst for individuals to engage in other ways.

While the literature suggests that e-government does not facilitate direct online two-way communication, other research suggests that e-government does promote indirect civic engagement online. The study claims that of all American Internet users, “30% say they have used email or the Internet to try to change a government policy or influence a politician’s vote on a law” (Horrigan 2004). At first glance, it seems as though this conclusion conflicts with the studies mentioned above, but it may be that e-government promotes civic engagement in ways other than direct contact with the government. For instance, one could try to change a government policy or influence a

politician by writing a public social media post or signing an online petition rather than reaching out to someone directly. More research is needed in order to determine the specific nature of the use of e-government among various municipalities.

Furthermore, the studies mentioned above do not necessarily argue that e-government efforts to promote two-way civic participation would not be worthwhile; they only state that governments are failing to make such efforts at this time. Literature actually indicates that, if used intentionally, e-government could have the potential to encourage civic participation. In fact, one such study indicated “that e-government deliberative initiatives would be worthwhile,” as it found that democratic deliberation conducted in an online environment reduces perceptions of conflict (Muhlberger 2006). The study monitored online deliberation and collected attitudes towards democracy both before and after. The results revealed that the deliberation process helped mitigate political apathy within participants, indicating that civic activity on social media would help to further engage people politically.

Clearly, more work needs to be done to determine why we see a slight divergence in the literature. The existing research has produced somewhat mixed results, but the majority of studies do seem to agree that e-government is primarily used to provide information rather than to directly engage. However, scholars have suggested that municipal websites and social networks at least have the capability of engaging individuals, so there is potential for progress in this area. More research is needed to determine precisely how to foster such engagement; because technology is constantly evolving, it is possible that the tools needed for such engagement are only just emerging.

## The Elderly and The Digitization of Governmental Services

The elderly is one demographic group that may be less likely to utilize a municipality's digitized services. Existing research suggests that older residents tend to have a more difficult time accessing, and therefore using, e-government services than the younger demographic (Smith 2014, Hall and Owens 2011, Choudrie et al. 2013). However, there is no indication as to whether or not this has any effect on elderly residents' attitudes towards e-government.

One nationwide study utilized survey research to find that there was still "a strong digital divide" present in the United States in which age and ethnicity are factors (Hall and Owens 2011). Hall and Owens concluded that a 30-year old individual was 4% more likely to use the Internet than a 60-year old individual (Hall and Owens 2011), but the study is limited in that it only compared those two ages with one another as opposed to tracking technology use across a wide range of ages. A similar study indicated a much larger divide when it comes to age and social media use; Duggan and Brenner determined that while 83% of Americans use social media, only 32% of those over the age of 65 do - a significant 51% difference (Duggan and Brenner 2013). Although the extent differs remarkably within the literature, scholars seem to agree that elderly residents are less likely to use the Internet. This then raises the question of how the elderly are being affected by the recent push to digitize governmental services. Are elderly residents missing out when it comes to the push towards digitization, or are governments ensuring that they have other ways of maintaining effective communication?

Based on results from the existing literature, it seems as though the elderly are definitely being left out when it comes to online communication, at least to some extent.

One British study examined the use of e-government services in elderly London residents. The study utilized focus group interviews and questionnaires to gather data about how individuals use e-government services. Choudrie and co-authors concluded that age does in fact play a role in whether or not residents actually benefit from e-government services; as it turns out, the elderly residents participating in the study generally had a hard time utilizing e-government services because they were “difficult to access, mainly due to the lack of knowledge and skills in the use of computers or Internet” (Choudrie et. al. 2013). However, one limitation of this particular study is selection bias in the sense that participants were recruited because of their membership in various local organizations. The fact that the vast majority of participants were civically active could have influenced their responses, because civically active residents are likely more knowledgeable when it comes to using e-government services than disengaged residents. This potential bias may have led the researchers to underestimate the extent of the digital divide, as the general population could have a greater difficulty accessing e-government services than this particular sample. This selection bias could have been easily eliminated by recruiting participants through a variety of methods.

However, while literature states that the elderly are less likely to benefit from e-government services due to a lack of accessibility, this doesn't necessarily mean that they are opposed to the idea of e-government. One study examined attitudes regarding Open Government and Government 2.0, two federal e-government initiatives in the United States. Open Government is an e-government initiative to increase transparency within the federal government by providing online information to citizens, while Government 2.0 refers to government policies that seek to provide citizens with open data on the web



with the goal of increased citizen participation. Surveys were utilized to collect data from 1,215 participants, specifically information about their attitudes towards the e-government programs. Although the study did not focus particularly on elderly residents, the results showed that, interestingly enough, “frequency of Internet use and access to high-speed Internet do not significantly influence citizens’ attitudes toward Open Government and Government 2.0” (Nam 2012). This suggests that, despite being known as low-frequency Internet users, perhaps the older demographic still views e-government services favorably. One large limitation of this study, however, is that all 1,215 participants were “Internet users, but frequency of use varie[d] among them” (Nam 2012). Attitudes could be vastly different among those who do not use the Internet at all, so it is clear that more research needs to be done on this topic to include the attitudes of those less inclined to access web-based government services, many of whom are likely elderly.

### Civic Engagement and Homeownership Status

Existing research also suggests that whether an individual rents or owns their homes has an effect on his or her communication preferences. When it comes to engaging renters, governments may face challenges. This is because studies have revealed that in some parts of the world, there is a clear link between civic engagement and homeownership rates. Generally, recent studies seem to agree that homeowners play a more active role within their municipalities, likely due to the fact that the value of their home depends on the decisions made at the municipal level (Economou 2010, Verberg 2000, McCabe 2013, Manturuk et. al. 2010, Manturuk et. al. 2012). This then raises the

question of what actions municipalities can take to try and involve more renters in their communication efforts.

In one study that analyzed Australia's municipal government elections in November of 2008, there was a strong correlation between homeownership and voter participation (Economou 2010). This study examined election data for seven different municipalities and compared them with each respective municipality's demographic data to determine whether or not there was a correlation between voter participation and homeownership. Out of the seven different local municipalities examined, the municipality with the lowest percentage of renters also had the highest voter participation rate. This inverse trend applied to all of the municipalities with the exception of just two: Melbourne and Yarra. The study concluded that "renters may feel that local government is not relevant to them because they don't pay rates, even though they may be consuming some or many of the services local government provides." With this in mind, one could argue that it "ought to be expected that non-participation rates will be higher in [local governments] with larger numbers of young and single people renting their places of residence" (Economou 2010). Another study conducted in Canada measured the "political incorporation" (or, in other words, political involvement) of a national sample of people, and the results also determined that homeownership is positively associated with voter turnout (Verberg 2000). The study also concluded that homeowners tend to participate in political activities more than renters. Furthermore, neither of these findings was affected by whether or not the homeowners had mortgages.

Does this trend hold true in the United States as well? Literature suggests that it does. One analysis suggest that American homeowners are "1.28 times more likely to

become involved in a neighborhood group and 1.32 times more likely to join a civic association” than renters (McCabe 2013). However, homeowners are no more likely than renters to belong to a sports or religious group. When asked if they were likely to participate in local elections, 65% of homeowner participants said yes, while only 54% of renters said yes. Homeownership also seems to have an effect on social capital, as well; social capital refers to the “collection of social network connections that are potential locations for exchange relationships” (Manturuk et. al. 2010 p.474). One group of scholars interviewed residents from low- to moderate-income families and found that “homeownership is associated with a 1.72-point increase in social capital” when measuring social capital on a scale of 0-8 (Manturuk et. al. 2010 p.482).

Other longitudinal research conducted by Manturuk examined the relationship between civic engagement and homeownership rates in low-income American neighborhoods. The results align with the studies mentioned previously. This study examined civic activity in comparison with the homeownership status of residents in low-income urban neighborhoods in North Carolina over a four-year period. The study determined that “renters who move are less likely to get involved in local groups”, while “homeowners who move are not” (Manturuk et. al. 2012 p.754). Conversely, “homeowners who remain in the same home are more likely to participate in neighborhood groups, but this is not the case for renters who stay in the same residence.” These findings are consistent with the notion of a financial self-interest theory that was mentioned within this study; this theory states that those who own their homes have a “financial motive to maintain desirable neighborhood conditions, since the value of his or her home is partially tied to the larger community” (Manturuk et. al. p.735). However,

this is only a theory; the study did not obtain any qualitative data asking respondents how their status of homeownership affected their civic engagement.

Is it safe to conclude that homeowners are more active participants primarily because they own their homes? According to several studies, not necessarily. One study argues that the alleged correlation between homeownership status and civic engagement only exists because homeowners tend to live in their municipalities for a longer period of time (Stern 2011). The research asserts that an individual's time spent living in a municipality (henceforth, "city tenure") has more of an influence on civic engagement than whether they rent or own homes. Therefore, levels of civic engagement may actually be dependent on how long individuals live in a given place, rather than whether they rent their home. Other studies suggest that the dominant factor behind renters' disengagement is age (Quintelier 2007, Brandtzaeg 2015). Brandtzaeg's research, which involved interviewing young Norwegian adults aged 16-26, found that many of the interviewees "did not see the point in trying to contribute to making changes in their local community," because they "might not see the results of their engagement for themselves" as a result of moving away after high school or college (Brandtzaeg 2015 p. 671). This notion is reiterated in Quintelier's study, which finds that young renters in Belgium and Canada are less likely to vote despite being highly-educated; Quintelier suggests that this is because young people in college generally do not own homes and therefore do not feel attached to their location (Quintelier 2007).

More research must be done in order to determine the underlying reasons why renters are generally less civically active than homeowners. Regardless, it is important for governments to be aware of this difference between homeowners and renters when it

comes to civic engagement. Governments may face challenges when trying to engage specifically with renters, and they may need to think strategically in order to help renters feel more attached to and invested in their locations.

### Summary of Findings

Overall, understanding the factors facilitating level and quality of communication between residents and their governments can be very complex. In an increasingly digitized society, it only makes sense that governments are making an increased effort to utilize the web in their communication methods. Some benefits are clear; though traditional communication methods like telephone calls and face-to-face meetings are more effective for specific issues that require a two-way conversation, e-government services provide anyone with a computer instant access to information at little extra cost to the government itself (Bonson et al. 2012, Carter and Belanger 2005, Deakins and Dillon 2002, Reddick and Turner 2012). Research suggests that users of e-government have generally been satisfied with the services, and studies have credited it with positive outcomes such as increased perceptions of government transparency and reduced corruption (Andersen 2008, Larsen and Rainie 2002, Ronaghan 2002).

The issue that arises with e-government is that, even in 2016, not everyone has computer access. The literature has suggested that the elderly, those from low-income families, and those with low levels of education are less likely to be Internet users than the rest of the population (Choudrie et. al. 2013, Hall and Owens 2011). Furthermore, even those who do have easy access to a computer have found that, despite their convenience, e-government services may not provide residents with an ideal means of having direct two-way communication, such as asking a specific question or providing

feedback on a particular issue (Mossberger and Wu 2012, Simpson 2005). It seems necessary for governments to closely monitor the preferences of their residents and perhaps offer both traditional and digital communication channels, because e-government is clearly not preferred by or accessible to everyone.

The other major issue that arises is that certain demographic groups, such as renters, appear to simply not be as engaged as the rest of the population, seemingly regardless of which channels are being used (Economou 2010, Verberg 2000, McCabe 2013, Manturuk et. al. 2010, Manturuk et. al. 2012). This is possibly because they do not feel a sense of permanence within their location, and they also have little financial incentive to actively seek to improve the wellbeing of their municipality. As seen in the literature, there are several underlying factors that influence a renter's level of engagement, such as age or tenure in a certain location. Because renters are already so difficult to engage, it is important that governments pay special attention to their communication preferences so as to encourage them to become more involved within their communities. Unfortunately, no studies so far have examined which channels of communication renters actually prefer, and what type of information they would like to receive from their municipalities.

The study that follows will attempt to bridge several of these gaps, with the overall goal of determining which channels of government-resident communication work best, especially for two challenging demographic groups identified in the scholarly literature: renters and elderly residents. To begin with, literature has examined whether or not residents among the general population use e-government services as a source of information, or as a forum for civic participation; scholars have concluded that e-

government is more of an informational service rather than a participatory one (Mossberger and Wu 2012, Simpson 2005). However, the studies on the subject fail to address whether or not there is even a demand for participatory e-government services to begin with. If there is a demand, what sort of civic-engagement related services might residents want to see the city provide through web or mobile-based applications? The following study will contribute to the existing literature by addressing these questions. By surveying Bangor residents and asking them how they want the city to use different modes of communication, the results will offer insight as to whether there is a significant demand for online participatory services. If there is a demand, the results of the study can offer guidance to the city of Bangor not only in developing more web-based venues for civic discussion, but also in determining what the focus of these discussions should be.

The following research will also examine whether the digital divide still affects elderly residents' ability to access the Internet today, especially in a relatively small municipality with rural outlying areas. However, this particular research will contribute to the existing literature by specifically looking at how issues of accessibility and knowledge of computers affects elderly residents' attitudes towards Bangor's e-government services. So far, existing literature has primarily used quantitative data regarding Internet usage rates, which has treated the older demographic's low rates of Internet use as a matter of accessibility (Duggan and Brenner 2013, Hall and Owens 2011). Such studies have concluded that elderly residents are simply less capable of accessing e-government than other residents, but perhaps attitudes are a more dominant factor. Through the use of focus groups, this study will assess the older demographic's attitudes toward e-government, but it will also consider their attitudes regarding non-web-

based means of communication as well, like phone calls, postal mail, or television advertisements. In determining how elderly residents view these different outreach methods through the acquisition of qualitative data, the study will be able to suggest conclusions about which method(s) work the best when municipalities are targeting residents aged 60 and older.

Literature so far has pointed out that engaging with renters can be a challenge for municipalities, but no studies have examined or proposed how to solve this issue. The research that follows will bridge this gap by attempting to establish the most effective ways of engaging renters by asking them their preferences directly through focus groups. Engaging renters in the city of Bangor is vital, because compared to the United States in general, the city has a drastically different makeup of homeowners and renters. Bangor's homeownership rates are much lower than the national rate (44% versus 64%), making this a demographic to which the city must be attentive (United States Census Bureau 2015).

Unfortunately, despite arriving at the conclusion that renters are harder for municipalities to engage, no study on the subject thus far has presented any successful actions for municipalities to take with the goal of engaging a higher number of renters. This is precisely where the following study seeks to contribute; by using focus groups to actually sit down and communicate directly with renters, this study will determine what specific sorts of methods renters might prefer when it comes to communication, as well as what type of information they consider to be of the most value. Through the acquisition of these valuable qualitative data, the study's conclusion will reveal steps that



the city of Bangor can take to target renters more effectively in its community outreach efforts.

Finally, the research that follows will examine the general population of Bangor's attitudes regarding government social media accounts. Literature so far has shown that social media has a limited audience, but that it can also reveal valuable public opinions; however, studies have primarily focused on social media activity related to federal governments or large cities (Porumbescu 2015, Mossberger and Wu 2012, Pew Research Center: Journalism & Media 2012). The following study will contribute to the existing literature by examining how a smaller municipality, specifically one with an aging population and a higher than average rental population, utilizes social media. The study's survey results will provide insight as to what percentage of the population access Bangor's social media accounts, as well as whether or not Bangor's social media audience closely resembles the demographic makeup of the general population. By considering which demographic groups access Bangor's social media, the city will be able to fine-tune what types of information are posted to its accounts.

## CHAPTER IV

### METHODS

This study was conducted utilizing mixed methods research: the project combined quantitative research in the form of a survey, as well as a qualitative research component that consisted of a series of focus groups. The purpose of the initial survey was to gather opinions from the general population of Bangor regarding the city's communication methods, while the purpose of the focus groups was to acquire feedback specifically from two demographic groups: those who rent their homes and the elderly. In this particular study, the term elderly will be used henceforth as a descriptor for residents who are aged sixty or older.

#### Survey Recruitment

The quantitative component of this research project involved a city-wide survey open to all residents of Bangor over the age of eighteen. Although a random sample of the city's population would have been ideal, this was not a possibility in this particular study. This is because the city of Bangor did not have separate mailing lists for those who rent their homes and those who own, or separate mailing lists for residents aged 60 and older and other age groups. Because of this, participants were openly recruited with the hope that the sample would be consistent with the city's overall population, primarily in terms of homeownership rates and age groups.

Despite the fact that the survey did not utilize a random sample, survey participants were recruited in various ways so as to avoid a potential bias and ensure a diverse pool of participants. One way in which participants were recruited was through different sources of media. Advertisements for the survey were placed in the *Bangor Daily News*, both online as well as in the print edition of *The Weekly*, which is a free newspaper published by the *Bangor Daily News* that goes out to all residents of Bangor and surrounding communities. The internet also played a significant role in participant recruitment efforts. Social media posts promoting the survey were shared on both Facebook and Twitter, and the link to the survey was also posted on the Bangor City Website. The survey was also advertised several times through the University of Maine's FirstClass communication system.

Participants were recruited in person, as well. Promotional postcards were distributed at a number of city-related events throughout the summer, including Bangor's Energy Expo, Bangor's Senior Expo, and the American Association of Retired Persons [AARP] monthly Coffee Klatsch. The survey was also promoted by speaking to landlords and handing out postcards at a Greater Bangor Apartment Owners and Managers (GBAOMA) Association meeting, as well as by tabling and handing out print surveys during the city of Bangor's June elections.

Finally, participants were recruited through direct postal mail. Promotional postcards were mailed out to 3,066 randomly selected rental units within the city of Bangor. These units were selected through a process that involved purchasing a mailing list of 6,132 rental units from a third-party printing and mailing business. This list was then divided in half by selecting every other address and directly mailing a promotional

postcard to the 3,066 units. In total, these combined efforts resulted in 510 participants responding to the survey.

Although the survey was hosted online through Qualtrics, all potential participants were informed that paper surveys could either be mailed directly to them or picked up at the City Hall information desk. Return postage was paid, so participants choosing this option could do so at no cost. This was done to ensure that those without access to a computer or a smartphone would also have opportunities to participate in the survey. Furthermore, all survey participants were informed that they would be entered in a raffle for one of four \$25.00 gift cards to a local restaurant or business upon the completion of the survey. The purpose of this raffle was to incentivize less-engaged individuals to participate. Although this redirected participants to a separate survey where they were required to enter their name, phone number, and email address, participants were informed that their initial survey would remain anonymous and their personal information would not be linked to their responses in any way.

The anonymity of participants' responses was one way in which human risk was minimized in this survey. Participants were also provided with a consent agreement before taking the survey, informing them of the potential risks and benefits. All participants were informed that this survey was entirely voluntary. In addition, none of the questions asked participants to reveal any information that might incriminate someone of crime or wrongdoing. Still, participants had the option to select "prefer not to answer" for every required question in the survey.

The demographic makeup of the survey participants was, in several respects, quite similar to the overall demographic data of Bangor's population. For instance, Bangor's

elderly population (those aged 60 and older) in 2010 consisted of 19.9%, whereas the survey's elderly participants made up 21.3% of all respondents (a mere 1.4% difference). In terms of income, the survey appears to be reflective of Bangor's overall population as well; Bangor's average household income in 2010 was \$57,365, whereas the mean range of income in the survey was between \$50,000 and \$74,999.

Unfortunately, despite multiple efforts to recruit more renter participants so as to reflect Bangor's high renter population that constitutes 56.1% of all Bangor residents (United States Census Bureau 2010), only 32.2% of the survey's participants identified themselves as renters. Although there is no official data regarding Bangor's computer or smartphone ownership rates, the rates shown in the survey are slightly higher than the national averages. In the survey, 93% of respondents reported owning a computer, compared to the national average of 84% (Rainie and Cohn 2014). Similarly, 86% of survey respondents reported owning a smartphone, whereas the national smartphone ownership rate is 68% (Anderson 2015). These relatively high rates could perhaps be due to the convenience of taking the survey online, despite the fact that all potential participants were informed that paper surveys would be made available to them. However, it is also important to note that the national average encompasses both rural and urban areas, and since Bangor is an urban area, it is to be expected that Bangor's smartphone and computer ownership rates will be slightly higher than the national average. Even when taking this into account, smartphone and computer users are still oversampled, as only 67% of urban residents in the United States own computers and only 72% of urban residents own smartphones on a national scale (Anderson 2015).

With just a few exceptions, nearly all survey participants who completed the survey were able to do so in less than ten minutes. The survey was open from mid-March of 2016 to early October 2016, a total just short of eight months, in order to gather as many perspectives as possible from a variety of different demographic groups that make up the city's overall population. In the survey, participants were asked nineteen questions; the first was a consent question, while the next ten questions focused on basic demographic information such as age, homeownership, sex, income, and computer/smartphone ownership (see appendix A). Questions 13-17 focused specifically on which types of information residents found most important, as well as which methods they used most frequently. Questions 12 and 18 asked residents to rank themselves in terms of their own knowledgeability and satisfaction (respectively) when it comes to resident communications. The last question (19) asked participants what Bangor could do better in its efforts to communicate with residents, and it gave participants the opportunity to write in their own answer. It was hypothesized that if there was some glaring issue regarding Bangor's city communications, it would become apparent in these open-ended responses to question 19. For a full list of the survey questions and their exact wording, please see appendix A.

### Focus Group Recruitment

In order to supplement the results of the survey, and to gather qualitative data specifically from renters and the elderly, a series of six focus groups was held. Three of the focus groups consisted of renters living in Bangor, whereas the other three consisted of individuals aged 60 or above living in Bangor. Focus groups were held over the span of roughly one month, from September to October. Each of the sessions were held at the

Bangor City Hall because of its central location within the city, and all were held during the late afternoon or evening. In the focus groups, participants were asked questions about their personal communication experience with the city of Bangor, as well as how their status as either a renter or a resident aged 60 or older affects their communication preferences.

Several steps were taken to ensure that human risk to the participants was minimized. First, the participants were all given a detailed consent sheet before participating in the focus group session, and were informed that participation was entirely voluntary. As in the survey, none of the participants were asked to reveal information that would incriminate themselves or someone else. Although all participants were made aware that the session would be recorded, they were also informed that their responses to each question would be kept anonymous, and that they would simply be referred to as “a resident of Bangor” in the final paper. The one exception to this was the case of Peter Ramsay, who gave written permission for his name to be used in this paper.

Focus group participants were recruited through an addendum to the initial survey that redirected both renters and residents 60 and over to list their name, telephone number, and email address if interested. The study originally intended for eight focus groups to be held, but only 62 survey participants expressed an interest, and only 22 participants responded after being called and/or emailed. All individuals who expressed an initial interest were contacted; individuals who left an email address were then sent a follow up email, while those who only left telephone numbers or could not be reached through email after three days were called. Focus groups were then filled on a first-come, first-serve basis. In order to compensate focus group participants for their time, all

participants were given a \$10.00 gift card to Hannaford upon completion of the hour-long session.

Of the eleven renters who were interviewed in these focus groups, five were men and six were women. Nine of the eleven participants had lived in Bangor for over ten years; one participant had lived in Bangor for three years, while one had lived in the city for less than one year. Of the eleven residents aged 60 and older who were interviewed, two were men and nine were women. Seven of the participants had lived in Bangor for over ten years; one participant had lived in the city for eight years, two had lived in the city for three to four years, and one participant had only lived in Bangor for ten months.

While the survey's purpose was to acquire quantitative data about which methods of communication are most effective and what types of information are most valuable to residents, the goal of the focus groups was more qualitative in nature. These groups sought to gain an understanding of *why* certain methods were most effective and *why* certain types of information were deemed valuable, particularly from the perspectives of Bangor renters and Bangor residents aged 60 and older. Because of this, the focus groups asked residents a number of explanatory questions; for instance, does the city do a sufficient job of communication overall, and why or why not? These focus groups allowed for the explication of why certain communication methods are deemed more useful than others in a way that was simply not possible in a ten-minute survey.

### Survey Data Analysis

Before analyzing the survey data, several hypotheses were formed by examining the existing literature regarding renters as well as elderly populations in terms of their municipal communication preferences.



- First, it was hypothesized that since renters have tended to be less engaged with their municipalities in previous studies, Bangor's renter population would generally be less knowledgeable and therefore less satisfied when it comes to Bangor's communication efforts.
- It was also hypothesized that the elderly population would have lower rates of computer and smartphone ownership, and would therefore be less knowledgeable and less satisfied with Bangor's communication efforts.

The primary objective of both the survey and the focus groups was to determine whether or not these hypotheses were accurate; the focus groups would take this one step further in an attempt to determine not only why this might be the case, but also how these two demographic groups think the city could improve their outreach efforts. The survey also sought to assess whether demographic factors (like age, gender, income, etc.) had any significant impact on municipal communication preferences, specifically in terms of one's knowledgeability, satisfaction, and preferred channels.

The survey data was first analyzed by filtering the results of the two questions regarding knowledgeability and satisfaction (Questions 12 and 18, appendix A) by the various answers to the demographic questions (Questions 2-11, see appendix A). For instance, the results of question 12, which asks "how knowledgeable do you consider yourself to be about things happening in the City of Bangor" were filtered to view only the responses from homeowners, and then filtered to view only responses from renters, and then both sets of data were compared. This process was repeated for each demographic question in order to understand how one's age, tenure, gender, income,

homeownership status, computer ownership status, and smartphone ownership status affects both satisfaction and knowledgeability of Bangor's communication efforts.

After filtering questions 12 and 18 by each of the demographic questions, participants' specific preferences regarding channels of communication and types of information were examined. To analyze this data, questions 13-17 were filtered by different responses to the demographic questions (see appendix A). This provided the opportunity to compare the preferences of a specific demographic with the preferences of the overall sample. Finally, the answers to the last question, which asks residents to write how the City of Bangor could improve communication efforts, were categorized thematically; nearly half of all respondents addressed themes of timeliness, awareness, social media, and more outlets to voice their opinions within their text responses. The rest of the responses were miscellaneous, and did not fit into any of these categories.

### Focus Group Data Analysis

Several hypotheses were also formed before analyzing the focus group data.

- First, for the focus groups consisting of residents aged 60 or older, it was hypothesized that participants would generally favor traditional methods of communication as opposed to digital methods. It was hypothesized that a lack of accessibility would be the primary reason for this, when focus group participants were asked to explain their preferences.
- For the series of focus groups involving renters, it was hypothesized that these participants would generally favor digital methods as opposed to traditional methods, perhaps for reasons of convenience.

- It was also hypothesized that participants of both groups would generally see their age (if aged 60 or over) or their status as a renter as factor that affects their communication preferences, as the existing literature has suggested.

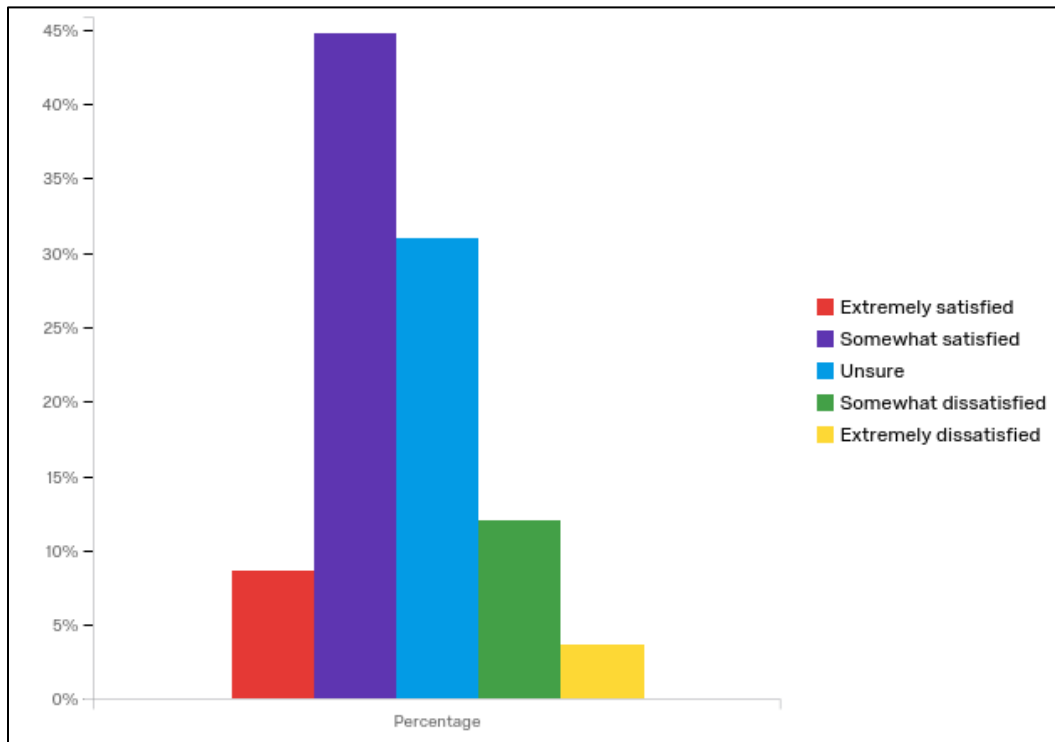
Each hour-long focus group session was recorded and reviewed in its entirety several times afterward for a thorough analysis. While the sessions were not fully transcribed, each session was written up into a summary sheet that briefly addressed how each participant responded to each question. These responses were then placed into broader categories in order to draw conclusions; for instance, if one participant mentioned that they did not receive important information about their water being shut off and another had an issue with their recycling, this might be grouped into a broader category called “public works communication issues.” These broader topics were then analyzed to determine certain trends among communication issues and age/homeownership status. The more that these particular topics were mentioned by participants, the more evident it became that a trend was present.

## CHAPTER V

### RESULTS

#### Overall findings

Before addressing the question of how satisfied or knowledgeable certain demographic groups are in terms of Bangor's communication efforts, it is important to assess the general satisfaction and knowledgeability of the overall survey sample. The figure below shows the satisfaction levels for all of the survey's participants.



*Figure 1: Satisfaction of the overall survey sample (n=465)*

Most survey participants consider themselves to be either somewhat satisfied regarding city communications (45%) or unsure (31%).

Participants followed a similar trend in regards to knowledgeability; the following figure shows how knowledgeable the survey's participants considered themselves.

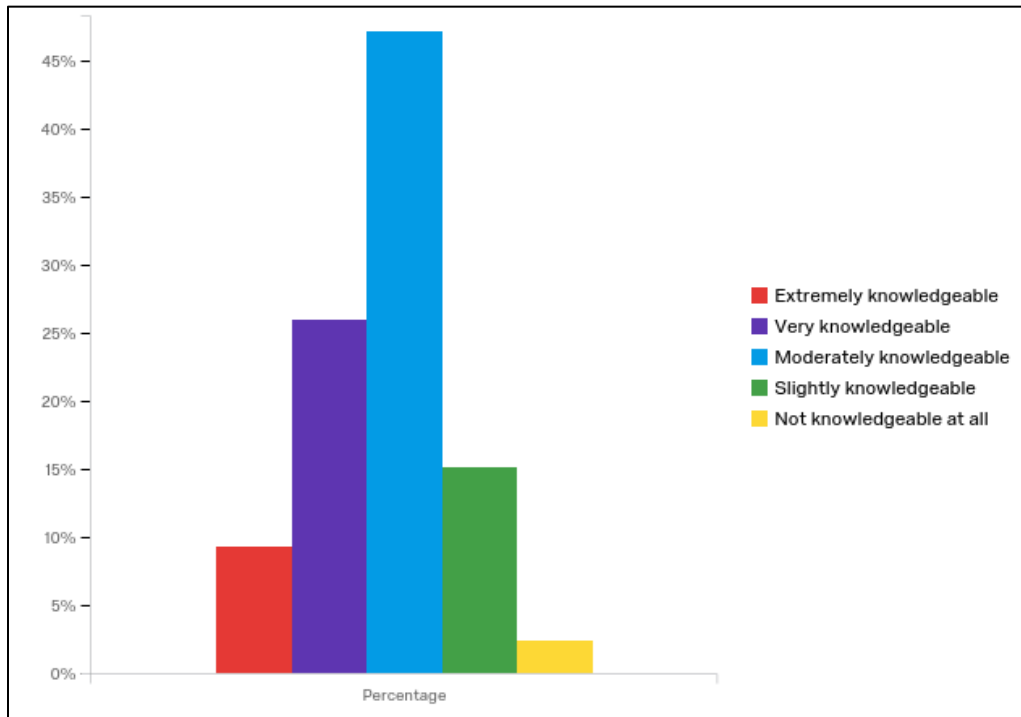


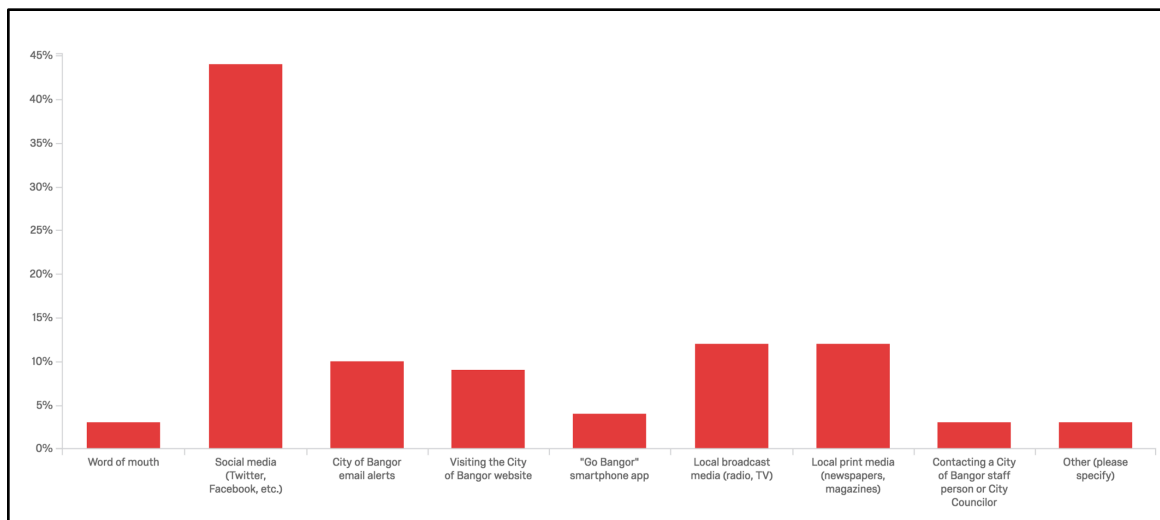
Figure 2: Knowledgeability of the overall survey sample (n=482)

Most survey participants consider themselves to be either moderately or very knowledgeable regarding city communications. Only 2% of participants reported having no knowledge at all regarding city communications. From the above two visuals, it is clear that most of the participants who took this survey had at least some knowledge regarding city communications, and a slight majority felt at least somewhat satisfied with city communication efforts.

Also important to note is the fact that, judging from the qualitative data obtained from the series of focus groups, Bangor's residents seem generally satisfied with the amount of information communicated on behalf of the city. Residents are not experiencing any sense of information overload. When asked in the focus groups if they

had ever felt as if they were receiving too much information on behalf of the city, all twenty-two residents who were interviewed said no, they had never felt that way.

Perhaps one of the first meaningful questions to explore from this survey data is, “what channel of communication does this particular sample of Bangor residents find most effective?” From the bar graph below, it is evident that the most effective means of communication appears to be social media (44%), followed by local broadcast and print media (both roughly 12%). This demonstrates how important it is for the city to utilize multiple means of communication, including both digital and traditional channels, since both have been deemed effective.



*Figure 3: The most effective means of gaining information from Bangor (n=480)*

Several themes resonated in the responses to the survey’s final question, which asked participants what the City of Bangor could do better in its communication efforts. Though many participants chose not to answer this question, were unsure, or provided responses that were unrelated to the city’s communication efforts, there were five prominent themes that were present in most of the 197 responses. The most common suggestion (present in roughly 14% of responses) was that the city should do more to promote its own communication channels and make residents aware of the different

options available to them. The second most common suggestion was that the city should do more to utilize social media. Other popular responses suggested utilizing postal mail more often, providing more opportunities for residents to voice opinions and concerns, and addressing issues of timeliness when relaying important information to residents.

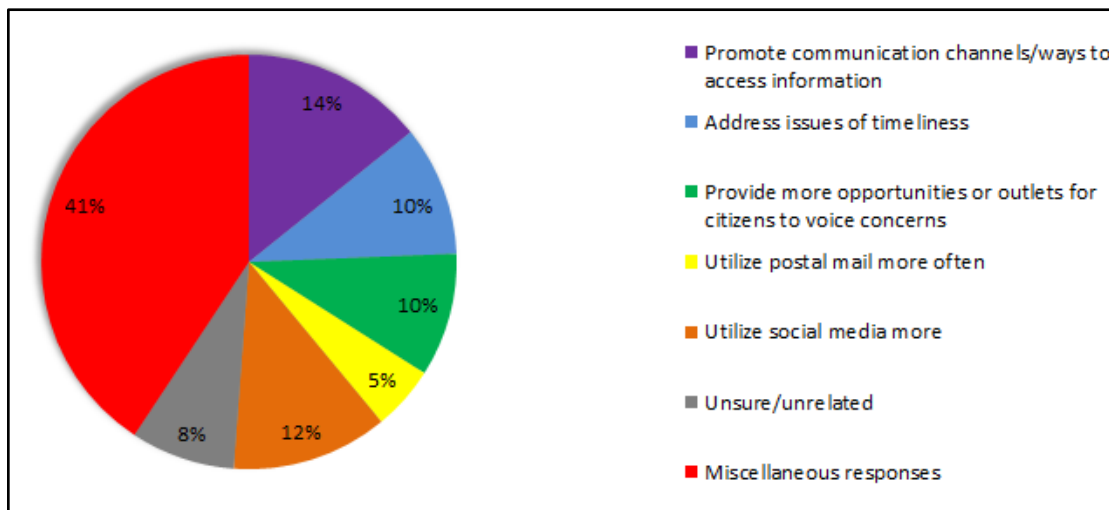
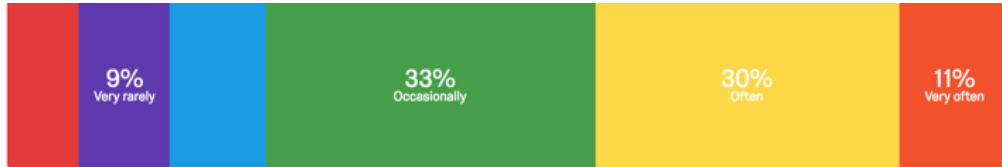


Figure 4: What the City of Bangor could do to improve its communication efforts (n=197)

The fact that over 14% of these write-in responses suggested that the city put more effort into promoting communication efforts is a valid suggestion, considering the fact that many participants have never utilized some of the communication channels offered by the city. On the following page are a series of breakdown bars showing how often the survey's participants utilize the different communication channels available in the city of Bangor.

Word of Mouth:



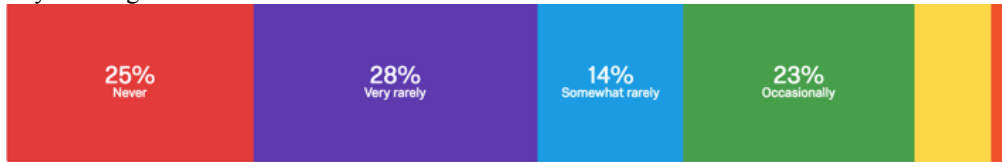
Social Media (Twitter, Facebook, etc.):



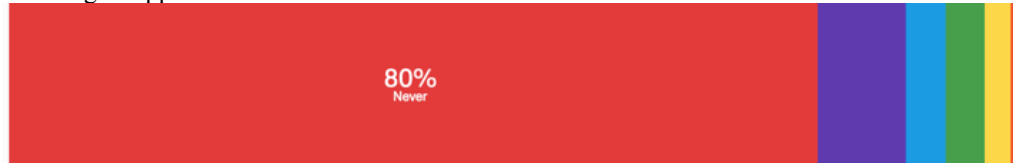
City of Bangor Email Alerts:



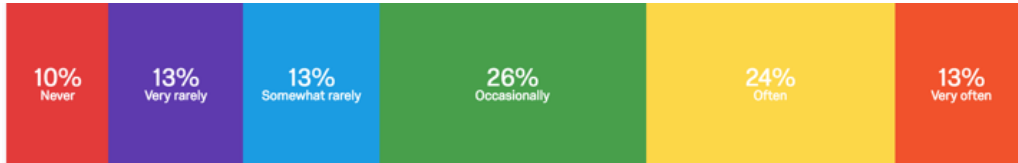
City of Bangor Website:



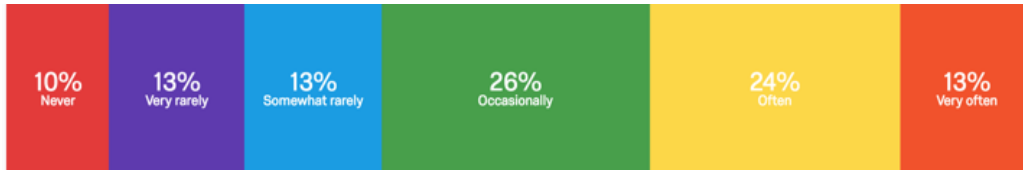
Go Bangor App:



Local Broadcast Media:



Local Print Media:



Contacting a Bangor City Staff Person or Councilor:



Figure 5: How often participants use the above methods to access information from the city (n=469)



These trends are consistent with the previous question's responses that had asked residents to select the most effective communication channel. Again, social media has the highest frequency of use, followed by word of mouth, broadcast media and print media. Two of Bangor's digital communication efforts, the "Go Bangor" smartphone app and the City of Bangor email alert system, have the lowest rates of use; 64% of respondents have never used the city's email alerts, and 80% of respondents have never used the Go Bangor app. Contacting a city councilor also had a low rate of use, with 45% of participants reporting that they had never done so. It is likely that the low rates of use corresponding to the app and the email alerts are because many people simply do not know about them; to corroborate this theory, 17 of the 22 focus group participants had never heard of the Go Bangor app.

### Age

The first demographic factor we will analyze from the survey results is age. Participants were grouped into one of the following age ranges: 18- to 25-year olds, 26- to 32-year olds, 33- to 45-year olds, 46- to 59-year olds, and those who are aged 60 or older. The bar graph that follows shows how these different age groups compare when it comes to knowledgeability of city communications.

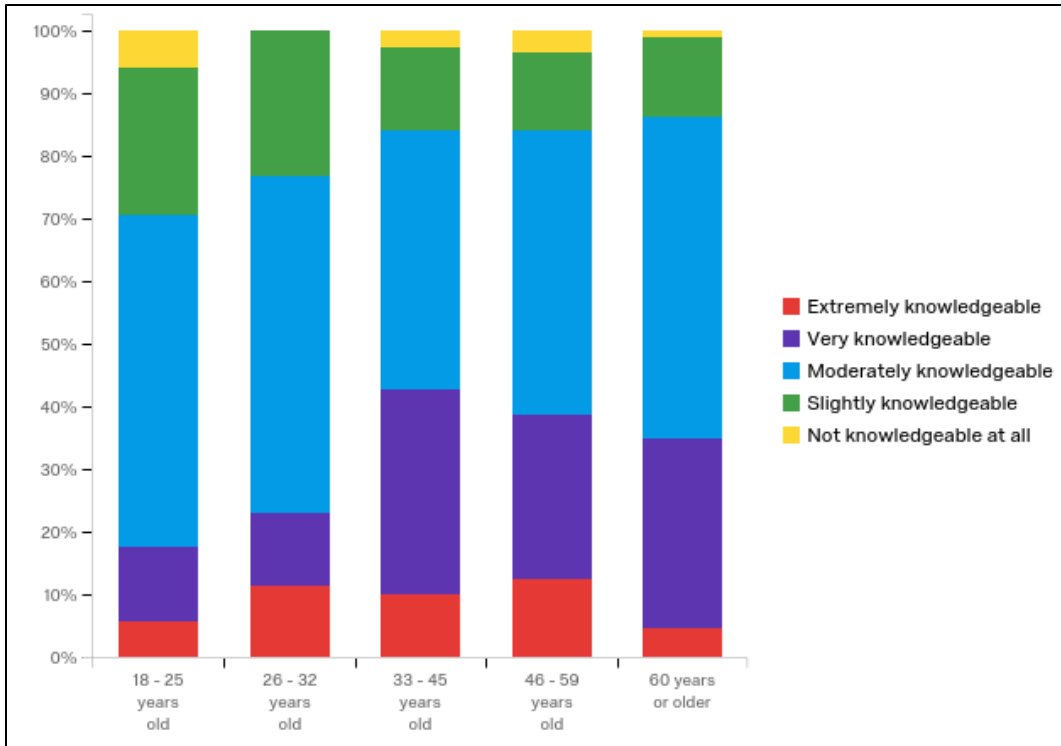


Figure 6: Knowledgeability of city communications broken out by age (n=482)

The above visual shows a predictable trend: the 18- to 25-year old age group is understandably the least knowledgeable, as they are likely to be the most transient age group. Some may be college students, and some may have lived in Bangor for less time than some participants in the older age groups. Others may be long-term residents who have not had to interact with the city on official business, or have relied upon their parents to receive and address city-related information on their behalf. Knowledgeability then seems to increase with age, though this tapers off a bit within the last two age groups.

When it comes to satisfaction regarding city communications, it is clear that Bangor is successful in satisfying its residents when viewed comprehensively. Most participants in each age group reported that they were either somewhat satisfied or

unsure. However, levels of extreme satisfaction and somewhat/extreme dissatisfaction differed across the various age groups, as shown in figure 7 below.

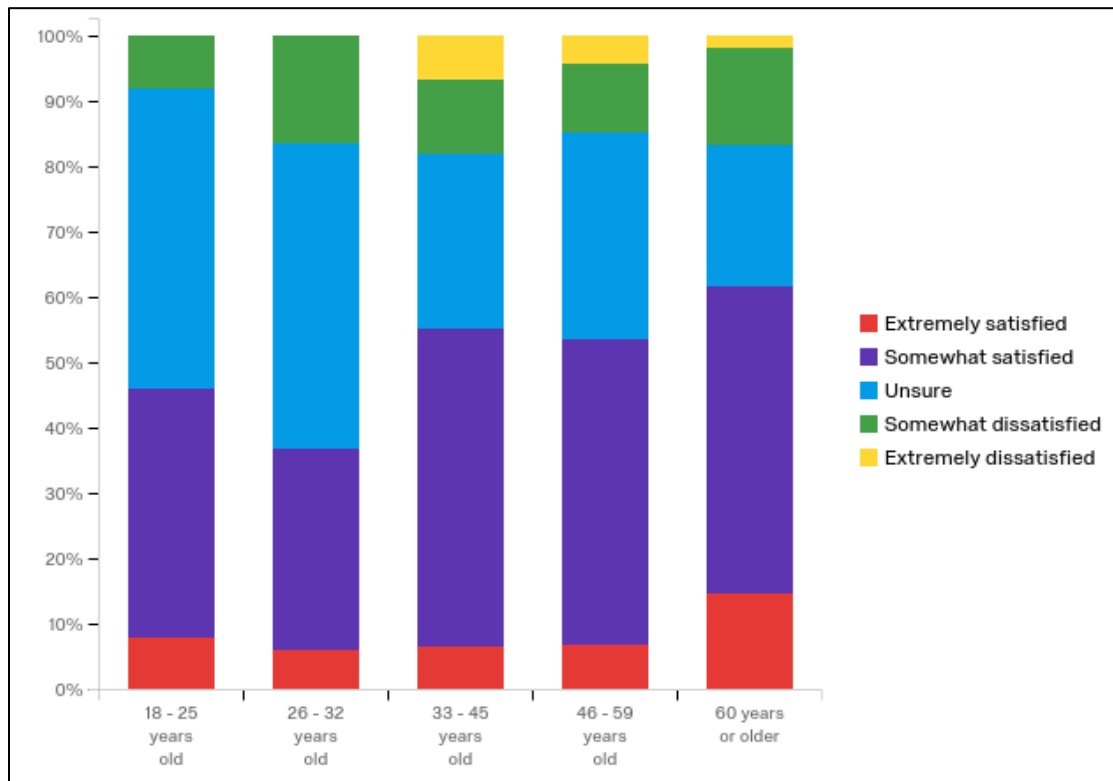


Figure 7: Satisfaction of city communication efforts broken out by age (n=465)

While the 60 and older age group does have a small percentage of extremely dissatisfied residents (2%), the 33-45 and 46-59 age groups have much larger percentages of extremely dissatisfied residents (7% and 4%, respectively). This suggests that perhaps the 60+ age group is not as much of a challenging demographic for the city to satisfy, and perhaps more effort ought to be put into effectively communicating with those between the ages of 33 and 59.

The 33- to 45-year old age group as well as the 46- to 59-year old age group are also the two most common age groups of residents who would prefer not to receive any city communications. In total, there were 47 survey participants who indicated that they would rather not receive any direct communications from the city. When these 47

participants were asked why they did not want to receive communications from the city in a follow-up question, all 47 remarked that they were either too busy, did not care about the information, or that they simply did not want to receive text messages, emails, or letters from the city. Of these 47 participants, 25 (roughly 53%) were between ages 33 and 59.

Even though these 25 residents between ages 33 and 59 explicitly stated that they did not want to receive city communications, not all would consider themselves satisfied. In fact, 15 of these 25 participants reported feeling either unsure or dissatisfied to an extent when it comes to city communications. Bangor faces a clear challenge when it comes to addressing those between the ages of 33 and 59; they are the most dissatisfied age group in Bangor when it comes to the city's outreach efforts, but a small percentage of these residents may not even be interested in greater engagement with the city.

### Home Ownership

Despite multiple efforts to recruit more renters, so as to reflect Bangor's overall population (see Chapter IV), 64% of the survey's participants were homeowners, while 32% were renters. The remainder of the survey's participants selected "other" for situations such as living with a parent/relative, or living in a dormitory; in this section, for convenience purposes, only the responses of those who selected either "rent" or "own" will be analyzed.

As hypothesized, there is a difference in the knowledgeability of renters and the knowledgeability of homeowners when it comes to city communications. Figure 8 is a bar graph showing precisely how the knowledgeability levels of both demographics compare with one another.

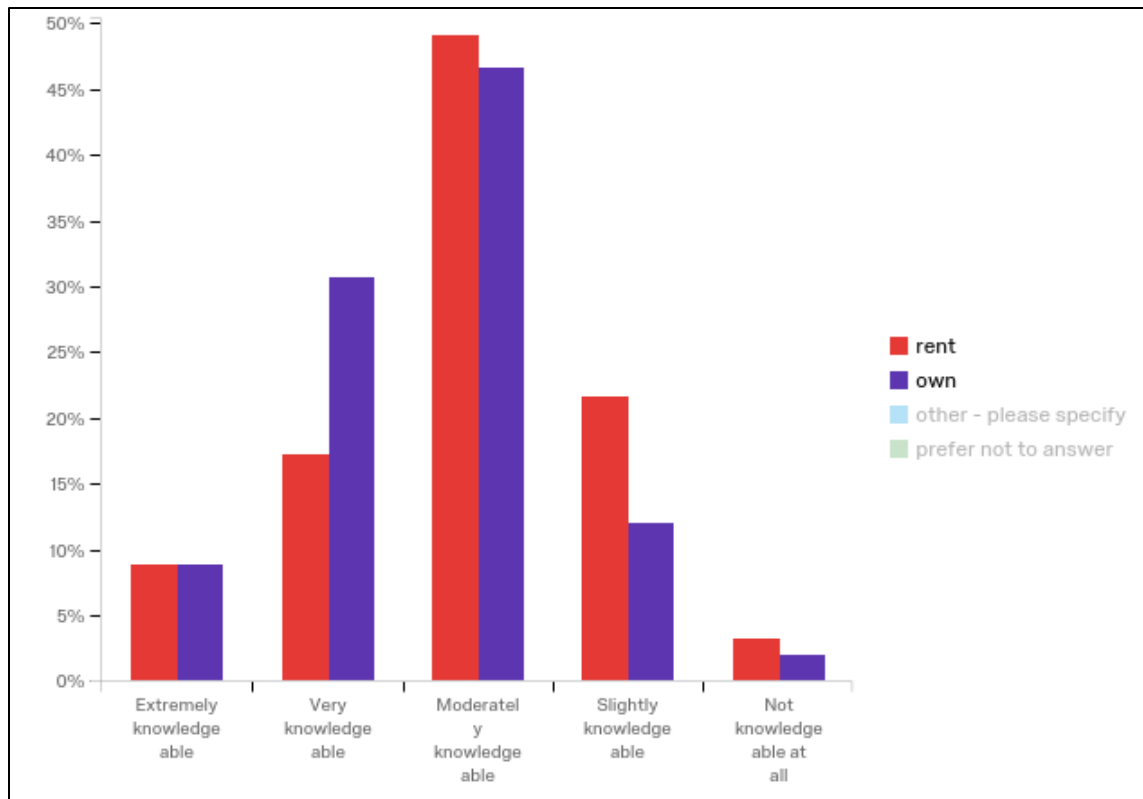


Figure 8: Knowledgeability of homeowners and renters (n=490)

An identical percentage of renters and homeowners consider themselves to be extremely knowledgeable regarding city communications (roughly 9%) and the percentages for those who consider themselves to be moderately knowledgeable are also similar (49% of renters and 47% of homeowners). However, there is a sizeable difference when it comes to renters and homeowners that consider themselves to be very knowledgeable or slightly knowledgeable. Only 17% of renters consider themselves very knowledgeable, compared to 31% of homeowners. On the other hand, only 12% of homeowners would consider themselves slightly knowledgeable, compared with 22% of renters. A slightly higher percentage of renters than homeowners consider themselves not at all knowledgeable, as well (3% as opposed to 2%). From these results, it seems logical to infer that renters generally tend to be less knowledgeable than homeowners.

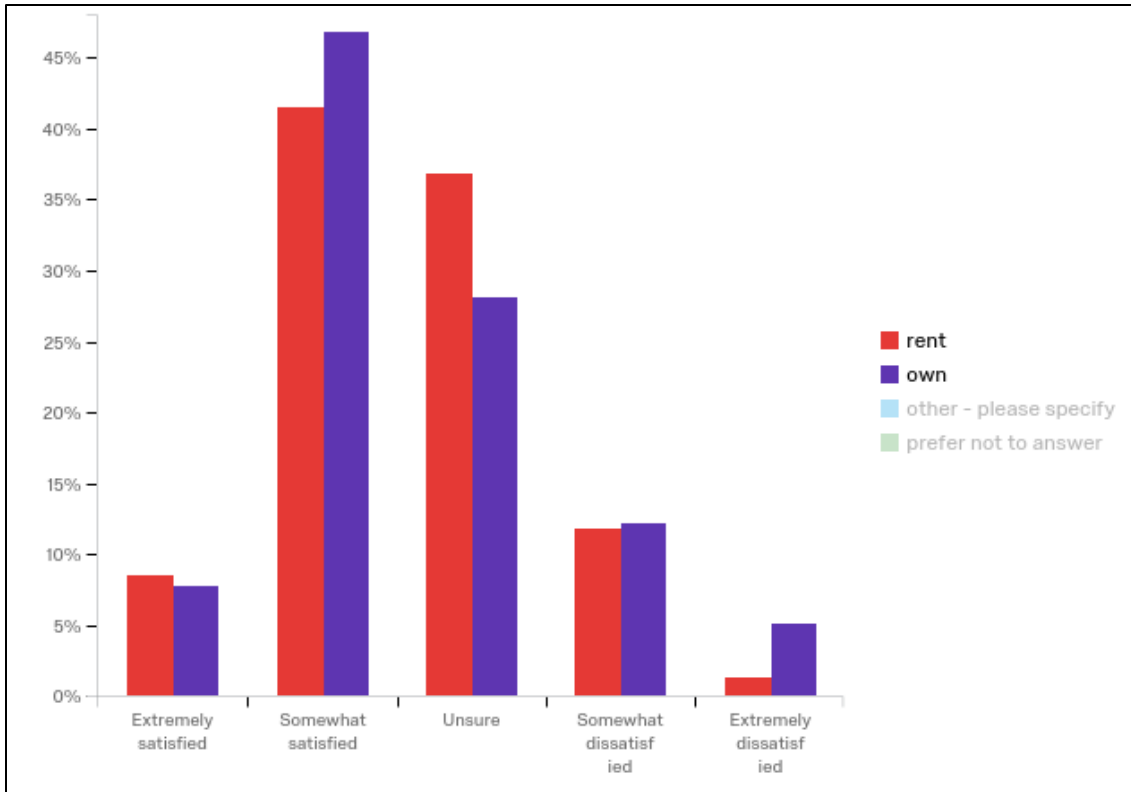


Figure 9: Satisfaction of homeowners and renters (n=447)

Aside from the fact that a higher percentage of owners than renters are extremely dissatisfied, and a higher percentage of renters are unsure, both renters and homeowners generally have similar levels of satisfaction regarding the city's communication efforts. This suggests that, although renters may be less aware of city communications, this does not mean that they are lacking any necessary information that might affect their satisfaction levels. Therefore, the results suggest that although Bangor's renters are less engaged than homeowners, there is no need for the city to make any more of an effort to engage directly with just the renter population.

Another question that must be addressed, however, is that of whether or not time spent living in the city plays a significant role in this relationship between knowledgeable, satisfaction, and homeownership status. Below is a bar graph comparing homeownership status with city tenure.

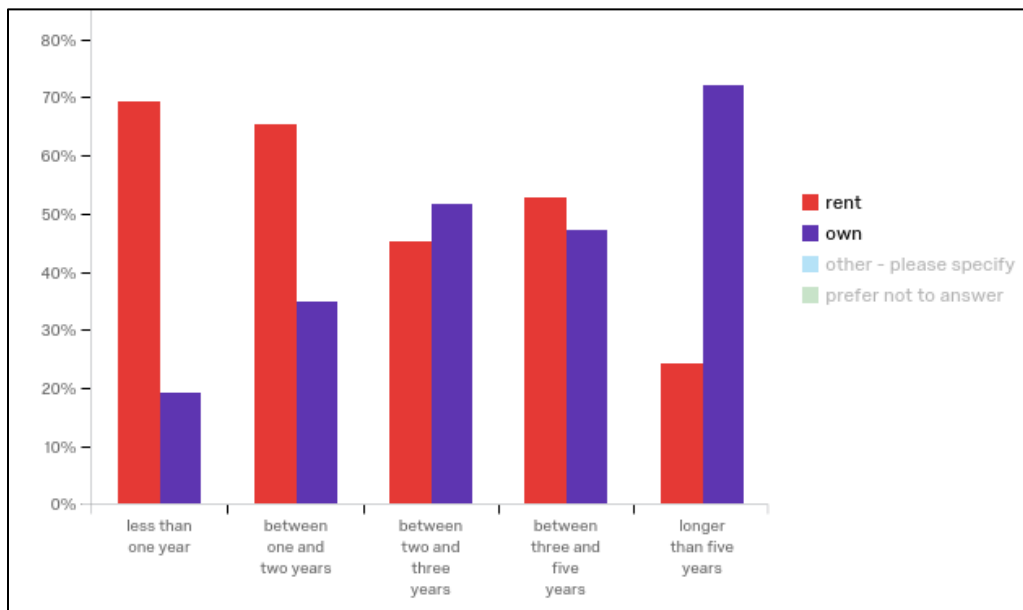


Figure 10: City tenure of homeowners and renters (n=442)

This follows another predictable trend; from the results of the survey, it is clear that renters in Bangor tend to be recent transplants to the city much more often than homeowners.

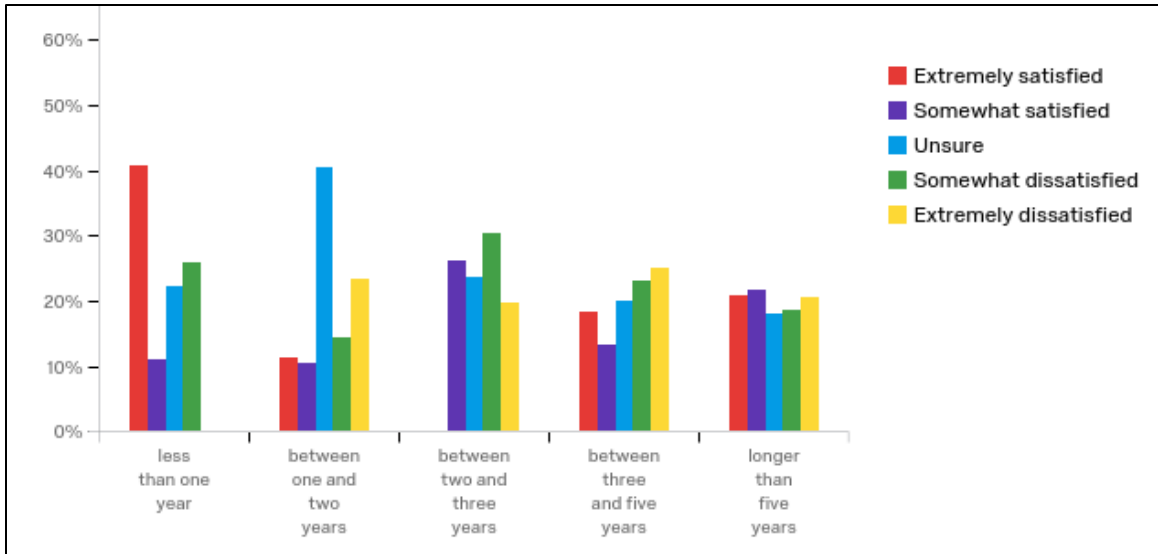


Figure 11: City tenure compared with satisfaction (n=442)

In examining the figure above, it is evident that there is no clear trend when it comes to the relation between city tenure and satisfaction with the city’s outreach efforts. Those who have lived in Bangor for longer than five years have an evenly distributed range of satisfaction. Those who fall in the three middle categories who have lived in Bangor between one and five years tend to be slightly less satisfied with the city’s outreach, but the difference is rather small. Understandably, 41% of those who have lived in Bangor between one and three years feel unsure. Many of those who have lived in Bangor for less than one year (41%) are extremely satisfied; perhaps this is based upon positive first impressions of the city.

Though tenure is not necessarily a factor when it comes to satisfaction regarding city outreach efforts, it may play a role in residents’ knowledgeability. The following bar graph shows the relation between tenure and knowledgeability of city communications.



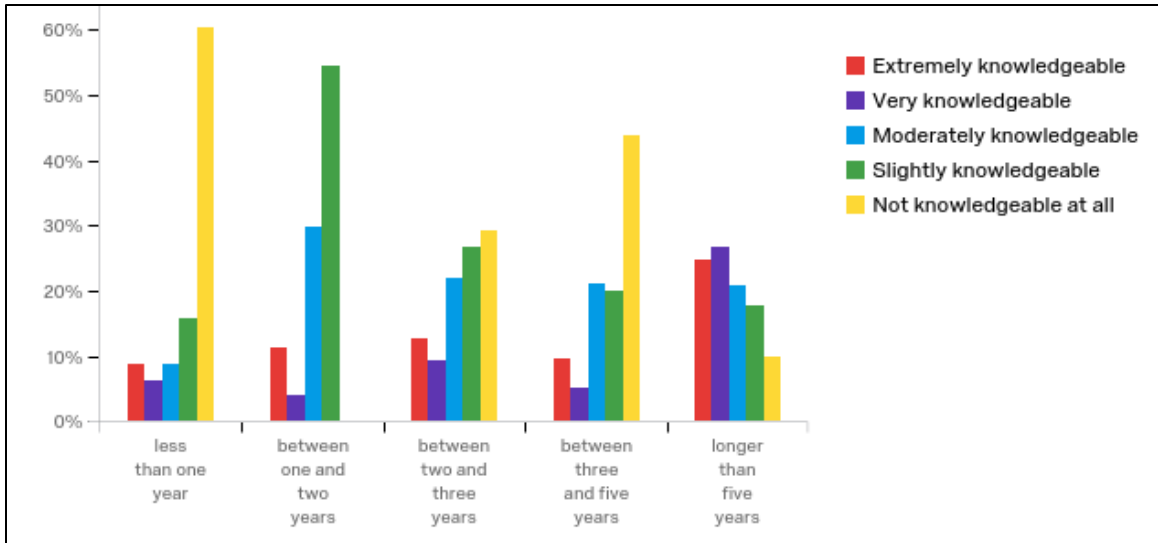


Figure 12: City tenure compared with knowledgeability (n=437)

Predictably, the majority of those who have lived in the city for less than one year (60%) consider themselves not at all knowledgeable regarding city communications. Unpredictably, however, zero residents who have lived in the city between one and two years consider themselves to be not at all knowledgeable, with a majority of these residents considering themselves to be slightly knowledgeable (55%). Also somewhat unexpected was the fact that a significant percentage of residents who have lived in Bangor between three and five years (44%) consider themselves not at all knowledgeable. There seems to be a slight trend in which residents with a longer tenure are more knowledgeable, but the relation between tenure and knowledgeability is not nearly as pronounced as the relation between homeownership status and knowledgeability.

Another question that this study sought to answer was whether there is a difference in the types of information that homeowners and renters find valuable. The survey asked participants to rank categories of information by their importance. Renters and homeowners provided similar responses for most of the categories of information,

including community events, project updates, breaking news, city council actions, policy/ordinance reminders, public notices, and program information. However, there is a significant difference in the way that homeowners and renters view city meetings and agendas, as well as volunteer/employment opportunities.

Similar percentages of homeowners and renters view volunteer/employment opportunities as not at all important, of very little importance, slightly important and moderately important. However, there is a significant difference in the percentages of homeowners and renters who find these opportunities to be very or extremely important. Specifically, 26% of homeowners find this information to be very/extremely important, compared with 46% of renters. Renters evidently tend to place a higher value on this type of information than homeowners do.

A somewhat similar trend occurs when examining how homeowners and renters rank city meetings and agendas. There is hardly any difference between percentages of renters and homeowners who rank city meetings/agendas as not at all important, of very little importance, or slightly important. However, while about 10% more homeowners than renters rank this type of information as moderately important, 44% of renters find this information to be very or extremely important, compared to just 36% of homeowners.

This appears to contrast the relation between knowledgeability and homeownership status; despite the fact that renters generally tend to be less knowledgeable in regards to city communication, they place a higher value on these two categories of information than homeowners do.

## Technology and the Digital Divide

One hypothesis that was formed before this research was conducted was that even still today, age would still be a significant factor in the digital divide, hindering older populations from accessing computers and smartphones. This hypothesis was consistent with several of the studies within the literature review (Smith 2014, Choudrie et al. 2013, Hall and Owens 2011, Smith et al. 2009). However, after comparing age with computer ownership (see figure 17 below), one can see that age no longer appears to be a factor when it comes to accessibility, at least for Bangor's residents. The data from this research go against the studies in the literature review, suggesting that perhaps the digital divide is not as significant of an issue as it may have been several years ago.

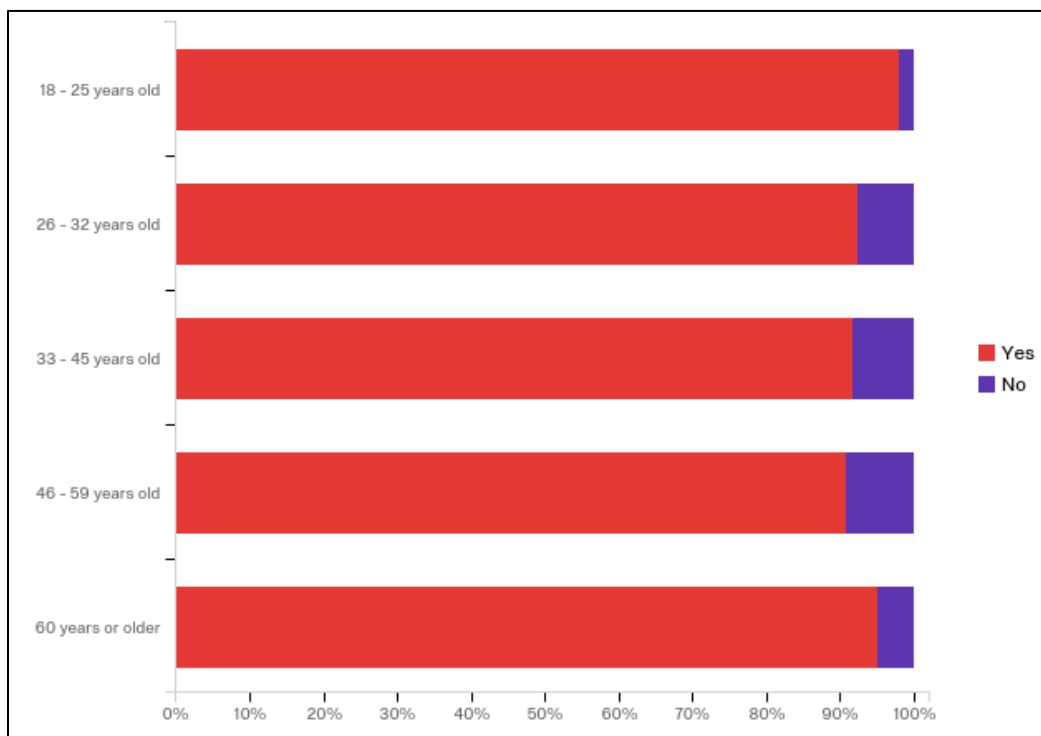


Figure 13: Computer ownership broken out by age (n=487)

As shown in the bar graph above, over 90% of residents in each age group own a computer. In fact, the age groups with the lowest rates of ownership are the 46- to 59-

year olds and the 33- to 45-year olds (both roughly 91%). The highest rates of ownership were the 18- to 25-year olds (98%) followed by the 60 and older age group (95%).

While age is clearly not a factor when it comes to computer ownership and accessibility, it does appear to be a factor when it comes to smartphone ownership. Figure 18 shows the relation between smartphone ownership and age.

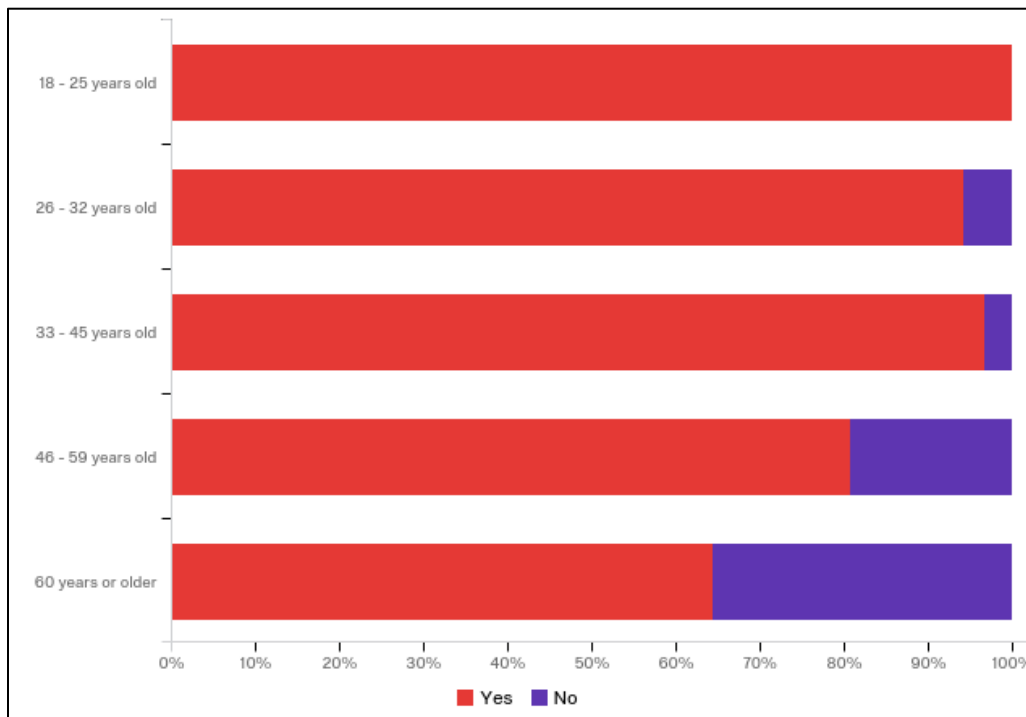


Figure 14: Smartphone ownership broken out by age (n=487)

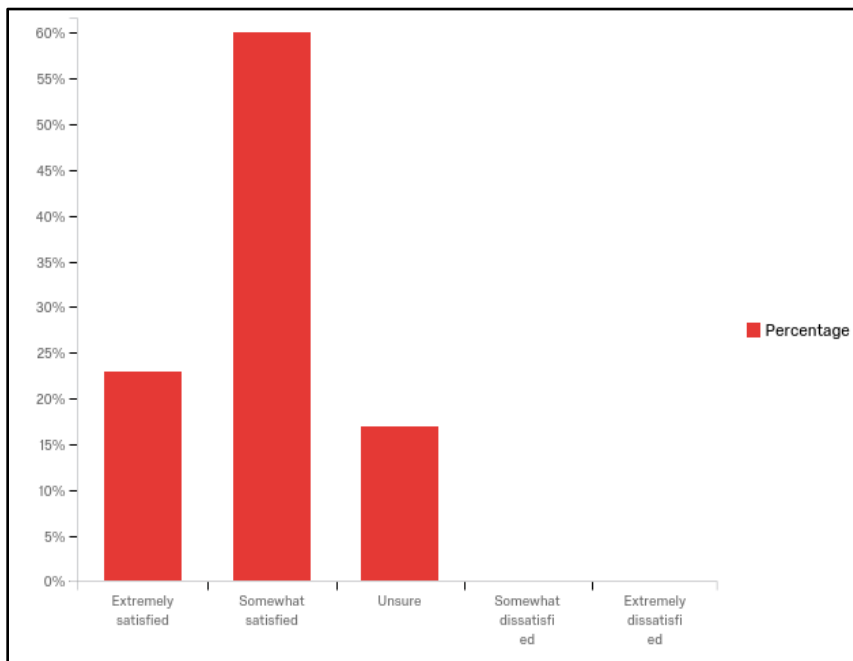
All 18- to 25-year olds who participated in the survey own a smartphone. In the age groups that follow, there is a decreasing rate of ownership, aside from the fact that slightly fewer 26- to 32-year olds own smartphones than 33- to 45-year olds. Roughly 35% of participants aged 60 or older reported that they did not own a smartphone.

Despite the fact that not owning a smartphone or a computer obviously narrows down the communication channels that one can access and utilize, there was no evident relation whatsoever between knowledgeability and smartphone or computer ownership.

The percentages of knowledgeability levels for those who do not own a smartphone or a computer were almost identical to the knowledgeability levels of those who do own a smartphone or a computer. In fact, none of the participants who reported not owning a computer considered themselves to be not at all knowledgeable. It seems as though not owning a smartphone or a computer has virtually no effect on how knowledgeable a resident is regarding city events. Similarly, there was no evident relation between smartphone or computer ownership and satisfaction regarding city communications. The satisfaction levels of smartphone and computer owners were consistent with the satisfaction levels of those who did not own smartphones or computers.

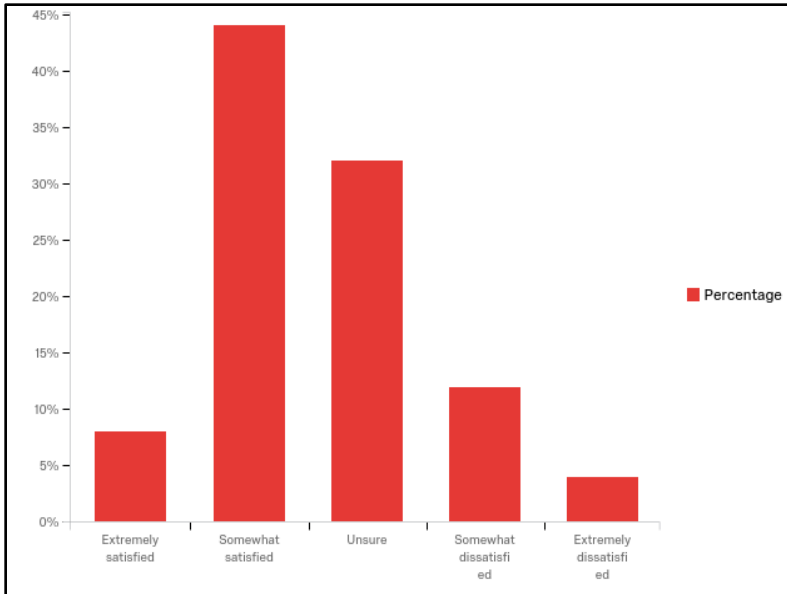
From the survey data, it appears as though digital methods of communication are considered more effective than traditional methods. In all, 67% of participants indicated that their most preferred channel of communication was digital (i.e., the Go Bangor app, email alerts, the city website, or social media), while 30% indicated a preference for traditional methods (word of mouth, contacting a council member, print media, or broadcast media). The qualitative data from the focus groups, however, indicates that there is no clear answer as to whether residents prefer digital or traditional methods. Most of the participants from the renter sessions (8 out of 11) prefer digital methods rather than traditional. Most of the participants from the 60 and older focus groups (7 out of 11), however, indicated that the answer is dependent on what sort of information is being communicated. These 7 participants all agreed that more important, time-sensitive issues should be communicated through traditional methods (i.e., a phone call or direct postal mail).

This study also examined whether there was any relation between use of the Go Bangor app and satisfaction regarding city communications. When viewing the satisfaction levels of participants who use the app either occasionally, often, or very often, satisfaction levels are very high.



*Figure 15: Satisfaction of those who use the Go Bangor app occasionally, often, or very often (n=35)*

The satisfaction levels of those who use the app rather frequently are higher than the satisfaction levels of those who never or rarely use the app (please note the different y-axis values in the two visuals). While none of the frequent app users reported feeling somewhat or extremely dissatisfied with the city's communication efforts, roughly 15% of those who rarely or never use the app expressed dissatisfaction.



*Figure 16: Satisfaction of those who never use the app, or those who use the app somewhat or very rarely (n=35)*

Use of the Go Bangor app clearly aligns with positive levels of satisfaction regarding city communications. This was reiterated throughout the focus group sessions; despite the fact that only 5 of the 22 participants interviewed had used the app, all 5 were very content with the app and complimented its usability, convenience, and responsiveness.

Email alert use seems to have a similar effect on satisfaction levels. While 80% of participants who use the alerts occasionally, often, or very often reported feeling either somewhat or extremely satisfied with the city’s outreach efforts, only 48% of participants who rarely or never use the city’s email alerts reported feeling satisfied (either somewhat or extremely). Evidently, the city’s email alert system and the Go Bangor app are both highly effective communication channels, in terms of resident satisfaction levels.

## CHAPTER VI

### ANALYSIS

Perhaps the most prominent finding suggested by this study is the fact that many residents seem to be unaware of how Bangor communicates information. This was rather unexpected, due to the fact that many of the survey participants and focus group participants would generally consider themselves to be engaged and knowledgeable regarding city events. Bangor's email alert system and the Go Bangor smartphone app are particular communication channels of which residents seem least aware, as significant numbers of participants in both the survey and the focus groups mentioned that they had never heard of the Go Bangor app or the email alert system before taking part in this study.

This lack of awareness of both the app and the email system is consistent with the low rates of use that were present in the survey. However, it seems logical to infer that these low rates of use were due to the fact that many residents were simply unaware that these communication channels existed, rather than some sort of usability issue with either method. Those who have regularly used the email alerts and the Go Bangor app have generally been satisfied with them, so there is no evident problem with either of these methods.

The fact that many Bangor residents may not know about the app or the email alert system certainly does not make either of them an ineffective communication channel. Based on the finding that more frequent use of these two methods is positively



related to significantly higher levels of satisfaction regarding city communications, it is apparent that both the app and the email system are successful in their goals of relaying important information, and both have been praised for their timeliness and convenience in the focus groups. Although the Go Bangor app and the email alert system may not be reaching a high percentage of residents, the city should still regard both methods as extremely valuable communication tools.

Another important takeaway from this study is the fact that renters are not necessarily a hard-to-reach demographic when it comes to city communication, as was originally hypothesized. It was hypothesized that renters would be less knowledgeable regarding city events than homeowners, and that these lower levels of knowledgeability would inevitably result in lower levels of satisfaction, but this is not actually the case when it comes to Bangor's renters. While this study is consistent with existing literature in the sense that renters do tend to be less knowledgeable about things going on in the city than homeowners, the survey results indicate that homeownership status has no impact on one's level of satisfaction regarding city communications. In fact, the satisfaction levels of renters and homeowners are nearly identical.

This insight makes sense, as renters may not necessarily *need* to know all of the same things as homeowners. Some types of municipal information only pertain to those who own homes. For instance, homeowners would likely need to know certain information about property taxes and city ordinances for which renters may have little use. Since certain categories of city information are not useful for those who rent, it makes sense that renters are just as content with the city's outreach efforts as homeowners, despite being less knowledgeable.

Another insight provided by this study is that Bangor's elderly population (in other words, those aged 60 and older) is not the city's most challenging age group. Over 80% of elderly survey participants considered themselves to be at least moderately knowledgeable, and the 60 and older age group had the highest levels of satisfaction out of all the other age groups, so it is fair to say that they are generally knowledgeable and satisfied overall. While it is correct to say that Bangor's elderly population may have less of an ability to access the internet due to their lower rates of smartphone ownership, smartphone ownership seems to have no effect on how satisfied one feels toward the city's communication efforts.

The fact that Bangor's elderly population has relatively higher rates of satisfaction regarding communication compared with other age groups may be a result of recent efforts to "improve quality of life for older residents" of the city (Haskell 2016). In July, for instance, AARP granted the city age-friendly status, and the organization is now in the process of holding focus groups that will explore age-friendly initiatives. These efforts have provided elderly residents with new outlets to voice their opinions, which is could be driving high satisfaction rates, at least among engaged and active elderly residents.

The age group that is of more significant concern than the 60 or older age group is the group of residents between the ages of 33 and 59. Not only are they generally the most dissatisfied age group of Bangor residents, they are also more likely to not want any communications on behalf of the city, citing either being too busy or not caring about the information. The relatively higher rates of dissatisfaction could be due to a number of factors; perhaps these residents are busy with work or their families and so they might not

have as much time to seek out municipal information when they need it. One theory is that most 33- to 59-year olds are in their earning years, and so they may automatically associate city government communication with negative interactions that are either inconveniences in their busy lives, like road construction or changes to recycling schedules, or interactions that cost money, such as taxes, fees, and licensing of various kinds. In examining the results of survey question 19 that asks residents how the city can improve communication efforts (see appendix A), several responses from 33- to 59-year olds align with this proposed theory; six participants mentioned issues regarding road construction, four mentioned recycling or trash issues, and one mentioned property tax issues. Many of those who are over the age of 60, on the other hand, have retired and have more of an opportunity for positive interactions with the city government.

Unfortunately, because the qualitative data focused solely on renters and those who are over the age of 60, the focus group data that was collected does not explicitly reveal why the 33- to 59-year old age group is generally less satisfied with the city's communications. It would be beneficial to conduct a follow-up study in which the 33- to 59-year old age group was isolated and examined more closely.

The study also made it clear that the city of Bangor is doing an excellent job of utilizing multiple channels of communication, so as to not exclude those who lack internet access. Neither internet access nor smartphone access are universal yet, and not having convenient access to the web at all times generally means less opportunity to take advantage of web-based communication methods (i.e., city website, social media, Go Bangor app, email alerts). Therefore, this so-called digital divide may be present in terms of accessibility, but one's accessibility to a computer or a smartphone does not seem to

have any effect on one's satisfaction with the city's communications – an extreme contrast to the conclusions suggested by the existing literature. Survey participants who did not own either a smartphone or a computer were no less satisfied than those who owned both, so smartphone and computer ownership are not nearly as significant of factors as was hypothesized from the literature review.

This is likely because, in addition to utilizing several web-based channels, Bangor still effectively utilizes a number of traditional communication methods. For instance, city council members provide their personal phone numbers to the public, encouraging residents to call them if they have any questions. Bangor community information can be found in the print edition of *The Weekly*, a newspaper that goes out to all residents of the city at no cost to them. City council meetings can be viewed on local television. While having a smartphone or a computer certainly makes obtaining information more convenient, Bangor has done a commendable job of making information available to those who may not have access to these resources. This is a particularly impressive achievement, considering the fact that Bangor has managed to accomplish this while the state government has been providing “substantially less revenue for municipalities” (Shaw 201).

## CHAPTER VII

### CONCLUSION

There are several measures that the city of Bangor could consider taking in order to improve its communication outreach.

1. One measure that Bangor could take that would likely improve the city's communication efforts would be to spend even more time promoting the different channels of communication that are available, as well as educating interested residents on how to use them. There is no denying that the email alerts and the Go Bangor app are useful tools that are effective and satisfying for those who use them, but it is evident that there are still many residents who have never heard of either of these methods.

The city could consider the idea of having an educational forum where residents can come and learn about the different channels of communication that Bangor utilizes, with a particular focus on the email alert system and the Go Bangor app. There is certainly an interested audience for such an event, seeing as 14% of the survey's participants who left suggestions wanted the city to provide opportunities to learn about the different ways of accessing information. A forum like this would benefit residents by educating them about new communication methods of which they may not be aware, and it would also give the city the opportunity to receive feedback on the app and the email alert system.

The fact that two of Bangor's most satisfying channels of communication also have the two lowest rates of use will hopefully provide a valuable lesson to other

municipalities, in Maine, the United States, and even around the world. As existing technology changes and new technology becomes available, it is inevitable that municipalities around the world will begin to utilize new methods of communication, such as smartphone or tablet apps, text messaging systems, or new social media platforms. No matter how effective these new methods may be, residents need to be given extensive opportunities to learn about these methods. For instance, a given municipality might come up with a low-cost, user-friendly, convenient method of communication that receives excellent reviews; however, word-of-mouth is only so powerful, and unless it is promoted somehow, residents may not use it as frequently as expected.

2. It may also benefit the city to further examine its relationship with those between the ages of 33 and 59. This age group is more likely to be dissatisfied as well as more likely to not want to receive communications from Bangor than any other age group. This study was successful in that it identified a clear relationship between age and satisfaction with municipal outreach efforts, but more data may be necessary if the city wants to determine why these particular sentiments exist among 33- to 59-year olds.

As discussed earlier, one theory that might explain this relationship is that perhaps 33- to 59-year olds just tend to view the city government negatively due to costly interactions that are typically associated with unpleasantness. Such a theory would have both positive and negative implications for the city. On the one hand, it would mean that there is not necessarily a problem with the city's communication methods, which is certainly a good thing. However, it would mean that the problem lies within the specific nature of the information that the city of Bangor is sending to and receiving from these residents rather than the actual means of communication. Unfortunately, there is little that

the city of Bangor could do to change this negative association. Therefore, the city should take caution in investing too much of its resources into this age group; while these residents may indicate dissatisfaction toward the city's communications, it may be that they have a broader issue with the city as a whole instead. A follow-up study to further explore this theory and consider the roots of these negative perceptions, however, might prove beneficial.

One way that the city might consider reaching out to this 33- to 59-year old age group while simultaneously promoting the Go Bangor app would be to mail a promotional flier out in the mail along with property tax bills. This was already done over a year ago, but it seems as though it might be beneficial to send out a reminder. In doing so, the city would be targeting homeowners of all age, but many would inherently be within the 33- to 59-year old age group. Attaching a promotional flier to property tax bills that are already being mailed out would likely only require a printing cost. Even if the city decided to do a promotional mailer for the app on its own, the potential benefits might outweigh the cost of printing and mailing, since more frequent use of the app seems to be related to significantly higher levels of satisfaction. This method of promotion is something that the city of Bangor has used before in terms of other municipal-related information, as well; for instance, a flier about a new energy initiative was recently mailed out along with property tax bills (Fox Bangor Newsroom 2016).

3. The city of Bangor is also doing a great job of making information available to those who may not have access to a computer or a smartphone. The fact that there is no apparent relationship between smartphone or computer ownership and satisfaction or knowledgeability shows that Bangor has successfully provided smartphone- and

computer-lacking residents with equal opportunities to receive municipal information. Even as new technology emerges and the city comes up with new, more advanced ways of relaying information to residents, Bangor should keep utilizing some of the more traditional means of communication, like print or broadcast news, because residents still consider these methods to be useful. Despite the fact that some survey and focus groups have suggested that the city streamline its communication efforts by utilizing one communication channel rather than many, the data shows that the use of multiple methods has paid off.

This study will hopefully serve as a lesson to other municipalities that even though the digital divide does still exist in the sense that some residents still lack access to certain technology, such a divide does not necessarily have any impact on satisfaction or knowledgeability in terms of communication, so long as the municipality provides alternative ways for residents to find information. Other municipalities should look to Bangor as a successful archetype of a city that has minimized the potential impact of the digital divide, as it provides residents with a variety of communication channels, both digital and traditional.

4. Because the survey and focus group data revealed that renters are less knowledgeable than, yet as satisfied as homeowners, it would not seem logical for the city to undergo any efforts to send out more information to all renters. All 11 focus group participants from the renters' sessions said that they do not currently feel as though they receive too much information from the city. If the city were to suddenly increase the volume of information that is sent out to renters, renters might begin to feel increasingly dissatisfied, as they might be receiving information that they simply do not need. The city



of Bangor, as well as other municipalities, should not concern themselves with lower rates of knowledgeability among renters, as renters have less of a need to know certain city-related information.

Based upon the fact that a majority of the survey's participants are either somewhat satisfied or extremely satisfied with the city's communication efforts, and less than 4% are extremely dissatisfied, it seems reasonable to conclude that Bangor is generally successful in its overall communication efforts. Nearly all of the survey's participants consider themselves to be at least moderately knowledgeable when it comes to city-related information, so the city is also generally successful in relaying important information to its residents. While there are measures that Bangor can take to make its outreach efforts even better, the city is already doing a sufficient job when it comes to communication: generally speaking, residents seem to be receiving the important information that they need, and they are satisfied with the ways they are receiving it.

While the subject of municipal government communication may have seemed relatively unimportant at first, this research supports the idea that government-resident communication is of the utmost importance when it comes to municipalities. Communication among residents and their governments typically makes governments more democratic, and government-resident interactions can also have an impact on residents' views of the municipality overall -- especially since the most direct government-resident interactions generally happen at the local level.

The fact that the city of Bangor is doing a sufficient job of communicating with residents and ensuring that important information is received and understood provides a valuable and optimistic lesson for other municipal governments. The case of Bangor

suggests that, by thinking innovatively and utilizing a variety of communication channels, even governments with limited resources at their disposal can succeed in their communication efforts. While no government is likely to prevent all situations like Peter Ramsay's from happening, Bangor has effectively utilized a number of communication channels to minimize such occurrences. Take the case of Peter Ramsay, for example; Peter now receives multiple emails and texts from the city on a daily basis, and is generally satisfied with the city's outreach efforts overall. Because of Bangor's impressive record when it comes to communication, other municipalities should look to the city as a successful model. This analysis of Bangor has suggested that today, municipalities have more tools than ever at their disposal to use in terms of communication channels, and so long as residents are aware of them, they are able to access and use them effectively.

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## APPENDIX A

### SURVEY QUESTIONS

**1. Do you consent to participate in this study?**

- ☐ Yes
- ☐ No

**2. Are you a resident of Bangor?**

- ☐ Yes
- ☐ No, but I used to live in Bangor
- ☐ No, but I live in a neighboring community
- ☐ No, but I live in Bangor for part of the year
- ☐ No, I have never lived in Bangor

**3. If you are a resident of Bangor, how long have you lived in Bangor?**

- ☐ less than one year
- ☐ between one and two years
- ☐ between two and three years
- ☐ between three and five years
- ☐ longer than five years

**4. If you are a resident of Bangor, how long do you plan on living in the Bangor?**

- ☐ for one year or less
- ☐ between one and two years
- ☐ between two and three years
- ☐ between three and five years
- ☐ longer than five years

**5. What is your gender?**

- ☐ Male
- ☐ Female
- ☐ Other - please specify
- ☐ Prefer not to answer

**6. What is your age?**

- ☐ 18 - 25 years old
- ☐ 26 - 32 years old
- ☐ 33 - 45 years old
- ☐ 46 - 59 years old
- ☐ 60 years or older

**7. What is your estimated household income before taxes during the past 12 months?**

- ☐ Less than \$25,000
- ☐ \$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 or more
- ☐ Prefer not to answer

**8. How did you hear about this survey?**

- ☐ postcard
- ☐ word of mouth
- ☐ saw a flyer - please specify where
- ☐ saw on Bangor city website
- ☐ saw on FirstClass
- ☐ heard about it through the Bangor Daily News
- ☐ heard about it through WABI TV5
- ☐ other - please specify: \_\_\_\_\_

**9. Do you rent or own your home/apartment?**

- ☐ rent
- ☐ own
- ☐ other - please specify
- ☐ prefer not to answer

**10. Do you own a smartphone?**

- ☐ Yes
- ☐ No

**11. Do you own a computer?**

- ☐ Yes
- ☐ No

**12. How knowledgeable do you consider yourself to be about things happening in the City of Bangor?**

- ☐ Extremely knowledgeable
- ☐ Very knowledgeable
- ☐ Moderately knowledgeable
- ☐ Slightly knowledgeable
- ☐ Not knowledgeable at all

**13. State how often you use the following methods to access information from the City of Bangor.**

	Never	Very rarely	Somewhat rarely	Occasionally	Often	Very often
Word of mouth						
Social media (Twitter, Facebook, etc.)						
City of Bangor email alerts						
Visiting the City of Bangor website						
“Go Bangor” smartphone app						
Local broadcast media (radio, TV)						
Local print media (newspapers, magazines)						
Contacting a City of Bangor staff person or City Councilor						
Other - please specify:						

**14. Which of the following do you consider to be the *most effective* means of gaining information from the City of Bangor?**

- ☐ Word of mouth
- ☐ Social media (Twitter, Facebook, etc.)
- ☐ City of Bangor email alerts
- ☐ Visiting the City of Bangor website
- ☐ "Go Bangor" smartphone app
- ☐ Local broadcast media (radio, TV)
- ☐ Local print media (newspapers, magazines)
- ☐ Contacting a City of Bangor staff person or City Councilor
- ☐ Other (please specify): \_\_\_\_\_

**15. For the following categories, rate how important you think it is that the City of Bangor directly communicates information to its residents.**

	Not at all important	Of very little importance	Slightly important	Moderately important	Very important	Extremely important
Community events						
Project updates						
Breaking News						
City Meetings/ Agenda						
City Council actions						
Policy/Ordinance Reminders						
Public Notices						
Volunteer/Employment Opportunities						
Program Information						
Other - please explain:						

**16. Would you prefer not to receive any communications from the City of Bangor?**

- ☐ Yes  
☐ No

**17. If you do not wish to receive any communications from the City of Bangor, what is the reason?**

- ☐ Too busy to read the alerts
- ☐ Don't have a phone or computer to keep up
- ☐ Don't care about the information
- ☐ I don't want to receive emails, text messages, or letters from the city
- ☐ Other - please specify below:

**18. Overall, how satisfied are you with the city of Bangor's efforts to communicate important information to its residents?**

- ☐ Extremely satisfied
- ☐ Somewhat satisfied
- ☐ Unsure
- ☐ Somewhat dissatisfied
- ☐ Extremely dissatisfied

**19. What, if anything, do you think that the City of Bangor could do better in its efforts to communicate with the residents of the city?**

*Your answers to the following questions will be separated from the rest of the survey.  
Your responses will not be linked to the rest of the survey in any way.*

**Would you be interested in participating in a one hour focus group to further discuss Bangor's community outreach efforts? (By answering yes, you are not committing to anything - merely expressing an interest. All focus group participants will receive a \$10 gift card to a local Bangor retail outlet or eatery for their time.)**

- ☐ Yes
- ☐ No

**Would you like to be entered in a raffle to win a \$20 gift card to a local Bangor retail outlet or eatery for your participation in this survey?**

- ☐ Yes
- ☐ No

**If you answered yes to either question above, please list your contact information below.**

Name: \_\_\_\_\_

Phone number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

## APPENDIX B

### FOCUS GROUP QUESTIONS

1. Let's start with some introductions. Can you tell us who you are and how long you've lived in Bangor?
2. Do you feel as though the City of Bangor does a sufficient job of communicating important information to all residents? Why or why not?
3. Do you feel as though it is important for you personally to receive information from the city of Bangor? Why or why not?
4. Have you ever found yourself in a situation where you felt as though the City failed to notify you of something important? If so, please describe the situation.
5. What types of information do you want from the city? Would you prefer only necessary information, like road closures or emergencies, or would you prefer to hear necessary information along with optional information, like citywide events?
6. What methods do you suggest City staff utilize when communicating important information to residents?
7. Have you ever found yourself in a situation where you thought you were receiving too much information, or perhaps unnecessary information, on behalf of the city?
8. If you had to pick between the two, would you prefer to receive information from the city digitally (through text messages or emails) or through other methods, such as phone calls, postal mail, or door-to-door messages? Why?
9. Do you feel as though your status as a (resident over age 60/renter) affects your preferences regarding the city's outreach methods? If so, why?
10. Are there aspects regarding Bangor's communication with its residents that you feel we haven't discussed tonight? Are there strategies to address outreach challenges that haven't been mentioned?

## APPENDIX C

### INSTITUTIONAL REVIEW BOARD APPROVAL

**(KEEP THIS PAGE AS ONE PAGE – DO NOT CHANGE MARGINS/FONTS!!!!!!!!!!)**

#### APPLICATION FOR APPROVAL OF RESEARCH WITH HUMAN SUBJECTS Protection of Human Subjects Review Board, 114 Alumni Hall, 581-1498

PRINCIPAL INVESTIGATOR: Robert Glover  
EMAIL: Robert.glover@maine.edu  
CO-INVESTIGATOR(S): Jaymi Thibault  
FACULTY SPONSOR (Required if PI is a student): n/a  
TITLE OF PROJECT: Initiative to Improve Community Outreach Within Bangor

TELEPHONE: 207-581-1880

START DATE: February 10, 2016  
MAILING ADDRESS: 5574 North Stevens Hall, Dept. of Political Science, UMaine, Orono, ME 04469-5754  
PI DEPARTMENT: Political Science

FUNDING AGENCY (if any):  
STATUS OF PI: FACULTY/STAFF/GRADUATE/UNDERGRADUATE Faculty

1. If PI is a student, is this research to be performed:  

<input checked="" type="checkbox"/>	for an honors thesis/senior thesis/capstone?	<input type="checkbox"/>	for a master's thesis?
<input type="checkbox"/>	for a doctoral dissertation?	<input type="checkbox"/>	for a course project?
<input type="checkbox"/>	other (specify)		
2. Does this application modify a previously approved project? N (Y/N). If yes, please give assigned number (if known) of previously approved project:
3. Is an expedited review requested? Y (Y/N).

Submitting the application indicates the principal investigator's agreement to abide by the responsibilities outlined in [Section I.E. of the Policies and Procedures for the Protection of Human Subjects](#).

Faculty Sponsors are responsible for oversight of research conducted by their students. The Faculty Sponsor ensures that he/she has read the application and that the conduct of such research will be in accordance with the University of Maine's Policies and Procedures for the Protection of Human Subjects of Research. **REMINDER:** if the principal investigator is an undergraduate student, the Faculty Sponsor MUST submit the application to the IRB.

**Email complete application to Gayle Jones (gayle.jones@umit.maine.edu)**

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**FOR IRB USE ONLY** Application # 2016-01-02 Date received 01/11/2016 Review (F/E): E  
Expedited Category:

#### ACTION TAKEN:

- ☒ Judged Exempt; category 2 on 1/12/16 Modifications required? Y Accepted (date) 1/20/16
- ☐ Approved as submitted. Date of next review: by Degree of Risk:
- ☐ Approved pending modifications. Date of next review: by Degree of Risk:
- ☐ Modifications accepted (date):
- ☐ Not approved (see attached statement)
- ☐ Judged not research with human subjects

**FINAL APPROVAL TO BEGIN**

**1/20/16**  
Date

08/2015

## AUTHOR'S BIOGRAPHY

Jaymi Thibault was born in Lewiston, Maine on December 8, 1994. Jaymi has lived in Maine all her life; she was raised in Lisbon, Maine and graduated from Lisbon High School in 2013. Jaymi is majoring in political science with a minor in Business Administration. She is a member of the Pi Sigma Alpha, Phi Kappa Phi, and Golden Key International honor societies.

Upon graduation in May 2017, Jaymi plans to stay in the wonderful state of Maine with a hope of pursuing a career in state or municipal government. She also hopes to acquire a Master's degree in the near future.