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Online Social Capital: Social Networking Sites' Influence on Civic and Political Engagement

Charles L. Bush
Old Dominion University, cbush004@odu.edu

ONLINE SOCIAL CAPITAL: SOCIAL NETWORKING SITES' INFLUENCE ON CIVIC AND POLITICAL ENGAGEMENT

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Charles L. Bush
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Approved by:

Scott R. Maggard (Director)

Dianne C. Carmody (Member)

Ingrid P. Whitaker (Member)

ABSTRACT

ONLINE SOCIAL CAPITAL: SOCIAL NETWORKING SITES' INFLUENCE ON CIVIC AND POLITICAL ENGAGEMENT

Charles L. Bush
Old Dominion University, 2018
Director: Dr. Scott R. Maggard

This thesis examines how using social networking sites (SNS) is correlated with levels of civic and political engagement of college students at Old Dominion University. Past research has yielded mixed results on the link between online social capital and civic and political engagement. Major limitations of past research include grouping together social networking sites that are substantially different and not considering these sites' impact on the different forms of social capital. This thesis first examines how social networking site preference, intensity of use, and motives for use factor into an individual's online social capital. Secondly, this thesis looks at how online bridging, bonding, and maintained social capital influence an individual's level of civic and political engagement.

Results from an internet-based survey showed Instagram users had the highest level of online social capital. As expected, respondents who used SNS with greater intensity with the purpose to gather information had higher levels of online social capital. Additionally, individuals who had higher levels of online social capital reported being more civically and politically active. These findings contributed to the limited body of research focusing on SNS and online social capital and provide valuable knowledge about the link between using social networking sites and participating in political and civic activities. Future research should build on this research expand the scope of this

study by sampling a broader sample, further validating the measures used, and comparing various forms of social networking sites.

This thesis is dedicated to Holly Williman and my family. Without them, I would have never had the opportunities I have today.

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INTRODUCTION

In recent decades, internet usage has grown, with social networking sites (SNS) showing the greatest increase (Brenner and Smith 2013). Social networking sites, such as Facebook, LinkedIn, and Twitter, allow individuals to connect and add to their social networks online, which can link them to other people with shared political, cultural, or social interests (Ellison, Steinfeld, and Lampe 2007; Park, Kee, and Valenzuela 2009; Ahn 2012; Paul, Baker, and Cochran 2012).

Research has attempted to identify links between internet usage and civic engagement. However, it is not clear whether internet usage increases or decreases civic engagement. Civic engagement can be understood as the degree to which individuals are involved in their community. Civic participation occurs on the local level, while political participation can be indicative of involvement on both local and national levels. Earlier studies have typically found that internet use decreases civic engagement because it disconnects people from face to face interactions (Putnam 2000; Shah Kwak, and Holbert 2001). However, more recent studies have found that internet use increases civic participation by making it easier to connect to one another and providing more access to information (Ellison et al. 2007; Ahn 2012; Gil de Zuniga, Jung, and Valenzuela 2012; Smith 2013).

In 2013, 72 percent of internet users also report using one or more social networking sites, which is a substantial increase over the eight percent of internet users accessing social networking sites in 2005 (Brenner and Smith 2013). This rise in online social networking could account for the variation in research findings concerning the relationship between internet use and civic engagement. Recent findings suggest those

who use SNS for informational purposes are more likely to participate in civic or political activities (Park et al. 2009; Gil de Zuniga et al. 2012).

Users of social networking sites are able to acquire social capital by being part of an online social network. According to Putnam (1995, 2000), social capital is the culmination of resources available through social networks. Putnam (1995, 2000) also argued that social capital should be used for the benefit of the public and or individuals. For example, communities with high social capital would have more resources available to improve on societal issues, such as civic engagement and crime. Furthermore, individuals with high social capital and use their social networks to improve their access to resources. The resources gained from social networks can range from social support to borrowing financial capital, among others. Research has shown a positive association between social capital and civic engagement (Putnam 1995, 2000; Ellison et al. 2007; Kapucu 2011; Gil de Suniga et al. 2012), meaning that higher levels of social capital can be linked to higher levels of civic engagement. However, available research focusing on social capital generated online and civic engagement has not been conclusive.

The purpose of this study is to expand on literature that examines the effect of social capital on civic engagement. More specifically, this study intends to identify and analyze social capital acquired through using social networking sites (SNS), which is also referred to as online social capital. Social capital can be categorized into three specific types: bonding, bridging, and maintained. Furthermore, this study will examine how specific control variables, such as demographics, motives for SNS usage, and intensity of SNS usage, moderate the relationship between online social capital and

civic engagement. The central research question guiding this study focuses on how social capital acquired through social networking sites is related to civic engagement.

Given the limited availability of research on the topic, examining the relationship between social networking site usage and social capital will provide a more comprehensive understanding of the variations in individual levels of civic engagement. Moreover, social networking sites have been expanding and changing drastically over the past decade. Therefore, studies should be continuously conducted to evaluate the current state and impact of SNS.

In the past, a few studies have broadly examined this topic, often looking at a particular SNS or grouping several SNS sites together. Additionally, several studies did not incorporate SNS usage patterns, such as time spent online, into their study (Cummings 2002; Williams 2006; Ellison et al. 2007; Park et al. 2009; Subrahmanyam 2008; Ahn 2012; Hofer and Aubert 2013). It is also important to distinguish how using different types of SNS impacts the generation of social capital due to increasing function and popularity of SNS. For instance, Twitter usage more than doubled from 2010 to 2013(Brennan and Smith 2013).

Additionally, it is important to include as many variables as possible to better understand the association between social capital and civic engagement. Looking at the frequency and motives behind SNS usage, as well as demographic characteristics, allows for a more accurate representation of the types of online social capital generated. To put it another way, an individual who uses SNS for informational purposes generates a different type of social capital as compared to an individual who uses SNS for

entertainment. It is also interesting to see how this association can be influenced by demographic factors, such as race, education, or age.

This information can be used to clarify how individuals use SNS and how these sites are linked to social capital and civic engagement. Early literature on the topic argues that civic and political participation reflect the degree of trust and interaction between members of society (Putnam 1995, 2000). How social capital is created and used in social networks is vital in understanding how SNS can be used to increase civic engagement and improve community involvement. For example, political organizations could use the data from this study to increase voter turnout via social networking sites. Researchers have consistently found that individuals who are more involved with their community often have greater psychological and physical wellbeing, as well as overall life satisfaction (Putnam 1995, 2000; Murayam 2012; Paul et al. 2012; Yamaguchi 2013).

The following chapter provides an overview of social capital theory, the social science literature on internet usage, and prior literature examining social networking sites, social capital, and civic engagement.

REVIEW OF LITERATURE

This chapter provides an overview of the literature concerning online social networks, civic engagement, and social capital that is acquired online. The first portion of the chapter outlines the development of social capital as a concept. The subsequent section situates social capital in a particular theoretical framework. Moving forward, the chapter describes empirical evidence that suggests social capital is linked to civic engagement and various individual and community outcomes (Lin 2008). Research on social capital in relation to the internet and social networking websites is also discussed. Lastly, the chapter ends with a critique and summary of the reviewed literature.

SOCIAL CAPITAL

Social capital has been defined in several different ways. Social capital is commonly viewed as a social phenomenon, meaning it is created through human interaction. Most also agree that social capital is a beneficial resource that can help individuals and communities reach their goals (Hanifan 1916; Bourdieu 1986; Coleman 1988; Putnam 2000; Lin 2001).

Social capital was first described in the early part of the 20th century by L.J. Hanifan (1916). He noted that social capital is unlike other forms of capital, such as money, because it is not a physical object. Instead, social capital is represented by the intangible resources stemming from social interactions and allows the individual or group to be more productive. People are better able to achieve their goals if they utilize the resources gained through interactions with others. In his work, Hanifan (1916) characterized social capital as “good-will, fellowship, mutual sympathy and social intercourse among a group of individuals and families who make up a social unit” (p.

130). He theorized that as individuals and families within a community interact, they build social capital. This accumulation of social capital could then be used to meet the needs of the individual or community. Additionally, as a community's social capital increases, the benefits for the individual or community will also be greater. Hanifan's (1916) work established a foundation which was later expanded on by several theorists (Loury 1977; Bordieu 1986; Coleman 1988; Putnam 2000; Ellison et al. 2007).

Loury (1977) added to the development of social capital by claiming that prior theories had failed to estimate the importance of an individual's social network in their life. To better understand this, Bourdieu (1986) expanded on this by studying how a person's social network can influence his or her productivity. According to Bourdieu (1986), social capital is "the aggregate of the actual or potential resources which are linked through to the possession of a durable network of more or less institutionalized relationships of mutual acquaintances or recognition" (p. 51). In other words, social networks are the result of strategic investments created to help individuals acquire resources that can be attained through their associates. He also argued that dense, closed networks were more beneficial than shallow, open networks, in regards to increasing productivity. Bourdieu (1986) analyzed the concept of social capital at the individual level and was one of the earliest scholars to incorporate an economic perspective with social capital.

Granovetter (1983) expanded on social capital as well by focusing on the strength of weak ties. He posited that individuals are not as involved with acquaintances as they are with their close friends. In this scenario, acquaintances make up a person's weak ties, while close friendships indicate strong ties. Granovetter (1983) claimed that a

people generally used weak ties for increased access to other parts of their community. Therefore, having more weak ties allows for a greater opportunity to access new ideas or information. For example, information about job opportunities or political movements are easily discovered when an individual has more weak ties. Granovetter's (1983) work further expanded on social capital by showing that social capital exists in different forms and can be used for a variety of reasons.

Coleman (1988) also embraced the economic view that individuals are rational actors whose self-interests guide his or her actions. However, Coleman (1988) believed that this explanation dismissed the potential effect social structures have on a person's actions. Within this framework, Coleman (1988) claimed that social capital "is not a single entity but a variety of different entities with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors - whether persons or corporate actors - within the structure." Therefore, the concept of social capital is defined by how it benefits the individual and society through utilizing social resources, such as networking with like-minded individuals to achieve a collective action (Coleman 1988).

Coleman (1988) also compared social capital with other forms of capital. As with the other types of capital, social capital is productive. For instance, physical capital is created by changing materials into tools that promote production, while human capital is created by changing a person's skills and/or abilities to make him or her more productive. Similarly, the creation of social capital is dependent on the interactions between people to enable action. Consequently, networks with higher social capital are more productive in acting towards their goals (Coleman 1988).

Coleman (1988) identified three different ways social capital can be a resource for people and the community. First, social capital consists of obligations, expectations, and trustworthiness within various social structures. In other words, the extent to which people help each other depends on the level of trust within the group. This level of trust allows the members to be sure that their actions will be reciprocated in the future. The second resource, information channels, implies that social networks are heavily used to access information. Having greater access to information allows for more efficient action. The third form of benefit from social capital is social norms and effective sanctions. Social norms allow for the expectation of trust between members of network and effective sanctions ensure that the expectation of trust is upheld (Coleman 1988).

Putnam (1995, 2000) expanded on Coleman's (1988) explanation of social capital. First, he defined social capital as the "features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam 1995:67). Core measures of social capital are trust and reciprocity. From this definition, Putnam (1995, 2000) implied that higher levels of social capital improve the lives of people by making them happier, safer, and more productive, which increases the quality of life and productivity of the community. As the community improves, it reciprocates the benefits to the individual.

Putnam (2000) identified two ways of creating social capital: bridging and bonding, and looked at how they affected individuals and communities differently. Bonding social capital describes the resources that arise from having the support of a network of like-minded people. The benefit of bonding social capital includes access to resources that are directly related to the group's collective goals. For instance, bonding

social capital can be found in neighborhoods. Neighbors rely on one another to ensure the safety of children playing within the community. Alternatively, bridging social capital is created when people interact with others who are not similar to themselves in terms of access to resources. A benefit of bridging is accruing previously unattainable resources through individuals from different social circles. Bridging social capital allows for members of heterogeneous groups to share previously unconnected information and resources, which in turn promotes innovation and productivity. Putnam argued that these two forms of social capital were positively correlated (Putnam 1995, 2000).

Ellison et al. (2007) embraced the framework laid out by Putnam (2000), but added a third form of social capital, maintained social capital. The researchers developed this term to encompass the extent to which individuals maintain past social networks. The degree to which social networks are maintained reflects the culmination of resources available to the individual or group. The more effectively these networks are maintained, the more likely individuals will be able to access the resources of their networks (Ellison et al. 2007).

Lin (1999, 2001, 2008) based his work on Putnam (1995, 2000) and Coleman (1988). He explained that social capital is generated through “investment in social relations with expected returns” (Lin 1999:30). Unlike Putnam (2000), Lin (2001) applied his network theory of social capital to the individual level. Lin’s (1999, 2001) network theory of social capital is fundamentally based on rational actors and draws from the research literature on social capital. To Lin (1999:39), social capital is the “investment in social relations by individuals through which they gain access to embedded resources to enhance expected awards returns of instrumental or expressive action.” Using this

understanding as a foundation, Lin (1999, 2001) constructed his network theory of social capital.

The logic behind Lin's (1999, 2001) model can be simplified to three main processes. First, individuals invest in social capital through forming and keeping interactions. Next, the result of this investment is moderated by the individual's or group's ability to access and mobilize their accumulated social capital. Finally, the return or outcome of the investment consists of instrumental action and expressive action (Lin 1999, 2001).

According to Lin (1999, 2001), the instrumental action occurs in order to gain resources not originally accessible by the actor. It has three central forms of return: economic, political, and social. Therefore, returns from instrumental action provide individuals and/or groups with benefits, such as money, the power of influence, and status. Alternatively, an expressive action is used to maintain already existing resources. Lin (1999) specified three types of return that are related to this form of action: physical health, mental health, and life satisfaction. Furthermore, Lin (1999, 2001) indicated that instrumental and expressive actions can reinforce each other. For example, being healthy is beneficial when working to earn a wage. Instrumental action and expressive action are described in ways that are very closely related to Putnam's (2000) conceptualization of bridging and bonding social capital.

Lin (2008) further developed his network theory of social capital by identifying three exogenous variables that directly affect the production of social capital. The first is the individual's structural position, which is the person place within the social hierarchy. The second variable relates to the characteristics of the network, including its location,

density, and other features. The last variable was the individual's motive for being a part of the network. Numerous scholars who contributed to developing social capital, as a concept or theory, have viewed social capital as network-based (Hanifan 1916; Loury 1977; Bordieu 1986; Coleman 1988; Lin 1999; Putnam 2000; Lin 2001; Ellison et al. 2007; Lin 2008).

For the purpose of this study, the concept of social capital is rooted in Lin's understanding that social capital is the "resources embedded in one's social networks, resources that can be accessed or mobilized through ties in the network" (Lin 2008:4). In addition, the forms of social capital measured in the current study will be based on Ellison et al. (2007), and distinguish between bridging, bonding, and maintained social capital. In regards to the forms of social capital, this understanding parallels the work of Coleman (1988), Putnam (2000), and Lin (2008). The addition of maintained social capital is especially useful due to the changes in communication that accompany the emergence of social networking sites (Ellison et al. 2007).

EFFECTS OF SOCIAL CAPITAL

Individual outcomes are more pertinent to this study when examining how the social capital acquired through online social networking is related to individual participation in civic activities. Several studies examined the effects of social capital on the individual, such as mental health, physical health, civic participation, and political participation to name a few. Studies have generally concluded that higher levels of social capital are associated with an improvement in an individual's life (Murayama, Fujiwara, and Kawachi 2012; Yamaguchi 2013).

SOCIAL CAPITAL AND CIVIC ENGAGEMENT

This section reviews the literature that links social capital and civic engagement. Putnam (1993, 1995, 2000) argued that social capital is declining in the United States, which results in less civic and political involvement. Putnam (2000) explained that people are becoming more alienated from one another. When people are less connected to society, they care less about societal responsibilities, such as voting. Additionally, Uslaner and Brown (2003) suggested that civic and political engagement should be viewed as separate forms of participation. This stems from the underrepresentation of young adults who are politically engaged (Uslaner and Brown 2003; Kapucu 2011).

Civic engagement is a broad term that is generally defined as an individual or aggregate action towards public interests. Civic engagement is commonly measured through political participation, involvement in civic groups, volunteering, charity work, and other activities that improve the community (Putnam 1993; Gil de Zuniga et al. 2012). Trust and civic engagement may also influence social capital and civic participation. This means that civic engagement increases social trust and, in return, social trust aids in increasing civic participation. Social capital is created through this process (Putnam 2000; Uslaner and Brown 2003; Gil de Zuniga et al. 2012).

Several theorists have also argued that social capital is positively and strongly associated with civic engagement (Putnam 2000; Uslaner and Brown 2003; Gil de Zuniga et al. 2012). This implies that social capital increases as community involvement increases. Understanding this association allows for scholars to identify how different sources of social capital, such as the SNS, can affect civic engagement.

SOCIAL CAPITAL AND THE INTERNET

Putnam (2000) believed that the creation of the internet was partially responsible for a decline in social capital, which led to reduced levels of civic and social participation. Internet users can become alienated from the rest of society because computers are typically used indoors. Additionally, Putnam (2000) argued that communication over the internet is more impersonal, which reduces the level of trust and expectation between online interactions.

Researchers have also attempted to determine if internet usage adds, decreases, or supplements social capital. Wellman et al. (2001) studied a sample of 39,211 visitors of the National Geographic website between the years 1998 and 2000. The findings suggested that the internet supplements traditional methods of social networking, such as face-to-face or over the telephone. An interesting discovery was that heavy internet users had increased civic participation, but they had reduced levels of commitment to online groups. Wellman et al. (2001) claimed this evidence showed that the internet was becoming a normalized form of communication in society.

Shah et al. (2001) examined the association between internet use and the production of individual-level social capital. Their findings suggested that weak associations exist between internet use and indicators of social capital, which include civic engagement, social trust, and life satisfaction. Recreational usage of the internet resulted in a decline in engagement (b=-.06, p< .5), trust (b=-.08, p< .001), and contentment (b=-.08, p< .001). Using the internet to exchange information was positively correlated with an increase in engagement (b=.11, p< .001), trust (b=.07, p< .05), and contentment (b=.08, p< .01). Those who used the internet for informational

purposes were positively associated with the production of individual-level social capital. However, using the internet for social recreation was negatively linked with the creation of social capital (Shah et al. 2001). In other words, those individuals who use the internet as their primary tool for socialization have less access to social resources. Understanding the various types of relationships people form online can help clarify how individuals can benefit from online interactions.

Cummings, Butler, and Kraut (2002) reviewed past studies that compared online and offline social relationships and found three central themes. The first theme was that online social networks were valued for their ability to build and sustain work relationships, but not as valued as face-to-face interactions or phone calls. Next, online social networks were important for building and maintaining personal relationships, but face-to-face interactions or phone calls were more important. Lastly, when reviewing longitudinal studies, Cummings et al. (2002) found that new users of the internet felt more connected to others when they interacted face-to-face or over the phone as compared to communicating online. While early studies claimed that online networks have little value, other researchers have examined how online social networking can increase social capital (Cummings et al. 2002).

SOCIAL NETWORKING SITES

Social networking sites (SNS) have become a major factor in internet usage. Sites, such as Facebook and Twitter, allow users to interact with individuals or groups digitally by posting and reading the information provided by others in their network (Baumgartner and Morris 2010). Through these interactions, members of sites are able

to connect with individuals or groups who are similar to themselves, as well as those who have differing views (Ellison et al. 2007).

In 2013, a PEW study found 72 percent of adults in the United States utilized SNS. This is an increase from 2005 when only eight percent of adults used SNS. In addition, 89 percent of young adults between ages 18 and 29 used social networking sites in 2013. While young adults have been the most typical users of social networking sites, 60 percent of individuals aged 50-64 are now using SNS, as well as 43 percent of those who are over 65 years of age. Furthermore, women (74%) tend to use social networking sites more often than men (70%). People of Hispanic origin (80%) use SNS to a greater extent than Blacks (75%) and Whites (70%). Social networking site usage is relatively consistent with regards to education and income. However, people in urban areas (74%) are more likely to use SNS than people in rural areas (69%) (Brenner and Smith 2013). This expansion of online social networking allows for further analysis of social capital.

There are various forms of social networking sites, but the sites most commonly used are Facebook and Twitter. While these sites are both major players in online social networking, they are very different in function. Facebook is the second most visited website in the world and Twitter is tenth (Alexa 2013).

Facebook users are allowed to add others as friends, as well as post comments, videos, and pictures. Users also have access to instant messaging, email, and are able to “like” Facebook pages. In the social capital literature, several studies have supported the claim that Facebook is predominately used for maintained and bonding social capital (Ellison et al. 2007; Valenzuela et al. 2009).

Twitter users are able to follow individuals, as well as have other individuals follow them. Through following, individuals are able to view status updates on their homepage. However, unlike Facebook, individuals can choose whether or not to follow individuals who are currently following them. Additionally, users are able to post their own or share each other's status updates, which may include pictures or links. For instance, if an individual sees a status with which he or she agrees, that individual may share the status on his or her own profile. Research on social capital found that Twitter usage has been associated with bridging or expanding networks (Hofer and Aubert 2013).

SOCIAL NETWORKING SITES AND SOCIAL CAPITAL

Researchers have also examined how the motives, usage, and composition of online networks have impacted the production and maintenance of social capital. Given the relatively recent occurrence of SNS, there has been limited research on SNS and social capital. As a result, a few of the studies included in this review examine aspects of social capital indirectly. Researchers initially focused on the internet in general as a tool for networking, but as the landscape of the internet changed, so did the focus of research (Shah et al. 2001).

Ellison et al. (2007) studied the link between using SNS and the creation of different forms of social capital. They built on Putnam's (2000) definition, which differentiated between bonding and bridging forms of social capital, but also incorporated their own concept of maintained social capital. Ellison et al. (2007) surveyed a sample of 286 undergraduate students to find how Facebook usage was related to social capital and psychological well-being. The findings showed that the use

of Facebook has been positively correlated with all three types of social capital. Bridging social capital shared the strongest relation to Facebook usage, which was measured by the intensity of Facebook use, individual perception of the network, and the motives behind Facebook use.

The results of Ellison et al.'s (2007) study also showed that Facebook usage was linked to the individual's psychological well-being, which was indicated by measures of self-esteem and life satisfaction. Ellison et al. (2007) explained that Facebook usage was linked to bridging social capital because it makes group participation more convenient and likely. Bonding social capital accounted for less variance but was still related to self-esteem, satisfaction with life, and the intensity of Facebook use. The researchers explained that Facebook helps reinforce the relationships between close groups by reducing the effort required to upkeep close relationships. Facebook intensity was positively associated with maintained social capital, insinuating that the more individuals use Facebook, the more likely they would be able to utilize the resources of others members of their network (Ellison et al. 2007).

Aligned with Lin's (2008) theoretical framework, the following section will discuss the exogenous effect that individuals' position in the social hierarchy, network structure, and motives have on the creation and maintenance of social capital. Furthermore, the following studies examined how SNS affect measures of social capital, such as life satisfaction, social trust, civic participation, and political participation. Most relevant to this study is the effect SNS have on their users' civic and political engagement.

Subrahmanyam et al. (2008) interviewed a sample of 110 college students from a large urban university about their SNS usage patterns, motives, and online versus offline friend groups. The results showed that 91 percent of respondents surveyed used the internet daily and 63 percent reported using SNS on a daily basis. In 2008, a majority of users (88%) indicated that Myspace was their main SNS, while only 8 percent said that Facebook was their favorite site. This contrasts with the SNS usage reported in the Pew study by Brenner and Smith (2013), which noted that 72 percent of internet users are members of Facebook. This difference in favorite site usage shows how quickly the online social environment can change. The most common motive for SNS was keeping in touch with distant friends (81%). Other reasons included their friends being members of the site (61%), connecting with relatives (48%), and making plans with their close friends (35%). Lastly, almost half (49%) of users had the same top three friends on and offline (Subrahmanyam et al. 2008).

Park et al. (2009) examined how motives of Facebook Group users affect their offline political and civic participation among a population of 1,715 college students. Facebook Group users create a sub-network of individuals with a common interest. For instance, various users can “like” Facebook groups that focus on a specific topic, such as a favorite public figure. The researchers identified four common reasons people use SNS, which include socializing, entertainment, status seeking, and information gathering. The results indicated that using SNS for informational purposes was more strongly related to civic and political engagement than using SNS recreationally. Furthermore, user motives varied according to sex, geographic location, and year in school. The demographic features can be classified by Lin’s (2008) exogenous

variables. Sex and year in school can be related to a person's position in the social hierarchy. The individual's geographic location can also be related to the network characteristics since the user's network would likely include other users from the same area.

Valenzuela et al. (2009) surveyed 2,603 college students from Texas to determine how Facebook intensity and measures of social capital are interlinked. The findings showed statistically significant relationships between measures of life satisfaction when factoring in the intensity of Facebook use (b=.15, p<.001) and social trust (b= .26, p<.001). In addition, life satisfaction (b= .05, p<.001) and intensity of Facebook use (b= .14, p<.001) were significantly related to social trust (Valenzuela et al. 2009). Demographic variables, such as parent's education level, race, and year in school, were in accordance with Lin's (2008) notion that the individual's position in the social hierarchy affects their production of capital.

Ahn (2012) examined how usage patterns of two different social networking sites, Facebook and Myspace, were linked with bridging and bonding forms of social capital. This study was unique in that the researcher's sample consisted of 852 high school students. Studies in this field have typically relied on college students and young adults for their samples. Ahn (2012) used the Internet Social Capital Scale, which is based on Putnam's (2000) definition of social capital. Overall, the results showed that students who reported using Facebook and Myspace had higher levels of social capital, both online and in school. Ahn (2012) reported that respondents who were members of Facebook (b= 0.12, p<0.05), Myspace (b= 0.23, p<0.05), or both (b= 0.11, p<0.05) had higher levels of bonding capital, but the amount of time spent on SNS had no effect.

Moreover, the results showed that being a member of Facebook (b= 0.15, p<0.05) or both SNS (b= 0.18, p<0.05) was related to higher levels of bridging social capital, both in school and online. The amount of time spent on SNS was positively correlated with bridging social capital (b= 0.12, p<0.05), but not with bonding social capital. Unfortunately, being a member of Myspace also had no effect on bridging social capital. Lastly, Ahn (2012) found that having positive experiences on SNS improved only bonding social capital (b= 0.26, p<0.05).

Additionally, education is significantly related to participation in civic and political acts, which are both associated with social capital. Paul et al. (2012) examined how online social networking site usage affected academic performance in a sample of 340 college students. The main goal was to determine whether social networking sites could be utilized as effective teaching tools. The results showed a negative correlation between time spent on SNS and academic performance. Paul et al. (2012) suggested this negative association was the result of students not using SNS as an academic resource. However, further analysis showed that students feel competent that they would be able to use SNS for educational reasons if required. This indicates that SNS could be used as a supplement for traditional educational means over an online network. Providing students with another source of learning could help educate and result in higher levels of civic and political engagement and more social capital (Paul et al. 2012).

Gil de Zuniga et al. (2012) built on past research that claims using SNS to gather information is linked with improving involvement with democracy and production of social capital. Using data from 474 participants in a panel study, Gil de Zuniga et al.

(2012) found that information gathering on SNS is predictive of social capital, in addition to civic (b=.220, p< .001) and online/offline political engagement (b=.153, p< .001 and b=.136, p< .001, respectively). Aligned with Lin's (2008) theory, Gil de Zuniga et al. (2012) examined the network composition by looking at a time using SNS, network size, the frequency of use, and identifying what type information is discussed within networks. An overview of the articles provides ample evidence for a relationship between social capital and civic and political engagement.

CRITIQUE OF LITERATURE

There are a few areas of concern in the literature due to the recent emergence of SNS and the continuously changing form of online networks. Early research claims that internet usage reduced social capital, while recent research has found the opposite to be true. More recent research has also examined the influence of internet usage patterns on social capital. However, very few studies have focused on how the usage of SNS moderates social capital. Additionally, the literature includes a variety of definitions of social capital and, as a result, several studies have produced mixed results. Research on this topic also lacks longitudinal data, which would help to determine causality. Furthermore, the scope of SNS research is narrow; typically concentrating on adolescent and college-aged students. While these are the typical users, SNS usage is becoming increasingly popular among other age groups (Ahn 2012). Lastly, researchers have generally examined SNS as a singular entity instead considering them individually. The varying reasons a user could subscribe to a service can influence their networking experience.

CHAPTER SUMMARY

In summation, this chapter reviewed the literature related to social capital, online social networks, and civic engagement. A brief history was provided on the development of social capital as it evolves into the theoretical framework, ranging from the works of Hanifan (1916) to Lin (2008). The studies reviewed throughout the chapter provided evidence that social capital is strongly and positively associated with civic engagement. Furthermore, research has generally found that there are positive relationships between social networking sites, social capital, and civic engagement. The following chapter will discuss the study's research methodology.

METHODOLOGY

This chapter provides an overview of research methodology used to conduct the study. In this section, the study's sample, setting, hypothesis, and key variables are defined. Furthermore, this section provides a detailed description of the instruments and procedures used to collect the data as well as the statistical analyses performed. The chapter concludes with a discussion of the limitations of the study.

RESEARCH DESIGN

Setting and Sample

This cross-sectional study was designed to collect primary data from college-aged students. Due to experiential limitations, the sample was comprised of Old Dominion University graduate and undergraduate students who were enrolled during the Fall 2014 semester. The data for this project was collected via Qualtrics, which is an Internet-based survey software.

The survey was distributed to 24,923 active ODU email addresses, which was provided by Old Dominion University's Office of Assessment. Students were emailed a link to Qualtrics in order to complete a survey about social networking site use and civic engagement. Three follow up emails were sent on a weekly basis for the duration of the study, which began on October 22, 2014, and ended on November 19, 2014.

The survey instrument was programmed using Qualtrics, an online survey program. This website allowed for a dataset to be easily compiled and exported to SPSS, a statistical analysis software program. Incentives were provided to help improve the survey's response rate in the form of three $50 Visa gift cards. After completing the

survey, respondents who wished to participate in a drawing for the gift cards were asked to click a link connecting them to a separate survey to provide an email address. This ensured that email addresses could not be linked back to the completed survey. SPSS was used to randomly select three of the provided email addresses. The researcher contacted the winners via email to set up delivery of the gift cards. The study was exempt from Human Subjects approval (Approval #13-030) because it did not survey at-risk populations or question sensitive matters.

Research Questions and Hypotheses

This exploratory study was designed to answer the following research questions: How does social networking site usage affect college students' level of bridging, bonding, and maintained social capital? How do these forms of social capital affect students' civic and political engagement? The study used a two-prong approach to answering these questions. The first examined how demographic variables, the intensity of use for social networking sites, and the motives for using social networking sites were associated with bridging, bonding, and maintained social capital. The second prong looked into how bridging, bonding, and maintained social capital were related to students' level of civic and political participation. From these research questions, the following hypotheses were formulated.

H1: Facebook use will have a positive correlation with Online Social Capital Scale scores.

H2: SNS intensity will be positively correlated with higher levels of online social capital.

H3: Users who are primarily motivated to use social networking sites for gathering information will have higher Online Social Capital Scale scores.

H4: Bridging Social Capital Scale scores will be positively correlated with higher scores on the Index of Civic and Political Engagement.

H5: Bonding Social Capital Scale scores will be positively correlated with higher scores on the Index of Civic and Political Engagement.

H6: Maintained Social Capital Scale scores will be positively correlated with higher scores on the Index of Civic and Political Engagement.

VARIABLES OF INTEREST

Independent Variables

The main independent variable measured in this study was social capital acquired through online social networking sites, which will be referred to as online social capital. To measure online social capital, this study adapted Ellison et al.'s (2007) social capital scale to be applied to social networking sites instead of the internet in general. This scale was selected due to its applicability to college campus populations as well as its reliability and validity in social capital research (Ellison et al 2007).

The online social capital was adapted to match the context of the study and the respondent's preferred SNS. The purpose of this scale is to create an indicator for the

amount of social capital acquired through SNS; therefore, a higher scale score represents a higher level of social capital. This 19-item scale is composed of three subscales that measure bridging, bonding, and maintained forms of social capital. The bridging scale has a Cronbach's alpha of 0.87, while bonding and maintained have Cronbach's alpha of 0.75 and 0.81, respectively. All three of the sub-scales have moderate to high reliability (Ellison et al. 2007). Responses to questions in all three scales are based on a 5-point Likert scale, ranging from strongly disagree (1) to strongly agree (5). The complete survey instrument can be seen in the Appendix.

Control Variables

This study controlled for social networking site usage, motives, and demographic characteristics. Social networking site usage has been shown to moderate or control the effects SNS have on social capital (William 2006; Ellison et al. 2007; Valenzuela et al. 2009). As a result, this study controlled for SNS usage through self-reported measures. The Facebook Intensity Scale, by Ellison et al. (2007), was modified in order to be applied to other forms of social networking sites and has a Cronbach's alpha of 0.83. Respondents were asked to provide information about their SNS preference. Other items measured in this scale included the number of friends who use SNS, number of minutes on SNS in the past week, and other indicators proving user's reliance on SNS such as their degree of trust with others in their network and respondents perceived importance of SNS.

Motives for using SNS was another control variable that has been shown to influence the creation of social capital (Ellison et al. 2007; Valenzuela et al. 2009; Gil de Zuniga 2012). Therefore, motives for SNS use was operationalized by asking respondents to self-report which category of motives most likely represents themselves.

Using a 5-point Likert scale, which ranged from strongly disagree (1) to strongly agree (5), respondents were asked to what degree they use SNS for socialization, gathering information, status seeking, and entertainment. These single-item measures were designed to be facially valid.

The third control variable in this study was demographics. The survey instrument was designed to collect data on sex, race, income, year in school, and college living situation. Sex was coded dichotomously with 0 for male and 1 for female. Race was coded into six categories, which were 1-White, 2-Black or African American, 3-American Indian or Alaska Native, 4-Asian, 5-Native Hawaiian or Other Pacific Islander, and 6-other. Income was measured by forming categories that respondents could choose to most closely match their financial position. Respondents were asked if their household income was 1-under $20,000/year, 2-$20,000-$29,999, 3-$30,000-$49,999, 4-$50,000-$74,999, and 5-$75,000 and above. Year in college was measured by asking respondents to report their current standing as a college student. Options for this included 1-freshman, 2-sophomore, 3-junior, 4-senior, and 5-graduate student. Lastly, college living situation was categorized by asking students if they lived 1-on campus or 2-off campus.

Dependent Variable

The primary dependent variable examined in this study was civic engagement. For the purpose of this study, civic engagement includes both civic and political participation. These differ in that civic participation is based on the community level while political participation captures involvement on the national level. The dependent

variable was measured using the Index of Civic and Political Engagement. (Keeter, Jenkins, Zukin, and Andolina 2003).

The Index of Civic and Political Engagement asks respondents if they have (a) worked or volunteered in a community project; (b) worked or volunteered for nonpolitical groups such as a hobby club, environmental group or minority student association; (c) raised money for charity or ran/walked/biked for charity; (d) worked or volunteered for political groups or candidates; (e) voted in a local or state election; (f) voted in a national election; (g) tried to persuade others in an election; (h) signed a petition; (i) worn or displayed a badge or sticker related to a political or social cause; and (j) deliberately bought certain products for political, ethical, or environmental reasons. Possible response options for the above questions include (0) = no, never; (1) = yes, but not within the last 12 months; and (2) = yes, within the last 12 months.

The Index of Civic and Political Engagement has an overall Cronbach's alpha of 0.69 for adolescents ages 15 to 19. However, in samples with respondents over 20 years old, the Cronbach's alpha is 0.76 (Keeter et al. 2003). While the reliability of this scale is modest, it does possess content validity, which can be confirmed by the reviewed literature (Putnam 2000; Keeter et al 2003; Uslaner and Brown 2003; Gil de Zuniga et al. 2012). Keeter et al. (2003) also assessed the validity of their scale by providing evidence that the measures produced similar results in the same population and two periods of time. Furthermore, looking over the survey items proves that the scale has face validity, which implies that the questions appear to measure what it is intended. The result of this scale score is positively associated with the degree the respondent is civically and politically involved (Keeter et al. 2003).

STATISTICAL ANALYSES

Statistical analyses relevant to this study included descriptive, bivariate, and ordinary least squares regression. Descriptive statistics were provided for a comparative analysis of the sample's demographics to ODU's reported demographics for the entire student population. Additionally, the researcher conducted a univariate analysis of the independent, dependent, and control variables in the study to provide frequencies and descriptive statistics. Relationships between any two variables were examined through bivariate analyses.

Bivariate analysis was used to determine the relationships shared between social capital acquired via SNS and civic participation. Chi-square analysis was selected because the independent and dependent variables were measured categorically. The relationship between online social capital and SNS usage was examined in a similar fashion. The bivariate relationships that demographic factors share with other variables, including SNS usage, online social capital, and civic participation were also examined. Lastly, linear regression was performed to estimate the influence of the independent variable and the control variables on the dependent variable.

For the multivariate analysis, the variables for SNS intensity were broken down into subscales, which are views towards SNS, time spent on SNS, and total numbers of friends or followers. Furthermore, online social capital was also separated into three subscales, bridging, bonding, and maintained social capital, for a more in-depth analysis. OLS was used because the dependent variable had six categorical options for a response.

LIMITATIONS

The major limitation of this study was the sample. The sample consisted of college students enrolled at Old Dominion University, which limits the generalizability of the findings. In other words, even though the findings of this study would reflect the variables effect, it would be difficult to apply these findings to a larger population. Future studies can surpass this issue by using a more representative sample.

Another limitation of the study was the complexity of the variable of civic engagement. This study utilized a generally accepted scale of civic engagement, which was created Keeter et al. (2003). However, civic engagement has a wide range of interpretations and is difficult to locate commonly accepted items to measure it. Conversely, using a generally accepted scale might not be the most accurate method because the community's context may not be taken into account.

This study was also limited by the moderate level of reliability of the Index of Civic and Political Engagement by Keeter et al. (2003). Despite having a low alpha, the scale creators provided other forms of validity testing. For instance, the items in the scale ask facially valid questions, such as "Have you voted in a local, state, or national election?" Further, the Index of Civic and Political Engagement has been used in a wide range of studies, which have all produced similar results. A better scale would have been preferred, but such a scale was not readily accessible.

The last limitation of this study was rooted in the rapidly changing online environment. While the use of SNS is growing to be of more importance, the purpose and design of SNS have also changed. This means the findinggs of this study are valid for the time being, but as the websites change in popularity and function, so will the

applicability of these results. It is of great importance to examine these effects today to have a standard to gauge future findings.

RESULTS

DESCRIPTIVE STATISTICS

Table 1 shows the descriptive statistics for the sample of students from Old Dominion University (n=3,200). It also provides a column for the statistics of the entire student population at ODU. Of those who completed the survey, 68.2 percent were female and 31.8 percent were male. This is similar to the population enrolled at ODU, which consists of more females than males. Additionally, the racial composition of the survey sample is consistent with what is reported from ODU's student population. In both the study sample and the ODU student population, the majority of students identified as White, followed by Black or African American and Other. Class standing for the sample was also similar to ODU's student population: 15 percent were freshmen, 13.5 percent were sophomore, 24.3 percent were juniors, 27.5 percent were seniors, and 19.7 percent were graduate students. Interestingly, the only variable which was noticeably different was the respondents' living situation. In the sample, just over three-quarters (75.9%) of the sample reported living off campus. However, ODU's student population reported only 25.5 percent of students living off campus. Students in the sample reported having a low income, with 61.6 percent of students saying they earned less than $15,000 annually. Unfortunately, ODU does not report on enrolled student income so no comparison can be made on that basis.

Table 1. Demographic Characteristics of Sample and Old Dominion University Students

	Sample		ODU Student Population	
Variable	**(N)**	**Percentage**	**(N)**	**Percentage**
Sex	(2,917)		(24,923)	
Male	929	31.8%	11,205	45.0%
Female	1,988	68.2%	13,718	55.0%
Race	(2,921)		(22,338)	
White	1,673	57.3%	13,037	58.4%
Black or African American	692	23.7%	5,980	26.8%
American Indian or Alaskan Native	15	0.5%	89	0.4%
Asian	213	7.3%	995	4.5%
Native Hawaiian or Pacific Islander	36	1.2%	98	0.4%
Other	292	10.0%	2,139	9.6%
Class Rank	(2,923)		(23,195)	
Freshman	437	15.0%	4,344	18.7%
Sophomore	395	13.5%	3,671	15.8%
Junior	709	24.3%	4,734	20.4%
Senior	805	27.5%	6,577	28.4%
Graduate	577	19.7%	3,869	16.7%
Living Situation	(2,919)		(20,643)	
On Campus	703	24.1%	15,372	74.5%
Off Campus	2,216	75.9%	5,271	25.5%
Income	(2,916)			
$0-$14,999	1,796	61.6%		
$15,000-$29,999	489	16.8%		
$30,000-$44,999	243	8.3%		
$45,000-$59,999	165	5.7%		
$60,000-$74,999	82	2.8%		
$75,000 or more	141	4.8%		

Respondents in the study were asked about which social networking site they used most often. As shown in Table 2, Facebook was the most popular, with 60.7 percent of the sample selecting it as their most used social networking site. Instagram was selected by 16.5 percent of the sample, closely followed by Twitter at 16.3 percent.

Table 2. Social Networking Site Usage

Variable	**(N)**	**Percentage**
Preferred SNS	(3,200)	
Facebook	1,942	60.7%
Instagram	529	16.5%
Twitter	520	16.3%
Other	209	6.5%

Social Networking Intensity Scale

Social Networking Intensity was assessed by the number of friends or followers, the time spent on the site, and respondents' views about their attachment to their preferred social networking site. The average number of friends or followers was 502.5 people. The numbers of friends or followers within one's network ranged from 0 to 20,345, with 5.6 percent of respondents having 25 or fewer on their favorite SNS. Over 50 percent (50.4%) said they had between 100 and 499 friends or followers in their network, whereas 23.1 percent of respondents said they had 500 to 999 and 12.4 percent reported having more than 1000 friends or followers.

Table 3 displays the amount of time respondents reported using their preferred social networking site in a day. Nine percent indicated using their favorite SNS less than 10 minutes a day. Almost 30 percent (29.7%) reported spending 10 to 30 minutes per day on their favorite site. Additionally, 26.7 percent of respondents said they spent between 30 minutes, but less than 1 hour per day. Almost 20 percent (17.7%) reported using SNS from an hour to 2 hours a day, while 5 percent said they used SNS 2 to 3 hours a day. Interestingly, 12.3 percent of respondents used their favorite SNS for over 3 hours a day.

Table 3. Social Networking Site Intensity: Usage

Variable	**(N)**	**Percentage**
About how many friends/followers do you have on your preferred social networking site?	(3,111)	
0-25	175	5.6%
26-99	264	8.5%
100-199	443	14.2%
200-299	449	14.4%
300-399	383	12.3%
400-499	296	9.5%
500-599	236	7.6%
600-749	251	8.1%
750-999	229	7.4%
1000-1249	184	5.9%
1250+	201	6.5%

Table 3. Continued

Variable	(N)	Percentage
In the past week, on average, approximately how many minutes per day have you spent on your preferred social networking site?	(3,114)	
< 10 minutes	280	9.0%
10-30 minutes	924	29.7%
31-60 minutes	821	26.4%
61-120 minutes	551	17.7%
121-180 minutes	156	5.0%
> 180 minutes	382	12.3%

Respondents were also asked a series of questions to gauge their views towards using their preferred social networking site (Table 4). When asked if their favorite social networking site was a part of their everyday life, 80.7 percent agreed or strongly agreed. When asked if they would be proud to tell others they are part of their favorite social networking site, 60.7 agreed or strongly agreed. Just over three-quarters (76.6%) said their preferred social networking site has become a part of their daily routine. Over half (52.2%) disagreed or strongly disagreed with the statement claiming they would feel out of touch when they have not been on their favorite social networking site in a while. However, 61.1 percent felt they are part of their online social networking site and 55.9 percent they would be sorry if their favorite site shut down.

Table 4. Social Networking Site Intensity: Views

Variable	(N)	Percentage
…is a part of my everyday activity.	(3,094)	
Strongly Agree	1,211	39.1%
Agree	1,288	41.6%
Disagree	397	12.8%
Strongly Disagree	198	6.4%
I am proud to tell people I'm on ….	(3,092)	
Strongly Agree	617	20.0%
Agree	1,453	47.0%
Disagree	868	28.1%
Strongly Disagree	154	5.0%
… has become a part of my daily routine.	(3,090)	
Strongly Agree	1,030	33.3%
Agree	1,338	43.3%
Disagree	516	16.7%
Strongly Disagree	206	6.7%
I feel out of touch when I haven't been on … in a while.	(3,090)	
Strongly Agree	513	16.6%
Agree	964	31.2%
Disagree	1,104	35.7%
Strongly Disagree	509	16.5%
I feel I am part of the … community.	(3,093)	
Strongly Agree	482	15.6%
Agree	1,408	45.5%
Disagree	937	30.3%
Strongly Disagree	266	8.6%

Table 4. Continued

Variable	(N)	Percentage
I would be sorry if … shut down.	(3,092)	
Strongly Agree	604	19.5%
Agree	1,124	36.4%
Disagree	927	30.0%
Strongly Disagree	437	14.1%

Motives

Survey respondents were also asked to rank their motives for using their favorite social networking site (Table 5). Individuals' motives for using a social networking site can mediate their level of social capital. The most common motive for networking online was to socialize with others (42%). Almost one-third (29%) of respondents reported that they use social networking sites for entertainment purposes. Additionally, 13.8 percent of respondents said they used their social networking site to gather new information, while only 1.1 percent they using it to improve their social status. Additionally, 13.3 percent specified using social networking sites for a different motive than those listed in the survey.

Table 5. Motives for Using Social Networking Sites

Variable	(N)	Percentage
Motive for using SNS	(2,925)	
To socialize with others.	1,253	42.0%
To gather new information.	404	13.8%
To improve my social status.	32	1.1%
For entertainment purposes.	847	29.0%
Other	389	13.3%

Online Social Capital Scale

Students were asked about their online social capital, which consisted of three separate categories: bridging, bonding, and maintained. Bridging online social capital refers to the ability to access and engage in new networks online. Bonding online social capital refers to a persons' ability to reinforce and strengthen bonds between others in their network. Lastly, maintained social capital refers to the ability to maintain a connection to past networks online.

The following questions measured respondents' degree of bridging social capital (Table 6). When asked, 82.1 percent of students agreed or strongly agreed that they were interested in what is happening on their preferred social networking site. Additionally, when asked if their social networking site was a good thing to be a part of, 81.8 percent agreed or strongly agreed. However, only 8.2 percent said they would be willing to donate money to their favorite SNS. A little more than half (56.6 percent) agreed or strongly agreed with the statement that their preferred SNS made them want

to try new things. Furthermore, 58.6 percent said that interacting with people on their SNS made them feel like a part of a larger community. When asked if they would spend time on activities they saw on their SNS, 55.6 percent of those surveyed agreed or strongly agreed. When asked about meeting new people, 55.7 percent agreed or strongly agreed that on their favorite SNS they come into contact with new people all the time. Additionally, 75.4 percent of those asked agreed or strongly agreed that interacting with people on their preferred social networking site reminds them that everyone in the world is connected.

Table 6. Online Social Capital Scale: Bridging

Variable	**(N)**	**Percentage**
I'm interested in what's happening on…	(3,041)	
Strongly Agree	665	21.9%
Agree	1,832	60.2%
Disagree	427	14.0%
Strongly Disagree	117	3.8%
…is a good thing to be a part of.	(3,038)	
Strongly Agree	420	13.8%
Agree	2,065	68.0%
Disagree	474	15.6%
Strongly Disagree	79	2.6%

Table 6. Continued

Variable	(N)	Percentage
I would be willing to donate money to…	(3,036)	
Strongly Agree	60	2.0%
Agree	187	6.2%
Disagree	1,228	40.4%
Strongly Disagree	1,561	51.4%
… makes me want to try new things.	(3,038)	
Strongly Agree	302	9.9%
Agree	1,420	46.7%
Disagree	1,047	34.5%
Strongly Disagree	269	8.9%
Interacting with people on … makes me feel like a part of a larger community.	(3,032)	
Strongly Agree	324	10.7%
Agree	1,452	47.9%
Disagree	956	31.5%
Strongly Disagree	300	9.9%
I'm willing to spend time to support activities that I see on …	(3,038)	
Strongly Agree	254	8.4%
Agree	1,435	47.2%
Disagree	1,019	33.5%
Strongly Disagree	330	10.9%
On … I come into contact with new people all the time.	(3,036)	
Strongly Agree	370	12.2%
Agree	1,017	33.5%
Disagree	1,144	37.7%
Strongly Disagree	505	16.6%

Table 6. Continued

Variable	(N)	Percentage
Interacting with people on … reminds me that everyone in the world is connected.	(3,041)	
Strongly Agree	563	18.5%
Agree	1,730	56.9%
Disagree	554	18.2%
Strongly Disagree	1,094	6.4%

The next set of questions measured respondents' level of bonding social capital (Table 7). Only 18.1 percent said they have met several people through their favorite social networking site who they trust to solve their problems. Furthermore, only 9.7 percent agreed or strongly agreed with the statement: "If I needed an emergency loan of $100, I know someone I originally met through my preferred social networking site I can turn to." When questioned if there is someone on their favorite social networking site they can turn to for advice about making very important decisions, just under half (46.8 percent) agreed or strongly agreed. Moreover, 38.8 percent agreed or strongly agreed that people they interact with on their preferred SNS would be a good job reference. When asked if respondents knew anybody on their SNS well enough to get them to do anything important, 36.8 percent agreed or strongly agreed.

Table 7. Online Social Capital Scale: Bonding

Variable	(N)	Percentage
There are several people I have met through … that I trust to solve my problems.	(3,038)	
Strongly Agree	165	5.4%
Agree	386	12.7%
Disagree	1,216	40.0%
Strongly Disagree	1,271	41.8%
If I needed an emergency loan of $100, I know someone I originally met through … I can turn to.	(2,982)	
Strongly Agree	99	3.3%
Agree	192	6.4%
Disagree	891	29.9%
Strongly Disagree	1,800	60.4%
There is someone on … I can turn to for advice about making very important decisions.	(2,980)	
Strongly Agree	320	10.7%
Agree	1,077	36.1%
Disagree	760	25.5%
Strongly Disagree	823	27.6%
The people I interact with on … would be good job references for me.	(2,979)	
Strongly Agree	173	5.8%
Agree	984	33.0%
Disagree	1,067	35.8%
Strongly Disagree	755	25.3%

Table 7. Continued

Variable	(N)	Percentage
I know people on … well enough to get them to do anything important.	(2,974)	
Strongly Agree	190	6.4%
Agree	903	30.4%
Disagree	1,155	38.8%
Strongly Disagree	726	24.4%

The final set of questions was used to determine respondents' degree of maintained social capital, which can be described as the ability to utilize past networks for one's own benefit (Table 8). The majority of respondents (84.1 percent) said that they would be able to find out about events in another town from a high school acquaintance living there. Similarly, 67.2 percent of respondents said that if they needed to, they could ask a high school acquaintance to do a small favor for them. Just over two-thirds (68.8 percent) of respondents said that they would be able to stay with a high school acquaintance if traveling to a different city. Furthermore, 69.1 percent agreed or strongly agreed that they would be able to find information about a job or internship from a high school acquaintance using their preferred SNS. Lastly, most of the respondents, 83.2 percent, agreed or strongly agreed that it would be easy to find people to invite to their high school reunion using their preferred SNS.

Table 8. Online Social Capital Scale: Maintained

Variable	(N)	Percentage
Using … , I'd be able to find out about events in another town from a high school acquaintance living there.	(2,982)	
Strongly Agree	782	26.2%
Agree	1,728	57.9%
Disagree	274	9.2%
Strongly Disagree	198	6.6%
Using … , if I needed to, I could ask a high school acquaintance to do a small favor for me.	(2,978)	
Strongly Agree	418	14.0%
Agree	1,585	53.2%
Disagree	649	21.8%
Strongly Disagree	326	10.9%
Using … , I'd be able to stay with a high school acquaintance if traveling to a different city.	(2,980)	
Strongly Agree	545	18.3%
Agree	1,505	50.5%
Disagree	613	20.6%
Strongly Disagree	317	10.6%
Using … , I would be able to find information about a job or internship from a high school acquaintance.	(2,981)	
Strongly Agree	409	13.7%
Agree	1,652	55.4%
Disagree	613	20.6%
Strongly Disagree	307	10.3%

Table 8. Continued

Variable	(N)	Percentage
Using … , it would be easy to find people to invite to my high school reunion.	(2,981)	
Strongly Agree	924	31.0%
Agree	1,555	52.2%
Disagree	294	9.9%
Strongly Disagree	208	7.0%

Index of Civic and Political Engagement

Table 9 displays the results for individual questions used from the Index of Civic and Political Engagement. The Index of Civic and Political Engagement was designed to measure respondents' involvement in local and national activities. Respondents were provided with three answer choices to determine whether they have ever been involved in these activities and whether it occurred recently. The answer choices included: (1) no, never; (2) yes, but not within the past 12 months; and (3) yes, within the last 12 months.

Respondents were asked if they had ever worked or volunteered in a community project. Of those who responded, 50.3 percent said that they had been in the past 12 months and 38.1 percent said they had, but not within the past 12 months. Further, 11.5 percent indicated that they had never worked or volunteered in a community project. Participants were also asked if they had ever worked or volunteered for non-political groups, such as a hobby club, environmental group, or student association, and 45.3 percent said they had been involved in the past 12 months, while

35.1 percent said yes, but not within the past 12 months. Further, 19.6 percent said they had never worked or volunteered for non-political groups. When asked if they had ever raised money for a charity or ran/walked/biked for a charity, 39 percent of respondents said they had within the last 12 months and 41.2 percent said they had, but not within the last 12 months. Further, 19.8 percent indicated they had never raised money or participated for a charity.

Additionally, respondents were asked if they had ever worked or volunteered for political groups or candidates, to which the majority (73.8 percent) said no, never. However, 17.9 percent indicated they had, but not within the past 12 months, and 8.5 percent indicated they had within the past 12 months. When asked if they had ever voted in a local or state election, 33.2 percent said they had within the last 12 months and 28.1 said they had but not within the last 12 months. Furthermore, 38.7 percent said they had never voted in a local or state election. Similarly, respondents were asked if they had ever voted in a national election. Of the respondents, 25.8 percent said they had within the last 12 months, 37.4 percent said they had but not within the past 12 months, and 36.8 percent said they had never voted in a national election. Interestingly, 65.4 percent of respondents said they had never tried to persuade others in an election.

When asked if they had ever signed a petition, 35.5 percent of respondents said they had within the past 12 months and 43.9 percent said they had, but not within the past 12 months. Additionally, respondents were asked if they had ever worn or displayed a badge, shirt, or sticker related to a political or social cause and 28 percent said yes within the last 12 months, 30.8 percent said yes but longer than 12 months ago, and 41.1 percent said no. When asked if respondents had ever deliberately bought

certain products for political, ethical, or environmental reasons, 40.1 percent said they had within the last 12 months and 20 percent said they had but not within the past 12 months. Lastly, respondents were asked if they ever followed a civic or political group on their preferred SNS and just over half (57.4 percent) said no, never. However, 26.4 percent said they had within the past 12 months and 16.2 said they had but not within the past 12 months.

Table 9. Index of Civic and Political Engagement

Variable	**(N)**	**Percentage**
Have you ever worked or volunteered in a community project?	(2,940)	
No, never	339	11.5%
Yes, but not within the past 12 months	1,121	38.1%
Yes, within the last 12 months	1,480	50.3%
Have you ever worked or volunteered for non-political groups such as a hobby club, environmental group, or student associations?	(2,938)	
No, never	576	19.6%
Yes, but not within the past 12 months	1,032	35.1%
Yes, within the last 12 months	1,330	45.3%

Table 9. Continued

Variable	(N)	Percentage
Have you ever raised money for a charity or ran/walked/biked for charity?	(2,940)	
No, never	583	19.8%
Yes, but not within the past 12 months	1,211	41.2%
Yes, within the last 12 months	1,146	39.0%
Have you ever worked or volunteered for political groups or candidates?	(2,932)	
No, never	2,159	73.6%
Yes, but not within the past 12 months	525	17.9%
Yes, within the last 12 months	248	8.5%
Have you ever voted in a local or state election?	(2,938)	
No, never	1,136	38.7%
Yes, but not within the past 12 months	826	28.1%
Yes, within the last 12 months	976	33.2%
Have you ever voted in a national election?	(2,934)	
No, never	1,080	36.8%
Yes, but not within the past 12 months	1,096	37.4%
Yes, within the last 12 months	758	25.8%

Table 9. Continued

Variable	(N)	Percentage
Have you ever tried to persuade others in an election?	(2,930)	
No, never	1,916	65.4%
Yes, but not within the past 12 months	544	18.6%
Yes, within the last 12 months	470	16.0%
Have you ever signed a petition?	(2,929)	
No, never	604	20.6%
Yes, but not within the past 12 months	1,285	43.9%
Yes, within the last 12 months	1,040	35.5%
Have you ever worn or displayed a badge, shirt, or sticker related to a political or social cause?	(2,935)	
No, never	1,207	41.1%
Yes, but not within the past 12 months	905	30.8%
Yes, within the last 12 months	823	28.0%
Have you ever deliberately bought certain products for political, ethical, or environmental reasons?	(2,934)	
No, never	1,171	39.9%
Yes, but not within the past 12 months	587	20.0%
Yes, within the last 12 months	1,176	40.1%

Table 9. Continued

Variable	(N)	Percentage
Have you ever followed a civic or political group on … ?	(2,935)	
No, never	1,684	57.4%
Yes, but not within the past 12 months	476	16.2%
Yes, within the last 12 months	775	26.4%

Frequency Distribution of Scales

The frequency distribution of scales used is displayed in Table 10. The scores for each question in the SNS intensity scale was calculated to determine a composite score ranging from 0 to 33, with 0 being no SNS intensity and 33 being the highest level of SNS intensity. These questions were designed to collect user statistics, such as the average number of minutes spent online per day and number of friends or followers, and other questions that are used to gauge respondents' views and attachment toward their preferred social networking site. The mean score was 17.93 with a standard deviation of 6.35.

The Bridging Social Capital Scale was used to measure the degree social networking sites are used to share and exchange information or resources between individuals with different interests and goals. The bridging social capital scale scores ranged from 0 to 24. A score of 0 indicates no bridging social capital and a score of 24 can be translated to the highest level of bridging social capital. The mean score of those surveyed was 12.5 with a standard deviation of 4.39.

The Bonding Social Capital Scale was used to measure the degree users of social networking sites reinforce their bonds with other like-minded people in their network and work towards their collective goals. The bonding social capital scale scores ranged from 0 to 15. A score of 0 indicates no bonding social capital while a score 15 implies the highest level of bonding social capital. The mean score of those surveyed was 5.02 with a standard deviation of 3.29.

The Maintained Social Capital Scale was used to measure the degree respondents used social networking sites maintain their connections to past social networks, such as high school friends or past work associates. The maintained social capital scale ranged from 0 to 15. A score of 0 indicates no maintained social capital while a score 15 implies the highest level of maintained social capital. The mean score of those surveyed was 9.30 with a standard deviation of 3.37.

The Online Social Capital Scale – Combined was used to determine the degree of bridging, bonding, and maintained social capital by combining the scale scores from each of the specific types of social capital scales. The overall social capital scores ranged from 0 to 54. A score of 0 implied no online social capital while 54 indicates the highest degree of online social capital. The mean score of those surveyed was 26.81 and the standard deviation is 8.79.

The Index of Civic and Political Participation was used to measure the respondents' level of involvement with civic activities, speaking out to government officials and/or peers about issues, and if they had participated in local, state, and/or national elections. The Index of Civic and Political Participation scores ranged from 0 to 11. A score of 0 implies no civic or political engagement while a score of 11 indicates

the highest level of civic and political engagement. The mean score of those surveyed was 6.74 and the standard deviation is 2.61.

Table 10. Frequency Distribution of Scale Scores

Variable	**(N)**	**Percentage**
SNS Intensity Scale	(3,053)	
0-4	94	3.1%
5-9	178	5.8%
10-14	579	19.0%
15-19	952	31.2%
20-24	771	25.3%
25-29	394	12.9%
30-33	85	2.8%
Mean=17.93 Std. Deviation=6.35 Range=0-33		
Bridging Social Capital Scale Scores	(3,004)	
0-3	107	3.6%
4-7	197	6.6%
8-11	853	28.4%
12-15	1,230	40.9%
16-19	432	14.4%
20-24	185	6.2%
Mean=12.5 Std. Deviation=4.39 Range=0-24		

Table 10. Continued

Variable	(N)	Percentage
Bonding Social Capital Scale	(2,963)	
0-3	941	31.8%
4-7	1,409	47.6%
8-11	508	17.1%
12-15	105	3.5%
Mean=5.02 Std. Deviation=3.29 Range=0-15		
Maintained Social Capital Scale	(2,971)	
0-3	196	6.6%
4-7	430	14.5%
8-11	1,745	58.7%
12-15	600	20.2%
Mean=9.30 Std. Deviation=3.37 Range=0-15		
Online Social Capital Scale – Combined	(2,921)	
0-4	48	1.6%
5-9	51	1.7%
10-14	116	4.0%
15-19	290	9.9%
20-24	551	18.9%
25-29	831	28.4%
30-34	574	19.7%
35-39	263	9.0%
40-44	113	3.9%
45-49	45	1.5%
50-54	39	1.3%
Mean=26.81 Std. Deviation=8.79 Range=0-54		

Table 10. Continued

Variable	(N)	Percentage
Civic and Political Participation	(2,888)	
0-1	81	2.8%
2-3	255	8.8%
4-5	572	19.8%
6-7	821	28.4%
8-9	677	23.4%
10-11	482	16.7%
Mean=6.74 Std. Deviation=2.61 Range=0-11		

BIVARIATE ANALYSIS

Table 11 shows the Pearson correlation coefficients for all variables used in the research. The significance levels are identified at both the .01 and .05 intervals. The correlation between social networking site preference and online social capital were examined first. Hypothesis 1 stated that Facebook use would have a positive correlation with Online Social Capital Scale scores. Surprisingly, the analysis showed that Facebook users had a statistically significant negative association with the Online Social Capital Scale (Pearson's R=-.108, p<.01). Therefore, Hypothesis 1 is not supported. However, users who preferred Instagram (Pearson's R=.115, p<.01) and Twitter (Pearson's R=.079, p<.01) were positively associated with higher scores on the Online Social Capital Scale.

The literature suggested that users' intensity when using social networking sites was linked to higher level of online social capital (Gil de Zuniga et al. 2012; Valenzuela

et al. 2009). As a result, Hypothesis 2 claimed that SNS intensity would be positively correlated with higher levels of online social capital. In support of Hypothesis 2, the bivariate analysis between the Social Networking Site Intensity Scale and the Online Social Capital Scale showed a statistically significant and positive association (Pearson's R=.587, p<.01). Furthermore, this was the strongest association for online social capital. Essentially, those who used their preferred social networking site with greater intensity had higher Online Social Capital Scale scores.

Previous research has also suggested that motives for using SNS have been linked to levels of online social capital (Gil de Zuniga et al. 2012; Park et al. 2009). Gil de Zuniga et al. (2012) found that respondents who were motivated to use social networking sites for gathering information had higher levels of social capital. Therefore, Hypothesis 3 stated that users who are primarily motivated to use social networking sites for gathering information will have higher Online Social Capital Scale scores. The bivariate analysis found that there was a statistically significant negative association between users who were primarily motivated to use social networking sites for gathering information and higher Online Social Capital Scale scores (Pearson's R=-.049, p<.01). Thus, the analysis did not support the third hypothesis. Additional analysis showed that users who said they were motivated for entertainment reasons (Pearson's R=-.037, p<.05) were also associated with lower scores on the Online Social Capital Scale. However, being motivated to use social networking sites for improving one's status (Pearson's R=.062, p<.01) and socialization (Pearson's R=.161, p<.01) were found to have a statistically significant positive correlation with online social capital.

Past research has found that there is a positive association between social capital and civic/political engagement (Putnam 2000; Uslaner and Brown 2003; Gil de Zuniga et al. 2012). Furthermore, this study aims to delineate social capital into three subcategories: bridging, bonding, and maintained. This understanding is what led to the creation of Hypotheses 4, 5, and 6.

Hypothesis 4 stated that Bridging Social Capital Scale scores would be positively correlated with higher scores on the Index of Civic and Political Engagement. The bivariate analysis supported Hypothesis 4; there was a small, but statistically significant positive correlation between Bridging Social Capital Scale scores and scores on the Index of Civic and Political Engagement (Pearson's $R=.083$, $p<.01$).

Hypothesis 5 stated that Bonding Social Capital Scale scores would be positively correlated with higher scores on the Index of Civic and Political Engagement. The bivariate analysis supported Hypothesis 5; there was a small but statistically significant positive correlation between Bonding Social Capital Scale scores and scores on the Index of Civic and Political Engagement (Pearson's $R=.069$, $p<.01$).

Hypothesis 6 stated that Maintained Social Capital Scale scores will be positively correlated with higher scores on the Index of Civic and Political Engagement. The bivariate analysis supported Hypothesis 6; there was a small but statistically significant positive correlation between Maintained Social Capital Scale scores and scores on the Index of Civic and Political Engagement (Pearson's $R=.072$, $p<.01$).

MULTIVARIATE ANALYSES

The five dichotomous variables were then used as control variables along with the independent variables of bridging, bonding, and maintained social capital for the

Table 11. Correlation Matrix of Relevant Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
Facebook (1)	1												
Instagram (2)	-.553**	1											
Twitter (3)	-.547**	-.196**	1										
Motive: Socialize (4)	.093**	-.065**	-.024	1									
Motive: Gather Info (5)	.054**	-.100**	.028	-.347**	1								
Motive: Improve Status (6)	-.064**	.090**	.009	-.091**	-.042*	1							
Motive: Entertainment (7)	-.217**	.181**	.096**	-.553**	-.256**	-.067**	1						
SNS Intensity Scale (8)	-.152**	.211**	.087**	.120**	-.066**	.077**	.019	1					
Bridging SC Scale (9)	-.284**	.205**	.134**	.092**	-.020	.069**	.030	.598**	1				
Bonding SC Scale (10)	.024	-.022	-.005	.171**	-.045*	.059**	-.115**	.343**	.518**	1			
Maintained SC Scale (11)	.061**	.059**	.030	.117**	-.046*	.019	-.024	.413**	.394**	.415**	1		
Online SC Scale – Combined (12)	-.108**	.115**	.079**	.161**	-.049**	.062**	-.037*	.587**	.843**	.793**	.738**	1	
Civic & Political Participation (13)	.066**	-.021	-.048**	.013	.033	-.023	-.046*	.066**	.083**	.069**	.072**	.094**	1

**Significant at p<.01 *Significant at p<.05

independent variables of bridging, bonding, and maintained social capital for regressions with the dependent variable, civic and political engagement. Table 12 shows that 6.7 percent of the variance in civic and political engagement is explained by these variables. Being a graduate student (.000) and/or white (.000) was found to increase the likelihood of being more civically and politically engaged. Having higher levels of bridging (.000) and maintained social capital (.000) were also found to increase the likelihood of being more civically and politically engaged. However, living on campus (.000) and having an income of less than $15,000 (.000) reduced the chances of individuals being civically and politically engaged.

Table 12. Regression of Predictor Variables on Civic and Political Engagement

Variables	B	Std. Error	Beta	t	Sig.
Constant	5.671	.215		26.317	.000
Female=1	.046	.105	.008	.444	.657
White=1	.436	.101	.082	4.306	.000
Graduate=1	.568	.133	.087	4.270	.000
On Campus=1	-.559	.123	-.092	-4.536	.000
Income <15000=1	-.591	.110	-.110	-5.368	.000
Bridging SC Scale	.061	.014	.100	4.479	.000
Bonding SC Scale	.012	.018	.014	.641	.522
Maintained SC Scale	.036	.016	.046	2.205	.028
F	24.507				
Sig. F Change	.000				
R^2	.067				

Online social capital is broken down into three specific types: bridging, bonding, and maintained. Each form of social capital was individually analyzed and treated as the dependent variable. Similar to the prior analysis, the following control variables used included (1) sex, (2) race, (3) graduate or undergraduate, (4) living on or off campus, and (5) income. Additionally, the Social Networking Site Intensity Scale was also an independent variable. Students' preferred social networking site was recoded into three dichotomous variables: Facebook, Instagram, and Twitter. Furthermore, motives for using social networking sites were also recoded into four dichotomous variables, which were socializing, gathering information, improving social status, or entertainment.

Table 13 shows that 40.9 percent of the variance in bridging social capital can be explained by the independent variables in this model. Demographic variables for having low income (.006) and being a graduate student (.000) were negatively correlated with bridging social capital. Facebook preference (.000) had the strongest negative correlation. Preferring Instagram (.000) or Twitter (.000) was also less likely to score higher on the Bridging Social Capital Scale. Having higher scores on the Social Networking Site Intensity Scale (.000) was a significant predictor of higher levels of bridging social capital. The primary motives for using social networking sites were also positively correlated with bridging social capital. Improving one's status (.032) was the strongest predictor, followed by socializing (.000), gathering information (.000), and then for entertainment (.002).

Table 13. Regression of Predictor Variables on Bridging Social Capital

Variables	B	Std. Error	Beta	t	Sig.
Constant	7.968	.372		21.423	.000
Female=1	-.273	.143	-.030	-1.905	.057
White=1	-.030	.136	-.004	-.222	.824
Graduate=1	-.615	.176	-.058	-3.501	.000
On Campus=1	.016	.168	.002	.093	.926
Income <15000=1	-.406	.148	-.046	-2.752	.006
Facebook=1	-3.286	.290	-.376	-11.341	.000
Instagram=1	-1.726	.322	-.154	-5.353	.000
Twitter=1	-1.889	.324	-.161	-5.835	.000
SNS Intensity Scale	.385	.011	.566	34.904	.000
Motive: Socialize	1.046	.203	.121	5.146	.000
Motive: Gather Info	1.015	.246	.083	4.134	.000
Motive: Improve Status	1.400	.652	.034	2.147	.032
Motive: Entertainment	.682	.216	.073	3.155	.002
F	140.592				
Sig. F Change	.000				
R^2	.409				

Table 14 shows that 16.6 percent of the variance in bonding social capital can be explained by the independent variables. As for demographic variables, females (.000) and graduate students (.000) were negatively correlated with bridging social capital. As for site preference, those who preferred Instagram (.000) or Twitter (.000) were associated with lower scores on the Bonding Social Capital Scale. Social networking site intensity (.000) was a significant predictor of higher levels of bonding social capital. Additionally, users who said their primary motive for using social networking sites was

socializing (.000) were significantly and positively correlated with higher levels of bonding social capital.

Table 14. Regression of Predictor Variables on Bonding Social Capital

Variables	B	Std. Error	Beta	t	Sig.
Constant	2.894	.333		8.698	.000
Female=1	-.844	.128	-.122	-6.601	.000
White=1	-.150	.122	-.023	-1.229	.219
Graduate=1	-.548	.157	-.068	-3.490	.000
On Campus=1	.062	.150	.008	.415	.678
Income <15000=1	-.168	.132	-.025	-1.271	.204
Facebook=1	-.432	.259	-.065	-1.668	.095
Instagram=1	-1.312	.289	-.155	-4.546	.000
Twitter=1	-1.080	.290	-.122	-3.727	.000
SNS Intensity Scale	.190	.010	.370	19.288	.000
Motive: Socialize	.672	.182	.103	3.691	.000
Motive: Gather Info	-.136	.220	-.015	-.616	.538
Motive: Improve Status	1.053	.576	.034	1.830	.067
Motive: Entertainment	-.254	.194	-.036	-1.308	.191
F	40.591				
Sig. F Change	.000				
R^2	.166				

Table 15 shows that 22.3 percent of the variance in maintained social capital can be explained by the independent variables. As for demographic variables, graduate students (.002) had lower scores on the Maintained Social Capital Scale, while living on

campus (.011) was correlated with higher levels of maintained social capital. Site preference also played a significant role in higher scores on the Maintained Social Capital Scale. Facebook (.000) was the strongest predictor, followed by Twitter (.000), and then Instagram (.000). Users who used social networking sites with greater intensity (.000) or whose primary motive was to socialize (.023) were more likely to have higher levels of maintained social capital.

Table 15. Regression of Predictor Variables on Maintained Social Capital

Variables	B	Std. Error	Beta	t	Sig.
Constant	2.770	.334		8.299	.000
Female=1	-.219	.128	-.030	-1.712	.087
White=1	-.063	.122	-.009	-.516	.606
Graduate=1	-.481	.157	-.058	-3.065	.002
On Campus=1	.382	.150	.049	2.541	.011
Income <15000=1	-.250	.132	-.036	-1.890	.059
Facebook=1	3.386	.260	.494	13.011	.000
Instagram=1	2.733	.290	.311	9.428	.000
Twitter=1	2.819	.291	.307	9.686	.000
SNS Intensity Scale	.205	.010	.384	20.734	.000
Motive: Socialize	.414	.182	.061	2.275	.023
Motive: Gather Info	.012	.220	.001	.054	.957
Motive: Improve Status	-.178	.577	-.006	-.308	.758
Motive: Entertainment	.181	.194	.025	.934	.350
F	58.768				
Sig. F Change	.000				
R^2	.223				

SUMMARY AND DISCUSSION

SUMMARY

Researchers have been interested in the concept of social capital and its impact on society. Social capital is the term used to describe how a person's connections to his/her community can be utilized as a resource. Early researchers used social capital as a broad term to describe trust and cohesion within a community. Over time, researchers have refined social capital into three categories: bridging, bonding, and maintained social capital.

Bonding social capital describes the resources that arise from having the support of a network of like-minded people. For example, college students are able to ask for studying tips from their classmates. Bridging social capital refers to individuals' interactions with others who are not similar to themselves in terms of access to resources. An example of this would be college students following an internship social media page for opportunities they would not have access to otherwise. More recently, researchers further distinguished a third form of social capital, which Ellison et al. (2007) coined as maintained social capital. Maintained social capital encompasses the extent that individuals maintain their past social networks.

Researchers have generally proposed that higher levels of social capital can be correlated with higher levels of productivity. Early researchers, like Putnam (2000), theorized that the usage of the internet would reduce social capital because individuals would be sitting in front of their computer instead of interacting with people face-to-face. As technology advances, so has the landscape of online communities. Contrary to past

beliefs, current research has found that online interactions have increased or supplemented social capital (Ellison et al. 2007 and Lin 2008). With the growth of the internet and technology, social capital has been adapted to also account for online interactions.

The rise of social networking sites (SNS), such as Facebook, Twitter, and Instagram, has displayed the popularity of connecting with others online. Social networking sites allow individuals to easily create and access their network of friends, family, and peers, as well as expand their network to include individuals with whom they may not interact with otherwise. Furthermore, social networking sites provide users with various means of connecting to others. For instance, Instagram allows users to share their lives through photos and videos, while Twitter allows users to share short messages with other individuals that can be categorized by hashtag. It is important to note that, since the onset of this study, Facebook and Instagram have both adopted Twitter's hashtag system to efficiently sort user-produced content based on keywords or hashtags.

This study built on Ellison et al.'s (2007) study, which aimed to identify the benefits associated with friends on Facebook. These researchers examined variables such as the user's reasons for using SNS and the composition of their social network. More specifically, Ellison et al. (2007) found that Facebook usage interacts with bridging, bonding, and maintained social capital. Further, Facebook usage had the strongest correlation with bridging social capital (Ellison et al. 2007).

The goal of this study was to examine the effect of SNS use on bridging, bonding, and maintained social capital. Moreover, this study expanded on prior

research by examining how different sites, intensity, and motives for using SNS can mediate the effect SNS usage has on online social capital. Prior research was limited due to lack of comparison between sites and that internet usage was measured broadly. Lastly, prior research had a limited scope on the impact of social networking sites on civic participation.

REVIEW OF RESULTS

This cross-sectional study collected primary data from 3,200 Old Dominion University graduate and undergraduate students who were enrolled during the Fall 2014 semester. The survey included different measures adapted from prior research. Ellison et al.'s (2007) Online Social Capital Scale was modified to be applicable to the user's preferred SNS instead of the internet in general. This scale was composed of three subscales to measure levels of bridging, bonding, and maintained social capital.

Another scale used in the survey was the SNS Intensity Scale, which was derived from Ellison et al.'s (2007) Facebook Intensity Scale. For the purposes of this study, the Facebook Intensity Scale was modified to fit the participants' preferred SNS instead of Facebook only. Other variables measured in this study included motives for using social networking sites, such as socialization, information gathering, entertainment, and status seeking (Park et al. 2009).

The Index of Civic and Political Engagement was included to measure the respondents' level of community engagement at the local and national level (Keeter et al. 2003). Finally, demographic items, such as sex, gender, race, and class, were also measured to determine if demographics play a role in moderating the effect of SNS usage on civic and political engagement.

Facebook was the most popular social networking site with 60.7 percent of students indicating that it was their preferred site. Moreover, 16.7 percent preferred Instagram and 16.5 preferred Twitter. Additionally, 6.5 percent indicate another social networking site, such as Snapchat.

SNS intensity scale scores ranged from 0 to 33, with 0 being no SNS intensity and 33 being the highest level of SNS intensity. This scale included questions pertaining to the average number of minutes spent online per day, total respondents' number of friends or followers, and other questions that were used to gauge respondents' views and attachment toward their preferred social networking site. The mean Social Networking Scale score was 17.93 with a standard deviation of 6.35, which indicated that the sample had moderate levels of SNS intensity.

As for motives, the most common reason for using social networking sites was to socialize with others (42%), followed by entertainment purposes (29%), gather new information (13.8%), and only 1.1 percent indicated they used it to improve their social status. Furthermore, 13.3 percent specified using social networking sites for a different motive than those listed.

According to the survey results, the most common users of social networking sites were white (57.3%) and female (68.2%). Furthermore, they were typically seniors (27.5%), live off-campus (75.9%), and earn less than $15,000 per year (61.6%).

The Online Social Capital Scale scores ranged from 0 to 59 with a higher score indicating a higher level of Online Social Capital. The scale combined questions pertaining to the respondents' bridging, bonding, and maintained social capital. The

mean Online Social Capital Score those surveyed was 26.81 and the standard deviation is 8.79, which indicated that the sample had moderate levels of Online Social Capital.

The Index of Civic and Political Participation scores ranged from 0 to 11 and is used to measure the respondents' level of involvement with civic and political activities, such as participating in local, state, and/or national elections. A score of 0 implies no civic or political engagement while a score of 11 indicates the highest level of civic and political engagement. The mean score of those surveyed was 6.74 and the standard deviation is 2.61, which indicated that the sample had a moderate level of civic and/or political participation.

Bivariate analyses were also performed and found that Facebook usage (Pearson's $R=-.108$, $p<.01$) had a significant negative association with Online Social Capital. Conversely, Instagram (Pearson's $R=.115$, $p<.01$) and Twitter (Pearson's $R=.079$, $p<.01$) usage had a significant positive association with Online Social Capital. In other words, Instagram and Twitter usage was linked to higher levels of online social capital while Facebook usage was linked to lower levels. Social Networking Site Intensity Scale scores (Pearson's $R=.587$, $p<.01$) also showed a statistically significant and positive association with Online Social Capital Scale scores. Furthermore, this was the strongest association for online social capital. Essentially, this suggests that users who used their preferred social networking site with greater intensity were associated with higher Online Social Capital Scale scores.

The bivariate analysis also found that there was a statistically significant negative association between users who were primarily motivated to use social networking sites for gathering information and higher Online Social Capital Scale scores (Pearson's R=-

.049, p<.01). Additional analyses showed that users who said they were motivated for entertainment reasons (Pearson's R=-.037, p<.05) were also associated with lower Online Social Capital scores. On the other hand, being motivated to use social networking sites for improving one's status (Pearson's R=.062, p<.01) and socialization (Pearson's R=.161, p<.01) were found to have a statistically significant positive correlation with online social capital.

The bivariate analyses also found a small, but statistically significant positive correlation between Bridging Social Capital Scale scores (Pearson's R=.083, p<.01), Bonding Social Capital Scale scores (Pearson's R=.069, p<.01), and Maintained Social Capital Scale scores (Pearson's R=.072, p<.01) with scores from the Index of Civic and Political Engagement.

Multivariate analyses were also performed and found that being a graduate student (.000) or white (.000) was found to increase the likelihood of being more civically and politically engaged. Additionally, having higher levels of bridging (.000) and maintained social capital (.000) increased the likelihood of being more civically and politically engaged. Conversely, living on campus (.000) and having an income of less than $15,000 (.000) reduced the chances of individuals being civically and politically engaged.

Additional analyses found that low income (.006) and being a graduate student (.000) were negatively correlated with bridging social capital. Moreover, Facebook preference (.000) had the strongest negative correlation. Instagram (.000) or Twitter (.000) usage was also negatively correlated with Bridging Social Capital Scale scores. Higher scores on the Social Networking Site Intensity Scale (.000) was a significant

predictor of higher levels of bridging social capital. The primary motives for using social networking sites were also positively correlated with bridging social capital. Of the motives listed, improving one's status (.032) was the strongest predictor, followed by socializing (.000), gathering information (.000), and then for entertainment (.002).

As for demographic variables, females (.000) and graduate students (.000) were negatively correlated with bridging social capital. Those who preferred Instagram (.000) or Twitter (.000) were associated with lower scores on the Bonding Social Capital Scale. Social networking site intensity (.000) was a significant predictor of higher levels of bonding social capital. Additionally, users who said their primary motive for using social networking sites was socializing (.000) were significantly and positively correlated with higher levels of bonding social capital.

As for demographic variables, graduate students (.002) had lower scores on the Maintained Social Capital Scale, while living on campus (.011) was correlated with higher levels of maintained social capital. Site preference also played a significant role in higher scores on the Maintained Social Capital Scale. Facebook (.000) was the strongest predictor, followed by Twitter (.000), and then Instagram (.000). Students who used social networking sites with greater intensity (.000) or whose primary motive was to socialize (.023) were more likely to have higher levels of maintained social capital.

Limitations of this study include the narrow sample population, the measures used in the survey, the continuously changing landscape of social networking sites, and the cross-sectional design of the study. The sample population for this study included undergraduate and graduate students from Old Dominion University, which narrows the applicability of these findings. Future studies should aim to collect a nationally

representative sample to better understand the effects of online social networking on a larger scale. Further, the scales used in this study were adapted from prior research. As a result, the scales modified for this study were not tested by other researchers for validity. Additional research is needed to verify the accuracy of these scales. In regards to the social networking sites studied, there have been significant changes to the features and popularity. Moreover, the availability of various networking sites has broadened since the survey was distributed. Future studies should incorporate methods to categorize SNS based on their form and function. Finally, the cross-sectional look into social networking sites only provides a snapshot of their effect on civic and political engagement. Findings from a longitudinal study would be useful in that researchers would be able to see how social networking sites and their users evolve over time.

CONCLUSION

The present study suggests that further research is needed to understand the role that social networking sites can play in civic and political engagement. Given the proliferation of social networking sites, such as Facebook, it is important to appreciate how these sites can influence a person's behavior. As this study has shown, increased SNS usage has been associated with increased civic and political engagement. However, it is not clear whether this relationship is beneficial to individual relationships or society as a whole.

Additionally, the political climate could be positively or negatively influenced by social networking sites. For example, in the 2016 election, one of the presidential candidates, who was not favored to win, utilized Twitter to gain the support of voters, and won the election. Given the outcome, it would have been interesting to see how social networking site usage played a role in voters' engagement in the election. Future research should also take into consideration the accuracy of the content being provided through SNS and its influence in voting habits.

Further exploration into the relationship between the concept of Online Social Capital and social networking site usage is needed to better understand the utility and implications of social networking sites. Social networking sites are a great way to acquire and disseminate information. At face value, this is an efficient method to raise awareness on important topics. However, the intentions and validity of the information provided should also be taken into consideration. Social networking sites and their users should be cautious of the accuracy of the information shared.

REFERENCES

Ahn, June. 2012. “Teenagers’ Experiences with Social Networking Sites: Relationships to Bridging and Bonding Social Capital.” *The Information Society* 28: 99-102.

Alexa. 2013. “Top Sites.” Retrieved October 12, 2013 (http://www.alexa.com/topsites).

Keeter, Scott, Krista Jenkins, Cliff Zukin, and Molly Andolina. 2003. “Three Core Measures of Community-Based Civic Engagement: Evidence from the Youth Civic Engagement Indicators Project.” *Child Trends Conference on Indicators of Positive Development.* Washington, DC.

Baumgartner, Jody and Jonathon Morris. 2010. “MyFaceTube Politics: Social Networking Web Sites and Political Engagement of Young Adults.” *Social Science Computer Review* 28(1): 24-44.

Bourdieu, Pierre. 1986. “The Forms of Capital.” *Handbook of Theory and Research for the Sociology of Education*, edited by John Richardson. Westport: CT.: Greenwood Press.

Brenner, Joanna and Aaron Smith. 2013. “72% of Online Adults are Social Networking Site Users.” Pew Research Center, Washington, D.C. Retrieved September 24, 2013 (http://pewinternet.org/ reports/2013/social-networking-sites.aspx).

Coleman, James. 1988. “Social Capital in the Creation of Human Capital.” *American Journal of Sociology* 94: S95-S120.

Coleman, James. 1990. *Foundations of Social Theory.* Cambridge, Mass.: Belknap Press of Harvard University Press.

Cummings, Jonathon, Brian Butler, and Robert Kraut. 2002. “The Quality of Online Social Relationships.” *Communications of the ACM* 45(7):103-108.

Ellison, Nicole, Charles Steinfield, and Cliff Lampe. 2007. “The Benefit of Facebook ‘Friends:’ Social Capital and College Students’ Use of Online Social Networking Sites.” *Journal of Computer-Mediated Communication* 12:1143-1168.

Granovetter, Mark. 1983. “The Strength of Weak Ties: A Network Theory Revisited” *Sociological Theory* 1:201-233.

Gil de Zuniga, Homera, Nakwon Jung, and Sebastian Valenzuela. 2012. “Social Media Use for News and Individuals’ Social Capital, Civic Engagement and Political Participation.” *Journal of Computer-Mediated Communication* 17: 319-336.

Hanifan, L. J. 1916. “The Rural School Community Center.” *Annals of the American Academy of Political and Social Sciences* 67:130-138.

Hofer, Matthias, and V. Aubert. 2013. “Perceived bridging and bonding social capital on Twitter: Differentiating between followers and followers.” *Computers in Human Behavior* 29:2134-2142.

Kapucu, Naim. 2011. “Social Capital and Civic Engagement.” *International Journal of Social Inquiry* 4(1):23-43.

Lin, Nan. 1999. “Building a Network Theory.” *Connections* 22(1):28-51.

Lin, Nan. 2001. *Social Capital: A Theory of Social Structure and Action*. Cambridge: Cambridge University Press.

Lin, Nan. 2008. “A Network Theory of Social Capital.” Pp. 50-69 in *The Handbook of Social Capital*, edited by D. Castilione, J. W. Van Deth, and G. Wolleb. New York: Oxford.

Loury, Glenn. 1977. “A Dynamic Theory of Racial Income Differences.” Chapter 8 in *Women, Minorities, and Employment Discrimination*, edited by P.A. Wallace and A. Le Mund. Lexington, Mass.: Lexington Books.

Murayama, Hiroshi, Yoshinori Fujiwara, and Ichiro Kawachi. 2012. “Social Capital and Health: A Review of Prospective Multilevel Studies.” *Journal of Epidemiology* 22(3):179-187.

Paul, Jomon, Hope Baker, and Justin Cochran. 2012. “Effect of Online Social Networking on Student Academic Performance.” *Computers in Human Behavior* 28:2117-2127.

Park, Namsu, Kerk F. Kee, and Sebastian Valenzuela. 2009. “Being Immersed in Social Networking Environment: Facebook Groups, Uses and Gratifications, and Social Outcomes.”

Putnam, Robert. 1993. “The Prosperous Community: Social Capital and Public Life.” *The American Prospect* 4(13): 1-11.

Putnam, Robert. 1995. “Bowling Alone: America’s Declining Social Capital.” *Journal of Democracy* 6(1):65-78.

Putnam, Robert. 2000. *Bowling Alone: The Collapse and Revival of American Community.* New York: NY: Simon and Schuster.

Shah, Dhavan, Nojin Kwak, and R. Lance Holbert. 2001. “‘Connecting’ and ‘Disconnecting’ with Civic Life: Patterns of Internet Use and Production of Social Capital.” *Political Communication* 18:141-162.

Subrahmanyam, Kaveri, Stephanie Reich, Natalia Waechter, and Guadalupe Espinoza. 2008. “Online and Offline Social Networks: Use of Social Networking Sites by Emerging Adults.” *Journal of Applied Developmental Psychology* 29: 420-433.

Uslaner, Eric M., and Mitchell Brown. 2003. “Inequality, Trust, and Civic Engagement.” *American Politics Research* 31(10):1-27.

Valenzuela, Sebastian, Namsu Park, and Kerk Kee. 2009. “Is there Social Capital in a Social Network Site?: Facebook Use and College Students’ Life Satisfaction, Trust, and Participation.” *Journal of Computer-Mediated Communication* 14:875-901.

Williams, Dmitri. 2006. “On and Off the ‘Net: Scales for Social Capital in an Online Era.” *Journal of Computer-Mediated Communication* 11:593-628.

Wellman, Barry, Anabel Quan Haase, James Witte, and Keith Hampton. 2001. “Does the Internet Increase, Decrease, or Supplement Social Capital?” *American Behavioral Scientist,* 45(3): 436-455.

Yamaguchi, Ayano. 2013. “Impact of Social Capital on the Psychological Well-Being of Adolescents.” *International Journal of Psychological Studies* 5(2):100-109.

APPENDIX

Survey Instrument

This survey examines the effects of social capital acquired through social media on civic engagement. This survey is voluntary and the participants will remain anonymous. Please read each question carefully and answer as honestly as possible. Thank you for your cooperation.

Please select the best response for the following questions.

Which social networking site do you use most often?

(1) Facebook
(2) Twitter
(3) Other (specify)

(The blanks in the following question will be filled in based on the respondent's social networking site preference.)

About how many total friends or followers do you have on your primary social networking site?

_____ friends/followers

In the past week, on average, approximately how many minutes per day have you spent on _____?

_____ minutes

Do you follow any civic or political groups on _____?

(1) Yes
(2) No

Please choose the best response for the following questions.

	Strongly Disagree	Disagree	Agree	Strongly Agree
_____ is part of my everyday activity.	1	2	3	4
I am proud to tell people I'm on _____.	1	2	4	5
_____ has become part of my daily routine.	1	2	4	5
I feel out of touch when I haven't been on _____ for a while.	1	2	4	5
I feel I am part of the _____ community.	1	2	4	5
I would be sorry if _____ shut down.	1	2	4	5

The following items relate to the reasons why you use _____. Please choose the best response for each question.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Does _____ help people socialize with others?	1	2	3	4
Does _____ help people gather new information, such as information on politics?	1	2	3	4
Does _____ help people engage in social life, such as finding out about local events?	1	2	3	4
Is _____ used for entertainment purposes?	1	2	3	4

Please choose the best response for each question.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I feel I am part of the _____ community.	1	2	3	4
I am interested in what is happening on _____.	1	2	3	4
_____ is a good thing to be a part of.	1	2	3	4
I would be willing to donate money to _____.	1	2	3	4
Interacting with people on _____ makes me want to try new things.	1	2	3	4
Interacting with people on _____ makes me feel like a part of a larger community.	1	2	3	4
I am willing to spend time to support activities that I see on _____.	1	2	3	4
On _____, I come into contact with new people all the time.	1	2	3	4
Interacting with people on _____ reminds me that everyone in the world is connected.	1	2	3	4
There are several people on _____ I trust to solve my problems.	1	2	3	4
If I needed an emergency loan of $100, I know someone on _____ I can turn to.	1	2	3	4
There is someone on _____ I can turn to for advice about making very important decisions.	1	2	3	4
The people I interact with on _____ would be good job references for me.	1	2	3	4
I do not know people on _____ well enough to get	1	2	3	4

them to do anything important. (Reversed)				
Using _____, I'd be able to find out about events in another town from a high school acquaintance living there.	1	2	3	4
Using _____, if I needed to, I could ask a high school acquaintance to do a small favor for me.	1	2	3	4
Using _____, I'd be able to stay with a high school acquaintance if traveling to a different city.	1	2	3	4
Using _____, I would be able to find information about a job or internship from a high school acquaintance.	1	2	3	4
Using _____, it would be easy to find people to invite to my high school reunion.	1	2	3	4

For the following items, please choose the best response for each question.

	No, never	Yes, but not within the last 12 months	Yes, within the last 12 months
Have you ever worked or volunteered on a community project?	0	1	2
Have you ever worked or volunteered for non-political groups such as a hobby club, environmental group or minority student association?	0	1	2
Have you ever raised money for charity or ran/walked/biked for charity?	0	1	2
Have you ever worked or volunteered for political groups or candidates?	0	1	2
Have you ever voted in a local or state election?	0	1	2
Have you ever voted in a national election?	0	1	2
Have you ever tried to persuade others in an election?	0	1	2
Have you ever signed a petition?	0	1	2

Have you ever worn or displayed a badge or sticker related to a political or social cause?	0	1	2
Have you ever deliberately bought certain products for political, ethical, or environmental reasons?	0	1	2

Demographics

What is your age?

___ **years old**

What is your sex?

(0)Male

(1) Female

What is your race?

(1)White

(2) Black or African American

(3) American Indian or Alaska Native

(4) Asian

(5) Native Hawaiian or Other Pacific Islander

(6) Other (specify)

What is your political affiliation?

(1) Democrat

(2) Independent

(3)Republican

(4)Don’t know

What are your political views?

(1) Extremely Conservative

(2) Conservative

(3) Somewhat Conservative

(4) Somewhat Liberal

(5) Liberal

(6)Extremely Liberal

What is your year in college?

(1) Freshman

(2) Sophomore

(3) Junior

(4) Senior

(5) Graduate

What is your living situation?

(1) On-campus

(2) Off-campus

What is your income?

$_____ per year

If you would like to be entered into the drawing for one of the three $50 Visa gift cards, please provide your email address: _____

VITA

Charles L. Bush
Old Dominion University
Department of Sociology and Criminal Justice
Batten Arts and Letters
Norfolk, Virginia 23529
Cbush004@odu.edu

Education

Old Dominion University, Norfolk, VA ***2011***
B.S. Sociology

Old Dominion University, Norfolk, VA ***2011***
B.S. Criminal Justice

Professional Experience

Mathematica Policy Research **(2015-Current)**

Project Manager, Evaluation of the Comprehensive Primary Care Initiative (2017-).
Supervised daily project management activities to support the evaluation of this CMMI program. Developed tracking tools and strategies to monitor daily labor and expenditures to successfully achieve spending target at end of the option year. Established new subcontracts with subcontractors and facilitated procurement of data sources and services from third-party vendors. Assisted in coordination and submission of annual report, and tracked progress for weekly team and client meetings.

Project Manager, Coordinating Center for the Agency for Healthcare Research and Quality (AHRQ) Comparative Health Systems Performance Initiative (2017-).
Led project management activities and supported logistics and planning for three AHRQ Centers of Excellence, which are located at Dartmouth College, National Bureau of Economic Research, and RAND. Assisted in implementing quarterly workgroup meetings, annual in-person workshop in Rockville, MD, and technical expert panel meetings. Monitored progress of deliverables and manage documentation of files. Wrote monthly client reports and detailed minutes of client

and workgroup meetings. Facilitated procurement of five new data sources, and coordinated reviews with purchasing, legal, and security services. Initiated project management plan during project launch, created and designed new SharePoint site with capacity for external users, developed quality assurance and risk assessment plans, and prepared new financial tracking tools for budget management. The Coordinating Center is conducting research on the characteristics of high-performing health systems and synthesizing research from the Centers of Excellence.

Survey Analyst, Data Collection Task Lead, National Beneficiary Survey (2015-).
Led instrument testing, phone and field interviewer training, and phone data collection for the Round 2 computer-assisted telephone interviewing (CATI) survey of Social Security Disability beneficiaries. The NBS General Waves project aims to identify key factors that contribute to beneficiaries succeeding with work and factors that contribute to the failure of initially successful work attempts. Sponsored by the Social Security Administration, the NBS-General Waves will collect data from a nationally representative sample of approximately 19,500 disability beneficiaries across three rounds of interviews. In addition, the sample will include a cohort of approximately 2,300 successful workers who will be followed longitudinally.

Survey Specialist, Codebook Task Lead, National Beneficiary Survey (2015).
Served as lead for data file preparation and codebook construction. Coauthored user guide and appendices for the public- and restricted-use files. The National Beneficiary Survey, sponsored by the Social Security Administration (SSA), focuses on disability beneficiaries and identifying the key factors that contribute to beneficiaries succeeding with earnings at levels sufficient to end their reliance on SSA disability benefits and the factors that contribute to the failure of initially successful work attempts.

Survey Specialist, Head Start Family and Child Experiences Survey (FACES) (2015).
Drafted and updated table shells and bullet points for fall and spring technical reports, key indicators, and cross-cohort analysis. Contributed by drafting constructed variable specifications, performing data analysis, and coauthoring memos and reports. FACES gathers comprehensive data on the cognitive and social-emotional development of Head Start children; the characteristics of their families; the quality of Head Start classrooms; and the qualifications, credentials, and views of Head Start teachers and other program staff.

Survey Specialist, American Indian and Alaska Native Head Start Family and Child Experiences Survey (AI/AN FACES) (2015).
Drafted and updated table shells and bullet points for fall and spring technical reports for AI/AN FACES. Created constructed variable specifications as well as updated and added variables to Access database for constructed variables. Constructed variable specifications. AI/AN FACES is a five-year study of AI/AN Head Start children and their families, classrooms, and programs, for the U.S. Department of Health and Human Services, Administration for Children and Families, and Office of Planning, Research and Evaluation.

Survey Specialist, Data Collection Task Lead, Rehabilitation Research and Training Center on Disability Statistics and Demographics (StatsRRTC) Pilot Study (2015).
Led development of web survey specifications, computer-assisted telephone interviewing (CATI) and web data collection efforts, and respondent payments. Produced technical assistance documentation as well as assisted with data analysis and report writing. The mission of the StatsRRTC is to bridge the gap between the producers and end users of disability statistics, thereby supporting better data collection, more accurate information, better decision making, more effective programs, and better lives for people with disabilities.

Survey Specialist, Cognitive Interviewer and Coder, National Beneficiary Survey (2015).
Conducted and coded cognitive interviews with disability beneficiaries to assess new survey items developed CATI survey of SSAA beneficiaries. The National Beneficiary Survey, sponsored by SSA, aims to identify the key factors that contribute to beneficiaries succeeding with earnings at levels sufficient to end their reliance on SSA disability benefits.

Old Dominion University; Norfolk, VA

Social Science Research Center Graduate Research Assistant **2013-2015**

Recruited, supervised, and trained telephone interviewers and mail survey staff. Processed and analyzed large data sets using SPSS and Excel and assisted in compiling technical reports and other publications. Programmed and conducted surveys using a computer-assisted telephone interviewing system (Voxco) and web survey software (Qualtrics). Coordinated mail merging, quality checks, and mass mailings for large-volume mail surveys.

Graduate Teaching Assistant **2013-2015**

Assisted instructors in Criminal Justice and Sociology with course planning, grading, and class communication in upper-level and writing courses.

Norfolk Commonwealth Attorney Office; Norfolk, VA **2011**

As Intern, used CIMS, VCAIS, and I-Leads software to perform court duties, office tasks, and case management.

Publications

Aiken, Nikki, and Charles Bush. “FACES Cross-Cohort Analyses Policy Brief.” Report submitted to U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation. Washington, DC: Mathematica Policy Research, July 2016.

Aikens, Nikki, Charles Bush, Philip Gleason, Lizabeth Malone, and Louisa Tarullo. “Tracking Quality in Head Start Classrooms: FACES 2006 to FACES 2014 Technical Report.” OPRE Report 2016-95. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation, November 2016.

Aikens, Nikki, Charles Bush, Philip Gleason, Lizabeth Malone, and Louisa Tarullo. “Tracking Quality in Head Start Classrooms: FACES 2006 to FACES 2014.” OPRE Brief 2016-82. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation, October 2016.

Bernstein, Sara, Lizabeth Malone, and Charles Bush. “Children’s Cultural and Language Connections in Head Start and Beyond Evidence from a National Study of AI/AN Head Start.” Paper presented at the Society for Research in Child Development Biennial Meeting, Austin, TX, April 6-8, 2017.

Bush, Charles, Sara Skidmore, Debra Wright, and Hong Zhang. “The National Beneficiary Survey-General Waves: Round 1 Restricted-Use File Codebook.” Draft report submitted to the Social Security Administration. Washington, DC: Mathematica Policy Research, May 2016

Bush, Charles, Ryan Callahan, and Jason Markesich. “The National Beneficiary Survey—General Waves Round 5: Public-Use File Codebook.” Washington, DC: Mathematica Policy Research, 2017.

Bush, Charles, Ryan Callahan, and Jason Markesich. “The National Beneficiary Survey—General Waves Round 5: Restricted-Use File Codebook.” Washington, DC: Mathematica Policy Research, 2017.

Parker, Stephen, Charles Bush, Wendi Wilson-John, Jesse Richman, and Tancy Vandecar-Burdin. “New Hampshire’s Public Mental Health Consumer Survey Report-2014.” Concord, NH: New Hampshire Bureau of Behavioral Health, 2014.

Parker, Stephen, Charles Bush, Jesse Richman, and Tancy Vandecar-Burdin. “Life in Hampton Roads Report: The Fifth Annual Life in Hampton Roads Survey.” Norfolk, VA: Social Science Research Center, 2014.

Parker, Stephen, Charles Bush, Wendi Wilson-John, Jesse Richman, and Tancy Vandecar-Burdin. “New Hampshire’s Public Mental Health Consumer Survey Report-2013.” Concord, NH: New Hampshire Bureau of Behavioral Health, 2013.

Resnick, Sara, Tarah Gibbs, Charles Bush, Steve Parker, Tancy Vandecar-Burdin, and Jesse Richman. “Life in Hampton Roads Report: The Fourth Annual Life in Hampton Roads Survey.” Norfolk, VA: Social Science Research Center, 2013.

Wright, D., K. Barrett, S. Skidmore, E. Grau, Y. Zheng, K. Barrett, C. Bush and J. Markesich. “The National Beneficiary Survey-General Waves Round 5 (Volume 3 of 3): User’s Guide for Restricted and Public Use Data Files.” Washington, DC: Mathematica Policy Research, August 2017.

Wright, Debra, Eric Grau, Sara Skidmore, Yuhong Zheng, Hanzhi Zhou, Kirsten Barrett, and Charles Bush. “National Beneficiary Survey-General Waves Round 1: (Volume 3 of 3) User’s Guide for Restricted and Public Use Files.” Draft report submitted to the Social Security Administration. Washington, DC: Mathematica Policy Research, May 2016.

Certifications

Human Subjects Research certification, Collaborative Institutional Training Initiative **2013**

Professional Memberships

American Sociological Association **2011**

American Association for Public Opinion Research **2015**

Awards and Honors

Golden Key International Honor Society **2013-2015**

Information Technology

SharePoint, SPSS, SAS, Voxco, Microsoft Office Suite, Qualtrics, Blaise, ConfirmIt, Smartfield