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Paige Erin E. Maynard
Illinois Wesleyan University, pmaynard@iwu.edu

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A Web of Connections: The Role of Social Capital and Trust in the Formation of Virtual Organizations

A Study of Social Service Agencies in Bloomington-Normal, Illinois

Paige Maynard
pmaynard@iwu.edu
Illinois Wesleyan University
Department of Sociology
Advisor: Meghan Burke, PhD

Abstract

Many community based agencies engage in collaboration in order to solve community problems no one organization can accomplish on its own. One such form of collaboration is the virtual organization. A virtual organization is an organization that relies on multi-party, co-operative agreements between structural, temporal, and sometimes geographic boundaries. Looking narrowly at virtual organizations on the community level is one approach which allows for better understanding of why and how community based collaboration takes place. The objective of this research is to examine the extent to which virtual organizations are utilized by community agencies while simultaneously understanding the role both social capital and trust play in the formation of these organizations. By surveying human service agencies in Bloomington-Normal, Illinois, both qualitative and quantitative data were collected on virtual organizations that exist in this community. Both social capital and trust appear to be two of the driving forces in the formation of virtual organizations across social service agencies. This research seeks to better understand virtual organizations as well as the associated successes and failures.

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I. Introduction

We live in a world of interconnectedness. With new technologies and services, communication across the world and across town is literally at our fingertips. Within seconds, any one of us can be connected with any person or service we are seeking. The ability to work from home or work half way across the world speaks to the way this connectedness has spilled over into our everyday lives. A virtual organization is a phenomenon that has quickly become a part of the corporate world in this age of connectedness and can now be seen in almost all aspects of social connections. Virtual organizations are forms of collaboration which rely on multiparty, co-operative relationships across structural, temporal, and often geographic boundaries. As virtual organizations are an effective, profitable, and highly studied trend in the business world, little research has been done on the role of these organizations outside the bureaucratic setting. Virtual organizations can take on various formal or informal structures and thus, we are commonly seeing these collaborative efforts on the community front. It is interesting to consider the role of virtual organizations in human service agencies. Without a doubt the need for these innovative alliances has grown as agencies have faced budget cuts and reduced staffing in the wake of the economic crisis. Working together on joint efforts can lead not only to decreased cost, but also to increased community exposure.

In conducting this study, I am interested in the way in which human service agencies engage in virtual organizations. This research delves into the world of these agencies and identifies the key reasons agencies engage in virtual organizations. By studying these collaborative efforts both successes and failures are identified. For that reason, this research shows what effective collaboration, in the form of virtual organizations, looks like. Based on

literature and preliminary discussion, I hypothesize that social capital and trust are the driving forces in the formation of virtual organizations across human service agencies.

A theoretical framework is built around sociological and community based literature. Virtual organizations find their place in sociological theory which discuses organizational dynamics, social control, and integrative networks. The historic works of many sociologists, including Durkheim and Bourdieu, are applicable in understanding the division of labor and theoretical social capital. Moreover, the hypothesis is tested through online surveys of human service agencies located in Bloomington-Normal, Illinois as well as face to face interviews with a local agency engaged in an effective virtual organization. This combination of quantitative and qualitative data will not only reveal the extent to which virtual organizations exist, but also the reasoning behind formation decisions and the factors which hinder or assist the successes of the virtual organization.

II. Literature Review

Literature on the topic of virtual organizations exists in a variety of disciplines. The term virtual organization is most commonly used when describing corporate or community collaborative efforts. Umbrella organizations or conglomerates are both types of collaboration which are comparable to virtual organizations. Virtual organizations may exist temporarily to implement a project or strategic plan or may exist more permanently around an ongoing vision or mission. Conceptually the idea of a virtual organization is nothing new or profound; however, advances in technology have allowed virtual organizations to exist with greater ease and frequency (Schoech, 1999; Schoech et al., 2001). Using the term "virtual" allows for the technological aspect to be further explored. Because of the many new advances in communication technology, meetings can be held over the phone, through instant messages,

through video conferencing or Skype, or many other advanced platforms. Other online tools such as document sharing, Google docs, and sophisticated e-mail networks allow for documents, ideas, and agendas to be passed from one individual to the next with the click of a button (Conner, 2008; Shachaf, 2008). Gone are the days of *needing* to hold face to face meetings. The new virtual world has created the opportunity for organizations to collaborate across towns or across the world.

Virtual organizations are often categorized according to a type of dispersion. Shin (2005) identifies two types of dispersions which are important to understand when researching virtual organizations. Organizational dispersion refers to a virtual organization whose parties belong to different organizations, while temporal or spatial dispersion refers to a virtual organizations whose parties work with little to no face to face interaction (Shin, 2005). Many virtual organizations have both temporal/spatial and organizational dispersion. Included in this research are virtual organizations with both organizational and spatial dispersion.

The ways in which virtual organizations are utilized may depend on the culture of the workplace. Here, it is important to note the differences between the corporate virtual organization and the community agency virtual organization this study refers to. To assist in this explanation, the grid and group work of Mary Douglas (1978) is beneficial. Over the past 30 years Douglas has studied and refined an original typology known as grid and group. Grid refers to externally imposed regulations on the actions of discipline, which can take the form of laws or social discipline. Group refers to membership in which the behavior of members is determined by relationships within the group (Douglas, 1978; Spickard, 1989). The bureaucratic organization, or corporation, is likely to experience high group and high grid where individuals are subject to control through norms, roles, and regulations, and also through other individuals.

Community based agencies, which are likely more egalitarian in nature, may experience high group and low grid. Individuals maintain commitment to the organization by appealing to group values and purposes. Members draw on loyalty (Douglas, 1978; Spickard, 1989). The virtual organization which exists within the realm of either of these types of organizations would possess similar grid and group qualities. Understanding the environment of community based agencies uncovers some of the difficulties that may exist in the control of virtual organizations.

Many sociologists have studied the ideas of social control and collaboration and have discovered some of the necessary and beneficial components of various social relationships. Traces of the ideas behind virtual organizations can be found in the works of early sociologists. Social control and bureaucracy, as studied by Foucault and Weber are directly tied to the virtual organization in the sense that both social control and bureaucratic organization have a limited place within the structure of the virtual organization (Foucault, 1975; Weber, 1904). Through their own work, these historic theorists discovered the efficiency is maximized though rigid sources of social control and hierarchy. Furthermore, Durkheim's division of labor speaks to the ability of virtual organizations to distribute specific tasks to the parties which are best equipped, theoretically achieving greater efficiency. Durkheim reveals that as an organization grows as does the division of labor. Collaboration through virtual organizations allows each party involved to achieve more than they would as an individual entity. Per Durkheim we know that the whole is greater than the sum of its parts (Durkheim, 1912).

The question may arise as to how to manage people whom you do not see. The overall nature of virtual organizations lends way to this managerial dilemma (Handy, 1995; Shin, 2005; Zhang, 2009). Thus, trust becomes a key player in the formation and operation of the virtual organization. This is a contradiction to the Weberian sociologist who believes that social control

and efficiency go hand in hand. Although some researchers argue that technology creates a different form of social control, "a system of control of a certain environment," (Lianos, 2003) others feel that technology alone is not enough and that trust becomes more important than social control (Handy, 1995).

Since there is no obvious managerial tool to assist in the control of a virtual organization, as there is often organizational and spatial dispersion, members of the virtual organization must build a rapport of trust to assure that work is being accomplished. There seems to be no consensus on the ability of technology, namely web based communication efforts, to serve as a form of control, however there is agreement in that trust is more important in virtual organizations than it is in face to face teams. In nearly every piece of literature which examines the workings of networks and collaboration, trust seems to be at the forefront of the discussion (Mandell, 1995; Handy, 1995; Rhodes, 1996; Putnam, 2000; Smock, 2003; Striukova & Rayna, 2008). In his article which examines the role of trust in virtual organizations, Handy (1995) identifies some of the key principles of trust in this context. Perhaps most importantly is that trust is not blind. It is unwise to trust someone whom you do not know well, thus social capital becomes involved, which will be discussed in greater detail below. When forming a virtual organization an organizer would consider individuals or parties in which they already have built a rapport of trust. Likewise, trust needs bonding. If an individual or party is asked to be part of a virtual organization in which they have no invested interest the likelihood of success is not good. For the whole to work, the goals of the smaller units must be the same as the goals of the whole. Finally, trust requires good leadership. Handy describes how good trust-based organizations do not have to be constantly managed, but they do have to have a willing and capable leader who can oversee the entire operation.

Network structures as studied in the context of community development are used as vehicles to create synergy and trust between seemingly independent actors. Examples of this can be most frequently seen on the community front as networks centered on community development take on work which was historically designed for government intervention, because of a lack of funds or available resources (Provan & Milward, 1995; Rhodes, 1996; Kilpatrick, 1996; Mandell, 1999). While issuing added responsibilities to community actors and agencies, these networks of collaboration simultaneously alter the role of the public sector in community development. Ultimately, the reigns are put in the hands of community members and agencies. Researchers of these networks found that they cannot be managed though traditional means, but instead demand trust by all parties for proper functioning.

Social capital is another component discussed in the formation and operation of virtual organizations. In the words of the sociologist, Bourdieu, "Social capital is the aggregate of the actual or potential resources which are linked to the possession of a durable network…" (Bourdieu, 1986). Engaging in such networks, relationships, or virtual organizations leads to the availability of collective capital among the group. Bourdieu finds that the volume of social capital increases with the size of the network. Furthermore, social capital transforms contingent relationships into relationships of reciprocity, obligations, and exchange (Bourdieu, 1986). This means that not are individuals creating social capital by engaging in virtual organizations, but it also means that each member of the virtual organization brings with them a network of others in which the whole group now has access to.

There are three dimensions of social capital that are identified and important to the way social capital relates to virtual organizations: structural, relational, and cognitive (Nahapiet and Ghoshal, 1996; Tsai & Ghoshal, 1998; Tsai, 2000). The structural dimension refers to the ability

of individuals and organizations to make connections with one another, thus, reducing the amount of time and resources necessary to gather information. The relational dimension focuses on the initial connections made between individuals with an emphasis on obligations, norms, trust, and identification. Relational social capital is built over time, but can easily be compromised with trust breaking behaviors. Finally, the cognitive dimension refers to the development of shared visions between several parties. Shared vision creates bonds between individuals which leads to cooperation and ultimately, trust. Figure 1 below shows the way in which these three dimensions interact. To generate value, there is a need for each of the dimensions to be present. In virtual organizations shared values, norms, trust, and networks are all values which are generated through social capital. Each assists the virtual organization in running efficiently without formal controls or oversight. Shared values lead to cooperation, norms lead to productive behaviors of individuals, trust leads to smooth and non-competitive interactions and the ability to build more social capital, and networks lead to a competitive advantage over other organizations in the ability to better collect information and resources (Striukova and Rayna, 2008; Zhang et al., 2009).

Figure 1 Relationships between the dimensions of social capital
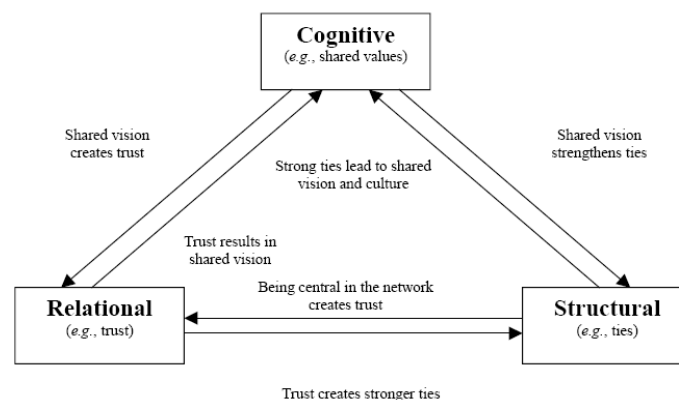
Chart from Striukova and Rayna, 2008

Social capital at the community level is something that has been studied by academics (Putnam, 2000; Smock, 2003; Strikova & Rayna, 2008) and is seen at work by community agencies. Whether or not the terminology is understood, community agencies are constantly using their personal connections and networks to mobilize their agency. Putman (2000) identifies these community connections as "social glue" which help ideas become realities. The extent to which these connections are formalized into virtual organizations is something that varies among agencies. Like the literature which discusses social capital in general, Smock (2003) identifies key processes necessary in effective community collaboration. Although Smock intends for these processes to be grasped by organizations and community members, the description of the processes can also be understood in the context of a virtual organization. The first is a sense of collective identity, meaning that each organization or individual must understand the mission or goal of the virtual organization extends beyond their personal sphere. Second is mutual support. This concept relates directly back to trust. Through the building of trust and reciprocity individuals or organizations understand it is in their own best interest to support and assist others involved in the collaborative effort. Third is cooperative action, which speaks to the whole being greater than the sum of its parts. All involved in the effort can achieve more as a group than they could individually. Lastly is expanded scope. By making connections that may not have otherwise have been made, individuals or organizations are able to see beyond what they commonly do. This allows for greater understanding of the community.

Human service agency collaboration, rather than other non profit or even corporate collaboration, takes into account a unique set of welfare services and revenue streams that may not be a concern in other collaborative efforts. Federal and state funding often encourages and may even require community collaboration among human service agencies. Virtual

organizations are a common form this collaboration may take. However, an inimitable set of circumstances often surrounds human service agency collaboration. An ethnographic study by Sandfort (1999) identifies some of the boundaries that exist. At the micro level things such as turf wars over services and clients may impede on collaboration efforts. At the macro level, community politics which favor certain agencies or varying structural make-ups may interfere. In her study Sandfort (1999) found that agency collaboration is not inhibited by individuals, but most commonly by the structures of the organizations. Varying structures mean varying processes and ultimately varying amounts of power among administrators and frontline staff. The difficulty of merging structurally different organizations (who often have limited budgets) is an obvious struggle.

A recent empirical study by Baldassarri and Diani (2007) analyzes the integrative dynamics of civic networks of two British cities. Civic networks are defined as a "web of collaborative ties and overlapping memberships between participatory organizations, formally independent of the state, acting on behalf of collective and public interests" essentially a virtual organization. Their findings suggest that the effective nature of civic networks depends on a polycentric, horizontal structure over a hierarchical one. Furthermore, a combination of strong and weak social bonds within the network brings unique connections and can often lead to new civic networks or social connectedness.

III. Methodology

In 2010, I was an intern with a task force of human services agencies assigned the mission of implementing mental health services into two primary care facilities in Bloomington-Normal, Illinois. During this internship, I was introduced to the idea of virtual organizations. I was able to experience this form of collaboration first hand and witnessed some of the associated

struggles and joys. Because there were many agencies, companies, and individuals who would be affected by this, a virtual organization representing appropriate parties was created to see this project through. Being a part of this project opened my eyes to the need for proper leadership and communication techniques. However, I was also able to experience good collaboration as each party brought different ideas and people to the table which moved the project forward. Because of my ties to many different human services agencies through this project, I found an available sampling population for this research.

Although the literature on social capital and trust within community agencies is plentiful, research on virtual organizations is almost completely limited to corporate settings. Based on my internship experience, I wanted to better understand the extent to which virtual organizations exist on the community level. This question led me to develop this study, looking widely at virtual organizations in local human service agencies and driving forces behind their formation. Since many human services agencies were the hardest hit by the 2008 economic crisis, suffering budget cuts and a limited flow of state money, the need for collaboration among these agencies is vital for survival. As the literature, and more specifically Sandfort (1999) states, there are many boundaries and limitations which exist within human services agencies which come into play when forming a virtual organization. Some of these barriers, including community politics and loose organizational structures, may not be applicable when studying virtual organizations in a bureaucratic or corporate setting because of a more rigid and hierarchical structure. Due to the necessity to collaborate as well as the interesting and complex virtual organization structures, human services agencies were chosen as the study group for this research.

Human service agencies in Bloomington-Normal, Illinois provided the data for this study. An e-mail list of various human service agency administrators and employees was compiled

through social connections I had through this internship as well as community connections through Illinois Wesleyan University's Action Research Center. Potential participants were required to be full or part time employees of a human service agency in Bloomington-Normal, and also 18 years of age or older. Participation in the survey was voluntary. Through an oral presentation at an annual Mental Health America meeting, where many human service agency representatives were present, I provided potential respondents with general information about this research and invited them to participate in an online survey. Furthermore, Deborah Halperin, of the Action Research Center, sent an additional e-mail with the research objectives to a larger number of human service agency representatives and informed them they would be receiving an e-mail survey invitation from me.

Following this, on November 15, 2010, a brief online survey was sent to a total of sixty two individuals which asked each respondent various demographic questions as well as detailed information about virtual organizations they or their organizations are currently a part of or have been a part of in the past. The e-mail invitation further explained the research as well as directed the respondents to a survey through Google forms. Upon completion of the survey, the responses were automatically complied and saved via Google. The results of the survey are completely anonymous. A copy of the e-mail invitation as well as the survey questions can be seen in Appendix 1.

Furthermore, two in-person interviews were conducted with both a founder and current leader of a local agency, The Hispanic Families Work Group, which frequently utilizes virtual organizations. Community leaders highlighted this agency as one which understands the workings of virtual organizations. This particular agency was selected to serve as a case study based on my own knowledge of the agency and also through informal discussions with other

community leaders. The case study serves to exemplify an organization which frequently engages in virtual organizations. Furthermore, the case study provides an in depth understanding of virtual organizations which could not be achieved from surveys alone. This particular agency specializes in virtual organizations, as their members are part of countless collaborative efforts which exist to serve the Hispanic population in Bloomington-Normal. This organization has made large strides for the Hispanic community and they attribute most of this success to meaningful virtual organizations. It is an organization which collaborates with many other agencies, businesses, and universities and ultimately excels at successful collaboration. For these reasons, I set up an interview time with two leaders to discuss virtual organizations as well as some best practices in community collaboration. I met with both of these leaders at the same time and asked them the questions from the online survey and allowed for open ended responses.

IV. Results

The results from the online survey will proceed in two sections. The demographic information of the respondents is provided initially. The data from this section are taken from the first six questions on the survey. The data gathered from these questions allows for better understanding of the respondents. Moreover, it also allows for statistical measures to be run which identify the likelihood of virtual organization formation based on any number of demographic variables. I then address the open ended questions on the survey. Trends and reoccurring responses will be noted. This section will reveal the factors which respondents believe support and inhibit virtual organization success in Bloomington-Normal.

Demographic Information

Sex, age, educational attainment, and position within agency were the chosen demographic variables. These variables were selected to understand the typical human service

agency employee. Furthermore, age speaks to the familiarity the respondents have with new

virtual platforms and position within the agency would show the various levels which have an

understanding of virtual organizations the agency engages in. There were 32 responses to the

survey. Women were highly represented in this study. A total of 25 (seventy eight percent) of

the respondents were female and only 7 male. This came as no surprise since I had previously

observed during my internships that women were also overrepresented at meetings and site

visits.   Furthermore, 84% of the respondents were aged between 25 and 55. The respondents

were a highly educated group as 96% of them had a bachelor's degree or above. The

respondents' positions within the agency were varied and fairly evenly distributed among all

levels. A total of 41% of respondents were in administrative or CEO positions, 34% served as

program supervisors, 6% percent as direct field staff, and 19% held "other" positions. It is also

important to understand the agency in which the respondent was representing in their survey

responses. Twenty nine percent of agencies represented had primary functions concerned with

developmental disabilities, child welfare, mental health, substance abuse, or prevention. The

other 71% of agencies selected "other" as their agency's primary function, signaling that the

agency functions listed on the survey were not exhaustive. The budgets for these agencies were

rather varied signaling virtual organizations are utilized in all sizes of agencies. Thirty two

percent of agencies responding had a budget under $500,000. Twenty eight percent had a budget

between $500,000 and $2 million, and 22% between $2 million and $10 million. Finally, 18%

had a budget greater than $10 million.

　　　　After giving a brief description of a virtual organization a survey question asked if the

agency the individual was representing was part of a virtual organization. Eighty eight percent

of respondents said that they themselves or their agency were part of a virtual organization. Six

percent were not part of a virtual organization and the other 6% were unsure, which may signify that that particular individual was not aware of their agencies collaborative efforts.

The literature indentifies a number of reasons an agency may choose to enter a virtual organization (Handy, 2005; Smock, 2003; Baldassarri and Diani, 2007). The survey asked respondents to identify the top reasons their agency would enter a virtual organization. The most common response, which 65% of respondents identified, was to solve a community problem. This shows that agencies are able to share resources and accomplish more than any individual agency could alone (Nahapiet and Ghoshal, 1996; Tsai & Ghoshal, 1998; Tsai, 2000). Virtual organizations aid in creating social capital and resource sharing to solve a community problem becomes a byproduct. The second most common reason identified for joining a virtual organization was for funding opportunities or because of lack of funding. This comes as no surprise in a time of an economic downturn and budget cuts. Collaborative efforts allow for increased grant opportunities. Furthermore, sharing resources among agencies cuts down on the costs an individual agency may occur when working alone (Sandfort, 1999; Mandell, 1999).

While it is useful to understand the overall top reasons an agency may join a virtual organization, it is also interesting to consider the most common reasons based on the various budgets of agencies. Table 1 below shows the distribution of reasons, in actual number of responses, based on the size of the agency's budget. Each agency could select as many responses as were applicable. Interesting to note is that the desire to solve a community problem or implement a needed service in the community was the most common reason agencies engaged in a virtual organization, no matter the budget size. This result speaks to the purpose of virtual organizations on the community level and their outward looking (into the community needs) mentality. Although the table provides a nice visual of the breakdown of reasons for joining, I

was somewhat surprised by the responses. Originally, I thought that those agencies with smaller

budgets would engage in virtual organizations because of lack of funding or because of funding

opportunities. However, their reasons for joining were quite varied. Moreover, even those

agencies with larger budgets engaged in virtual organizations for funding reasons. This could be

because of tight budgets after the economic crisis or because of the ability to decrease budgets

through collaborative efforts.

Table 1: Distribution of key reasons for joining among budgets

	Lack of Funding	Funding Opportunities	Expand Client Base	Increase Agency Visibility	Approached by trusted peer	Implement service in community	Solve community problem
Below $2MM	6	9	2	6	8	10	12
Above $2MM -	3	5	6	7	6	9	9
Totals	9 (28%)	14 (44%)	5 (16%)	13 (41%)	14 (44%)	19 (59%)	21 (66%)

The questions were then asked of the likelihood of the respondent to engage in a virtual

organization with a party *unfamiliar* to them and with a party they were *well acquainted* with.

These two survey questions test how familiarity with a party increases or decreases the

likelihood of collaboration. The respondents were asked to indicate on a scale of one to five,

with one being definitely no and five being definitely yes, how likely their agency would be to

engage in a virtual organization with a party they are unfamiliar with and again with a party they

are well acquainted with. The results to this question are shown in Table 2 below. It is most

interesting to note that while only four (12.5%) respondents said they would definitely engage in

a virtual organization with a party they are unfamiliar with, 23 (72%) respondents said they

would definitely engage in a virtual organization with a party they are well acquainted with.

Moreover, the results of a chi-square test reveal that the two sets of responses were statistically different and significant at the .01 level (see appendix). This statistic shows that agencies are more likely to engage in virtual organizations with parties they are well acquainted with, more so than with unfamiliar parties. As many theorist have pointed out (Mandell, 1995; Handy, 1995; Rhodes, 1996; Putnam, 2000; Smock, 2003; Striukova & Rayna, 2008) trust is a key factor in the success of collaborative efforts. Agencies are more likely to trust parties with which they are familiar and thus, virtual organizations are indeed more likely to form between parties where trust is already established. In all, trust is a driver in the formation of virtual organizations.

Table 2: Likelihood to engage in virtual organization

Scale	Unfamiliar Party	Acquainted With	Total
1 (definitely no)	1	0	1
2	7	0	7
3	16	3	19
4	4	6	10
5 (definitely yes)	**4**	**23**	27

Qualitative Responses

While quantitative statistics are indeed useful in this study, it is the qualitative responses from the survey which paint a more complete picture of how trust and social capital are at work in the formation and day to day activities of virtual organizations. Open ended questions allow for respondents to elaborate on their experiences or opinions on this type of collaboration. The ability to provide open ended responses is of interest in this research as virtual organizations are complex and vary greatly from one to another. As this research seeks to better understand trust and social capital, open ended responses allow respondents to elaborate on successes and failures unique to their experience with virtual organizations. The survey administered for the purpose of this research asked respondents in their own words to identify factors which cause virtual organizations to work well, factors which cause them to fail, and factors which would most

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likely lead to their participation in a virtual organization in the future. The responses to these

questions were then aggregated to identify reoccurring themes or interesting findings. The

results to the three questions are provided below.

What factors cause virtual organizations to work well?

When asked to identify factors which cause a virtual organization to work well, the

respondents had many similar answers. Fifty nine percent of the respondents stated in one way

or another that it is important for all members of the virtual organization to have common goals

and shared values. It is necessary that the objectives of the group are well defined and

documented up front. Moreover, the values of each member must be aligned so there are not self

interested individuals steering the group in the wrong direction. Since virtual organizations often

exhibit both temporal and spatial dispersion (Shin, 2005) maintaining shared values is often

difficult, but obviously a necessary component in a successful virtual organization. The shared

vision and goals lead to social bonding between members and ultimately provides a nice outlet in

which resources and social capital can be shared (Nahapiet and Ghoshal, 1996; Tsai & Ghoshal,

1998; Tsai, 2000). This notion paves the way for another factor respondents identified as

important to the success of virtual organizations. The second most common response, which

47% of respondents identified, when members of the virtual organization bring appropriate

knowledge, skills, resources, and social capital. One respondent explained this point by stating,

"The analogy of having more variety of food at a potluck supper is a good one for partnerships,

because one cook could never make all the dishes on the table." Respondents also suggested that

sharing all of these resources is easily done through a virtual medium. Since there is little

physical activity that is necessary, sharing knowledge and offering expertise is a simple way to

enhance a virtual organization. A final theme which resulted from this question was the need for

virtual organizations to have regular meeting times. Since members generally do not work in the same location, much of the work is done individually. There is a need to share findings and ideas and respondents found that the best way to do that is to schedule regular meeting times for the group whether in person or via online communication. This comes as no surprise as the literature identified the managerial aspects of a virtual organization to be the biggest challenge (Handy, 1995; Shin, 2005; Zhang, 2009).

What factors are most likely to contribute to virtual organizations failing or not performing to expectations?

A follow up question asked what factors caused virtual organizations to fail or not perform to expectations. Respondents were in no short supply of answers. The overall most common answer, at 47%, was the lack of an effective leader. Some examples of an ineffective leader were poor communication between leader and group members, a leader with a hidden agenda, or a leader who could not effectively delegate tasks or "take charge." Kaboli et al. (2006), although discussing corporate teams, speak to some overarching leadership issues concerning virtual teams. When combining individuals from different work environments and cultures, some sort of managerial conflict *will* arise. "We know that with respect to intact work teams, patterns of leadership vary across cultures as well as individuals. There is every reason to expect similar patterns of variation across virtual teams" (Cascio and Shurygailo, 2003; Kaboli et al., 2006). Along those same lines, another factor which leads to the demise of virtual organizations is when leaders and members bring personal feelings or hidden agendas into virtual organizations. A final factor which causes virtual organizations to fail is a lack of communication or working relationship among group members. The goals of the virtual organization can easily get off track if they are not routinely reinforced by the leader and other

group members. A lack of constant and meaningful communication gives way for tasks and the larger mission to be misguided or forgotten.

What factors within a collaborative approach through a virtual organization design would most likely lead to your organization's willingness to participate in the future?

Since collaboration is so often beneficial, it is important to identify the factors which would cause an agency to be involved in a virtual organization in the future. Most agencies do not have the staff, time, or resources to forge ineffective collaborative efforts. Below are the top factors which would increase the willingness of the respondents to be involved in a virtual organization in the future. The top factor, at 42%, is if the virtual organization benefited the partnering agencies or aligned with their goals. An agency or individual of a virtual organization will not commit time and effort if they are not seeing benefits first hand. It is thus important, when choosing virtual organization members, to choose those who have a vested interest in the overall goals of the collaborative effort. Another factor which would increase the willingness of agencies to engage in a virtual organization the future is if the virtual organization provided a common service to the community. Respondents were more likely to engage in a virtual organization if more than one party could benefit from the virtual organization's program or project. For an agency to commit time and resources, outside of their normal day to day activities, there would need to be far reaching effects created by the virtual organization. A final factor is if the virtual organization had good objectives. Agencies look for achievable goals when deciding on whether or not to join or form a virtual organization. Interestingly enough, the top factors which would lead to increased virtual organization participation deal with the overall mission or goals of the group. There were very few structural or relational factors mentioned in response to this question. Instead, agencies and individuals are looking for solid and measurable outcomes when deciding on joining a virtual organization.

These qualitative responses provide a deeper understanding of what a virtual organization on the community level should look like. While the literature on corporate virtual organizations focuses on the efficiency and technological advantages of virtual organizations (Schoech et al., 2001; Zhang et al., 2009), those on the community level seem to serve a different purpose. While efficiency is an outcome, the desire to share resources and achieve common goals is the driving force in virtual organizations among human service agencies. The virtual aspect does indeed ease the sharing of information, however based on data collected, it does not seem to be a central focus as it is in corporate virtual organizations. Although they are often structurally identical, the underlying purposes of virtual organizations vary greatly between corporate and community.

The responses to the questions listed above reveal themes. From the answers provided it is easy to note some of the obvious advantages and disadvantages associated with virtual organizations. Important to note is that this partial research does not lend way to study all avenues of virtual organizations. The multifaceted structures of virtual organizations constantly change and vary from one to another. For a more in depth look at virtual organizations, a case study is provided below. This case study of the Hispanic Families Work Group highlights an agency which frequently engages in virtual organizations. This case study does not seek to investigate or evaluate the Hispanic Families Work Group as an agency, but rather to understand their utilization of virtual organizations in accomplishing community based projects.

V. Case Study: The Hispanic Families Work Group

From 1990 to 2000, Bloomington-Normal saw a 129% increase in the twin cities' Hispanic population. In 2004, a McLean county judge observed many Hispanic families unsuccessfully entering both the legal and non-profit systems (hfwg.com). He attributed this to

both language and cultural barriers. In response to this problem, the judge called a meeting with local social service agencies. He hoped to see a community which had social services designed for Hispanic families and Hispanic families who could easily access the services. That same year, a focus group of social service agencies headed by an agency leader met to brainstorm various solutions. From these initial meetings came the Hispanic Families Work Group (HFWG). The group began as a loosely volunteer run and organization with an overall goal to better this community to serve and embrace the new and growing Hispanic population. The initial group members were all representatives of social service agencies. The current leaders believe that this group would not have accomplished all that is has if others were not represented, including universities, churches, and local government.

As conversation on next steps developed, the HFWG realized that there were other stakeholders, outside of just social service agencies, which should be involved in the group. Members began bringing other community representatives or those with close ties to the Hispanic community to the group meetings. The social service agency leader who initiated the meetings emerged as the group's leader, although she spoke no Spanish and had little knowledge of the Hispanic community other than those families who entered her agency's doors. Today the work group is a formalized non-profit and consists of more than 100 individuals representing over 40 agencies. Over the past six years the work group has made significant strides for the Hispanic community and has forged numerous collaborative efforts in Bloomington-Normal. The HFWG collectively identifies a need within the Hispanic community and then actively creates a collaborative effort, or virtual organization, to address the issue. The group thrives on identifying the right members and other parties which need to be included in the virtual organization. The HFWG members are encouraged to form virtual organizations around the

needs they or their representative agency sees in the community. The HFWG is a part of countless virtual organizations which are each formed to serve a unique purpose.

Just one current example of a HFWG virtual organization is a partnership with leadership of McLean County and PATH (Providing Access to Help) to update and distribute "Donde Esta," a Spanish community directory. In a needs assessment conducted by the HFWG, they discovered that although there were many services available to the Hispanic population, there was no appropriate marketing to them. The need for Spanish fliers, newspapers, and a directory were all obvious next steps. As the HFWG shared this with their members, those who had an interest in this area or valuable resources to contribute joined the project team to begin work on "Donde Esta." From there, the HFWG forged collaborative efforts with PATH and county leadership to identify all the information to be included in the directory and to begin translation.

When discussing the successful virtual organizations and collaborative efforts the HFWG has been a part of, the two leaders I interviewed attributed the success to two key factors, trust and good leadership. The initial leaders, although knowing very little about Hispanic culture and needs, approached the work group with an open mind and willingness to research. The issues surrounding the Hispanic population in Bloomington-Normal were well known, however, the verbalization of these issues by HFWG leadership allowed for trust and reciprocity to be built between the work group and the Hispanic community. This group was the first of its kind in Bloomington-Normal, with the overall purpose to serve the Hispanic community in every way possible. It was thus very important to get the Hispanic population involved. Gaining the trust and confidence of the Hispanic population was an important first step. This was accomplished by conducting a needs assessment of the Hispanic population and allowing the top priority issues to be verbalized through the HFWG. Furthermore, the Anglo female serving as leader of the

work group took away all notions of political alignment and agendas and reduced the barriers for others to join. The interviewees claimed that when members saw this woman aligned to a human service agency and not to a government entity, they saw that this group was dedicated to service and not to a political vote.

"A lot of connections had to come together to create the perfect storm." This was how the current leader of the HFWG described the initial collaborative efforts they undertook. As those initial members of the group began to share their social capital and resources, more and more individuals and agencies began to appear at work group meetings. Beginning with State Farm, and expanding to Illinois State University, Illinois Wesleyan University, The Action Research Center, Latinos United for Change, The Immigration Project, and numerous others, these agencies rallied around a common need to better serve the Hispanic population of Bloomington-Normal. The interviewees attributed this common goal to the success of the organization. Although each agency, individual, and business may have seen a different need in the Hispanic community, based upon their clientele, the shared vision of a community more open to the Hispanic population brought this group together. "Far too often organizations limit their scope, which does not create sustainability." Instead the work group saw many needs and allowed for different tasks to be undertaken by different members of the group, creating many virtual organizations all under the big umbrella of the HFWG. "We want members to get what they want out of the work group." Although overall direction is given by the leadership of the HFWG, members are free to initiate their own undertakings to better the community for the Hispanic population. If an individual member sees a need that is not currently being addressed that individual may use the resources and social capital of the HFWG to create a virtual organization or partnership with other agencies or individuals to address the need. As members

are given the freedom to explore different ideas, sustainability is created by focusing resources on many different needs. The work group has the flexibility to reinvent themselves, which the two leaders claim is another reason the group is sustainable. Monthly meetings and e-mail communication among all group members allows for coordination and organization. The leaders of the group do their best to manage the current projects and inform the other members on the progress of the group.

When discussing the most successful virtual organization the HFWG participated in, both interviewees claimed that is was not an agency or business, but rather the combined efforts of the different individuals which supported the virtual organizations. We discussed how so often agencies are sure that forming a collaborative effort with just the right corporation, agency, or university will lead to the success of the virtual organization, but the HFWG disagrees with this. "It is the *people* which make all of the difference (for the HFWG). It is not about getting a particular agency or group on board, but rather about getting the right people behind us."   The work group is fortunate enough to have many strong supporters, including some financial backing from State Farm Insurance. However, the two interviewees agree that it is the visionaries they have as members who have kept them one step ahead of other community efforts. Far too often "big players" bring a level of politics or ulterior motives. When dealing with people however, the sincerity and commitment is within the individual. The HFWG members all have a genuine concern for the Hispanic community, and although many of them may represent other agencies, universities, or businesses, the heart for the Hispanic community is evident in all. The HFWG is different in this manner. They were created to assist and serve a specific and unique group of people, while many other virtual organizations hope to implement a

program or a service which will benefit a variety of people. For the HFWG they know that the people who join them are without a doubt committed to serving the Hispanic population.

During the interview with these two individuals the conversation turned as we discussed other virtual organizations within Bloomington-Normal. Both of the two work group leaders believe that this community is ideal for growing and developing a successful virtual organization. This is because Bloomington-Normal is perceived to be a medium to large city with a small town mentality. "If you try, you can meet all of the major players in this town within two weeks." Furthermore, something these two say they have learned through their community experiences is that it is not always the people at the highest levels who are the movers and the shakers. The HFWG has done an excellent job of identifying the right people at the right levels who are passionate and can make a difference.

Virtual organizations are something that many agencies and organizations are a part of whether they realize it or not. The benefits which arise from sharing resources and knowledge are endless. For example, although the HFWG may have the translators to create a Spanish directory, they need the help of other agencies that have information which can be included in the directory. More can be accomplished when agencies partner with others who have specialized skills or resources. When an individual or an agency identifies a need in the community it is far better to collaborate in solving the problem than to work alone. The two interviewees agreed that Bloomington-Normal has many virtual organizations, but not many successful ones because they do not make the right connections or because they take on too large of a goal. During the interview we discussed this research and how many people in this community believe that if you overlay a set of best practices for virtual organizations you can generate the same result time and time again. However, for this same reason the interviewees

believe so many virtual organizations have failed. "It is about doing the right thing, at the right time, with the right people." The interviewees spoke to the ability of virtual organizations to be fast and effective methods of sharing and gathering information. Compared to non virtual organizations, the ability to communicate and share ideas virtually is necessary for the HFWG as the individuals involved in the collaboration have a wide range of other jobs and responsibilities outside of the virtual organization. There seems to be no perfect design for a virtual organization, but instead takes forward thinking, creativity, and good leadership to drive an organization to perform on the level the HFWG has so comfortably reached. For more information on the Hispanic Families Work Group, please visit www.hfgw.org.

VI. Conclusions and Discussion

Virtual organizations are so complex and varied that it is difficult to grasp concepts which are applicable to all. By using a sample of Bloomington-Normal, IL human service agencies, this research found that virtual organizations are indeed occurring on the community front. Furthermore, the traditional virtual organization model which can be seen in many corporate settings is by no means the same virtual organization model we see on the community front. While literature on corporate virtual organizations speaks of efficiency and technological advances reached via virtual organizations, those on the community level do not seem to be seeking either of those characteristics. More so, virtual organizations in the community allow for resource and idea sharing and for the betterment of the community through collaborative efforts.

Based on any number of structural, organizational, or legal issues, virtual organizations on the community level are fluid and varied. However, this study did uncover meaningful themes. First and foremost, trust and social capital are indeed driving forces in the formation and success of virtual organizations. The nature of virtual organizations begs the participating parties

to develop reciprocity and trust because of the managerial dilemmas. This coincides with the literature on the structure of virtual organizations (Mandell, 1995; Handy, 1995; Rhodes, 1996; Putnam, 2000; Smock, 2003; Striukova & Rayna, 2008). This study found social capital not only to be a factor leading to formation, but also a successful outcome as individuals create bonds and resource sharing opportunities. Moreover, good and well defined leadership is a necessary component to community based virtual organization success. I was surprised at this finding, simply because the literature on virtual organization leadership focused almost solely on a corporate setting (Cascio and Shurygailo, 2003; Kaboli et al., 2006).

Virtual organizations find their place in sociological theory and society. These unique forms of collaboration could not be understood without the cornerstone theories of organizational structure and division of labor (Durkheim, 1926; Weber, 1930). The application of historic theory into present day happenings creates an opportunity for further exploration. One avenue for future research would be to study the overall success of community based virtual organizations. Examining if and how the goals of the organization were actually met would reveal the true impact virtual organizations have on the community. Moreover, based on the trajectory of this study, a look into the culture and organizational structure of the surveyed human service agencies may help reveal unseen barriers in the formation or success of their virtual organizations.

Virtual organizations are just one source of collaboration. The ability to share information and resources to create a unique goal-oriented group speaks to the integrative power of community agencies. What may have taken one agency an abundance of time, energy, and resources, can now be achieved more efficiently through sophisticated collaborative networks. Virtual organizations create a more connected and informed community.

References

Baldassarri, D., and Diani, M. (2007). The Integrative Power of Civic Networks. *American Journal of Sociology,* 113(3), 735-780. Retrieved from http://dx.doi.org/10.1086/521839.

Bourdieu, P. (1986). The Forms of Capital. In J. G. Richardson (Ed.), Handbook of Theory and Research for the Sociology of Education: 241-258. New York: Greenwood.

Cascio, W.F., Shurygailo, S. (2003). E Leadership and Virtual Teams. *Organizational Dynamics,* 31(4), 362-376.

Conner, N. (2008). Google Apps: The Missing Manual. O'Reilly Media.

Douglas, M. (1978). Cultural Bias. London: Royal Anthropology Institute.

Durkheim, E. and Swain, J. (1926). The Elementary Forms of the Religious Life: A Study in Religious Sociology; translated from the French by Joseph World Swain. George Allen & Unwin, London.

Foucault, M. and Sheridan, A. (1979). Discipline and Punish: The Birth of the Prison*;* translated from the French by Alan Sheridan . Penguin Books, New York.

Handy, C. (1995). Trust and the Virtual Organization. *Harvard Business Review,* (May-June).

Kaboli, A, Kaboli E.,and Tabari, M. (2006). Leadership in Virtual Teams, *The Sixth International Symposium on Operations Research and Its Application: Xinjiang, China, August 8-12, 2006,* 342-349.

Kilpatrick, A.O. (1996). Making Peace: Learnings on Community Collaboration and Innovation from Communities Affected by Base Closures. Paper presented at the *American Society for Public Administration National Conference*, Atlanta, GA.

Mandell, M.P. (1999). Community Collaborations: Working Through Network Structures. *Policy Studies Review*, 16 (1), pp. 43-64.

Nahapiet, J., and Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the Organizational Advantage. *The Academy of Management Review,* 23(2), pp. 242-266. Retrieved from http://www.jstor.org/stable/259373.

Provan, K.G., and Milward, B. (1995). A Preliminary Theory of Interorganizational Effectiveness: A Comparative Study of Four Community Mental Health Systems. *Administrative Science Quarterly*, 40, pp. 1-33.

Putnam, R. (2000). Bowling Alone: The Collapse and Revival of the American Community. Simon & Schuster Paperbacks, New York.

Rhodes, R.A. (1996). The New Governance: Governing Without Government. *Political Studies,* 44(4): pp. 652-667.

Sandfort, J. (1999). The Structural Impediments to Human Service Collaboration: Examining Welfare Reform at the Front Lines. *The Social Service Review, 73*(3), pp. 314-339. Retrieved from http://www.jstor.org/stable/30012718.

Schoech, D. (1999). Human Services Technology: Understanding, Designing, and Implementing Computer and Internet Applications in Social Services. New York: The Hawthorne Press, Inc.

Schoech, D., Fitch, D., Macfadden, R. and Schkade, L. L. (2002). From Data to Intelligence: Introducing the Intelligent Organization. *Administration in Social Work*, *26*(1), pp. 1-21.

Shachaf, P. (2008). Cultural diversity and Information and Communication Technology Impacts on Global Virtual Teams: An Exploratory Study. *Information and Management, 45* (2), 131-142.

Shin, Y. (2005). Conflict Resolution in Virtual Teams. *Organizational Dynamics, 34*(4), 331-345.

Smock, K. (2003). Democracy in Action: Community Organizing and Urban Change. Cambridge University Press, New York.

Spickard, J. (1989). A Guide to Mary Douglas's Three Versions of Grid/Group Theory. *Sociological Analysis*, 50:2, pp. 151-170.

Striukova, L. and Rayna, T. (2008). The Role of Social Capital in Virtual Teams and Organizations: Corporate Value Creation. *International Journal of Networking and Virtual Organisations*, *5*(1), pp.103-119. Retrieved from http://ssrn.com/abstract=1392467.

Tsai, W. (2000). Social Capital, Strategic Relatedness, and the Formation of Intraorganizational Linkages. *Strategic Management Journal,* 21: pp. 925-939.

Tsai, W., and Ghoshal, S. (1998). Social Capital and Value Creation: The Role of Intrafirm Networks. *Academy of Management Journal,* 41(4): pp. 464-476.

Weber, M. (1930). The Protestant Ethic and the Spirit of Capitalism; translated by Tolcott Parsons; with a foreword by R.H. Tawney. Unwin University Books, London.

Zhang, S., Xuan, P., and Patel, B. (2009). Managing Operations in Multiagent Virtual Organizations. *8TH International Conference on Autonomous Agents and Multiagent Systems*. Budapest, Hungary. 10-15 May, 2009.

Appendix
E-mail Invitation:

Hello,

I am Paige Maynard, a senior at Illinois Wesleyan University, conducting my senior research project in Sociology. I met many of you at the MHA meeting last week, where I invited you to participate in a brief online survey about virtual organizations in human service agencies. The goal of this research is to examine the extent to which virtual organizations or multi-party collaborative efforts exist in human service agencies in Bloomington-Normal.

The survey will take approximately ten minutes to complete. Your participation in this survey is voluntary and all data collected will be anonymous. At the bottom of this document you will find informed consent information. By continuing on with this survey you acknowledge that you have read the information and agree to participate in this research. Please click on the link below to access the survey.
https://spreadsheets.google.com/viewform?hl=en&pli=1&formkey=dFg5QWRyWnd2dk5GVTN MTDBXbnNDc1E6MQ#gid=0
 I appreciate your feedback and thank you in advance for your participation.
 If you have any further questions feel free to contact me at this address or my faculty supervisor Dr. Meghan Burke at mburke@iwu.edu.
 Thanks again,
Paige Maynard

<div align="center">Illinois Wesleyan University
Institutional Review Board ~ Informed Consent
A Web of Connections: The Role of Social Capital in Virtual Organizations</div>

1. INTRODUCTION

You are invited to be a participant in a research study about virtual organizations and human service agencies. You were selected as a possible participant because you are an employee of a human service agency in Bloomington-Normal, IL. We ask that you read this document and ask any questions you may have before agreeing to be in the study. The study is being conducted by Paige Maynard, student Illinois Wesleyan University, under the supervision of Meghan Burke, Ph.D, Assistant Professor of Sociology at Illinois Wesleyan University.

2. BACKGROUND

The purpose of this study is to examine the extent to which virtual organizations are used in community organizations and the role social capital plays in the formation of these organizations. Virtual organizations are a form of collaboration that relies on multi-party, co-operative agreements.   Former research on this topic most commonly focuses on corporate settings. This research will add to existing literature by examining virtual organizations among human service agencies located in Bloomington-Normal, IL.

3. DURATION

The length of time you will be involved with this study is approximately ten minutes.

4. PROCEDURES

If you agree to participate in this study, we will ask you to do the following things: Proceed to the next page of this survey and begin the survey. Not all questions must be answered, and you are free to withdraw your participation at any time.

5. RISKS/BENEFITS

This study has the following risks: You may experience discomfort in describing negative experiences you have had with virtual organizations.

The benefits of participation include the following: There are not direct benefits, however, participation in this survey will allow you to share positive experiences you have had with virtual organizations. Moreover, from the survey results best practices of virtual organizations will be identified which could benefit you or your agency in the future.

6. CONFIDENTIALITY

The records of this study will be kept private. Data collected from this survey will be anonymous. Record of the data will be maintained online and will be locked by a password. No one outside of the principle and co-investigator will have access to the data. In any sort of report that is published or presentation that is given, we will not include any information that will make it possible to identify a participant.

7. VOLUNTARY NATURE OF THE STUDY

Your participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Illinois Wesleyan University or any of its representatives. You have the right to refuse to participate or to withdraw at any time without penalty.

8. CONTACTS AND QUESTIONS

If you have questions later, you may contact the research advisor at 309-556-3671 or mburke@iwu.edu.

If you have questions or concerns regarding this study and would like to speak with someone other than the researcher(s), you may contact Dr. James Sikora, Institutional Review Board Chair, Illinois Wesleyan University, at 309-556-3163 or jsikora@iwu.edu.

10. STATEMENT OF CONSENT

You may print a copy of this form to keep for your records.

I have read and understood the above explanations, and my questions have been addressed. The information that I provide will be used for research purposes only. I understand that my participation is voluntary and that I may withdraw anytime without penalty. I affirm that I am at least 18 years of age, and if I have any concerns about my experience in this study (e.g., that I was treated unfairly or felt unnecessarily threatened), I may contact the researcher or the Chair of the IWU Institutional Review Board regarding my concerns. I voluntarily consent to participate in this research study.

By beginning the survey, you acknowledge that you have read this information and agree to participate in this research.

Survey Questions:
1. What is your gender?
    a. Male
    b. Female
2. What is your age?
    a. 18 –25
    b. 25-35
    c. 35-45
    d. 45-55
    e. 55-65
    f. 65+
3. What is the highest level of education you have attained?
    a. Less than High School
    b. High School/GED
    c. Some College
    d. 2-Year College Degree (Associates)
    e. 4-Year College Degree (BA, BS)
    f. Master's Degree
    g. Doctoral Degree
    h. Professional Degree (MD, JD)
4. What is the primary function of the agency in which you are employed?
    a. Mental Health
    b. Child Welfare
    c. Health
    d. Developmental Disabilities
    e. Substance Abuse
    f. Prevention
    g. Other
5. What is your position within the agency?
    a. Administration (CEO or deputy)
    b. Program Supervisor (management level)
    c. Direct Field Staff
    d. Other
6. What is the size of this agency's budget
    a. Less than $500,000
    b. $500,000-$2,000,000
    c. $2,000,000-$5,000,000
    d. $5,000,000-$10,000,000
    e. More than $10,000,000

A virtual organization is an organization that relies on multi-party co-operative agreements (whether formal or informal) between structural, temporal, and sometimes geographic boundaries. Virtual organizations are a form of collaboration between two or more parties with a purpose to achieve a common end. Human service agencies may engage in these collaborative efforts to plan, conduct a project, or implement a program. When answering the following questions please refer to any collaborative efforts your agency is involved with.

7. Is your agency currently involved in one or more virtual organizations?
   a. Yes
   b. No
   c. Uncertain
8. On a scale of 1 to 10 (with 1 being definitely yes and 10 being definitely no) how likely is your agency to engage in a collaborative effort, in the form of a virtual organization, with parties that your agency is *not familiar* with? _____
9. On a scale of 1 to 10 (with 1 being definitely yes and 10 being definitely no) how likely is your agency to engage in a collaborative effort, in the form of a virtual organization, with parties that your agency is *well acquainted* with? _____
10. When your agency engages in collaboration through virtual organizations, what are generally the key reasons?
    (check all that apply)
    a. Lack of Funding
    b. Funding Opportunities
    c. Expand client base
    d. Increase agency's visibility
    e. Approached by trusted individual or member of agency
    f. To implement a needed service in the community
    g. To help solve a community problem
    h. Other: _____
11. In your opinion, what factors cause virtual organizations to work well?
12. In your opinion, what factors are most likely to contribute to virtual organizations failing or not performing to expectations?
13. What factors within a collaborative approach through a virtual organization design would most likely lead to your organization's willingness to participate in the future?
14. Please use this space, if necessary, to identify any other meaningful experiences you have had with virtual organizations.

Chi- Square Test

H_o = No Difference
H_a = Difference
Reject H_o if $\chi_e^2 > 9.488$
   Degrees of freedom = 4
   ($\alpha = .05$)

	Non Peer	**Peer**	**Totals**	**Expected**
1 (definitely no)	1	0	1	.5
2	7	0	7	3.5
3	16	3	19	9.5
4	4	6	10	5
5 (definitely yes)	4	23	27	13.5
Totals	32	32		
	probability 50%	probability 50%		

$F_{observed}$	$F_{expected}$	$F_{observed} - F_{expected}$	$(F_{observed} - F_{expected})^2$
1	.5	.5	.25
7	3.5	3.5	12.25
16	9.5	6.5	42.25
4	5	-1	1
4	13.5	-9.5	90.25
0	.5	-.5	.25
0	3.5	-3.5	12.25
3	9.5	-6.5	42.25
6	5	1	1
23	13.5	9.5	90.25

$(F_{observed} - F_{expected})^2 / F_{expected}$
.5
3.5
4.445368421
.2
6.685185185
.5
3.5
4.445368421
.2
6.685185185

$\Box$ = 30.66510721 → Thus reject H_o