Collaborative Capacity Building for Community-Based Small Nonprofit Organizations

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ABSTRACT

This article focuses on the inter-organizational networks and adaptive capacity among nonprofit organizations in the State of Florida. Adaptive capacity is a function of the degree to which social institutions (e.g., government, civic institutions, and the private sector) possess a culture that empowers communities to make decisions and actions that support community-led initiatives. The article specifically focuses on network formation and sustainability among 40 nonprofit organizations and their networks with other cross-sector organizations identified as part of the asset mapping for the Strengthening Communities in Central Florida (SCCF) project in the state. Network relationships were strengthened and developed especially after the implementation of the capacity building program. Organizational factors such as leadership and the level of an organizations' engagement with the community have a statistically significant relationship with the adaptive capacity of the organizational network.

JEL Codes: *D2, D4*

KEYWORDS

Adaptive Capacity, Inter-Organizational Networks, Network Analysis, Nonprofit Organizations, Capacity Building

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Introduction[1]

Inter-organizational networks are becoming the new shape of governance as they bring more opportunities to increase the capacities of communities (Gazley, 2008; Koliba, Meek and Zia, 2010; Provan and Kenis, 2007). Large scope services such as health care delivery, disaster preparedness and response, or disease control exceed the capacity of single organizations and require community capacity for collective action (Bryson, Crosby and Stone, 2006; Stone, Crosby, and Bryson, 2010; Provan, Nakama, Veaize, Teufel-Shone, and Huddleston, 2003). Improving communities' capacity to achieve service delivery goals increases their well-being. Fostering involvement of community stakeholders, especially nonprofit organizations, and other actors for service provision distributes the overall burden of individual organizations and benefits them (Bryce, 2005; Cruntchfield and Grant 2008).

Developing community capacity, establishing strong networks, increasing the capacity of existing ones, and adapting them to changing environmental conditions remain important tasks. A broad range of literature discusses the experiences and methods used to foster community capacity, network adaptive capacity, and network effectiveness. Chaskin (2001) defines community capacity building as "the interaction of human capital, organizational resources, and social capital existing within a given community that can be leveraged to solve collective problems and improve or maintain the well-being of a given community" (p. 295). Organizational success and effectiveness is closely related to the effectiveness of the network that the organization participates with. In some cases the effectiveness of a network may be given precedence over effectiveness of the individual organizations since some organizations reach their goals through the success of the networks they are part of. Provan and Milward's (1995, p.2) following statements highlight this point: "effectiveness must be assessed at the network level, since client well-being depends on the integrated and coordinated actions of many different agencies."

Network change and adaptation are critical for the success and effectiveness of service delivery networks as well as the individual organizations. In order to address network adaptation and capacity for better service delivery, the study aims to answer the following research questions as well as open new avenues for future research:

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What is network adaptive capacity? What are the key characteristics of adaptive networks? What intervention strategies and incentives work to increase the capacity of networks and build relationships among community nonprofit organizations? This article focuses on inter-organizational networks and the adaptive capacity among nonprofit organizations at the local level. This article specifically focuses on network formation and sustainability among 40 nonprofit organizations and their networks with other cross-sector organizations identified as part of the asset mapping for the Strengthening Central Florida Communities (SCCF) Fund project in three counties in a southeastern state. This research is timely and critical as the funding for this project focuses on economic recovery and the role of nonprofits in counties that are located in a distressed part of the state.

Literature Review

A relationship similar to one between individuals and organizations exists between individual organizations and inter-organizational networks (Knight, 2002). Reviewing the literature on organizational learning and development, capacity building, and change is necessary for understanding how these functions work at the inter-organizational network level. Organizational change and adaptability are closely associated concepts that are widely discussed in the literature (Argyris and Schön, 1996; Denison and Mishra, 1995; Kapucu, Healy, and Arslan, 2011). Adaptation, learning, or coping might be a slow, constant evolutionary process or a reflex for the purpose of maintaining a successful organization (Weick and Quinn, 1999). They also occur as a response to changes in the organizational environment (DiMaggio and Powell, 1983; Fiol and Lyles, 1985) and to avoid failure of the organization (Kraatz, 1998). Pelling and High (2005) categorize adaptations in two ways. The first type of adaptation reinforces existing systems or organizations (e.g. bureaucracy), whilst the second one modifies institutions through flexibility and adds resilience to organizations (e.g. rural culture or livelihood). Some consider network and organizational survival a function of adaptive capacity which is highly associated with the initial design of the structure of the organizations as well as the networks (Aldrich, 1999; Boin, Kuipers and Steenberger, 2010).

Staber and Sydow (2002) clearly differentiate between organizational adaptation and adaptive capacity. They argue that an adaptationist approach does not tolerate any unproven structures or changes within the organization that conflict with

organizational goals and drain organizational resources. Adaptation is relatively a predictable move and aims to create a best fit to the conditions for maximum exploitation. On the other hand, adaptive capacity can be considered "when learning takes place at a rate faster than the rate of change in the conditions that require dismantling old routines and creating new ones" (Staber and Sydow, 2002, p. 410-411). Adaptive capacity goes hand in hand with learning and offers continuous development, institutional memory, knowledge acquisition, and connectedness and communication with other members in the community.

Although change, learning, and adaptation do not connote the same meaning, there is a strong association between these concepts (Fiol and Lyles, 1985). Knight and Pye (2004) draw a line between learning and adaptation in a network or organization. They argue that strategic change represents a set of actions for change within a limited time frame and under the control of management, while network learning is a process that excludes hierarchy or formal administrative regulations. Adaptability and coping ability are imperative for effectiveness, organizational development and the general health of an organization (Knight and Pye, 2004). This means that every change in the organization may not stem from learning, some changes could result from imitation as DiMaggio and Powell (1983) note. However, learning may trigger change and development in the organization.

Organizations learn when knowledge is learned by individuals, or an individual with new knowledge joins the organization. Some suggest that knowledge could be learned by an organization only if it is institutionalized and becomes an asset of the organization (Argyris and Schön, 1996; Crossan, Lane, White, and Djurfeldt, 1995; Knight, 2002; Knight and Pye, 2005). Knight (2002) argues that learning is not limited to a specific group and adds that individuals, group of individuals, organizations, and networks can learn. Organizational and network learning outcomes can be behavioral and cognitive (Crossan et al., 1995; Denison and Mishra, 1995; Knight and Pye, 2005).

Inter-organizational Networks and Collaborative Capacity

The type and structure of interorganizational relationships creates various impacts on the capacity of communities as well as the adaptive capacity of service delivery networks. For example, Paarlberg and Varda's (2009) study shows that interorganizational networks may expand a community's carrying capacity (i.e. scope

of the resources to feed organizations) and allow a greater number of organizations to function within a community. Interorganizational networks catalyze the flow of information, development of confidence, and publicity for smaller organizations which helps them to gain resource flexibility and survive. To explain this situation, Paarlberg and Varda note that "new or less visible organizations developing relationships with larger, more established organizations may build public confidence in new services, attracting customers and other investors" (2009, p. 600).

Interorganizational networks not only help organizations to gain flexibility, but they are adaptable as well. Knoppen and Christiaanse (2007) discuss inter-organizational adaptation (IOAD) from technical and behavioral perspectives. According to them the technical dimension of IOAD "embraces explicit and visible relationship attributes which may be consciously decided upon and designed by both partners" (p. 219). The behavioral dimension, on the other hand, embraces the invisible and implicit relationships between the partnering organizations. The authors also integrate social capital into their theoretical discussions and highlight its positive impact on value creation, change, and organizational outcomes.

According to Knoppen and Christiannse (2007), networks affect development and inter-organizational adaptation in three ways. First, IOAD touches upon the common cognitive structure of partnering organizations. This refers to the establishment of common values, operations, and resources that are operational for all partners through the mutual recognition of connectedness. Second, IOAD addresses the interconnectivity of networking organizations, the connectivity and multiplexity of their relations, and the density and structure of network relationships. Third, IOAD refers to the alignment of goals, motivations, attitudes, and expectations of the associated organizations. Other studies also emphasize social capital's role in the reduction of transaction costs and strengthened connectedness of actors in a network (Pelling and High, 2005). Kraatz's (1998) findings indicate that smaller, more homogeneous, and older networks promote high capacity information links between participating organizations and that social learning occurs as a way of intra-network imitation. This strengthening of ties between members of a network increases trust, interaction, communication, information sharing, and diffusion of innovative ideas which translate into increased adaptive capacity in a network (Bouty, 2000; Tsai and Ghoshal, 1998). For example, in a study examining the relationship between network ties and organizational growth, Galaskiewicz et al. (2006) found that nonprofits that depended on the financial and operational support of the community had a higher

rate of growth if they were associated with urban leaders.
Cohen and Levinthal (1990) note that the internal and external network connections of an organization create an awareness of existing resources in the environment and can help that organization to strengthen its absorption capacity. Despite this, strong ties are necessary for managing the change under uncertainty so that the history of connections extends and the structure is more homogenous, in some cases weak ties can provide enough information for organizational change as well (Granovetter, 1973; Krackhardt, 1992; Kraatz, 1998). As opposed to weak ties in larger heterogeneous networks, small networks with strong ties provide more legitimacy in accepting information flowing from other network members and imitating them in terms of significant changes. Krackhardt (1992) notes that information is not enough for a major change in an organization but strong relationships provide the trust needed to propagator change and development.

Intervention Strategies for Collaborative Capacity

Management consultation, trainings, coaching, financial assistance, and technical assistance are some of the intervention strategies that are widely used and discussed. Consultations address process-related issues and improve the functioning ability of organizations. Strategic planning and employee-supervisor conflicts are examples of topics that are covered by consultations (Backer, Bleeg, and Groves, 2004; De Vita and Fleming, 2001). Trainings teach a variety of skills and abilities to managers and staff in organizations. Coaching includes efforts to clarify organizational goals, promote interactive learning, remove obstacles, and improve coachee's performance through mobilizing their own potential (Clutterbuck and Megginson, 2008; Cummings and Worley, 2009).

Efforts to develop community capacity focus on two different methods. The traditional way asserts solving community problems with external intervention while the alternative path focuses on development via the internal assets of the community. Asset-based development focuses on preserving and enhancing the values and potential of the community. It concentrates on effectiveness, building interdependencies, talent utilization of individuals, and empowering people in the community (Kretzmann and McKnight, 1993). Asset mapping is a method used in asset-based community development and can be defined as a systematic identification of tangible and intangible values and assets in a community (Kerka, 2003).

Varda (2011) finds that intervention strategies and "state society synergy" can strengthen community level social capital and networks. Literature on networks and organizational adaptive capacity suggests that organizational and network learning, inter-organizational ties and relationships, and social capital contribute to developing network adaptive capacity. Moreover, direct intervention strategies such as trainings and coaching also help to develop individual organizational capacity which contributes to developing overall network adaptive capacity.

Figure 1. Conceptual Map of Network Capacity

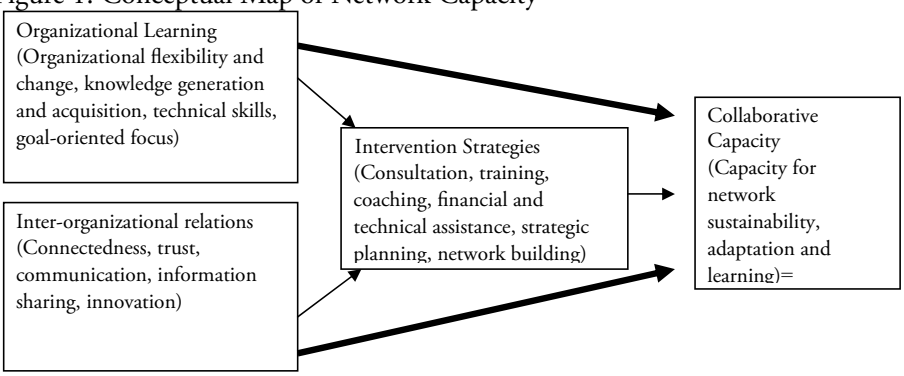


Figure 1 visualizes the conceptual association between predictors of building collaborative capacity. Connectedness in inter-organizational networks and the social capital between institutions and individuals who represent the organizations play an important role in the distribution of information, and establishment of a cognitive structure. They also help organizations and networks build adaptive capacity via operating on a common ground, sharing resources, and leading the change as opposed to following change in the environment. Leading change is in line with organizational and network learning because adaptive capacity develops when knowledge building occurs at a greater pace than environmental change. In order to enhance adaptive capacity, intervention strategies might be helpful in injecting external support through trainings and coaching activities. This means intervention strategies can foster inter-organizational social capital, network learning, and organizational adaptation and change (i.e. cognitive change and innovation).

Context of the Study

The Strengthening Central Florida Communities (SCCF) Fund program was funded by the U.S. Department of Health and Human Services Agency was conducted by the University of Central Florida. The goal was to provide capacity building training, technical assistance, and financial assistance to 10 faith-based and community organizations to empower them to address the broad economic recovery issues in three distressed counties in the state. The SCCF offers training and technical assistance opportunities for nonprofits, to assist in the transformation and improvement of their service delivery systems, by addressing the broad economic recovery issues present in these counties. By the end of the project, the research center at the university aimed to assist these organizations in increasing their sustainability and effectiveness, enhancing their ability to provide economic recovery social services, and creating collaborative service delivery mechanisms to better serve those most in need. These ten organizations are the core of the program, there are other organizations which participated in the program but received different and less intense technical and financial assistance.

Through a structured, but customized program, faculty, staff, and expert practitioners in the community provided over 30 hours of capacity building training to a total of 40 organizations. The trainers, plus graduate researchers, devoted over 430 hours of focused and customized technical assistance to 20 organizations which also received awards of financial assistance. The documented needs for improved nonprofit organization performance are in the critical areas of: organization development, collaboration and community engagement, and evaluation of success. Unemployment and poverty rates in the service area demonstrate two aspects of the distressed communities.

Methodology

The article focuses on the network formation and sustainability of 40 nonprofit organizations, and their networks with other cross-sector organizations, identified through asset mapping as part of the SCCF project in study area counties. During the first cycle of the program, 40 SCCF project participants were surveyed before and after the program. 39 organizations responded to the pre-program survey (March 2010), and a total of 25 responses were collected for the post program survey (October 2010); the first network analysis was conducted to determine changes in

the overall network of 40 agencies. The second network analysis was conducted to analyze change in the network of 23 agencies that responded both to the first and the second survey. The third network analysis was conducted to analyze change in the network of 10 core organizations that responded to the two surveys and received training, financial and technical assistance.

In the initial phase of the program, the project team intervened with different methods and incentives to increase the effectiveness of existing networks among community organizations and to build further relationships. Utilizing network analysis tools and procedures provides researchers with a useful means for measuring network structure and strength, as well as sustainability (Provan, Veaize, Staten, and Teufel-Shone, 2005). This research uses UCINET, a widely used social network analysis software program developed by Borgatti, Everett, and Freeman (2002), in the analysis of network data. UCINET is capable of providing visual and numerical representations of network relationships including cliques and subgroups, and major network centrality measures such as degree, betweenness, closeness, and eigenvector. Cliques and subgroups are nodes in a network which represent a higher connectedness to each other than the rest of the network. Subgroups can be considered the components of larger networks and it is argued that the study of large groups and social structures might start from smaller components such as cliques via a bottom up approach. Cliques and subgroups represent the structural patterns of a network and the behavior or preference of a node in the network.

Degree centrality explains the connectedness of a node within the network. It lays out the number of incoming and outgoing connections that a node has within the network. Betweenness centrality focuses on the mediating role of an actor in the network. It identifies to what degree an actor lies between the pathways of other actors, or how many nodes it connects to each other (Scott, 2009). Closeness centrality represents an actor's average path length to reach other nodes. The closeness of an actor is associated with the number of connections it has and the number of mediating actors it is connected to. A node's closeness to others is associated with both the ties incoming and outgoing to other nodes. Eigenvector centrality focuses on not only how many connections a node has, but also whom it is connected to. This approach is useful for detecting a central actor in large network settings (Knoke and Yang, 2008).

In addition to network analysis, a multiple regression analysis was conducted based on the survey responses of 39 organizations in the pre-program stage of the first

cycle. The analysis intended to analyze the relationship between human resources, the financial situation, community engagement, and leadership as independent variables, and adaptive capacity as the dependent variable. The main assumption, based on the literature, is that organizational and relational factors influence the level of adaptive capacity of organizations. This analysis was conducted using index variables created based on the item questions representing each index (see Table 14). Lastly, the study included the results of a survey of 10 core organizations that were participants in the first cycle of the SCCF program. This survey sought to attain additional qualitative insight about participants' view regarding the impact of the program on their capacity, organizational effectiveness, and community engagement.

Results and Analyses

This section comprises of survey results and network analyses. First, a snapshot of descriptive statistics is provided, followed by the network analysis of responding organizations, reflecting the organizational relationships before and after implementation of the program. Third, the results of a multiple regression analysis were provided and discussed. The regression analysis helped to explore the relationship between organizational and relational factors, and organizational capacity. Lastly, a review of the results of a qualitative survey administered to10 core agencies that received both training, financial assistance, and technical assistance is provided.

The response rate of the survey administered before and after the program was implemented varies. Thirty nine participants responded before the program, and the number of responses dropped to 25 after the program. Twenty three organizations were common in both surveys and the 10 core organizations also responded to both the close ended and open ended survey questions. The average number of board members and staff size for the 39 agencies before the program is 7.29 and 8.71 respectively, while the average number of board members and staff size for the 25 agencies after the program is 7.00 and 8.27. For the descriptive statistics of other relative questions chosen from the survey see Table 1. Generally, the descriptive statistics reveal that participants are not significantly dependent on collaborative approaches to sustain their organizational capacity. The results show that the SCCF program is a good fit for the participants, especially for those who are interested in increasing their organizational capacity through partnerships.

Table 1. Descriptive Statistics for Responses before and after Program Implementation (empty cells mean the response count is 0)

Q. #	Question/Statement	Response Options	Before Program (N = 39)				After Program (N = 25)			
			Freq	%	Valid %	Cum. %	Freq	%	Valid %	Cum. %
Q. 19	What is your total budget this fiscal year?	0-100,000	18	46.2	46.2	46.2	12	48.0	48.0	48.0
		100,001-300,000	11	28.2	28.2	74.4	9	36.0	36.0	84.0
		300,001-500,000	4	10.3	10.3	84.6	1	4.0	4.0	88.0
		500,000+	4	10.3	10.3	94.9	3	12.0	12.0	100.0
		not sure	2	5.1	5.1	100.0				
Q. 28	Which of the following provides the primary source of funding for your organization?	Individuals	20	51.3	57.1	57.1	14	56.0	58.3	58.3
		Government	8	20.5	22.9	80.0	2	8.0	8.3	66.7
		Foundations	3	7.7	8.6	88.6	3	12.0	12.5	79.2
		private corporation	1	2.6	2.9	91.4	2	8.0	8.3	87.5
		Other	3	7.7	8.6	100.0	3	12.0	12.5	100.0
Q. 33	Is your present level of funding adequate for the number of projects and services you offer?	No	32	82.1	86.5	86.5	23	92.0	92.0	92.0
		Yes	5	12.8	13.5	100.0	2	8.0	8.0	100.0
Q. 49	Do you presently work with other community organizations?	No	1	2.6	2.9	2.9	1	4.0	4.0	4.0
		Yes	34	87.2	97.1	100.0	24	96.0	96.0	100.0
Q. 75	My organization has a written plan in case of leadership transition or turnover?	strongly disagree	4	10.3	11.1	11.1	2	8.0	8.3	8.3
		Disagree	8	20.5	22.2	33.3	8	32.0	33.3	41.7
		Neutral	8	20.5	22.2	55.6	5	20.0	20.8	62.5
		Agree	8	20.5	22.2	77.8	7	28.0	29.2	91.7
		strongly agree	8	20.5	22.2	100.0	2	8.0	8.3	100.0
Q. 81	Changes in this organization are consistent with changes in the surrounding community	strongly disagree								
		Disagree								
		Neutral	8	20.5	23.5	23.5	4	16.0	16.7	16.7
		Agree	14	35.9	41.2	64.7	12	48.0	50.0	66.7
		strongly agree	12	30.8	35.3	100.0	8	32.0	33.3	100.0
Q. 82	The structure of this organization is well-designed to help it reach its goals	strongly disagree	1	2.6	2.9	2.9				
		Disagree	2	5.1	5.7	8.6				
		Neutral	10	25.6	28.6	37.1	7	28.0	29.2	29.2
		Agree	10	25.6	28.6	65.7	7	28.0	29.2	58.3
		strongly agree	12	30.8	34.3	100.0	10	40.0	41.7	100.0
Q. 87	This organization favors change	strongly disagree								
		Disagree	4	10.3	11.4	11.4	4	16.0	16.7	16.7
		Neutral	4	10.3	11.4	22.9	1	4.0	4.2	20.8
		Agree	12	30.8	34.3	57.1	7	28.0	29.2	50.0
		strongly agree	15	38.5	42.9	100.0	12	48.0	50.0	100.0
Q. 88	This organization has the ability to change	strongly disagree	1	2.6	2.9	2.9				
		Disagree	1	2.6	2.9	5.7				
		Neutral	2	5.1	5.7	11.4	2	8.0	8.7	8.7
		Agree	18	46.2	51.4	62.9	8	32.0	34.8	43.5
		strongly agree	13	33.3	37.1	100.0	13	52.0	56.5	100.0

Network Analysis

The surveys administered included questions for identifying friendship, actual work, and willingness to collaborate networks among the participating organizations. The analysis was conducted in both pre-SCCF and post-SCCF stages. This section is divided into three parts analyzing the networks with complete responses (39 for pre-program and 25 for post-program), analyzing the networks of the 23 organizations that responded to both pre- and post-program surveys, and networks of the 10 core agencies. Based on the responses degree, betweenness, eigenvector, and closeness centralities were calculated for each network.

Table 2 indicates the descriptive statistic results of the overall *friendship network* in the beginning of the program at both meso and macro levels. At the meso (average node) level, nodes have an average of 4 incoming and 4 outgoing connections with each other. This number is not quite high for a network of 40 organizations with 39 survey respondents. However, there is significant variation in the number of connections that a node has in the network. For Outdegree and Indegree, the range is 26 and 19 where standard deviation is 5.876 and 3.581 respectively. The range difference between the Outdegree and Indegree is important because it shows the homogeneity of the relationship structure within the network. The difference between these two ranges indicates an outgoing type of relationships which means that organizations are identified as friends by others without their knowledge. At the macro (entire network) level of analysis, network centrality for the Outdegree and Indegree is 48.724% and 33.176% respectively. These figures imply concentrated and heterogeneous relationships in the network. Betweenness centrality results indicate a significant variation in the nodes' betweenness values. This is understandable as some actors in the network were isolated while some had a significantly high number of connections with others.

Overall network centralization is relatively low implying that organizations can reach others without intermediaries. Eigenvector values indicate similar results in terms of the pattern of relationships and the structure of the network. The mean value is 0.109 with a standard deviation of 0.097, suggesting that there are inequalities in the actor centrality of power within the network. The network centralization index of eigenvector centrality is 52.33% indicating a heterogeneous structure in the network with respect to the centrality of power within the network. Closeness centrality figures in the table indicate an average Incloseness of 3.719 with an Outcloseness of 10.733. There is also a significant variation in Outcloseness measures of the network. The average distance of a random node to other nodes is measured as 3.155 implying that any node in the network can reach a random peer in the network through an average of 3 connections.

Table 2. Descriptive Statistics for Pre and Post-Program Friendship Network

Q-48	OutDegree		InDegree		Betweenness		Eigenvector		InCloseness		OutCloseness	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	post
Mean	4.064	3.840	4.064	3.840	44.574	10.100	0.109	-0.075	3.719	2.351	10.743	2.444
Std Dev	5.876	6.117	3.581	3.635	95.223	25.545	0.097	0.120	0.357	0.385	9.528	0.703
Sum	191.000	192.000	191.000	192.000	2095.000	505.000	5.115	-3.735	174.808	117.572	504.899	122.200
Var.	34.528	37.414	12.826	13.214	9067.450	652.536	0.009	0.014	0.127	0.148	90.782	0.494
Min.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.530	2.128	2.000	2.128	2.000
Max.	26.000	24.000	19.000	15.000	364.417	113.083	0.418	0.000	4.152	3.091	29.487	4.217
Obs.	47.000	50.000	47.000	50.000	47.000	50.000	47.000	50.000	47.000	50.000	47.000	50.000

	Pre	Post
Network Centralization (degree centrality)	= out: 48.724% - in: 33.176%	= out:41.983% - in: 23.240%
Network Density	= 0.0883	= 0.0784
Network Centralization Index	= 15.79% (betweenness centrality)	= 4.47% (betweenness centrality)
Network Centralization Index	=52.33% (eigenvector centrality)	=12.58% (eigenvector centrality)
Average distance (among reachable pairs)	= 3.155	= 2.075
Distance-based cohesion (Compactness)	= 0.205	= 0.168

The post-program work network results shown in Table 2 indicate slight differences compared to the pre-program work network shown in the previous table. The average number of links between nodes and standard deviations has not changed much, only the betweenness centrality values reflect a significant increase from 3.149 to 8.580. This change is also captured in the network centralization indices which exhibit a move towards a more heterogeneous network after program implementation. Moreover, more nodes are now playing a mediating role in the network and are influencing the network's homogeneity. Average path distance has also increased from 2.035 to 2.631, which validates the heterogeneity of the network since nodes need to use more mediators rather than direct links in the post-program network as shown in the centrality indices.

Based on the four centrality measure results at the micro level (individual level), Spotlight Outreach Ministries, First Community Christian Pentecostal (F.C.C.P.) Church of God, and Simeon Resource and Development Center for Men (Simeon Resource) have the top three outgoing connections with other actors in the network respectively. Workforce Central Florida, United Way of Lake and Sumter Counties, and Heart of Florida United Way have the most incoming connections with other actors, reflecting that these organizations are most frequently identified as a friend by other actors in the network. X-Tending Hands has the strongest brokerage role in the network because it indirectly connects the most number of actors in the network. Workforce Central Florida is the most easily reachable agency in the network while Spotlight Outreach Ministries is the agency that is closest to other agencies because of the number outgoing friendship ties it has.

Figures 2 and 3 illustrate the friendship networks of participating agencies before and after the program. The friendship network specifies which organization knows or is affiliated with which organizations. Ties with arrows represent the direction of the relationship. Circle shaped nodes represent the core ten agencies in the study that received both training, and financial and technical support.

Table 2 provides a comparison of pre and post program network structures. In the post program network, the average number of connections per node is 3.840 with a standard deviation of 6.177 which shows that there are a smaller number of connections and higher levels of variation in comparison to the pre-program friendship network. The table also indicates a decline in betweenness centrality

values. The values reflect a more homogenous network structure with respect to nodes' betweenness and eigenvector centralization indices. There is also a decline in the average path distance between two random nodes in the network, changing from an average of 3.155 (pre-program) to 2.075 (post-program).

Figure 2. Pre-Program Friendship Network (39 respondents)

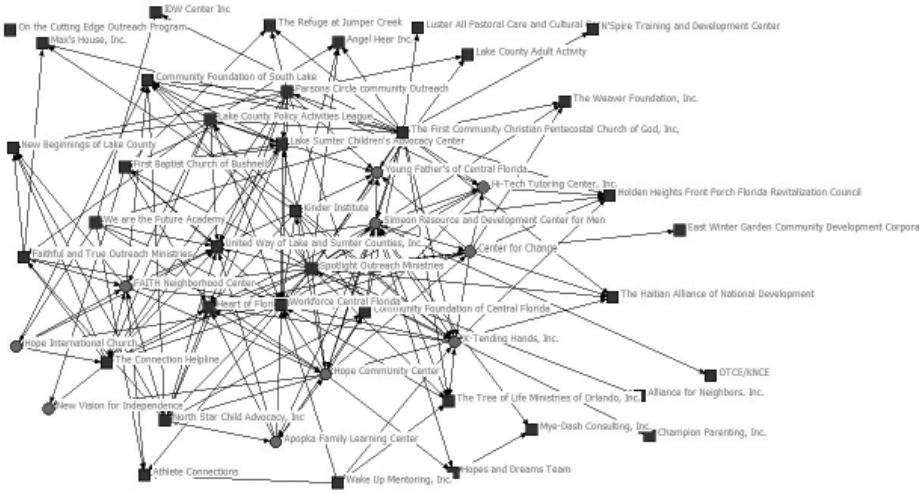
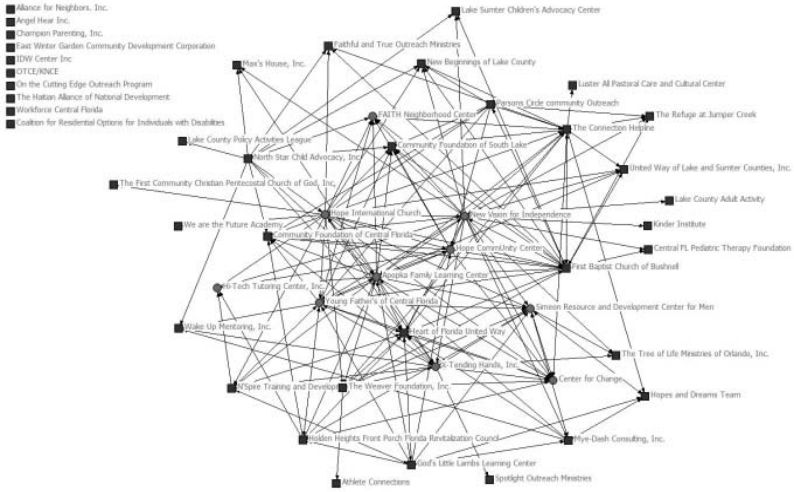


Figure 3. Post-Program Friendship Network (25 respondents)



Other agencies, which were central players in the pre-program results, have not experienced a significant increase in connectedness in the post-program network. This may be attributed to the relatively low response rate of the second survey and the incomplete picture of improved relationships between organizations. Figure 2 captured the pre-program friendship network and only showed one isolate, while the new network in Figure 3 (due to a lower response rate) shows ten isolated nodes. Overall, the friendship network looks similar to the pre-program friendship network. Based on the individual node positions in the network, the New Vision for Independence, Hope International Church, Apopka Learning Center, Young Fathers of Central Florida, and X-Tending Hands have significantly increased their relationship ties with other agencies in the network.

Table 3 summarizes the centrality results of the *advice network* of organizations based on survey responses relating to current work relationships between organizations. The table illustrates that there is an average of one link between organizations in the network. However, there is a substantial variation (2.347 standard deviation) in the distribution of the number of connections per node. The number of connections varies between 0 and 12. Betweenness centrality results indicate that the average betweenness score for a node is 3.149. This value is quite high when compared to degree centrality, although the overall centrality index (3.98%) is quite low. This implies that there is a homogenous distribution of betweenness centrality in the network. Similarly, the network centralization index of the eigenvector measure indicates a relatively homogenous network structure. The results also show that there is an average of 2 links between two random nodes within the network.

Based on the centrality measures at the individual node level, F.C.C.P. Church of God, Simeon Resource, and X-Tending Hands have the highest outgoing connections, suggesting that they work with their peers more often than other organizations in the network. A majority of the organizations identified Workforce Central Florida as an agency that they work with. This shows that it is the most preferred partner with respect to work relations in the network. Simeon Resource has the highest bridging power in the network. Both incoming (four links) and outgoing (nine links) ties bear a strong connector role to the organization. Based on the connections it has, Workforce Central Florida is the most easily accessible (closest) organization to other agencies. F.C.C.P. Church of God is the agency that can reach others through the shortest path because of the high Outdegree centrality or outgoing links it has.

Table 3. Descriptive Statistics for Pre and Post-Program Work Network

Q-49d	OutDegree		InDegree		Betweenness		Eigenvector		InCloseness		OutCloseness	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	post
Mean	1.064	1.080	1.064	1.080	3.149	8.580	0.092	0.064	2.290	2.263	2.325	2.346
Std Dev	2.347	2.058	1.359	1.440	10.935	23.807	0.113	0.126	0.213	0.294	0.427	0.613
Sum	50.000	54.000	50.000	54.000	148.000	429.000	4.307	3.210	107.613	113.145	109.270	117.297
Var.	5.507	4.234	1.847	2.074	119.574	566.765	0.013	0.016	0.046	0.086	0.182	0.376
Min.	0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	2.128	2.000	2.128	2.000
Max.	12.000	9.000	12.000	7.000	65.500	127.600	0.485	0.541	2.926	2.827	4.440	3.880
Obs.	47.000	50.000	47.000	50.000	47.000	50.000	47.000	50.000	47.000	50.000	47.000	50.000

	Pre	Post
Network Centralization (degree centrality)	= out: 24.291% - in: 13.185%	= out: 16.493%- in: 12.328%
Network Density	= 0.0231	= 0.0220
Network Centralization Index	= 3.08% (betweenness centrality)	= 5.16% (betweenness centrality)
Network Centralization Index	= 66.75% (eigenvector centrality)	=80.22% (eigenvector centrality)
Average distance (among reachable pairs)	2.035	= 2.631
Distance-based cohesion (Compactness)	0.041	=0.053

Figure 4. Pre-Program Work Network (39 respondents)

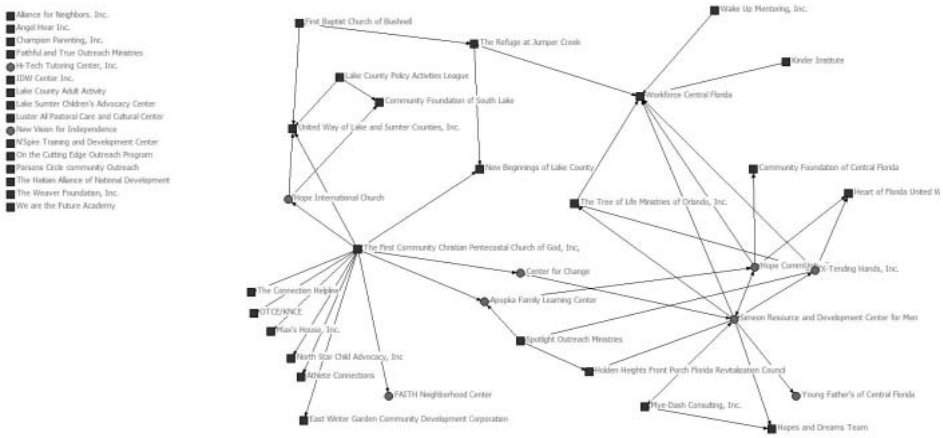
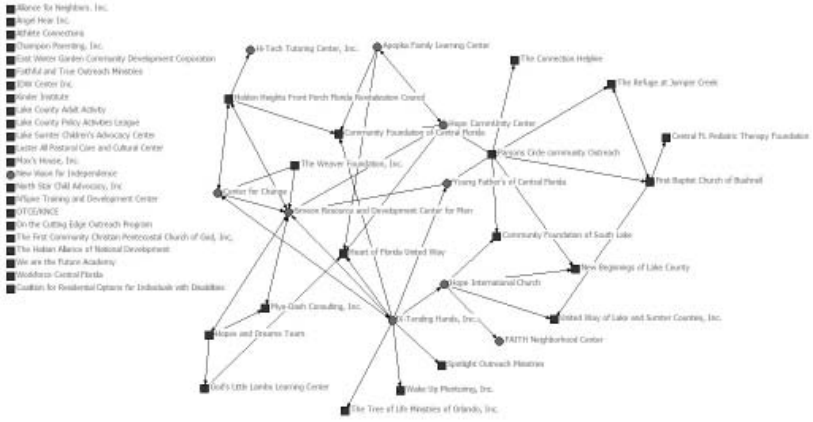


Figure 5. Post-Program Work Network (25 respondents)



Figures 4 and 5 depict the work network of the participating agencies. Some of the nodes in the networks are isolated from others because they did not report partnering with others in their work environment. As shown in Figure 5, there are more isolated nodes when compared to Figure 4, this reflected pre-program results due to a lower response rate. The post-program network also depicts patterned changes in the relationships between agencies. There were an important number

of dyads and triads in the pre-program work network whilst more connections appear between organizations in the post-program network. Advice network results for individual nodes indicate changes in organization rankings. X-Tending Hands, Hope International Church, Center for Change, and Apopka Family Learning Center now have an increased number of work connections with other organizations which reflects a higher level of cooperation between them.

Willingness to Collaborate Network

Organizations were not only asked about their existing affiliation and work relationships but were also asked about the collaborative relationships they want to develop. Results in Table 4 indicate that there is an average of 2.382 incoming and outgoing links per node in the preprogram network. Similar to other networks measured, there is high variation in this network. Standard deviation in Outdegree (6.803) is nearly three times larger than the mean value; however the standard deviation is quite small for Indegree results. This is because one agency identified all other organizations in the roster as potential partners. Moreover, there is an average of a 4.149 betweenness value per node with a significantly high standard deviation (10.657) and a range of 43. The density of the network is measured as 0.0518 which means only nearly 5% of the potential network connections were actualized. Network centrality indices (1.92% and 9.08%) imply a relatively homogenous network structure. The average path distance between two random nodes is less than two (1.848) which means a node in the network can reach a random actor in the network through less than two links.

In the post program network the average number of links per node has declined from 2.383 to 1.440 and there is also a significant decline in the variance of degree centrality. These changes might have occurred for two reasons: the lower response rate in the post-program survey, and the organization that identified all other nodes as potential future partners. There is an increase in the average betweenness centrality value which implies more mediators functioning in the post-program network as opposed to nodes having more direct links with others. This leads to an increase in the heterogeneity of the network and also leads to an increase in the average path distance between two random nodes in the network.

Based on the analyses of the organizations which are seeking cooperation and are sought for cooperation, Hope Community Center is an organization which seeks

cooperation more than any other agency in the network. F.C.C.P. Church of God is the second organization that is most willing to cooperate with other agencies. Workforce Central Florida, Hearth of Florida United Way, and Community Foundation of South Lake are the top agencies that others are willing to work with.

Figures 6 and 7 visualize the structures of willingness to work networks before and after the program. For the individual organizations seeking a high level of cooperation and being sought for cooperation, a dramatic change of in-degree centrality for Simeon Resource indicates a significant demand from other organizations to partner with the organization. Results also show that X-Tending Hands, Simeon Resource, Hope International Church, Young Fathers of Central Florida, and New Vision for Independence want to partner with other actors in the network.

Table 4. Descriptive Statistics for Pre and Post Program Willingness to Collaborate Network

Q-69	OutDegree		InDegree		Betweenness		Eigenvector		InCloseness		OutCloseness	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	post
Mean	2.383	1.440	2.383	1.440	4.149	10.100	-0.121	-0.075	2.386	2.351	5.450	2.444
Std Dev	6.803	2.351	1.745	1.813	10.657	25.545	0.082	0.120	0.202	0.385	15.659	0.703
Sum	112.000	72.000	112.000	72.000	195.000	505.000	-5.676	-3.735	112.141	117.572	256.148	122.200
Var.	46.279	5.526	3.045	3.286	113.563	652.536	0.007	0.014	0.041	0.148	245.207	0.494
Min.	0.000	0.000	1.000	0.000	0.000	0.000	-0.617	-0.530	2.174	2.000	2.128	2.000
Max.	46.000	10.000	9.000	8.000	43.000	113.083	-0.067	0.000	2.850	3.091	100.000	4.217
Obs.	47	50	47	50	47	50	47	50	47	50	47	50

	Pre	Post
Network Centralization (degree centrality)	= out: 96.881% - in: 14.698%	= in: 17.826%- out: 13.661%
Network Density	= 0.0518	= 2.5350
Network Centralization Index	= 1.92% (betweenness centrality)	= 4.47% (betweenness centrality)
Network Centralization Index	= 9.08% (eigenvector centrality)	=12.58% (eigenvector centrality)
Average distance (among reachable pairs)	= 1.848	= 2.535
Distance-based cohesion (Compactness)	= 0.075	=0.068

Figure 6. Pre-Program Willingness to Collaborate Network (39 respondents)

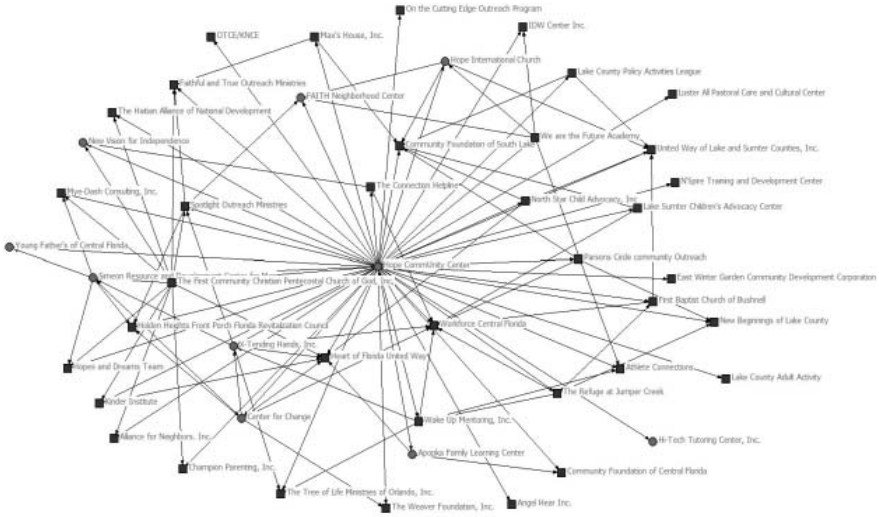
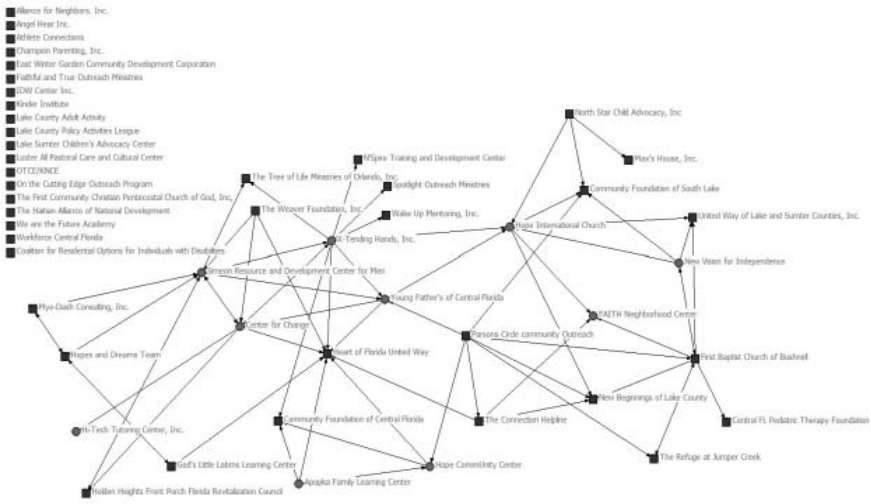


Figure 7. Post-Program Willingness to Collaborate Network (25 respondents)



As the environment changes overtime, the motives for cooperation change as well. Agencies were also asked about their previous collaborative and partnership experiences. Results show that service program compatibility is the primary reason why organizations partnered with others in the past. Grant proposals, statutory

issues, and advising are the least important motives of partnerships for the responding organizations.

Organizations were also asked about their current and previous motivations for cooperating with other organizations. Organizations reported that they mostly cooperate with other organizations because they share a common mission with them, have common economic recovery programs, enjoy service or program compatibility, or because they need advice from others. Less popular motivations included working on grant proposals together and seeking financial help and support.

Agencies were also asked about the resources they compete for with each other. All resources, except employees and volunteers, are almost equally important motives for organizations to compete. Funding resources are reported as the most important and common resource for which organizations compete with each other. Employees and clients are reported as more field specific resources which trigger competition but with a lower impact.

Pre- and Post-Program Comparision

To capture a complete comparison between pre and post-program implementation, results of the 23 organizations which were common in both pre and post-survey results, were analyzed separately. Figure 8 shows the comparison of pre and post program friendship, work, and willingness to collaborate networks. Figure 8a indicates the pre-program friendship network, which illustrates a relatively sparse network of relationships. Organizations are tied to each other with few links. Simeon Resource has the most central position in the network and it serves as a broker between organizations, while N'Sprie Training and Development Center is an isolate. The figure also indicates that there are two major cliques in the network which are tied to each other through two links (first link between Parsons Circle Community Outreach – Young Fathers of Central Florida and the second link between New Vision for Independence – Hope Community Center). Figure 8d shows the post-program friendship relationships between the 23 agencies. The network represents a denser network rather than a sparse network. The connections between organizations have increased and the network stands as one large structure as opposed to two pieces of a network as reflected in the pre-program results (Figure 8a). Also, the connectedness of each organization has increased significantly implying that organizations are able to reach their peers in the network via multiple

paths. Figure 8b shows the pre-program work network. The figure indicates that participants were significantly separated before the program in terms of their work relations. Three of the organizations were not tied to others. Simeon Resource continues to have a connecting role in this network. If Simeon Resource is excluded, the majority of agencies will become isolates. The post-program work network in Figure 8e shows an increase in the connectedness of organizations. Simeon Resource continues to play a critical role for connecting the organizations in the network, but eliminating it does not dissolve the entire network. The networks indicate that organizations have developed work relationships during the program, and they now have more sustainable work relationships when compared to pre-program conditions.

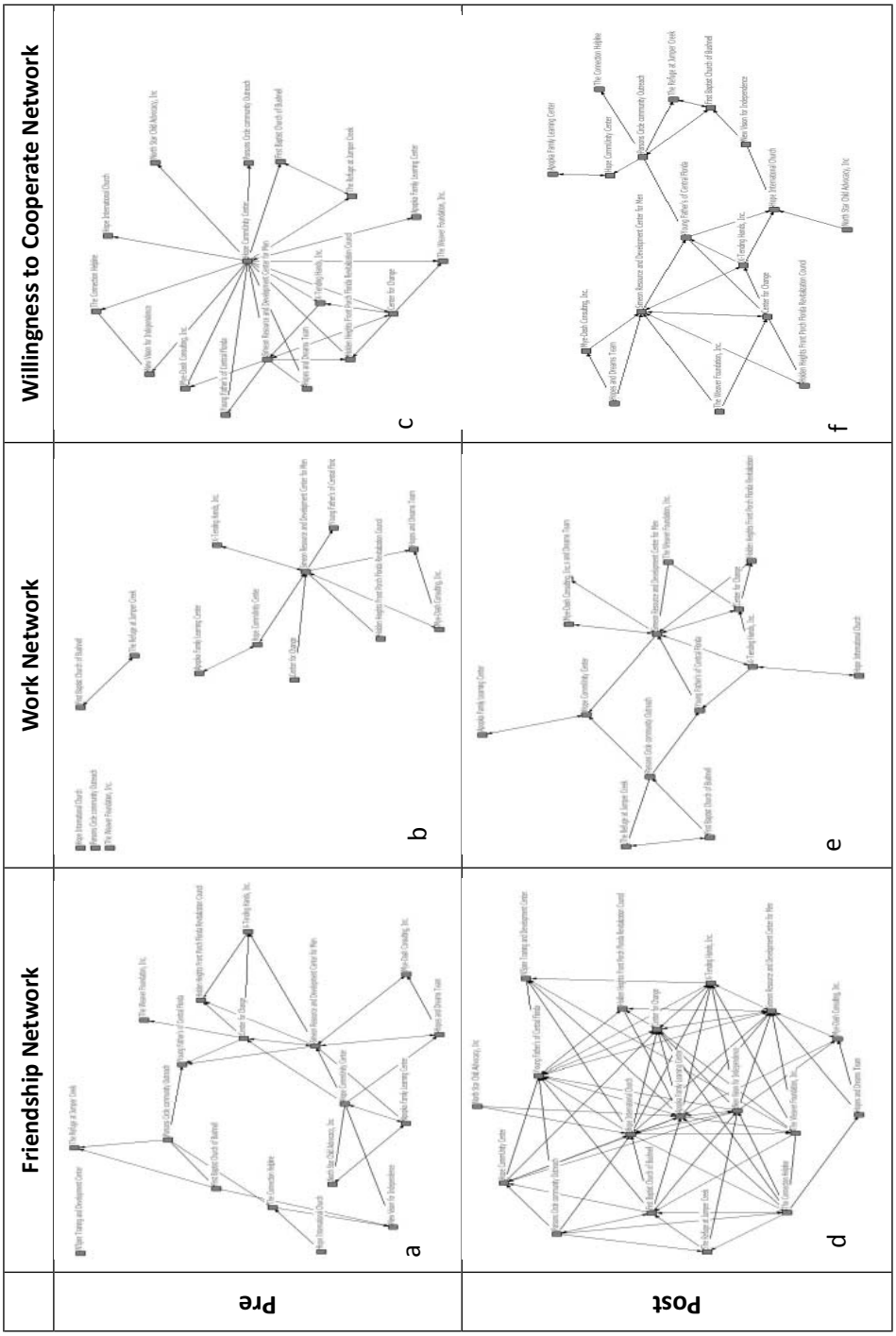


Figure 8: Comparison of pre and post program of friendship, work, and willingness to cooperate networks of 23 organizations

The willingness to cooperate in a network is important since it is a projection of future work relationships. Figure 8c indicates the pre-program willingness to cooperate network. Hope Community Center responded that they are willing to work with all organizations in the given roster. If this organization is ignored, other organizations in the network represent a sparse and disconnected network. Some of the organizations will also be isolated. Figure 8f illustrates a significant change in the willingness to cooperate network of organizations. Interestingly, Hope Community Center gave a different response this time and identified one organization with whom they are willing to work. Also, other organizations in the network identified their potential partners based on their compatible needs and interests. This figure projects potential healthy work relationships for the future which is a key outcome of the SCCF program.

10 Core Organizations: Pre- and Post-Program Results

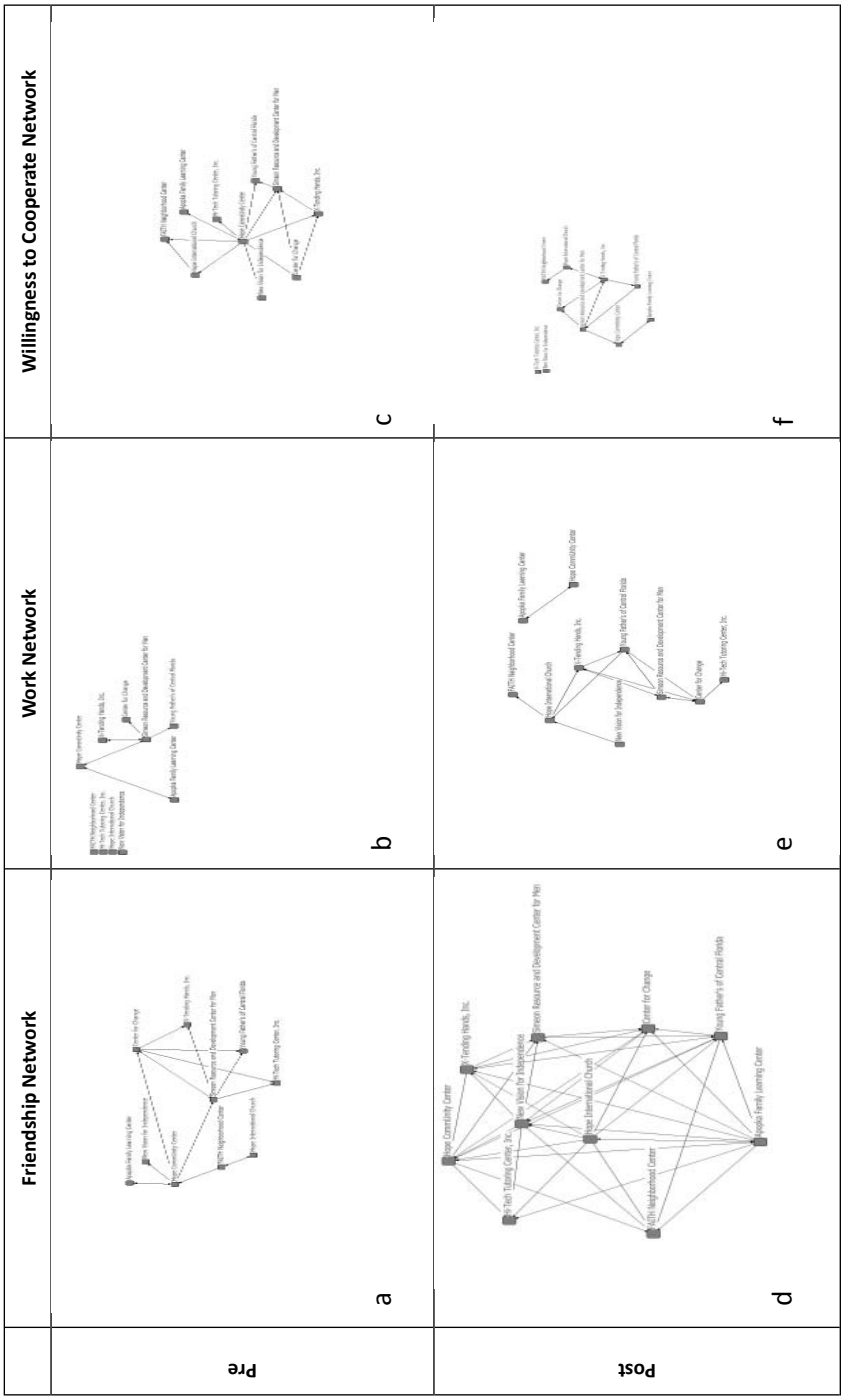
Figure 9 presents the comparison of friendship, work, and willingness to cooperate networks before and after the program. Figure 9a shows the friendship network for the 10 core organizations that participated in the program, and received training as well as financial and technical assistance. The pre-program network is dispersed and organizations are weakly connected to each other. Six organizatons are tied to more than one peer in the network, while four have only one connection. Hope Community Center is a broker in the network which connects six organizations to other actors in the network. The friendship network after the program (Figure 9d) is significantly different from the pre-program situation in Figure 9a. There is a dense network of relationships after the program as organizations are tied to others by multiple connections.

The work relations of the ten core organizations are different as opposed to their friendship relations. Figure 9b shows a star network in which one organization has a central position and the rest connect to each other through this central organization. The figure shows that Simeon Resource is in the center of the network and five organizations are connected to each other through their ties with Simeon. Four organizations are isolated from the network as well, implying that they were not connected to others for work purposes before program implementation. Figure 9e shows a change in the work relations between the ten organizations. The star network in Figure 9b turns into a network consisting of three cliques in 9e. There are two organizaitons which are isolated as they did not respond to the survey.

Even with two nonresponses, the work network looks more connected than the pre-program state.

Figure 9c shows the pre-program willingness to collaborate network. The figure shows a star network with Hope Community Center as a central player since it identified every other organization in the roster as potential work partners. If Hope Community Center is taken out of the network, there would be only two small separated networks and three isolated nodes. Figure 9f shows that the post-program willingness to collaborate network is more connected when compared to pre-program results. Even though this network is not as dense as the friendship network, it reflects a general agreement between networking organizations to work together in the future.

Figure 9: Comparison of networks of friendship, work, and willingness to cooperate before and after the program



Regression Analysis

To understand the relationship between several factors such as organizational development, program development, collaboration/community engagement, and leadership, with the perceived level of adaptive capacity of the respondent organizations', a multiple regression model was formed and analyzed. Data from the pre-program survey responses (39 first-cycle organizations) was used for analysis. Missing values in survey responses were replaced with mode values since the sample size was small. The next step was to create index variables for the constructs selected for analysis. Table 17 shows the list of index variables with their respective items and Cronbach's Alpha values. The table shows items that were left after the reliability analysis was conducted using SPSS, unrelated items were deleted to get the highest Cronbach's Alpha values. Several assumptions were also checked to ensure the validity of results.

Table 5. Summary Statistics for Multiple Regression Analysis

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
dimension0	1	.673[a]	.453	.370	.59082	2.155

b. Dependent Variable: ADACAP

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.529	5	1.906	5.460	.001[a]
	Residual	11.519	33	.349		
	Total	21.048	38			

a. Predictors: (Constant), LEADER, COLLAB, HUMRES, COMENG, FINSIT

The summary model adjusted R-square shown in Table 14 tells us that the model explains 37% of the variance in the dependent variable, which is Adaptive Capacity. According to the ANOVA statistics, the proposed model is statistically significant ($F_{5, 33}$=5.46) at the p value of .05. Table 16 below shows whether the model coefficients are statistically significant as well as their impact on the model.

Table 6. Coefficient Statistics for the Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.006	.684		1.471	.151
	HUMRES	.453	.279	.230	1.627	.113
	FINSIT	-.071	.386	-.026	-.183	.856
	COLLAB	.520	.440	.159	1.182	.246
	COMENG	.332	.163	.287	2.031	.050
	LEADER	.317	.131	.353	2.429	.021

Table 7. Index Variables created for Multiple Regression Analysis (N=39)

VARIABLE ROLE	INDEX	ITEMS	CRONBACH'S α
Dependent	Adaptive Capacity (ADACAP)	Changes in this organization are consistent with changes in the surrounding community The structure of this organization is well-designed to help it reach its goals This organization favors change	.706
Independent	Human Resources (HUMRES)	Does your organization have a formalized Board of Directors policy manual Does your organization have a formalized Human Resources policy manual Does your organization have dedicated Human Resources personnel	.692
Independent	Financial Situation (FINSIT)	Does your organization have individual donors Is your funding closely tied to the number of projects or services offered Is your funding closely tied to the number of people you serve Is your present level of funding adequate for the number of projects and services you offer	.624
Independent	Collaboration/ Partnerships (COLLAB)	Do you presently work with other community organizations Have you worked with other community organizations in the past Do you plan on working with other community organizations in the future Do you feel that cooperating with other organizations helps your organization	.744
Independent	Community Engagement (COMENG)	This organization has responded in light of the community's changes in needs This organization solicits feedback from its clients on ways to serve them better This organization provides programs or services that were suggested by its clients This organization is viewed by its clients as an "agent of change"	.665
Independent	Leadership (LEADER)	My organization has a board that reviews progress on the strategic plan (e.g., goals, strategies) My organization helps the executive director or other staff improve their leadership abilities My organization has board members with diverse experiences My organization runs effective board meetings (i.e. keeping minutes, attendance, commitments) My organization has a written plan in case of leadership transition or turnover My organization has a board and executive director with distinct roles and responsibilities My organization has board members who fulfill their commitments and responsibilities	.823

The coefficients statistics reveal that only community engagement (COMENG) and leadership (LEADER) are statistically significant coefficients at the p value of .05. In light of the results described above, it is possible to conclude that the adaptive capacity of an organization is closely related to the level of community engagement and leadership in that organization. While this analysis was performed based on the data from 39 respondents before the program was implemented, a larger sample might provide additional insight and a more accurate picture of the model representation.

In addition to the regression analysis, 10 core agency representatives in this study were surveyed to get their insight about the perceived impact of the SCCF program. The following questions/statements were administered to the participants, and they were asked to respond to the questions and elaborate if they agreed with the statements provided:

1. As a result of my organizations participation in the SCCF, my organization is better equipped with the tools necessary to form successful partnerships and collaborations with other organizations.
2. As a result of my organizations participation in the SCCF, my organization formed more successful collaborations than before the start of the SCCF.
3. As a result of my organizations participation in the SCCF, my organization formed more successful collaborations than before the start of the SCCF.
4. What tools did the program provide you that supported these successes?
5. We learned a great deal of knowledge from the program that will assist us in forming new partnerships in the future and help sustain existing programs.
6. As a result of my organizations participation in the SCCF my organization is now included in a greater formal network of organizations.
7. As a result of my organization's participation in the SCCF my organization is able to leverage resources from non SCCF participants, i.e. Community Foundation?
8. Please provide any other comments related to collaboration and community engagement.

Table 8. Open ended statements

In regard to the first statement, all 10 agencies agreed that they are more prepared for and aware of the opportunities entailed by the collaborations/partnerships. The main tenet of the responses can be summarized by the following statement of an organization: "I've learned to be very strategic in seeking and developing partnerships". In regard to the second statement, organizations generally agreed that they increased either the number or the quality of their collaborations/partnerships. The main tenet of the responses can be summarized by the following statement of

an organization: "We have had the opportunity to meet and interact with many organizations that we were not even aware of. This gives us the opportunity to share ideas and form partnerships that help all of us provide increased services through referrals and with increased knowledge."

In terms of the third and fourth statements, organizations specified the tools of the SCCF that were part of their success. Fundraising, volunteer management, board development, strategic planning, networking, needs assessment, bookkeeping, data collection, and marketing strategies are among the tools that benefited participants of the program. In response to the fifth and sixth statements, organizations agreed with the fact that SCCF increased their networking capabilities and vision, which also led to newly developed or enhanced relationships with other nonprofits. In addition, they specified the importance of SCCF's grant-writing and fundraising trainings for increasing their financial capacity.

In terms of the last statement, organizations acknowledged the benefit of the program in terms of increasing collaborations/partnerships with others as well as in terms of an increase in technical capacity. The following statement of an organization summarizes organizations' views: "I know that our participation in the SCCF has provided [us] with greater skills and knowledge for capacity building overall, including increased collaborations and community engagement. I believe that additional opportunities for collaboration will continue to present themselves, and that we are better equipped to pursue collaborations."

Conclusion

This study was carried out to explore and understand the relationship between organizational factors, network relationships, and collaborative capacity. The results of the network analysis show that network relationships were strengthened and developed especially after the implementation of the capacity building program. Thus this program has been beneficial in terms of capacity building through network relationships. The main assumption that network relationships impact the level and quality of organizational and collaborative capacity are mainly supported from the analysis. In terms of network analysis, affiliation and cooperation networks provided an understanding that collaboration with others is beneficial for developing organizational capacity.

Organizational factors such as leadership and the level of organizations' engagement with the community have a statistically significant relationship with the adaptive capacity of the organizational network. This implies that organizations need to invest in developing leadership and stronger relationships with the community in order to develop their capacity. Lastly, qualitative responses from the core 10 organizations that received both training, and financial and technical assistance support the previous analyses by confirming that collaboration is and should be a part of organizations' long-term strategies. Overall, this study contributes to the understanding of relationships between networks and organizational capacity.

Future research will be conducted in the following years to see the long term impact of the capacity building programs on network formations and sustainability for small nonprofit organizations. Even though the study focused on a region in a southern state, results of the study can be applied to other similar capacity building programs, with the aim of achieving collective action in response to challenging complex problems.

References

Aldrich, H. E. (1999). *Organizations Evolving*. London: Sage Publications.

Argyris, C. & Schön, D. (1996). *Organizational learning II: Theory, method and practice.* Reading, MA: Addison Wesley.

Backer, T. E., Bleeg, J. E. & Groves, K. (2004). *The Expanding Universe: New Direction in Nonprofit Capacity Building.* Washington DC: Alliance for Nonprofit Management.

Boin, A., Kuipers, S. & Steenbergen, M. (2010). The Life and Death of Public Organizations: A Question of Institutional Design? *Governance: An International Journal of Policy, Administration, and Institutions: 23*, 3, 385-410.

Borgatti, S. P., M. G. Everett, & L. C. Freeman. 2002. UCINET for Windows: Software for Social Network Analysis: Harvard, MA: Analytic Technologies.

Bouty, I. (2000). Interpersonal and Interaction Influences on Informal Resource Exchange between R & D Researchers across Organizational Boundaries. *Academy of Management Journal. 43*, 1, 50-66.

Bouty. H. J. (2005). *Players in the public policy process: Nonprofits as Social Capital Agents.* New York: Palgrave.

Bryson, J. M., Crosby, B. C. & Stone, M. M. (2006). The Design and Implementation of Cross-Sector Collaborations: Propositions from the Literature. *Public Administration Review, 66,* 1, 44-55

Chaskin, R. J. (2001). Building Community Capacity: A Definitional Framework and Case Studies from a Comprehensive Community Initiative. *Urban Affairs Review*, *36*, 291-323.

Clutterbuck, M. & Megginson, D. (2008). *Making Coaching Work: Creating a Coaching Culture*. London: Chartered Institute of Personnel and Development.

Cohen, W. M. & Levinthal, D. A. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, *35*, 1, 128-152.

Crossan, M., Lane, H., White, R., & Djurfeldt, L. (1995). Organizational Learning: Dimensions for a Theory. *The International Journal of Organizational Analysis, 3*, 4, 337-360.

Cummings, T. G. & Worley, C. G. (2009). *Organization Development and Change*. Mason, OH: South-Western/Cengage Learning.

Denison, D. R. & Mishra, A. K. (1995). Toward a Theory of Organizational Culture and Effectiveness. *Organization Science*, *6*, 2, 204-223.

DiMaggio, P. J. & Powell, W. W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review, 48*, 2, 147-160.

Fiol, C. M. & Lyles, M. A. (1985). Organizational Learning. *Academy of Management Review*, *10*, 4, 803-813.

Galaskiewicz, J., Bielefeld, W., & Dowell, M. (2006). Networks and Organizational Growth: A Study of Community Based Nonprofits. *Administrative Science Quarterly , 51*, 337–380.

Gazley, B. (2008). Beyond the contract: The scope and nature of informal government -nonprofit partnerships. *Public Administration Review, 68*(1), 141-154.

Granovetter, M. S. (1973). The Strength of Weak Ties. *American Journal of Sociology*, *78*, 6, 1360-1380.

Kapucu, N., Healy, B & Arslan, T. (2011). Survival of the Fittest: Capacity Building for Small Nonprofit Organizations. *Evaluation and Program Planning, 34*, 236-245.

Kerka, S. (2003). Community Asset Mapping. *Trends and Issue Alert*. No. 47.

Knight, L. (2002). Network Learning: Exploring Learning by Inter-organizational Networks. *Human Relations, 55, 4, 427-454.*

Knight, L. & Pye, A. (2004). Exploring the Relationship between Network Change and Network Learning. *Management Learning, 35,* 4, 473-490.

Knight, L. & Pye, A. (2005). Network Learning: An Empirically Derived Model of Learning by Groups of organizations. *Human Relations*. *58*, 3, 369-392.

Knoppen, D. & Christiananse, E. (2007). Inter-organizational Adaptation in Supply Chains: A Behavioral Perspective. *The International Journal of Logistics*, *18*, 2, 217-237.

Kraatz, M. S. (1998). Learning by Association? Inter-organizational Networks and Adaptation to Environmental Change. *Academy of Management Journal, 41*, 6, 621-643.

Krackhardt, D. (1992). Strength of Strong Ties: The Importance of Philos in Organizations. In N.

Nohria & R. C. Eccles (eds.). *Networks and Organization: Structure Form and Action*, (pp 216-239). Boston: Harvard Business School Review.

Kretzmann, J. P. & McKnight, J. L. (1993). *Building communities from the inside out.* Evanston, IL: The Asset Based Community Development Institute, Northwestern University.

Knoke, D. & Yang, S. (2008). *Social Network Analysis* (2. Ed). United States: Sage.

Koliba, C., Meek, J. W., & Zia, A. (2010). *Governance Networks: Serving the Public Interest Across the Sectors*. Boca Raton: CRS Press.

Paarlberg, L. E. & Varda, D. (2009). Community Carrying Capacity: A Network Perspective. *Nonprofit and Voluntary Sector Quarterly*. 38, 4, 597-613.

Pelling, M. & High, C. (2005). Understanding Adaptations: What can Social Capital Offer Assessments of Adaptive Capacity. *Global Environmental Change*, *15*, 308-319.

Provan, K. G., & Kenis, P. (2007). Modes of Network Governance: Structure, Management, and Effectiveness. *Journal of Public Administration Research and Theory , 18*, 229-252.

Provan, K. G., Nakama, L., Veaize, M. A., Teufel-Shone, N. I., & Huddleston, C. (2003). Building Community Capacity around Chronic Disease Services through a Collaborative Inter-organizational Network. *Health Education and Behavior*, *30*, 6, 646-662.

Provan, K. G., Veazie, M. A., Staten, L. K., & Teufel-Shone, N. I. (2005). The Use of Network Analysis to Strengthen Community Partnerships. *Public Administrative Review*, *65*, 5, 603-613.

Scott, J. (2009). *Social Network Analysis: A Handbook*. London. Sage.

Staber, U. & Sydow, J. (2002). Organizational Adaptive Capacity. *Journal of Management Inquiry*, *11*, 4, 408-424.

Stone, M. M., Crosby, B. C., & Bryson, J. M. (2010). Governing public-nonprofit collaborations: understanding their complexity and the implications for research. *Voluntary Sector Research, 1*,3, 309-34.

Weick, K. A. & Quinn, R. E. (1999). Organizational Change and Development. *Annual Review of Psychology*, *50*, 1, 361-368.

Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity.* Cambridge: Cambridge University Press.