

**Developing Sustainable Resource Streams in
Community Technology Centers Through Partnerships:
Results of a National Survey**

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Entitled:
**The Role of Local Institutions in the Development of Internet
Infrastructure in Distressed Urban Neighborhoods**

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Executive Summary

Community Technology Centers (CTCs) are designed to increase access to advanced information technologies by populations that would otherwise find them inaccessible. Despite their contributions to helping communities increase access to new technologies, some Centers have not survived financially and others exist always on the margins of solvency. This research focuses on the issue of sustainability of Community Technology Centers located in disadvantaged communities in various settings—urban, suburban, or rural. This report is part of a 2001 research program funded by the National Telecommunications and Information Agency to address the question frequently voiced by many Center directors – “what do I do when the money from the original grant runs out”? The overall goal of the research project is to provide useful information to CTCs to help them achieve greater sustainability. Specifically, the research program examines how Centers use community partnerships and collaborative networks to achieve resources and, thus, to achieve some greater degree of sustainability.

The initial portion of the research was a survey of CTCs designed to provide data that can benchmark the size and composition of CTCs’ networks of partners. Using a mail survey, a stratified sample of CTCs was taken to ascertain current levels of sustainability and partnerships. From the sample, 159 complete responses were used to obtain information on the following five topics.

1. Basic background information
2. Administrative structure and history of the Center
3. Operation of the Center and services provided to clients
4. Financial information, i.e., current funding sources and funding sources at the time of creation
5. Partnerships

The results of the survey indicate that partnerships and collaborative arrangements are key strategies that CTCs use to secure the necessary resources to achieve sustainability. Approximately 81 percent of the CTCs in the survey report at least one partnership or collaboration. The average for all Centers is 3.5 partners, although the distribution is skewed towards the lower end, e.g., 8.5 percent of the Centers report ten or more partners, but 19 percent have none. The majority of CTC partners are nonprofits (58 percent) with the public and private sectors constituting 32 and 10 percent respectively. Most resources obtained from partnerships are in-kind rather than monetary.

Two factors have important influences on the levels of collaboration evident in CTCs. The first is the length of time the Center has existed. Partnerships are minimal in the beginning stages, increase significantly after two years, and some retrenchment occurs after about five years as the Centers focus on the quality rather than the quantity of partnerships. The second important factor is whether a Center is affiliated with a national organization. Centers that are independent, i.e., have no national affiliation, have slightly more partners than those who are affiliated with a national organization, although the differences are not striking.

Upon closer inspection, it is clear that an important interaction effect between time and affiliation is “organizational capacity.” Organizational capacity building involves process and structures that enable a CTC to plan and to manage its resources in effective ways. Capacity building is about the ability of an organization to manage change. Centers that invest in developing their organizational capacity do better with building partnerships. The survey provides some insights into the critical “capacity building structures” that Centers put in place to assist in partnership building. Mission statements, strategic planning and existence of Boards are three that appear to be

particularly important. How these efforts are specifically related to partnerships is addressed in the second report of the research program that uses detailed interviews with Center Directors to ascertain the specific strategies and tactics they employ to build their capacities for collaboration.

Introduction to the Research Program

Community Technology Centers¹ (CTCs) are effective in giving populations greater access to advanced information technologies they would otherwise find inaccessible.² The growth and widespread geographic dispersion of the Centers bear witness to their contributions in closing the digital divide in many communities across the country. Despite their effectiveness and contributions to helping communities develop access to new technologies, some Centers have not survived financially and others seem to exist always on the margins of solvency. Center directors worry about how to exist on budgets that are not commensurate with the importance of the contributions of the Centers and how to find stable sources of funding.

This research focuses on the issue of sustainability of Community Technology Centers located in disadvantaged communities in various settings – urban, suburban, or rural. Specifically, the research addresses the question frequently voiced by many Center directors – “What do I do when the money from the original grant runs out?” Many Centers are funded initially by grants from governments, nonprofits, or private companies, but most of these grants are “start-up” funds designed to encourage new worthwhile initiatives. Unfortunately, as with most community-based organizations, CTCs discover it is much easier to fund new initiatives than to find resources to maintain core services.

¹ For purposes of this research Community Technology Centers are organizations that provide computer services to individuals free or at minimal charge. These services typically include Internet access, basic computer literacy assistance, advanced applications in computer technology, or additional related technology services.

² Chow, C., Ellis, J., Mark, J. and Wise, B. Impact of CTCNet Affiliates: Findings from a National Survey of Users of Community Technology Center. Newton: MA: Education Development Center, Inc. 1998. Mark, J. Cornebise, J. and Wahl, E. Community Technology Centers: Impact on Individual Participants and Their Communities. Newtown MA: Education Development Center, Inc. 1997.

Given the volatile nature of public funding and philanthropic giving, to survive financially community-based organizations must successfully tap into the resources present in their own community. The community development literature emphasizes that very point.³ To remain viable local grass-root organizations must learn to mine the resources present in their own local communities. Similarly, the literature on “sustainable communities” emphasizes reliance on local resources and collaborative efforts among local groups to achieve desired ends.⁴ At a broader theoretical level, Putnam’s concept of “social capital” stresses the importance of local relationships, reciprocity among local groups, and trust building as critical ingredients in achieving livable communities in this era of reduced public investment in communities.⁵

Three common themes that are relevant to the questions posed in this research cut across these literatures.

1. To be a sustainable, effective community organization requires building upon the capacities of the local community.
2. Effective use of local resources requires formation and maintenance of partnerships and collaborations, be they formal or informal, among community organizations.
3. Although local collaborations are essential, external ties (partnership beyond the local community) must also be established to ensure a diverse mix of funding sources (portfolio of assets). “The strength of weak ties” is a concept

³ Minkler, M. (ed.). Community Organizing and Community Building for Health. New Brunswick, NJ: Rutgers University Press, 1999. McKnight, J. and Kretzmann, J. Building Communities from the Inside Out: A Path Toward Finding and Mobilizing a Community’s Assets. Evanston, ILL: The Asset-Based Community Development Institute, Northwestern University, 1993.

⁴ See for example an early expression of this in Hancock, T. and Duhal L. Healthy Cities: Promoting Health in the Urban Context. Copenhagen: WHO Europe, 1986. Ashton, J (ed.). Healthy Cities. Buckingham: England, Open University Press, 1992. In the environmental literature an example is Environmental Protection Agency. Community Based Environmental Protection: A Resource Book for Protecting Ecosystems and Communities. (EPA 230-B-96-003). Washington, D.C., 1997.

⁵ The literature on social capital is sizable and growing. Suggested for review are: Putnam, R. Making Democracy Work: Civic Tradition in Modern Italy, Princeton: Princeton University Press, 1993. Putnam, R. Bowling Alone. New York: Simon and Schuster, 2000. Fukuyama, F. Trust. The Social Virtues and the Creation of Prosperity. London: Penguin Books, 1995

particularly critical in communities whose local capacities may be substantial but not fungible.⁶

Goals of the Research Program

The overall goal of the research project is to provide useful information to CTCs to help them achieve greater sustainability. To achieve this overall goal, three specific tasks or objectives are set forth.

First, to understand the current role of partnerships in Centers, a survey of a sample of existing CTCs is undertaken. The survey provides data that can benchmark the size and composition of CTCs' networks of partners. The survey also enables us to profile Centers that are doing well in partnership building against those who are not doing quite as well.

The second objective is to understand the strategies and tactics used by Centers to establish successful partnerships. Personal interviews with CTC directors or other personnel are the source of information for this task. Centers personnel to be interviewed are selected using information obtained from the aforementioned survey.

The final objective is to create instructional materials that can be used by CTC personnel to help them learn strategies and tactics for developing effective partnerships. Materials for the instructional aids are drawn from empirical data collected in the study and from the existing literature on community capacity building.

⁶ Granovetter, Mark S and Swedberg, Richard. The Sociology of Economic Life. Boulder, CO: Westview Press, 2001.

Report I:

Survey of Partnerships By Community Technology Centers

The first of the study's reports details the results of the national survey of Community Technology Centers (CTC) on partnerships. The report is organized into the following sections.

1. Survey Methodology
2. Analytical Framework
3. Description of Survey Center Attributes
4. Levels of Financial Security Among Centers
5. Partnership Patterns among CTCs
6. Summary and Conclusions
7. Appendices

Survey Methodology

Survey Instrument

A stratified sample of CTCs was used to ascertain current levels of sustainability and partnerships through a mail survey instrument. The instrument was constructed after a review of prior instruments⁷ and discussions with representatives from the Benton Foundation, American Library Association, and CTCNet. The instrument also incorporated concepts pertaining to networking and partnerships based on the literature on community capacity building.

The instrument had five major sections (Appendix I).

1. Basic background information (name, location, type of facilities, etc.)
2. Administrative structure and history of the Center
3. Operation of the Center and services provided to clients
4. Financial information, i.e., current funding sources and funding sources at the time of creation
5. Partnerships

⁷ Chow, C., Ellis, J., Mark, J. and Wise, B. Impact of CTCNet Affiliates: Findings from a National Survey of Users of Community Technology Center. Newton: MA: Education Development Center, Inc. 1998.

The instrument was pilot tested to ensure readability and to identify areas where improvements in structure, language, or format were appropriate. During the pilot testing, comments were also obtained from researchers who had previously conducted surveys pertaining to community-based centers.

Sampling

The sample of CTCs was stratified by region and by type of location. Regional stratification (random sampling within pre-set Bureau of Census regions) ensured complete coverage in the United States. Location stratification ensured that Centers in rural, suburban, and urban locales were well represented within the sample. Location was important because the ability to develop partnerships in some settings may be more difficult than in others.

The initial sample frame of 1,233 Centers was constructed from lists of Computer Technology Centers provided by seven groups.⁸

Community Technology Network
National Urban League
PowerUp
Housing and Urban Development
Department of Education
American Library Association
Benton Foundation

Crosschecking of lists removed redundant listings.

For the stratification, the 1,262 listings were cross-classified into a 4 by 3 matrix. The four U.S. Bureau of the Census' regions (East, South, Midwest, and West) represented one dimension of the matrix. Rural, suburban, and urban constituted the second dimension. Rural, suburban, and urban were defined using the metropolitan

⁸ The lists either were obtained from the Web sites of the organizations or were provided by the organizations upon request.

(central city versus suburban) and non-metropolitan classification of counties developed by the Office of Management and Budget and used by the U.S. Bureau of the Census in reporting census data.⁹ Within each of the twelve stratified groups, a random sample of Centers was drawn without replacement. The resultant sample consisted of 465 Community Technology Centers.

Survey Methods

A packet distributed by mail to each Center included an introductory letter, the survey, and a stamped envelope with a return address. Each survey form contained an identification code to track responses.¹⁰ The first mailing occurred in January 2001. A second mailing to those not responding initially was sent in March.

One hundred fifty-nine surveys were received in the two mailings, or a response rate of 34 percent. Five unopened surveys were returned because of incorrect addresses or closures of Centers. Of the 159 returned responses, major data errors in six limit their use, leaving 153 valid responses. The 153 valid responses represented a return rate of 33 percent for the mail survey, which was consistent with response rates to mail surveys, particularly to organizations.

After coding, error routines identified mistakes in either coding or in responses. Corrections were made accordingly, missing date designations being assigned when an error was attributed to an answer provided by a respondent.¹¹ Several new variables were

⁹ For information on the definition and current designations of metropolitan and nonmetropolitan see <http://www.census.gov/population/www/estimates/aboutmetro.html>.

¹⁰ The instrument and survey procedures were reviewed and approved by the Virginia Tech human subjects review board.

¹¹ A frequent error was in response to the questions of the size of the Center's budget. Some Centers affiliated with larger organizations provided the budget for the parent organization rather than for the Center.

computed from existing variables, e.g., the ratio of volunteer workers to paid employees in a Center, and were included in the final data file.

Analytical Framework

In the first section of the report, attributes of the CTCs in the survey are described. The emphasis throughout the survey analysis is on description rather than hypotheses testing for two reasons. First, the analysis is exploratory, as no formal theory exists on which to support formal hypotheses. Second, for many of the interesting and important relationships, multi-variate analysis is appropriate. However, given the size of the sample, inclusion of two or more categorical variables with sizable categories greatly limits the ability to make statistical inferences.

The last two analysis sections focus on financial security, or what will be termed “sustainability potential,” and on partnerships. For purposes of this report sustainability potential is defined as the probability that a Center can continue to function effectively at its current or a higher level of services. Potential sustainability within the study is measured by two separate sets of indicators. The first set measures diversification of funding sources of the Centers.

Diversity in funding sources is an important dimension of sustainability. It is argued that the more varied the revenues sources, the greater the likelihood of maintaining constant funding even in when external exigencies, e.g., reductions in governmental budgets, economic cycles, lessening of philanthropic giving, etc., may seriously imperil the single source funding.

The second set of indicators of sustainability potential uses the perceptions of Center directors. In the survey, respondents are asked their views on the future security of resources for their Center’s core responsibilities and needs. This more subjective

measure of sustainability, in fact, may be a more accurate barometer of sustainability because directors are acutely aware of a Center's future financial exigencies and understand their communities and their resource potentials for future support.

Partnerships are defined in the survey as "community organizations you network or collaborate with on a regular basis." Only on-going relationships are considered as partners, that is, working together for a limited time period does not constitute a partnership as used in this study. Respondents were free to include collaborations that had different aims, for example, funding, political coalition building, reputation enhancement, etc. However, respondents were asked specifically whether the partnerships result in funding or in-kind contributions to the Center. In-kind could include space, equipment, volunteers, or other items that involved either human labor or physical capital. Information on the name and type of organization (private, public, nonprofit) was also collected.

Affiliation

Descriptive measures of sustainability and partnerships for all Centers are presented. However, a principal focus of the analyses of partnerships and sustainability is on whether organizational affiliation is an important factor in shaping outcomes on the two concepts.

A Center's organizational affiliation is defined dichotomously in this research. A Center is designated either as an affiliate of a larger organization, e.g., National Urban League, or is independent of any parent organization. Affiliate status is hypothesized to be of importance because formal linkage to a parent organization may provide individual Centers potential secure funding from the parent organization, or equally important, the parent organizations may provide Centers a suite of expertise in management, technical

knowledge, development opportunities, among others that can help a Center build its organization capacity. Those opportunities generally would be absent for independent organizations, unless independent Centers use external agencies, formal or informal, for capacity building.

In addition, to affiliate status, the length of time a Center is open is used to analyze of sustainability and partnerships. It is included as an important control variable on organizational behavior. One can posit that the longer a Center is operation will influence partnership building and a director's perception of sustainability in two important ways. First, time brings experience and hopefully organizational learning. Increased knowledge of management and skills and gaining information about their community context increases the capabilities of Center personnel to network successfully within their local community. This, of course, assumes that structures and processes for assisting with funding and partnership development are in place.

The length of time a Center exists is also important because a Center becomes more visible and valued within a community over time. Trust, an essential element of partnering among community organizations, takes time and patience. Thus, as both Center personnel and community leaders engage in trust building over time, the probability of establishing formal collaborative efforts increases.

Although other controls can be posited as influencing sustainability and collaborating, e.g., location, size of staff, or number of services provide, among others, these are not examined at this time because of the limitation posed by sample size.

Description of Community Technology Centers

Basic Attributes

Respondents to the survey come from 36 states and the District of Columbia. The largest number is from Pennsylvania (11) with California second (10). Several states have seven or eight responses, while many had only one.

The majority of the responding Centers are in inner city locations in large metropolitan conglomerations (Table 1). A sizable percent of Centers are situated in nonmetropolitan counties, but the majority of those are in medium to small cities with only five percent located outside of any urban center.

Table 1
Location of Samples

Location Designation	Percent of Sample
Inner City of Metropolitan Center	56.3
Suburb in a Metropolitan Center	13.2
Nonmetropolitan¹²	30.5
Total	100.0

Source: CTC Survey by James Bohland,
School of Public and International Affairs, Virginia Tech

Of the 153 Centers, 37 percent are independent organizations, that is, they have no affiliation with a parent organization.¹³ The largest percent of the affiliated Centers are associated with the Department of Housing and Urban Development. Only a small percentage is associated with private companies (AOL and Intel).¹⁴

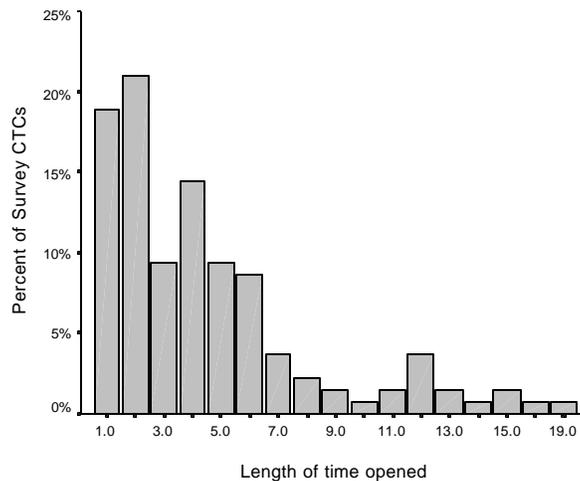
¹² Within the nonmetropolitan area samples were from medium sized places (20,000 to 50,000), small places (2,500 to 20,000) and rural areas with no towns.

¹³ Missing identifications accounted for the remaining 2.7 percent of the sample.

¹⁴ The small percentages identified as Powerup or Inter Centers can be attributed to the date when the sample frame list was developed. Today the number of these sites would be significantly higher.

The majority of the Centers have been open three years or less, and a substantial percentage (18.4%) opened their doors in the past year (Figure 1). Although the majority are relatively new Centers, 17 percent have over five years of operations; the longest period of operation is nineteen years. Most of the Centers opened for more than 12 years do not provide a range of Internet services when they initially opened. Rather, they offer basic desktop functions, e.g., word-processing, and computer literacy courses.

Figure 1
Distribution of CTC Sample Centers
By Length of Time Open for Operation



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

Operation of Centers

Only a few Centers provide services on a 24 x 7 basis. Most are open for five days within the week (Table 2), and over 40 percent are open on at least one weekend day. In terms of hours available for service, nearly 70 percent of the Centers are available to users for over 40 hours of the week (Table 3). Twenty-five percent are available to users

**Table 2
Number of Days of Operation**

Number of Days in a Week a Center is Open	1	2	3	4	5	6	7
Percent of Centers	1.4%	1.4%	2.8%	3.5%	43.0%	28.2%	19.7%

Source: CTC Survey by James Bohland, School of Public and International Affairs, Virginia Tech

for over 60 hours. The hours in which the Centers operated vary significantly, but most include at least four hours of operation in the evening (after 6:00 p.m.).

**Table 3
Hours of Operation**

Hours Open for Services Per Week	Percent of Centers
Less than 20 hours	11.1
20 to 40 hours	19.4
40 to 60 hours	44.4
60 to 80 hours	13.2
80 hours and more	11.8

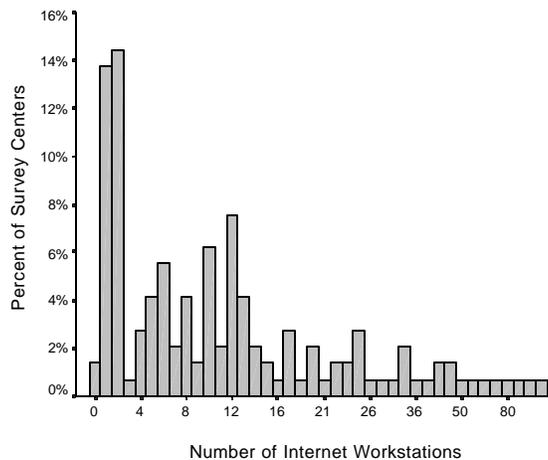
Source: CTC Survey by James Bohland, School of Public and International Affairs, Virginia Tech

Services Provided

The Centers in the survey average 14.5 Internet workstations. The average, however, is misleading because it is skewed by several Centers that have very large numbers (> 100 in one case). The majority of the Centers have one or two Internet

stations and the median number is nine (Figure 2). Less than half of the Centers have workstations not connected to the Internet (approximately 48 percent). The majority of those CTCs with some unconnected machines also have Internet connected machines in their portfolio of workstations.

Figure 2
Distribution of Internet Work Stations



Source: CTC Survey by James Bohland
School of Public and International Affairs, Virginia Tech

The level of advanced connectivity within the Centers varies substantially.¹⁵ Less than 40 percent of the Centers have broadband connections (39%), and only 15 percent are their own ISP. However, over 50 percent (57.5 %) have a server for their LAN. If one considers the joint presence of broadband, a local server, and their own ISP as a measure of advanced connectivity, only seven percent of the Centers rank high on connectivity.

Centers provide a host of services (Table 4). Although connectivity to the Web and email are important functions provided at the Centers, a large percentage of Centers

¹⁵ Advanced connectivity allow for high-speed connections through DSL, cable or Ethernet. With higher speeds, users are able to more readily access applications that require broadband () connect speeds.

also focus on many of the basic IT skills needed to cross the digital divide, e.g., computer literacy and software training. Based on the responses of Center directors it appears that the next major movement will be to add access to on-line courses and develop the capacity to host clients' Web pages.

In addition to this standard suite of services, many Centers offer a range of services less directed to technology literacy (Table 5). The portfolio of services

**Table 4
Frequency of Services
Offered to Clients**

Type of Services	Connect To Web	Email	Computer Literacy	Office Software Training	Host Web Pages	Job Searches	Multi-Media Software	On-Line Courses
Currently Offered	89.5%	57.5%	79.7%	62.1%	15.0%	49.0%	45.8%	22.9%
Plan to Offer in Future	6.5%	14.4%	9.8%	12.4%	20.9%	19.0%	20.3%	29.4%

Source: CTC Survey by James Bohland, School of Public and International Affairs, Virginia Tech

in Tables 4 and 5 clearly illustrates that CTCs are “full-service” centers for building human capital in an age of technological imperative.

**Table 5
Frequency of Non-Technical
Services Offered to Clients**

Type of Services	GED Courses	Job Skill Training	General Literacy	English as Second Language
Currently Offered	32.7%	43.1%	35.3%	26.1%
Plan to Offer In Future	20.9%	21.6%	22.2%	17.0%

Source: CTC Survey by James Bohland, School of Public and International Affairs, Virginia Tech

As impressive as the services listed in Tables 4 and 5 are, many of the CTCs offer a host of more specialized services to their clientele. Table 6 illustrates the rich array of special services present in some CTCs. The number and pattern of services at CTCs are the result of two basic processes. In some instances, the core computer technology dimensions of technology centers have been grafted upon existing community resource centers, that is, the core services listed in Table 4 are additions to an existing set of community services such as those in Table 5. In other cases, organizations began with a narrow mission of technology but added non-technical services when the Centers become focal points for community resident.

Table 6
Examples of Additional Services
Provided at Some CTCs

Manufacturing Technology	CISCO Academy
Basic TV Production	Entrepreneurial Courses
After School Youth	Parenting Classes
Life Skills	Micro Enterprise Center
After School Home Work Support	Adult Tutoring
Health Education	Hardware Installation
Computer Repair	Cooking Classes for the Youth
Typing tutorials	ACT/SAT Testing Tutorials
Tenant Advocacy Meetings	Health Resources Web Search Class
Time Management Skills	Long-term Income Planning

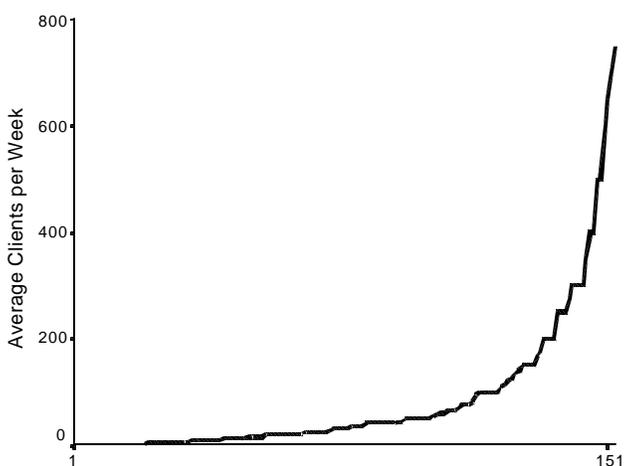
Source: CTC Survey by James Bohland, School of Public and International Affairs, Virginia Tech

Whatever the process, it is evident that one cannot see CTCs as narrowly defined technology organizations, but rather they have become part of a broader fabric of the social capital of neighborhoods.

Users

The Centers in the survey report an average weekly attendance of nearly 100 per week (97.5). The distribution of attendance by center, however, is highly skewed (Figure 3). Most of the Centers average less than 30 per day, but the average is pulled higher by a few Centers with very large client bases.

Figure 3
Average Weekly Attendance:
Distribution from Low to High



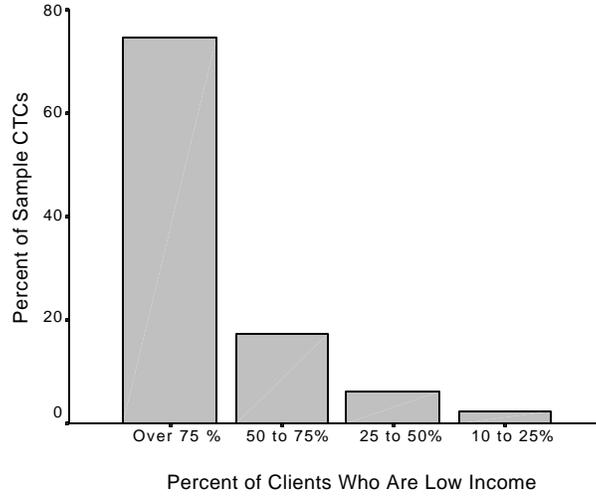
Cases Ordered in Ascending Magnitude of # of Clients

Source: CTC Survey by James Bohland
School of Public and International Affairs, Virginia Tech

As expected, the vast majority of the CTCs serve low-income clients. When asked what percentage of their clients are lower-income, nearly 80 percent of the Centers indicate that over 75 percent of their clientele are below the poverty level (Figure 4). The percentages, of course, are consistent with the national data that ties the availability of residential Internet connectivity to income,¹⁶ and with the basic mission of CTCs to bring information technology to those individuals who lack access.

¹⁶ See NTIA Falling Through the Net: Towards Digital Inclusion. Washington, DC: National Telecommunication and Information Agency, Oct. 2000, Figure II-4.

Figure 4
Percent of CTC User Who Are
Below Poverty Level



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

CTCs serve a wide range of age groups, for example, the average percentage of clients who are children (<12 years of age) is 20.3, for teens the average is 19.7 for seniors (> 65) it is 29.5 and for adults (ages 20 to 64) 30.5. Averages, however, mask the age variability and the age specialization apparent in the Centers. Centers rarely display an even mix of age groups; rather they tend to focus on one or two age groups to the exclusion of others.

In the aggregate, CTCs user populations are racially and ethnically diverse in composition (Table 7). The averages¹⁷, however, mask considerable racial or ethnic separation in the mix of CTC users. Coefficients of variability measure the likelihood of

¹⁷ Each respondent was asked to give the percentage of their user population in different racial/ethnic groups. The responses in Table 7 represent averages of those estimates and therefore do not sum to 100 for any of the types of Centers.

encountering the average percentage at a given Center.¹⁸ The higher the coefficients for a user group the higher or lower percentage one would expect relative to the average within a Center, that is, to display a more concentrated pattern for that user group.

Table 7
Average Race and Ethnicity
Percentages in CTC User Populations
By Location¹

Average² and Coefficients of Variability for	Percent Users African-American	Percent Users Caucasian	Percent Users Hispanic	Percent User Asian
All Centers	48.5 (.81)	47.7 (.81)	19.3 (1.33)	11.3 (1.84)
Central Cities	45.5 (.73)	20.4 (1.05)	15.1 (1.09)	15.6 (1.61)
Suburbs	21.0 (1.23)	30.3 (1.16)	31.1 (1.25)	14.1 (1.8)
Nonmetropolitan	3.3 (.84)	71.1 (.43)	16.6 (1.91)	3.0 (1.00)

¹ Respondents were asked the percent of their clients who were African-American, Caucasian, Hispanic, Asian and Other. Because the Other category was either zero or very small averages for this category are not included in the table.

² Because the figures represent averages across all answers from respondents, the percentages will not sum to 100 percent.

() Coefficient of Variability

Source: CTC Survey by James Bohland, School of Public and International Affairs, Virginia Tech

The values in Table 7 indicate that across all locations Hispanic and Asians are more likely to be concentrated as a user group within a Center. The data also clearly show that race/ethnic patterns vary considerably by location. In rural or nonmetropolitan areas, Hispanics typically constitute a proportion much different from their average representation at all Centers. Caucasians, in contrast, demonstrate very little variability in their proportion of the user population. In nonmetropolitan areas, Caucasians

¹⁸ Coefficients of Variability are calculated as Mean/Standard Deviation. The higher the coefficient, the greater is the variability in the distribution of the percentages among the CTCs. A high coefficient (>1.0) means one is less likely to encounter the average percentage for any one Center.

constitute nearly 70 percent of the user population. In central city neighborhoods, some co-use of Centers by African American and Caucasians is evidenced by their lower coefficients, while Hispanic and Asian again are somewhat more selectively concentrated. It is within suburban Centers that more race and ethnic selectivity occurs in user populations.

Staffing

Current staffing patterns for the CTCs reflect a historic trend of having a volunteer staff as the larger component of total staff (Table 8). Over a Center’s history, both paid and volunteer staffs have increased significantly (170 and 103 percent respectively). The higher increase in paid staff has led to a reduction in the ratio between the two. Today the number of paid staff to volunteers is slightly higher than at start-up time.

**Table 8
Staffing Current and Initial Staffing Patterns
For CTCs¹**

	Salary and Wage Staff	Volunteer Staff	Average Ratio Volunteer/Professional
Average Staff Size in 2001	6.24	7.34	3.24
Average Staff Size at Start-Up	2.29	3.60	4.62

¹ Values in the table are for CTCs that have been open for at least two years so that meaningful comparison between current and start-up can be made.

Source: CTC Survey by James Bohland, School of Public and International Affairs, Virginia Tech

Future staffing plans for most CTCs are conservative. Over 50 percent of the respondents indicate no plans to expand their staffs or are uncertain as to whether it is feasible. If expansion is planned, many (26 %) foresee an addition of only 1 or 2 persons within the next three years. Some unsolicited comments from some directors emphasize that any new funds generally are targeted to services first rather than building the size of

the paid staff. If the new services require staffing, the first option is to use volunteers where feasible.

Sustainability

Funding Diversity

To address the sustainability of Community Technology Centers, the survey examines both existing funding sources and those sources that are used during the initial start-up phase. Respondents rank funding sources in terms of their importance. Table 9 presents the results of an analysis of the initial funding of all Centers and current funding at Centers in operation more than two years.¹⁹

The patterns of funding presented in Table 9 demonstrate the dilemma that many Centers encounter. Initial funding from a federal grant is the most common source but by the third year funding from that source diminishes. Initially federal funds are ranked as the top funding source but they slip to fourth after two years. Funding by parent organizations increases in importance for affiliated Centers over time. Another important trend is the importance of special events (fairs, auctions, etc.) as a funding source. In 2001 special funding events rank first in importance among Centers open for at least two years. Over time the proportion of Centers who benefit from private support also increase in relative importance. For instance, foundations have become increasingly important in providing equipment as well as financial support.

¹⁹ Including Centers who opened more recently would not provide sufficient opportunity for change in funding to become apparent.

Table 9
Current and Initial
Funding Sources for CTCs

Funds From	Initial Funding Sources For All CTCs			Current Funding Sources For Centers in Operation for More than Two Years ³		
	Number of Centers	Percent of all Centers ¹	Average Rank ²	Number of Centers	Percent of all Centers	Average Rank
Federal Agency	80	52.3%	1.74	26	31.1%	1.54
State Agency	35	22.9%	2.46	21	25.3%	1.62
Local Government	37	24.2%	2.71	19	22.9%	2.68
Foundation Donations⁴	57	37.2%	2.26	42	50.6%	1.44
Parent Org.	60	39.2%	1.93	32	38.6%	1.15
Community Org.	41	26.8%	2.98	19	22.9%	1.41
Personal Donation	42	27.5%	3.24	26	31.3%	1.21
Client Fees	27	17.6%	4.41	21	25.3%	1.59
Special Events	NA	NA	NA	21	25.3%	.89

Source: CTC Survey by James Bohland, School of Public and International Affairs, Virginia Tech

¹ Sum of percents will be greater than 100% because of multiple sources of funding by Centers.

² A lower number represents a high ranking as the scale used was 1 equals the most important.

³ Eighty-three Centers represented the total for this class of Centers, whereas 153 was used as the denominator for the Centers at start-up.

⁴ Foundation donations incorporates industry donations. This was necessary because some firms provide funds through their foundation rather than as direct industry gifts. NA – Special events was not a response category on the questions dealing with initial funding.

Of particular interest for us is the pattern of funding from local community resources. The ranking of funding from local community organizations increases, moving from sixth to third in rank from start-up to current status. Yet, despite the increase in importance, proportionally fewer Centers are using local organizations for resources. The growth in personal donations also points to increased reliance on local resources over time.²⁰ If you consider personal donations, giving by community organizations, client fees and special events jointly as local contributions, CTCs are doing very well at utilizing the capacities of their local communities for support. Thus, one can conclude that most Centers have adopted strategies that support longer-term sustainability, that is, diversifying their funding and relying more on local sources.

The current and start-up funding for independent and affiliated Centers differ significantly, but in ways one would expect. The most important source for affiliates at and after start-up is the parent organization. Some increase in the importance of client fees and foundations occurs but not to the same extent those sources are used by independent Centers. For independents, government start-up funds are more important and then diminish more rapidly in importance than for affiliates. After the initial start-up year, community resources, particularly with client fees and special events, are more important for independents than for affiliates.

Attitudes on Sustainability

The data on funding diversity suggests that many CTCs are responding to concerns about sustainability by relying more on local than on federal or external resources. To ascertain the depth of their concern about sustainability and to determine

²⁰ Although the survey question did not ask where donors lived, one would expect that most personal donations come from local individuals who are familiar with a Center's operation.

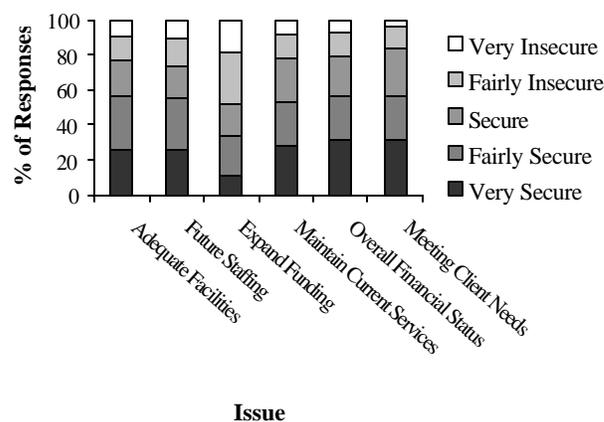
whether those concerns could be traced to specific conditions, a series of questions asked respondents about “how secure they feel about” their future resource base over the next three years. The six “security domains” are:

1. Getting funding to maintain your current facility
2. Getting funding to maintain your staff size
3. Expanding funding for your organization
4. Maintaining your current services
5. The overall financial security of your organizations
6. Your ability to serve the needs of your clients

The response categories for the six questions are on a scale of: very secure, fairly secure, secure, fairly insecure, and very insecure.

On five of the six issues, the respondents express high levels of confidence in the future of their Center (Figure 5). The one exception is on their ability to expand future funding, where over 50 percent Directors and other CTC officials still worry, however, about where to find new resources.

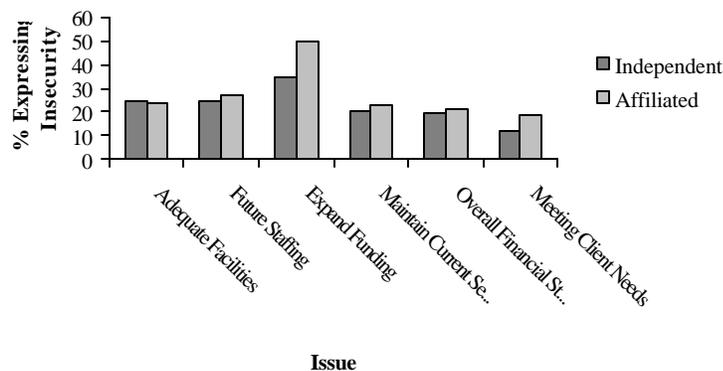
Figure 5
Expressions of Security on Six CTC Issues



Source: CTC Survey by James Bohland
School of Public and International Affairs, Virginia Tech

Somewhat unexpectedly, respondents from affiliate Centers have less confidence in their future on all six issues than do the independent organizations (Figure 6). The difference is most striking on the question of future funding. Over half of the affiliate Center respondents are fairly or highly insecure about the ability to expand funding compared to less than 35 percent of independent Centers. One can only surmise that because funding for affiliate Centers is generally more closely linked to resources of the parent organization the respondents see limited opportunities for expanding the budget line from the parent organizations and see no easy means of tapping new sources.

Figure 6
Percent of Centers That Are Fairly or Very Insecure About their Future of an Issue
By Type of Organization



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

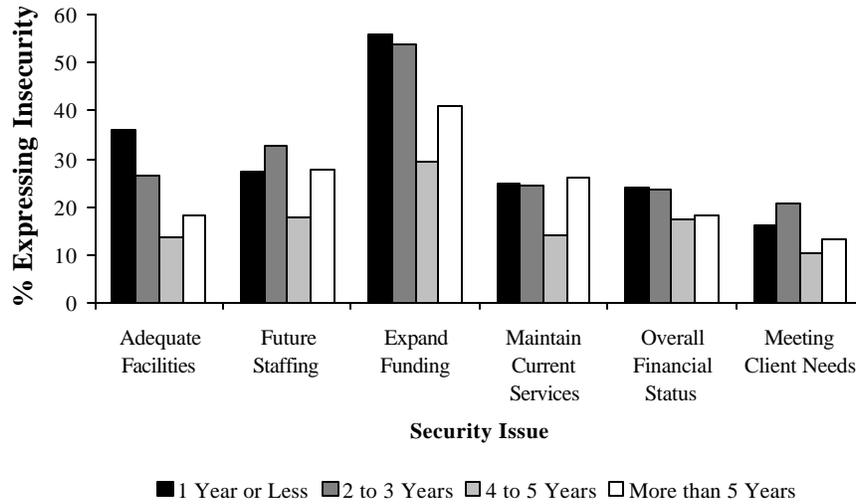
The responses to the six issue questions display a consistent pattern over the length of time a Center has been open (Figure 7). Higher levels of concern are most evident in the more recently opened Centers. Centers open for two years or less always have the highest number of responses in the insecurity categories (Figure 7). Concerns about the future decline after the initial opening period so that Centers in operation for four or five years have the greatest confidence about their future security. Then, counter to the rise in confidence over time, the percentage expressing concern about the future on all six issues increases, albeit at different rates, for Centers in existence for over five years.

The increase in confidence over the first five years of operation is consistent with most studies of small community-based organizations.²¹ The organization is most vulnerable in the initial year or two. Unclear missions, lack of a well defined organizational processes, collaborative networks in their infancy and other problems are common at this stage of the organization. With time and leadership organizational learning occurs, and processes and structures are developed that help community organizations cope with the complexity of issues they must face. Thus, one would anticipate greater confidence in those Centers that have survived the initial years of growth and change.

What is more difficult to explain, however, is the decrease in confidence about the organization's future in those Centers that have existed the longest. The pattern does not appear to be a data artifact as it persists across all six issue areas. One can only speculate as to the reasons for the anomalous pattern without more detailed information.

²¹ See for example: Wandersman, A., Goodman, R. and Butterfoss, F. "Understanding Coalitions and How they Work." in M Minkler (ed.), *Community Organizing and Community Building for Health*. New Brunswick: Rutgers University Press, 1999, pp. 261-277. Gray, Barbara. Collaboration: Finding Common Ground for Multiparty Problems. San Francisco: Jossey-Bass, 1989.

Figure 7
Percent of Centers That Are Fairly or
Very Insecure About the Future of an Issue
By Length of Time in Operation



Source: CTC Survey by James Bohland,
 School of Public and International Affairs, Virginia Tech

The data support the interpretation that older Centers are more likely to consider new program expansion. When asked about future expansion over 50 percent (52%) of Centers in operation for over 5 years respond positively. Less than 35 percent of Centers open for three years or less express a desire to expand. However, if expansion plans are cross-tabulated with the responses on confidence or security for the future, the pattern does not support an interpretation that expansion breeds concern or insecurity about the future. Table 10 shows the results on the issue of security about future funding and the relationship is clear – those considering expansion are the most security about future funding.

Table 10
Relationship Between Expansion Plans and
Security About Future Funding²²

How secure do you feel about expanding funding in your organization?	Are you Considering Future Expansion in One to Three Years?			
	Yes	No	Don't Know	Total
Very Secure	19.6%	4.3%	5.9%	10.9%
Fairly Secure	30.4%	10.6%	29.4%	23.4%
Secure	14.3%	17.0%	23.5%	17.5%
Very Insecure	23.2%	36.2%	29.4%	29.2%
Fairly Insecure	12.5%	31.9%	11.8%	19.0%
Totals	100%	100%	100%	100%

Source: CTC Survey by James Bohland, School of Public and International Affairs, Virginia Tech

To ascertain whether organizational development to support funding occurs over the time in a Center, two responses from the survey are tabulated - does the organization have a strategic plan and is there a fund raising strategy in that plan? The data strongly support the notion that organizational development does occur over time. Less than 50 percent (46%) of those Centers in operation for less than three years have strategic plans, whereas 70 percent of Centers open for more than five years have plans. On the question of having a fund raising strategy, the responses are very clear. A strong majority of Centers open for more than three years has such plans, whereas the newer Centers generally do not have a funding plan or don't know if they do (Table 11).

²² To interpret the table, read down the column percentages to understand the relationships. Thus, 30.4% of those respondents who said "Yes" they were considering future expansion are fairly secure about expanding funding.

Table 11
Relationship between Years in Operation
And Presence of a Fund Raising Plan

Number of Years Center Has Been Open					
Existence of a Fund Raising Plan	Less than 1 Year	2 to 3 Years	4 to 5 Years	More than 5 Years	Total
Yes	33.3%	25.0%	70.6%	70.6%	44.7%
No or Don't Know	66.7%	75.0%	29.4%	29.4%	55.3%
Total	100%	100%	100%	100%	100%

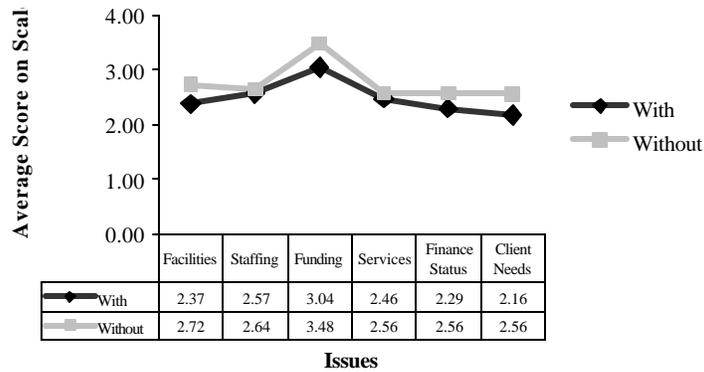
Source: CTC Survey by James Bohland, School of Public and International Affairs, Virginia Tech

Although organizational development occurs over time, the question is whether that development increases an organization's sustainability, or at least instills a greater sense of security with the Center's leadership about the future. Figure 8 illustrates a data pattern that lends some support to the proposition that organizational development does assist in creating confidence about a Center's sustainability. The mean responses on security for the six issues are shown for those Centers with and without a strategic plan. Although the differences in some instances are small, the pattern is consistent. On the question about future funding expansion, the leadership in Centers with strategic plans expresses more confidence in their future than do those without plans.

Partnerships

A basic premise of this research is that CTCs will achieve high levels of sustainability through the formation of partnership networks. Rather than remain vulnerable to grants that are short-term and are primarily intended for new programs, it is presumed that Centers can sustain existing services and grow thoughtfully by tapping local resources. The creation of networks, however, requires planning and constant

Figure 8
Effects Strategic Plan on Security for the Future



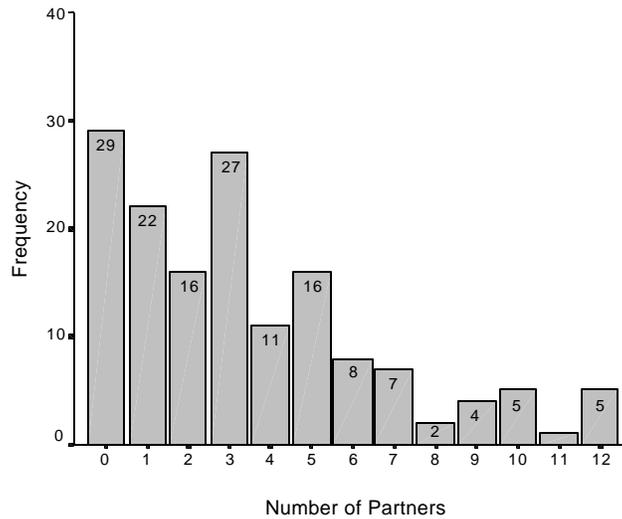
Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

oversight, and many Centers have neither the resources nor time required to build and sustain networks while managing their core services. Hopefully, by understanding some of the factors that influence partnerships and by knowing what others have achieved in network development, the information gained will assist future Center directors in partnership building.

Partnership Networks

Approximately 81 percent of the CTCs in the survey report at least one partnership or collaboration. The total number of partners in all 153 Centers is 537, or an average of approximately 3.5 per organization. However, the majority of Centers claim three or less collaborations; only 8.5 percent of the Centers report ten or more partnerships; and 19 percent have no partnerships (Figure 9).

Figure 9
Distribution of Partnerships

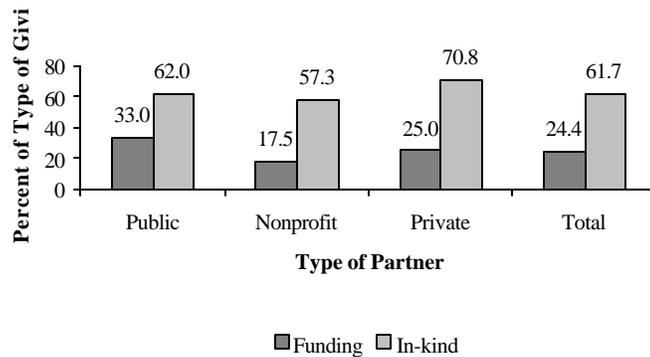


Source: CTC Survey by James Bohland
School of Public and International Affairs, Virginia Tech

The majority of Center partners are non-profit organizations, comprising approximately 58 percent of all collaborations. Partnerships with public agencies account for 32 percent and linkages with private firms run third at 10 percent.²³ More partners contribute in-kind resources (space, computer hardware, software, volunteers, or other non-monetary resources) than dollars to the Centers (Figure 10). Some organizations cited by Directors as partners, in fact, provide neither monetary nor in-kind support, while in others instances, partners will provide both monetary and in-kind. For all Centers, the ratio of in-kind to monetary contributions is 2.5:1. From nonprofits partners, the ratio rises to 3.3:1 and for private partners, it is 2.8:1. Only partners from public agencies have a ratio less than 2 (1.8:1). However, from written descriptions provided by some directors, many of the monetary contributions from the public sector really are grants or earmarked funds from a parent agency. Thus, in reality, the number of.

²³ A small percentage of the partnerships are designed as “other types,” but close inspection of those indicates they are primarily universities that are either nonprofit or private. These are reclassified to correspond with the three categories used in the survey.

Figure 10
Type of Contributions to
CTCs by Partners¹



¹ Because some partners provide both monetary and in-kind contributions; some provide neither; and still other partners provide dollars but through competitive grants, the percentages in Figure 10 will not sum to 100.

Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

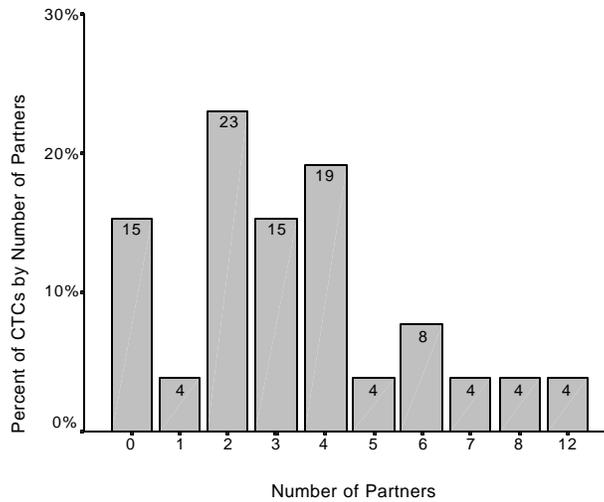
partnerships in which funds are donated to Centers is smaller than the amounts that Figure 10 suggests.

Partnerships from a Temporal Perspective

Figures 11 to 14 show the number of partnerships cross-classified by the number of years of a Center’s operation. The cross classification supports the earlier observation concerning the effect of time on organizational development and on a Center’s ability to develop new opportunities for resources.

Four general stages of partnership building seem to occur. In year one, the proportion of Centers with partnerships is high (85%) and most Centers have between 2 and 4 partners (Figure 11). In the second period (2 to 3 years), the proportion of Centers with partners drops to 77 percent and a higher percentage of Centers have no partners

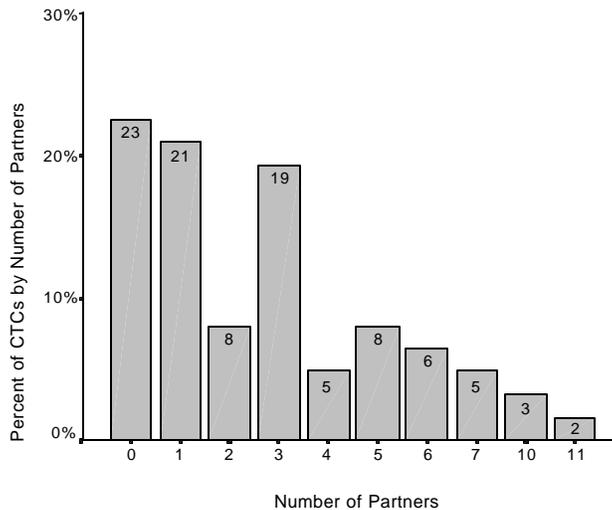
Figure 11
Distribution of Partners by Size for CTCs
In Their First Year of Operation (N = 26)



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

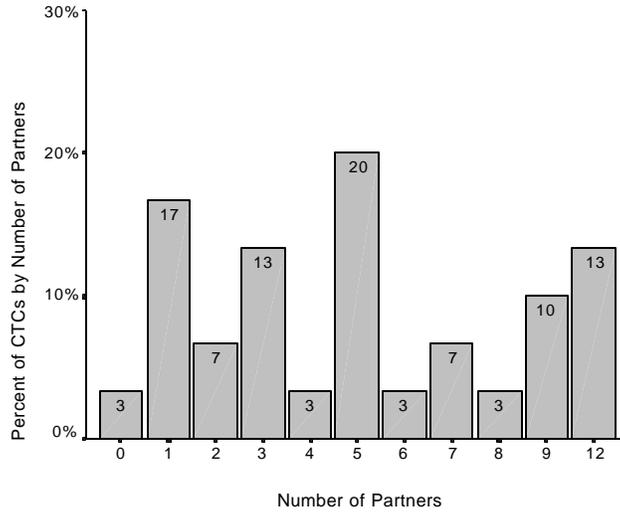
(Figure 12). In the fourth and fifth years partnership networks expand (Figure 13).
 Ninety-seven percent of the Centers have partners and the average number of partners per

Figure 12
Distribution of Partners by Size for CTCs
In Years 2 and 3 of Operation (N = 62)



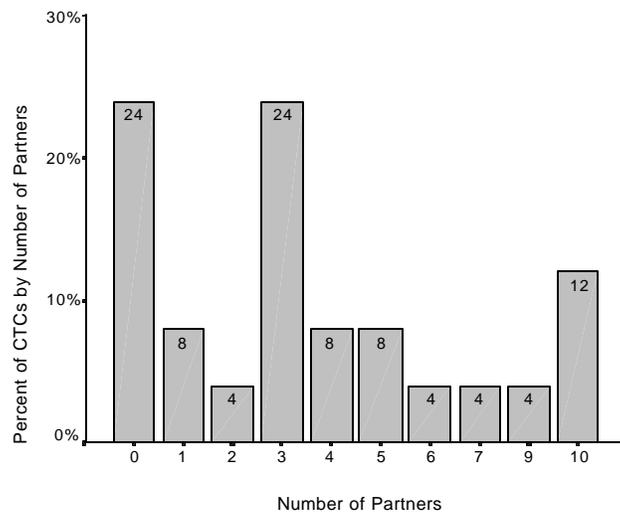
Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

Figure 13
Distribution of Partners by Size for CTCs
In Years 4 and 5 of Operation (N = 30)



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

Figure 14
Distribution of Partners by Size for CTCs
After 5 Years of Operation (N=25)



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

Center increases to 5.3. By now over 35 percent of the Centers have more than 5 partners and 13 percent have at least 12. After more than 5 years in operation, the proportion of Centers with partners declines to 76 percent and the average number of partners per Center declines to 3.8 (Figure 14). However, while the average is lower than in years 4 and 5, 12 percent of the Centers have at least 10 partners.

These patterns of partnering at different stages of operation suggest the possibility of the following temporal cycle with respect to collaboration efforts.

1. Launching Stage

The leadership at new Centers recognizes the need for partnering as a resource strategy and work to establish sufficient collaborations to launch a CTC. Time, available personnel, and lack of community visibility, however, limit a Center's ability to establish large networks so the number of collaborators remains small. However, within the first year many Centers have begun to establish a viable network

2. Shake Down Stage

After the first year, some entrenchment of partnerships occurs either because of the waning of initial enthusiasm by early partners or perhaps because the time required to manage operations absorbs much of the time of a Center's personnel. Why partners drop from a CTC network is a topic for future research.

3. Expansion

After three years, some Centers close because they are unable to find the necessary resources to sustain themselves. The survivors have somehow found the expertise, time, and resources required to build sizable networks of partners. As the network expands, the probability of finding a partner with significant resources, e.g., a large firm or Foundation increases. With established networks, Centers can become more selective and seek only partnerships that are cost

effective, that is, those where the time and energy required to maintain the partnership returns a worthwhile return.

4. Retrenchment

With selective networking, the need for extensive partnerships may diminish. A few “high value” partners may be sufficient to sustain a Center’s operations. Consequently, the number of networks with many partners can diminish over time, which in turn enables the leadership at the Centers to focus on the quality rather than the quantity of partners. The need to expand the network may reoccur if expansion of new services is planned or other new initiatives are to be launched. In these cases, a larger network may again be required but with a different set of collaborations. This need to reestablish a larger network may account for the earlier reported lack of confidence about expanding funding by some Directors of older Centers.

The four periods of partnership development outlined here are suggested by the empirical data. However, in reality this process model represents a hypothesis to be examined more closely in future studies. To test the model more rigorously requires a time series design, or the use of retrospective case studies, assuming the older organizations have histories on partnership processes that can be reconstructed accurately. If the four stage model can be validated, however, it can provide some guidelines for educating Center directors on the roles in partnering they might have to assume at different times in a Center’s existence.

Partnerships and Organization Type

It was posit earlier that independent Centers would probably have a greater need to establish partnerships to offset the lack of a parent sponsor. If this is correct, we should find larger partnership networks with independent Centers than with those

affiliated with a parent organization. However, a very different pattern could emerge based on a different set of premises about affiliates and independent Centers. For example, affiliation with a parent organization could offer Centers certain advantages that contribute to partnership building. These may include the management and planning expertise that are important to network development. Such expertise could help a local affiliate establish networks of collaborations much earlier than might be true for an independent Center. If the parent organization continues to provide capacity building expertise to its affiliates, a local affiliate could continue to be more successful in partnership formation than the independents. If, on the other hand, with time independents are able to engage in institutional capacity building through other means, we would expect to see independents establish networks comparable in size to those of the affiliates.

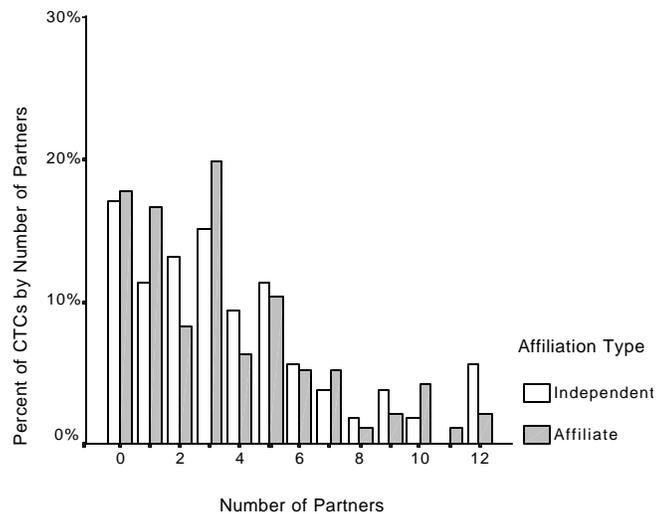
To explore these two interpretations of organizational effects on partnership building, the partnership network sizes of Centers in the survey are analyzed with respect to organization affiliation (affiliate or independent) and organizational capacity. For the analysis two variables are used to measure organizational capacity and years of operation is include as a control variable. As we saw earlier, network size changes over time, a change which may be attributed to Centers building their management capacities through various means: personnel development programs, affiliations that emphasize capacity building (CTCNet, for example), and organizational learning.

Two survey variables are used as surrogates for institutional planning capacities – existence of a strategic plan and existence of a mission statement. If the premise is that institutional capacity is important to partnership building, we would expect to see more success with partnerships in Centers where strategic plans and missions statements exist.

By conducting the analyses separately for affiliate and independent Centers, some insights can be obtained on whether affiliates are advantaged in partnership building because they have better organizational capacity.

In the aggregate, independents have slightly more partnerships on an average (3.75) than affiliate Centers (3.43). Affiliates have more networks with smaller numbers of partners in comparison to independent Centers (Figure 15).²⁴ Thus, some support, albeit not strong, is present for the general proposition that independent Centers build

Figure 15
Number of Partners by
Affiliation Status²⁵



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

larger networks of partners compared to affiliate Centers. What does that say then about capacity building and network formation and organizational affiliation?

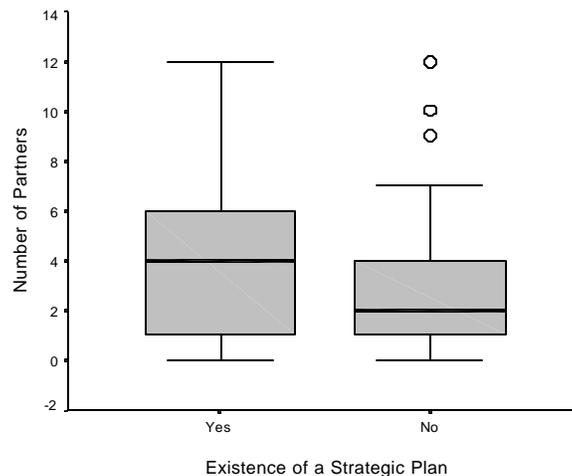
²⁴ Partnerships by affiliates and independents were analyzed by the type of partners to determine if differences exist. The results show that only small differences between the two with respect to partners. For both, other nonprofit organizations are most prevalent (slightly higher percentage to affiliates - 58 to 53 percent); public agencies are second in prevalence - 32 percent for both) and private firms last (slight higher percentage to independents - 12 to 8 percent).

²⁵ Any gaps in the table, e.g., at 11 partners, independent affiliation, indicate no organizations fit the categorization and the percentage was zero.

The subsequent data considers two dimensions of the question. First, is network building greater when organizations have internal planning structures supporting collaborations? Second, are affiliated Centers advantaged in partnerships building because of the management (planning) expertise afforded them by membership in a parent organization?

To consider the first question, the number of partners for Centers with strategic plans and missions statements is analyzed. Figures 16 and 17 show the median number of partners and the variance around the median for Centers with a strategic plan and a missions statement respectively.²⁶ In both cases, the median values for Centers with strategic plans and mission statements are higher than for those for Centers that are absent those elements.

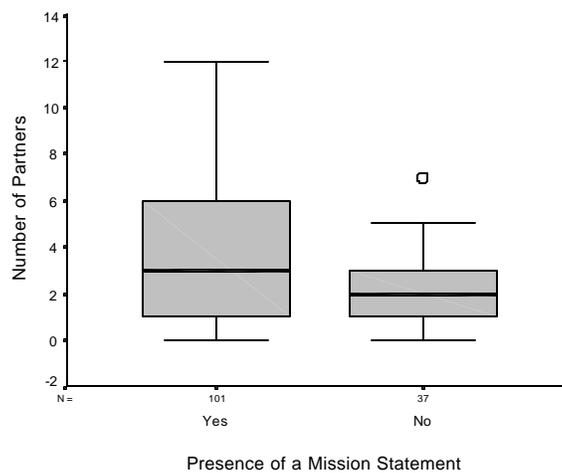
Figure 16
Box Plot of Number of Partners
By Presence of Strategic Plan



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

²⁶ For those unfamiliar with box plots, the dark line in each rectangle indicates the location of the median. The shaded box incorporates all values within the 25th and 75th percentile range, that is 50 percent of all data points. The single line “whiskers” locate the smallest and largest values except for major outliers.

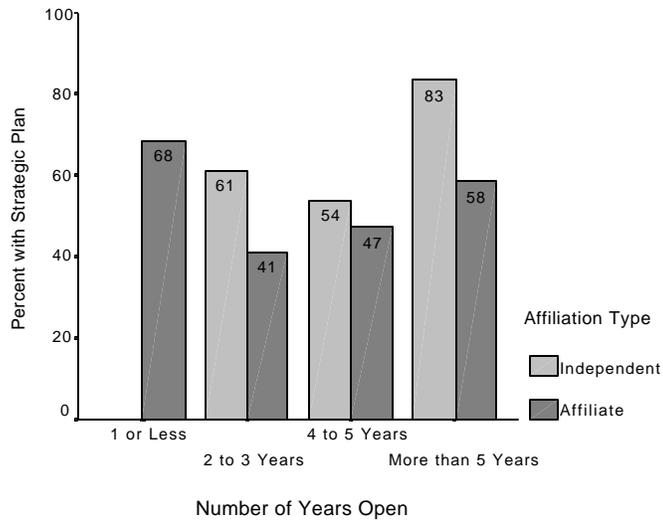
Figure 17
Box Plot of Number of Partners
By Presence of a Mission Statement



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

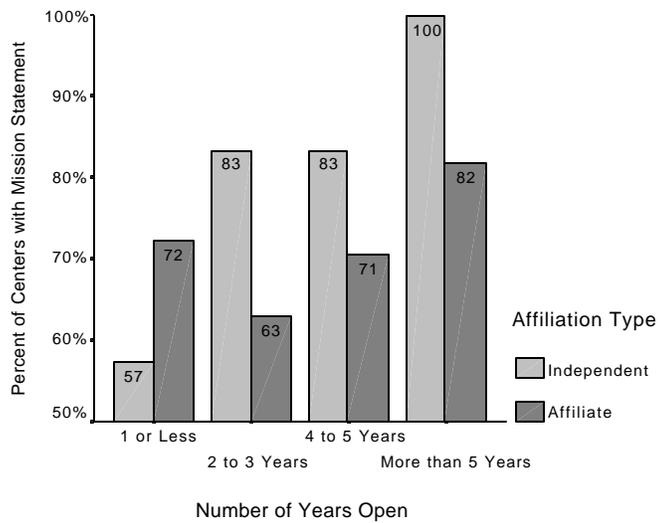
The data in Figures 18, 19 and 20 addresses the second question. As Figures 18 and 19 clearly show, many affiliate organizations have in place the two planning tools in their first year of operation. In contrast, independents lag behind affiliates in the first year, in fact, no independents had strategic plans in their first year, but they quickly adopt those strategies by the second or third years. Analysis that is more detailed shows that, in fact, adoptions by independents occur by the end of the second year. Also, it appears that if an organization, independent or affiliate, does not adopt mission statements or strategic plans by the beginning of the third year, it probably will not do so. The data in Figure 20 show network building over time for affiliates and independents. Affiliate centers have a partnership advantage but only in the first year of operation, where the average number of partners for independent Centers is 2.1 versus 3.9 for affiliate Centers. After the initial year, however, the pattern changes as independents increase network size from the second to the fifth year, after which the networks are nearly the same size.

Figure 18
Percent of Centers with Strategic Plans
By Type of Organization and Years Open



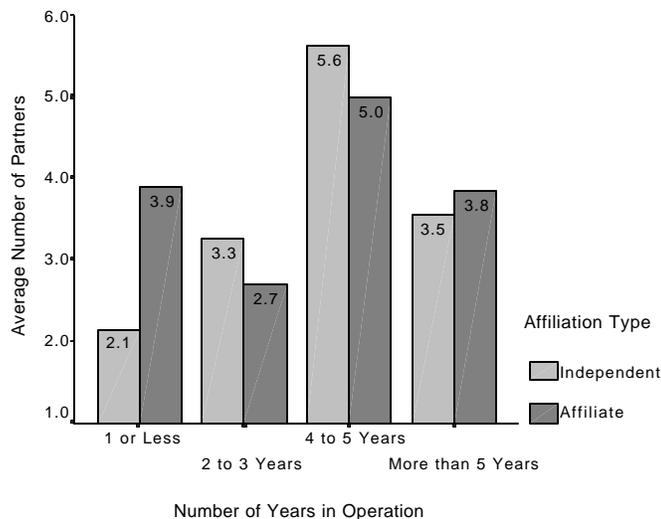
Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

Figure 19
Percent of Centers with Mission Statement
By Type of Organization and Years Open



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

Figure 20
Average Number of Partners in Network
By Type of Organization and Years Open



Source: CTC Survey by James Bohland
 School of Public and International Affairs, Virginia Tech

These empirical results suggest a third interpretation for differences in the network size and dynamics of affiliate and independent Centers. Affiliates initially benefit from the expertise their parent organizations provide, but over time the comparative advantage affiliates have on partnerships is diminished. By the second or third year, independents acquire the management capacities needed for network development and consequently, the size of the partnership networks of the independents begins to enlarge and eventually become larger than those of affiliates.

Summary and Conclusions

Any exploratory analysis raises more questions than it answers. The empirical information obtained from the survey of Community Technology Centers certainly is not exception. While each Center differs from others in many ways, similar patterns abound on many key aspects. Although the patterns can be identified, explanations are

more difficult to obtain from just the survey data. That is one reason why the second report in this study will examine in more detail some of the processes and best practices used by Centers for partnering and obtaining sustainability.

Perhaps the single most important issue raised by the survey is the importance of what has been termed institutional capacity building. Institutional capacity building involves process and structures that enable a CTC to plan and to manage its resources in effect ways. Capacity building is about the ability of an organization to manage change. What does one do when a major source of funding is terminated? How does one create new partnership networks as the community changes its context? How does one recreate a partnership network when some key partners leave? These are but a few of the critical changes that CTC director encounter on a regular basis. What are then are the important “capacities” should CTCs build into their organization to cope with such changes is a critical issues to resolve.

The relationships between partnerships, affiliation, and institutional capacities raise are complex and require considerable more research before we can understand them and develop training programs to ensure best practices emerge. What is clear from the data is that organizational capacity does influence funding strategies, security concerns of Center personnel, and partnership networks. Centers with only a few management structures in place, particularly related to planning, are more successful in partnering than those Centers where these are absent.

This relationship strongly suggests that building the management capacities of Centers is a critical step to network development. Efforts by groups like CTCNet in developing manuals and training sessions for Center personnel for example are extremely important to capacity building. These efforts, however, should include specific training

foci on partnership network building and how best to establish collaborative efforts between Centers and local organizations. The information collected in the second phase of this research, information obtained from detailed interviews with CTC personnel, should help develop a training focus on partnership building that will be useful to CTCs.

Appendix I

Survey Instrument For Study of Community Technology Centers

In completing the survey, please place the number of your response in the corresponding blank on the right of the page. If you do not know that information, please place a DK for Don't Know in the blank on the right side of the page. Thank you for taking the time to fill out this survey.

Section I

In Section One, we would like to gather basic background information about your organization. The information will be used to help us analyze the importance of program characteristics in assessing resource strategies.

Which of the following best describes the location of your Center? _____

- 1 = Inner city neighborhood
 - 2 = Neighborhood in older suburb
 - 3 = Neighborhood in newer suburb
 - 4 = Medium size city in a rural area
 - 5 = Small Town in a rural area
 - 6 = Rural area
 - 7 = Other (if other please specify)
-

In what type of building is your Center located? _____

- 1 = Stand alone building leased by the Center
 - 2 = Shares space in a public Library
 - 3 = Shares space in a school
 - 4 = Shares space in a Community Center
 - 5 = Shares space in a Church
 - 6 = Other (if other please specify)
-

Is your Center an independent organization or is it affiliated with a larger organization? _____

- 1 = Independent organization
- 2 = Sub-Unit of a larger organization
- DK = Don't Know

If a sub-unit,

What is the name of the larger organization? _____

Which of the following best describes the larger organization? _____

- 1 = School (public or private)
- 2 = Public Library
- 3 = Other type of public organization
- 4 = Faith based organization
- 5 = Nonprofit organization (other than faith based)
- 6 = Private, for-profit organization
- 7 = Other (if other please specify) _____

Do you have plans for expanding the size of your Center in the near future (1-3 years)? _____
1 = Yes 2 = No DK = Don't Know

Please indicate the number of workstations in your Center by type:
Internet Access Work Station _____
General Purpose PCs without Internet Access _____

How many of the Internet stations have broadband connectivity? _____
1 = Yes 2 = No DK = Don't Know

Does your Center have its own server? _____
1 = Yes 2 = No DK = Don't Know

Is your Center an Internet service provider (ISP)? _____
1 = Yes 2 = No DK = Don't Know

Does your Center have a community advisory board? _____
1 = Yes 2 = No DK = Don't Know

If yes, what are the primary functions of the board?

If yes, what types of organizations are represented on your board?

Using the following categories, what is the current size of your staff?

Number of:
Salaried staff _____
Wage Employees _____
Volunteers (non-student) _____
Student Interns or Volunteers _____
Other _____

In what year was your Center founded? _____

Does your Center have a mission statement? _____
1 = Yes 2 = No DK = Don't Know

To what degree has your Center's mission changed since its founding? _____
1 = Exactly the Same
2 = Changed Somewhat
3 = Significantly Different
DK = Don't Know

If you indicated a significantly different mission (3), in what ways does it differ?

To the best of your knowledge, what was the size of the staff when the center was started?

Number of:

- Salaried staff _____
- Wage Employees _____
- Volunteers (non-student) _____
- Student Interns or Volunteers _____
- Other _____

What are your plans for full-time staff expansion in the near future (1-3 years)?

- 1 = No expansion
- 2 = 1-2 new staff members
- 3 = 3-5 new staff members
- 4 = More than 5 new staff members
- DK = Don't Know

Please indicate the principal sources of funding for your Center at the time it was founded. Rank these sources starting with one (1) for most important. If a particular funding source listed was not used, leave it blank.

- Federal grant or contract _____
- State grant or contract _____
- Local government grant or contract _____
- Private foundation _____
- Funds from your parent organization _____
- Local community organizations _____
- Personal donations _____
- Fees or payments from clients _____
- _____ Other sources (please specify) _____

Does your organization have a strategic plan? _____

- 1 = Yes
- 2 = No
- DK = Don't Know

If yes, does your strategic plan have a specific section for fundraising? _____

- 1 = Yes
- 2 = No
- DK = Don't Know

Section II Operations and User Population

In Section II, the focus is on the current operation of your center and the clients you serve.

What are your Center's hours of operation? (Please express as 9:00 am 7:00 p.m., for example.)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Hours of Operation							

Estimate how many clients (people, not visits) does your Center serve in a week? _____

What percent of your clients do you estimate are:

Young Children (1-12) _____ %
Teens (13-20) _____ %
Senior Citizens (65+) _____ %

What percent of your clients do you estimate are:

Male _____ %
Female _____ %

What percent of your clients do you estimate are:

African American _____ %
Asian _____ %
Caucasian _____ %
Hispanic _____ %
Other _____ %

Which of the following best describes the proportion of your clients considered lower income individuals? _____

- 1 = Over 75 %
- 2 = 50 to 75%
- 3 = 25 to 50%
- 4 = 10 to 25%
- 5 = less than 10%

Does your Center have special accommodations for clients with physical disabilities? _____

- 1 = Yes
- 2 = No
- DK = Don't Know

Now we would like to ask you a series of questions concerning the services you provide. For each of the services, use the following response categories.

- 1 = Not offered and no plans to do so
- 2 = Currently offered
- 3 = Not offered, but plan to offer in the future
- 4 = Offered previously but dropped
- 5 = Currently offer, but plan to drop

Internet access _____
E - mail accounts _____
Basic computer literacy courses _____
Office software training _____
Support for on-line courses _____
Host personal or business Web sites _____
Multimedia software _____
Job search services _____
Job skills training _____
Web site development services _____
GED courses _____
General literacy programs _____
English as second language courses _____

What other programs or services do you offer that are not listed above?

Section III

Current Funding and Financing Issues

In Section III we would like to obtain information on your current financial picture, and where you obtain your resources.

What *percent* of your *current* revenues would you estimate come from the following sources?

Federal grants or contacts	_____ %
State grants or contracts	_____ %
Local government grant or contracts	_____ %
Private foundations	_____ %
Contracts or grants from private industry	_____ %
Funds from your parent organization	_____ %
Local community organizations	_____ %
Personal donations	_____ %
Fees or payments from clients	_____ %
_____ Special events (please specify)	_____ %
_____ Other sources (please specify)	_____ %

What type of non-cash donations does your Center receive on a regular basis, and what are the sources of those donations?

<i>Type of Donation</i>	<i>Source of Donation</i>
_____	_____
_____	_____
_____	_____

What was your operating budget for the Center for last year (1999)? \$_____

Considering your current resource base and the future of that base, I would like you to respond to the following five questions using the following five-point scale.

1 = Very Secure 2 = Fairly Secure 3 = Secure 4 = Fairly Insecure 5 = Very Insecure

How secure do you feel about:

- Getting funding to maintain your current facility? _____
- Getting funding to maintain your current staff size? _____
- Expanding funding for your organization? _____
- Maintaining your current services? _____
- The overall financial security of your organization? _____
- Your ability to serve the needs of your clients? _____

Section IV Partnerships and Networks

Finally, we would like to ask you about the local community organizations you network or collaborate with on a regular basis, and something about their characteristics. Please feel free to list additional ones beyond the spaces provided.

Name of Organization _____
Is it a public, nonprofit, or private firm? _____
1 = Public 2 = Non profit 3 = Private Firm 4 = Other _____

Do you receive funding from the organization? _____
1 = Yes 2 = No DK = Don't Know
Do you receive in-kind services from the organization? _____
1 = Yes 2 = No DK = Don't Know

Name of Organization _____
Is it a public, nonprofit, or private firm? _____
1 = Public 2 = Non profit 3 = Private Firm 4 = Other _____

Do you receive funding from the organization? _____
1 = Yes 2 = No DK = Don't Know
Do you receive in-kind services from the organization? _____
1 = Yes 2 = No DK = Don't Know

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 Do you receive in-kind services from the organization? _____
 1 = Yes 2 = No DK = Don't Know

Organizational Information

The following questions are used to obtain information that would enable us to conduct follow-up interviews in a limited number of cases. Completion of the questions is optional. Name or address information of any type will be involved in the analysis.

Name of Your Organization _____
 Address: _____ City: _____
 State: _____ Zip code: _____
 Phone Number: _____ -- _____ FAX: _____ -- _____
 E-mail: _____ URL: _____
 Position in the Organization of the Person Completing the Survey: _____

Would you be willing to be interviewed as a follow-up to the survey? _____
 1 = Yes 2 = No