Lumity's Final Report on CTC Connect
July 2011 – July 2013

In June 2011, The Smart Chicago Collaborative, in partnership with the City of Chicago, announced a new effort to expand its digital inclusion efforts and requested proposals that would accomplish the following:

- Expand and maximize capacity at existing Community Technology Centers (CTCs)
- Develop and implement a support resource for existing CTCs
- Create effective operative and programmatic scalable best practices for Chicago CTCs

Lumity responded to the Request for Proposals and was awarded $436,155 to create and implement CTC Connect over two years, beginning July 2011 providing the following services to 70 CTCs:

1. Technology support via:
   - Hands-on tech maintenance training
   - FAQ and "how-to" materials
   - Call center support
   - Instructional onsite tech support

2. Best practice materials and training on the following topics:
   - **Tech Maintenance**- minimum specs on hardware; standards to maintain hardware/software; troubleshooting common situations
   - **Operations**- tips & templates for budgets, staffing, class/training scheduling, etc.
   - **Marketing Strategies & Tools**- Gather and share current marketing tactics as well as creating new strategies to increase visibility and utilization of CTCs; coordinate with Get Smart Chicago campaign
   - **Volunteer Management**- Tools to recruit, evaluate, and sustain volunteerism
   - **Evaluation Tools & Tips**- Share indicators and tools to measure program effectiveness
   - **Sustainability Strategies**- Provide grant opportunity notices, proposal templates, grant writing tips, and business development ideas

3. Networking events
   - Create opportunities for CTCs to network and share information
   - Experiment with formats, time, locations, and invitees (corporate, foundation, program participants, etc.)
   - Secure hosts to provide location and refreshments

Lumity was also accountable for measuring and reporting on the following deliverables:

- Develop a comprehensive list of computer technology centers for inclusion on the City's We Connect Chicago portal.
- Expand 70 CTCs through providing technical support services and trainings.
- Seek to serve 50-75 users per week at participating CTCs.
- Seek to serve a total of 132,000 users at participating CTCs during the term.
- Seek to have a total of 26,000 individuals participate in training classes held at designated CTCs during the term.
- Seek to recruit 15 new volunteers support Designated CTCs.

BRIEF OVERVIEW OF OUTCOMES ACHIEVED

Below is a brief snapshot of how Lumity performed in conjunction with the outlined goals. Lumity was successful in meeting, if not exceeding, the deliverables outlined in the contract.

CTC Connect Project - Final Dashboard Report Summary July 2013			
Capacity at CTCs			
	Actual	Goal	Action Items
Provide Comprehensive CTC List to City of Chicago	121	N/A	Provided to MK Communications
Number of CTCs	73	70	Completed
Average Users Per Week	125	75	Final recorded data
Total Users Served To-Date	148,122	132,000	Final recorded data
Users (Training Classes)	39,995	26,400	Final recorded data
Volunteers	104	15	Continue to seek volunteers
Technical Assessments			
	Actual	Goal	Action Items
Technical Assessments & Tech Projects	76	70	Number of completed scheduled Technical Assessments & Tech Site Reviews
Trainings			
	Actual	Goal	Action Items
Orientations & Program Overviews CTCs Attended	72	70	Number of completed scheduled orientations & personal sessions.
Security	5	5	Number of completed scheduled trainings
Troubleshooting/Personal Tech Maintenance Training	6	5	Number of completed scheduled trainings
Networking	5	5	Number of completed scheduled trainings
Advanced Networking	3	3	Number of completed scheduled trainings
Volunteer Management	7	5	Number of completed scheduled trainings
Fundraising	7	5	Number of completed scheduled trainings
Marketing	5	5	Number of completed scheduledtrainings
Data & Evaluation	7	5	Number of completed scheduled trainings
MS IT Academy	12	5	Number of completed scheduled MS IT Academy orientations & personal sessions

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In addition to the quantitative deliverables of CTCs served and trainings provided, Lumity created several electronic best practice resources on the following topics: Technology Troubleshooting, Fundraising, Marketing, Volunteer Management, and an Evaluation tool. All of these resources were provided to the participating CTCs and PDF versions are available on www.CTCConnect.org.

PROGRAM & BUDGET OVERVIEW

Lumity spent a total of $447,907.46 on CTC Connect over the two years. This does not include the in-kind donation of the CTC Connect website by Walker Sands Communications, valued at $25,000, 84 donated Microsoft licenses to CTCs, valued at over $10,000, time of Lumity's accountant to reconcile and prepare financials (valued at $3,000), and access to the MS IT Academy including e-skills for pre-placement testing, costing Lumity nearly $11,000 for two years, not including the MS IT Academy Coordinator who helped orient and train CTC Connect sites. The MS IT Academy expenses were covered through the Department of Commerce and Economic Opportunity.

The major expense for the CTC Connect program was staff and content experts to provide services and trainings for the CTCs. Below is a brief overview of the line-item expenses.

Staffing
Lumity received notice in early July 2011 that the grant was awarded for CTC Connect and was encouraged to hire staff and get started with the program. Jonathan Carter was hired as the Director working half-time on CTC Connect and the other half on Lumity's MS IT Academy program funded by Department for Commerce and Economic Opportunity (DCEO). Mr. Carter had extensive experience working in and with CTCs in many of the targeted communities in Chicago.

Lumity hired Janice Vinson as the Program Manager who had interned with Lumity as a Chicago Career Tech program participant (now known as Skills for Chicagoland's Future today). In the Chicago Career Tech program, Janice studied to become a Project Manager and shortly after starting her employment with CTC Connect, she obtained her PMP certification. She resigned in August 2012 for a corporate position using her new credentials.

Mr. Carter increased to full time in the second year of the program and Lumity hired Adam Garcia to fill the Program Manager position in August 2012. Both Garcia and Carter remained with the program through its completion in July 2013.

In addition to the Program Director and Manager positions, Lumity's Technology Director conducted technology assessments and several technology training sessions for the CTCs. The Relationship Development Manager recruited, matched, and monitored volunteerism experiences with CTCs, and the Executive Director provided oversight, recruited volunteers, and leveraged its fundraising dinner to feature success stories and critical partners of this program model.

A total of $290,822 covered Lumity staff to accomplish the following:
- Recruit, orient, and communicate with 73 participating CTCs on all program aspects (see Appendix A for a complete list of participating CTCs).

- Ensure all 73 participating CTCs received a technology assessment, support, training, and access to best practices for their technology needs. A copy of the completed tech assessments were provided to the Smart Chicago Collaborative.
- Created a critical needs list of hardware needs based on the tech assessments and when asked by Smart Chicago Collaborative to prepare a proposal to fulfill the list of hardware, Lumity secured three quotes from hardware vendors and from Nectel Technologies to implement the hardware. This critical needs list and proposal was provided to the Smart Chicago Collaborative. Appendix B is a list of the Hardware Critical Needs among the CTCs.
- Secure and managed content experts to create best practice materials, implement training on Marketing, Volunteer Management, Fundraising, and Professional Development, and produce five videos.
- Helped organize, promote, and implement 52 trainings and 5 networking events.
- Provided access to and 12 trainings on how to use the MS IT Academy for digital literacy training and all Microsoft software programs.
- Provided access to and training on the skill-based volunteer matching portal, The Community Corps to recruit volunteers for needed projects. A total of 29 CTCs enrolled in the program.
- Recruited 104 volunteers who donated a total of 328 volunteer hours for a social value of $49,200 to CTC Connect participants.
- Created the CTC Connect website as a vehicle to communicate with CTCs and other stakeholders on the program and provide access to all materials produced.
- Captured and wrote success stories on the CTCs and featured them on CTC Connect and on Lumity's main website (www.Lumity.org), and at Lumity's Annual Dinners in 2012 and 2013.
- Created and staffed an Advisory Council which met three times in addition to invitations to attend five CTC site visits over the two years (see Appendix C for Advisory Council Members).
- Tracked information on the CTCs and provided current contact information on 121 CTCs to be uploaded into We Connect Chicago website. Encouraged the CTCs to participate in the Smart Chicago Collaborative "meet ups" and to keep their content updated on We Connect Chicago website.
- Attended regular reporting meetings and prepared monthly reports for Smart Chicago Collaborative.
- Participate in the Evaluation Team and worked to get CTCs to participate in the evaluation program.

Consultants
Several consultants were hired to provide tech support services and trainings, and to produce best practice materials and conduct trainings for the total of $94,140. Below are the following consultants and their deliverables:

- **Tech Support.** Geek Squad was initially hired to provide the phone and onsite tech support for CTCs. Based on satisfaction survey responses, Lumity transitioned the tech support role to Nectel Technologies. Lumity learned about Nectel from a participating CTC who was very pleased with their services and pricing. Lumity was impressed with the state of the CTCs technology environment and hired Nectel to provide tech support. Tech support services cost a total of $38,792.

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Lumity initially budgeted more for phone support than onsite. However, the majority of the support was provided onsite ($38,565) versus remotely ($226.50). Geek Squad, Nectel Technologies, and Lumity conducted 14 training sessions covering Basic Administrators, Advanced Networking, Tech Maintenance Security, and Google for Nonprofits.

A total of 54 responses were received on the technology training sessions with all responses averaging Good to Excellent. See Appendix D for a summary of the technology training satisfaction surveys.

- **Marketing Curriculum & Training.** Davidoff Communications was secured to help CTCs learn how to attract more traffic to their programs and to share more effectively the impact of their services. Davidoff Communications created a Marketing Manual in addition to developing training curriculum. Davidoff implemented the first training session and trained Lumity staff to implement the follow-up sessions. A total of five marketing trainings were conducted.

Only 18 responses were captured from the initial Marketing training conducted by Davidoff Communications. Responses indicate that more time is needed and one-on-one attention would have been helpful. See Appendix E for the summary of the satisfaction survey responses.

During a follow-up session with the Davidoff Communication staff, several recommendations were made by their Team to Lumity staff:

- **Workshop Series.** Rather than a four-hour workshop, Davidoff recommends a series of shorter workshops. The time constraints of one workshop means that, in the interest of covering the entire material, there is little opportunity to go in-depth. The workshop may work better if it is split into a series of shorter workshops, especially given that participants will then have work time in between the sessions.

- **Participant Preparation**. Prior to the workshop, CTC Directors should be provided with an outline of the workshop and clear learning objectives. This will help to manage expectations for the day. Participants could also be sent guiding questions to kick-start their brainstorming.

  Example: Before the workshop, you should begin thinking about some of the opportunities and challenges of your CTC. How could marketing address these? Who are the audiences you wish to reach? What can marketing help you accomplish with each audience? Who are your competitors?

- **Monitor Negative Thinking**. One challenge of the workshops is that CTC Directors may feel overloaded with the amount of work necessary to improve their marketing. Others may even feel downtrodden just when they are asked to evaluate their strengths and weaknesses. The facilitator must consciously raise spirits and keep the mood positive. CTC Directors must be reminded that they are doing wonderful jobs!

- **Ongoing Support**. This issue may be partially addressed by the previous suggestion to break the workshop up into a series. However, another alternative would be to create a system of

marketing implementation support – both through the network of CTCs and Lumity itself. Lumity staff can send reminder e-mails and check in with CTC Directors to encourage progress on marketing initiatives. CTC Directors can also provide this type of support to each other.

- **Logistics**. If the meeting will include lunch, this time needs to be integrated into the facilitator's guide to better plan for breaks and work time.

- **CTC Inventory**. Certain connections are best facilitated by in-person networking, but there is an opportunity for Lumity to create new connections by taking an inventory of its star performers. Lumity can inform all of the CTCs who they might turn to for help with enrollment, marketing or technology issues. This information is likely best shared in an e-mail, rather than publicly on the website. In an e-mail, Lumity could also provide "help wanted" notices from CTCs.

Davidoff Communications was encouraged by stories of CTCs who are already connecting with each other.
- Staff from The Louis Rawls Foundation and Passages met at the focus group and are now working with each other, as one is experiencing an overload of participants and the other has low enrollment.
- Prosser Academy is working with Onward House to determine prospective students, evaluate technology and create banners for marketing.
- Participants in the pilot marketing training workshop may turn to Jane Addams Resource Corporation for advice on creating and maintaining a volunteer/internship program.

- **Marketing Committee.** There is an opportunity for Lumity to create a marketing sub-group within the CTC Connects network that meets regularly to share ideas and best practices. Apart from supporting each other, they can devise ways to support the rest of the CTC network and distribute information.

Volunteer Management Training & Best Practices

Lumity had a volunteer management manual that was too sophisticated for the majority of CTCs. Ken Woods adapted it for beginning and intermediate level CTCs. Mr. Woods also prepared a training program building off the concepts in the manual and a total of seven sessions were held on Volunteerism including how to register and use The Community Corps for recruitment of volunteers for skill-based projects. The Community Corps was best taught one-on-one.

A total of 11 responses were received to the Volunteer Handbook and Training sessions. Visit Appendix F to review the responses. It is interesting to note that there were no comments and it was clear that many of the respondents hadn't had time to review the Volunteer Handbook before answering the survey. Recommend handing out the Best Practice Manual prior to the training or heavily using it during the training to get participants familiar with the content.

Fundraising Training & Best Practices

Tomara Hughs and Ken Woods prepared a Fundraising Manual and Ken and Jonathan Carter conducted seven trainings on the various ways to engage donors to support their programs.

A total of 31 responses were received for the fundraising training with responses averaging between Good to Excellent. Refer to Appendix G for satisfaction survey responses and comments.

Professional Development
Wright was hired to implement professional development training to address behaviors that are holding CTC staff back from having a greater impact, such as showing up late, not following through, not asking questions when they aren't clear about something, not trusting, etc. Wright held a session on interpersonal styles and communication with three follow-up sessions on social emotional intelligence.

Two different satisfaction surveys were administered for the two types of sessions held. See Appendix H for responses. Overall, the sessions were well received averaging Good to Excellent. At least three CTC staff have followed-up with Wright for more information and training.

Videos
Lumity hired Torque to videotape a training session on security issues and a series of four videos were produced on various legal issues often presenting barriers for employment. Video topics are:

1. Fact or Fiction: Ten Things You Should Know About Your Criminal Record
2. How to Pass a Criminal Background Check When You Have an Arrest or Conviction Record in Illinois
3. If I am a Convicted Felon, What Can I Do with My Criminal History Record?
4. A Criminal Record Need Not Be a Bar to Obtaining an Occupational or Professional License

All five videos are available on the CTC Connect website along with accompanying information for folks who don't want to watch the videos.

Program Evaluation
Lumity hired the Help Institute to measure the impact of the CTC Connect program. Appendix I is a copy of the full evaluation report. The cost to prepare this report was $15,500 of which the grant covered $13,300. In hindsight, it would have been best to secure The Help Institute from the onset of the program versus 15 months after launch. We learned a wealth of information about the program design and potential areas of growth.

Travel Expenses
Lumity and contractor's spent $6,363 on transportation expenses to visit the CTCs, recruit volunteers, and to attend trainings and meetings.

Administrative
A total of $41,039 was spent on administrative expenses such as occupancy for staff, facility rental for training space, phone, Internet, and a portion of the audit for both years.

CONTRACT DELIVERABLES

As mentioned earlier, Lumity was held accountable to accomplish specific deliverables and achievements as outlined in our contract. Below is a brief summary of Lumity's accomplishments for those deliverables.

Develop a comprehensive list of computer technology centers for inclusion on the City's TechLocator. CTC Connect staff collaborated with MK Communications to add and/or update 121 CTCs to the We Connect Chicago portal, the upgraded version of the TechLocator. In addition, staff promoted the We Connect Chicago launch and follow-up gatherings to train CTCs on keeping their contact information current and accurate. Lumity has seen an increase in traffic using our CTC as a result of the We Connect Chicago campaign.

Expand 70 CTCs through providing technical support services and trainings. Lumity offered a technology assessment and technical support for each participating CTC over the course of the grant program. The technical assessment outlined potential hardware and software vulnerabilities and identified potential strategies and solutions. Lumity's approach to providing the technology assessment and tech support was to educate and teach the CTC staff how to care for their own technology, helping them be more self-sufficient.

Technology support was predominately provided by Nectel Technologies, a firm with over 10 years of experience providing nonprofits a cost-affordable option in the Chicagoland area. In addition, Nectel supported Lumity's vision to build sustainability within the local CTC by teaching as they worked on the equipment. Overall, the CTCs were pleased with Nectels services but there were some complaints that the Nectel representatives were not reliable to show up when they said they would. Lumity shared these concerns with Nectel's President and CEO to be addressed. Otherwise, the level of satisfaction with these services was high among the CTCs.

Basic and advanced networking trainings were offered along with one-on-one sessions at CTC sites. Jeremy Stallworth provided many of the technology trainings and he seemed to be well received by the CTCs as the satisfaction surveys indicate and verbal comments received by Lumity staff (refer to Appendix D for survey results and comments).

The Help Institute's Evaluation Report goes into greater detail about the impact of these services. Visit Appendix I for the Evaluation Report.

Provide call center and onsite tech support for maintenance and management issues for each CTC. Participating CTCs had access to phone support, regardless if it was during normal hours or an emergency. This was a critical feature as many CTCs offer services before and after typical business hours. This service was not used as much as the onsite services. This service was a cost savings to CTCs as they didn't have to pay for IT services during their enrollment in the program. For most CTCs, this was the only tech support available, more specifically for the smaller CTCs or nonprofit organizations.

An online portal or list of FAQs to aid in troubleshooting minor technical issues. Participating CTCs learned how to locate and download free Open Source software and how to order cost affordable software via TechSoup. These tips and resources are posted on the CTC Connect website. In addition, technical troubleshooting content is also available on the CTC Connect website ranging from "Building a CTC" to "Maintenance & Troubleshooting."

Develop a Best Practice Online Portal for CTCs
Lumity received a gracious donation from Walker Sands Communication, a CTC Connect website built in CMS where staff could update information with minimal use of HTML coding required. Lumity used the website as its online portal to post best practices information and resources for CTCs.

The best practice materials and resources are available on the CTC Connect website. All of the best practices manuals were disseminated to participants at the training programs, emailed to the participating CTCs, and posted on the CTC Connect website to download. The evaluation tips have not been provided online as of yet. More work is needed on this and Lumity is moving forward with a team from Geneca to help us think through the best open source tools to use to help CTCs capture critical data for evaluative purposes.

HIGHLIGHTS

One of the major highlights of the CTC Connect program was the relationships formed among the CTC staff. Prior to CTC Connect, many of the CTCs did not know their counterparts in the community. Once the CTCs got to know each other, there was an open exchange of tips and advice with each other. In addition, CTCs helped each other out by sharing equipment, problem solving, sharing curriculum, and referring program participants to other CTCs. For example, when the Lou Rawls CTC was in transition and didn't have computers, Passages offered them access to their computers for a period of time until Lou Rawls was up and running in their new location.

Technology Support
The technology support was a major highlight especially for the smaller or newer CTCs. The Evaluation Report goes into greater detail on the impact of the Technology Support with the CTCs.

Skill-Based Volunteers Help CTCs
Another highlight was the 29 CTCs who enrolled in The Community Corps and 328 volunteer hours donated on CTC projects for a social value of $49,200. The Program Evaluation indicates that the CTCs did not find the Volunteer Program helpful, yet it was a highly desired component. For the CTCs that took advantage of the volunteer matching portal, several projects were completed to help the CTCs be more efficient and effectives. Below are a few examples:

> **Instituto del Progreso Latino**
> By conducting an initial tech assessment and providing technical support, CTC Connect improved Instituto del Progreso Latino's (IPL) direct technical services to match their program mission and goals.
>
> Professional volunteers, found through The Community Corps, provided help to IPL as well. They visited the site to review their website and hardware. They installed computers for use at the CTC

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and then provided troubleshooting of their new network and server. In addition, IPL utilized a volunteer to provide career development coaching in a group setting. Without this additional time and help, IPL would not have served their community so effectively.

Chatham Business Association
The future looks bright at Chatham Business Association Small Business Development Inc. (CBA), thanks to a group of volunteers from Geneca, a custom software development firm based in Oakbrook Terrace. CBA's main objective for this project was to streamline their internal business process and increase their impact within the community.

Geneca was a perfect match for this project since they provided a fresh insight to delivering more business value. Discussions focused on CBA's growing pains and obstacles from achieving their goals. "The technology roadmap strengthened our bond and commitment to our members, community and partners. Working with Geneca was time well invested and I hope we have the opportunity to work with them again," said Melinda Kelly, Executive Director.

Breakthrough Urban Ministries
Breakthrough Urban Ministries asked for assistance with Salesforce Review and Assessment. The volunteer provided lots of useful training material and resources. As a result, the organization was able to use their database in a more effective and efficient way.

Lawndale Christian Development Corp
Volunteers helped Chicago Lawndale by assessing their website and providing insight and suggestions for change. Their main goal was to find a way to invite and process donations through their website.

Prosser Career Academy
Prosser Career Academy exposed their technology students to various technology careers via guest speakers, mentors, and career site visits. Students and staff were inspired to pursue technology careers.

It was this experience that has launched Lumity into working with STEM schools by recruiting skill-based volunteers to help expose and inspire students to pursue technology careers.

BARRIERS & LESSONS LEARNED

There were many barriers and lessons learned as Lumity implemented the CTC Connect program. Below is a summary of those insights and learns.

Delay in Payment
When Lumity was notified that it had been awarded the grant, Lumity was encouraged to get started immediately while the contract was finalized. Never did Lumity think that it would take 10 months to obtain a signed contract and payment for those months. Unfortunately, the delay in finalizing the contract and receiving payment hindered Lumity's ability to start providing all of the services because the organization could not afford to assume the financial liability. Lumity drew on its Line of Credit and requested assistance from Chicago Community Trust, which was graciously provided.

Instead, Lumity focused on providing services that could be implemented by Lumity staff so not to incur additional expenses specifically technology troubleshooting, tech assessments, minor tech repairs, tech training, and enrollment into The Community Corps. Additional CTCs were not on-boarded until the contract was signed and payment was received. The original plan was to on-board ten pilot sites for the first quarter and ten additional CTC sites each quarter.

As a result of the delayed payments, Lumity felt, in essence, that it completed two years of work in a year's time. In hindsight, Lumity would not have hired the Program Manager until later and would have renegotiated the deliverables to focus on providing quality services to fewer CTCs. In hindsight, I think the amount of attention focused on the federal grant process may have created more focus on the contract deliverables with less emphasis on the overall objective.

Hardware & Software Gaps
A major barrier was not having the resources to address the hardware and software gaps among the CTCs. In several cases, the CTCs computers were old and outdated, limiting the tech support services as a result. Through a partnership with Microsoft, Lumity received an in-kind donation of Microsoft software licenses, of which Lumity donated over $10,000 in value to the CTCs. This was helpful but did not adequately address the software gaps offered program participants, especially in the workforce development models. Learning on the latest software versions helps prepare participants for the workplace.

In addition, Lumity leveraged its Eliminate the Digital Divide grant from the Department of Commerce and Economic Development and offered the Microsoft IT Academy program to any of the participating CTCs. A total of 18 CTC Connect sites participated in the MS IT Academy program. Lastly, Lumity was very excited about the possibility of obtaining a grant to purchase the hardware needed to bring the CTCs up to standards. It is my understanding that some level of grant was provided to our preferred provider, Nectel Technologies to implement some level of the proposal Lumity submitted in June and updated in August 2013 with new bids from the three vendors. This additional resource will have a positive impact on the selected CTCs who received the hardware.

Overall Participation
The CTC Connect staff spent a lot of time calling and emailing the CTCs to register and attend trainings and networking events, to submit data for reporting purposes, to participate in the Community Corps, and get engaged with the valuation interviews. This was the biggest barrier faced by Lumity.

The Evaluation Report discusses the potential explanations for the lack of engagement in these components of the program. Explanations include the closing of some CTCs, staff turnover, and angst among CTCs to be cited in a formal document with the government.

Volunteerism & The Community Corps
There was a perceived barrier among CTCs to enroll in The Community Corps volunteer matching portal. CTC Connect staff tried large and small group sessions to train CTC staff on how to enter their projects into the portal. We realized that this task needed to be done individually at the CTCs locations. One-on-one assistance was heavily offered to the CTCs but few took Lumity up on the opportunity.

In a couple of cases, the CTC was matched with a group of volunteers to implement the project but the CTC did not follow through on their portion of the project. As a result, these projects could not be fully completed. The volunteers are prepared to complete the project if and when the CTC is ready to resume. The evaluation interviews did not yield any insight into the perceived barriers, but CTC Connect staff suspect that the CTC staff are overwhelmed with all of their responsibilities and in some cases find it hard to accept the assistance from others. This is an important area to further explore.

We do have some evidence that when CTCs were individually coached on using the portal, they were able to complete projects successfully. User-interface upgrades were also made in 2013 to make The Community Corps easier to select technology projects.

Networking Events
Lumity tried to engage the technology community to participate in the networking events. In theory the idea of bringing the nonprofit and corporate community sounded good, but time and location proved to be a challenge. Late afternoons and early mornings did not work for CTCs due to program conflicts or travel time. Holding events outside of downtown or near public transportation was a barrier for corporate representatives. Another challenge was getting RSVPs from CTCs to know how to plan for networking events. Lumity experienced a lot of no-shows in the beginning, which dissipated over time. Another phenomenon was showing up without RSVP or showing up extremely late. Lumity made it a point to start events on time to reinforce timely arrival.

Advanced preparation and clear communication on topic and attendees may have an influence on attendance. Arranging for transportation to hold events at CTCs would also be an option for the technology community to attend. More exploration on approach could be explored to expand the interaction between CTCs and the corporate world would be beneficial.

Lack of Systems, Tools & Processes
Lumity did not have the appropriate level of systems, tools, and processes in place to adequately track the amount of data needed on each CTC to appropriately manage and evaluate the program. The data was dispersed and not easily accessible for analysis, therefore limiting the evaluation findings. Lumity is taking this feedback to heart as it embarks on a new program with STEM schools.

RECOMMENDATIONS FOR THE FUTURE OF THE PROGRAM

Lumity believes there are valid reasons to continue pursuing further development of the CTC network in response to the Evaluation Findings. Specific recommendations include:

- Create systems, tools, and processes to gather appropriate data for management, analysis and evaluative purposes in mind.
- Work with fewer CTCs, 20 or less in order to really get to know each organization and staff.
- Tailor the services based on their specific needs of the organization and sequence the delivery of those services based on successful implementation of core concepts before pursuing additional knowledge and skill development.
- Hold CTCs accountable for meeting expectations.
- Hold trainings in smaller groups and incorporate pre and post measures to determine progress made on learning objectives would help document best practices.

- Hold networking events at varied locations with timely communication on topic, attendees, and subject matter experts.
- Establish more realistic timelines to determine progress so participants can fully experiment with concepts.
- Explore offering the experiential learning opportunities being created for STEM students to workforce readiness programs in underserved neighborhoods.

CONCLUSION

Lumity is deeply appreciative of the opportunity to partner with the CTCs, Smart Chicago Collaborative, the City of Chicago Department of Innovation and Technology, Davidoff Communications, Geek Squad, Help Institute, Nectel Technologies, Torque, Ken Woods, and Wright to learn more about Chicago's CTC network. Much has been gleaned for this experience and many questions have been raised for further exploration.

Lumity looks forward to building off this work to further contribute to the awareness and impact of the CTC network.

APPENDIX

Appendix A	73 Participating CTCs in CTC Connect
Appendix B	Critical Hardware Needs List
Appendix C	CTC Connect Advisory Council Members
Appendix D	Technology Training Satisfaction Survey Responses
Appendix E	Marketing Training Satisfaction Survey Responses
Appendix F	Volunteer Management Training & Best Practices Satisfaction Survey Responses
Appendix G	Fundraising Training & Best Practices Satisfaction Survey Responses
Appendix H	Professional Development Satisfaction Survey Responses
Appendix I	Final Evaluation Report submitted by The Help Institute

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CTC Connect Neighborhood Sites

Albany Park: 1
Auburn-Gresham: 4
Austin: 6
Belmont Cragin: 2
Brainerd: 1
Bronzeville: 4
Chatham/Avalon Park: 2
Chinatown: 2
Douglas: 1
Edgewater: 1
Englewood: 2
Gage Park: 1
Garfield Park: 1
Grand Boulevard: 2
Greater Grand Crossing: 1
Humboldt Park: 4
Kenwood: 2
Lakeview: 1

Lawndale: 1
Little Village: 1
Logan Square: 1
Loop: 4
McKinley Park: 2
Near South Side: 2
Near West Side: 1
North Lawndale: 1
Pilsen: 4
Pullman: 1
Roseland: 4
South Chicago: 1
South Shore: 1
University Village: 1
Uptown: 6
Washington Park: 1
West Englewood: 1
West Town: 1

Appendix A

Community Technology Centers	Address (Chicago)	Contact	Phone	CTC Model
Aspira Haugan Middle School	3729 W Leland Avenue, 60625	Matt Weidman / Max Armendariz	773.252.0970 / 847.252.0970	Basic
Association House of Chicago	1116 N Kedzie Ave,. 60651	Stephen Pigozzi / Luis Rodriguez	(773) 772-7170/(612) 205-7995	Basic
Bickerdike Redevelopment Corporation	2550 W North Ave., 60647	Enrique Salgado / Tina Williams	(773) 278-5669	Basic
Breakthrough Urban Ministries	3330 W Carroll Ave., 60624	Amy Coles	773.722.0179 ext. 229 / 617.877.7156	Specialized
Bronzeville Corporatium	215 E 31st Street, 60616 / 26 E. 26th	Joanne Glenn / Marthette Muhammed	312.326.2300	Business Model
Career Transitions Center of Chicago	703 W Monroe, 60661	Anita Jenke / Laura Sterkel	312-906-9908	Workforce / Career Development
Casa Juan Diego	2020 S Blue Island Ave., 60608	Ricardo Marines	312.421.2077	Basic
Center of Higher Development - 51st King	5049 S King Drive, 60615	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Workforce Development
Center of Higher Development - Archer Courts	2242 S Princeton, 60616	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Workforce Development
Center of Higher Development - B.J. Wright	1350 S Morgan, 60608	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Workforce Development
Center of Higher Development - Englewood	6852 S Normal, 60621	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Workforce Development
Center of Higher Development - Germano	8732 S Burley, 60617	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Business Development
Center of Higher Development - Lake Grove	3515 S Cottage Grove, 60653	Walter Gillespie / Schumaker / Quiana	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Workforce Development
Center of Higher Development - Lake Vista Seniors	1440 S Indiana, 60605	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Basic
Center of Higher Development - Magnolia	4416 N Magnolia, 60640	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Workforce Development
Center of Higher Development - O'Keeffe	2059 E 70th Street, 60649	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Workforce Development
Center of Higher Development - Senior Residence	2928 S Archer, 60608	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Basic
Center of Higher Development - Sunnyside	847 W Sunnyside, 60640	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Workforce Development
Center of Higher Development - Uptown	927 W Wilson, 60640	Walter Gillespie / Schumaker	888.317.5480 / 312.749.8992 / 815.735.9586 / 773.398.3064	Workforce Development
Charles Hayes Center	4859 S Wabash, 60615	Greg Sutton	630.305.7486	Workforce Development
Chatham Business Association & Small Business Development Inc.	800 E 78th Street, 60619	Karletta Kelly	773.994.5006 ext. 1006	Business Development
Chicago Urban League	4510 S Michigan Ave, 60653	Shari Runner	773.285.5800	Workforce / Career Development
CityLight International Assembly	4030 S Cottage Grove, 60653	Joyce McGhee		Basic
CJG Communications, Inc.	9453 S. Ashland Ave., 60620	Pamela Black / George Crouse	773-239-8847 / (773) 651-0815	Workforce Development
Community Outreach Volunteers NFP	400 W 76th Street, 60620	Tony Lumu	(773) 483-2233	Basic
Community Outreach Volunteers NFP	513 W 72nd Street, 60621	Tony Lumu	(773) 483-2233	Basic

Appendix A

Far South Community Development Corporation	9923 S Halsted Street Suite D, 60628	Abraham D. Lacy	(773) 941-4833 / 773.941.4853	Basic
Gads Hill Tech Center	1919 W Cullerton, 60608	Oscar De La Torre	312.226.0963 / ext. 237 312.226.0963 ext. 236	Basic
Gads Hill Tech Center	2653 W Ogden Ave., 60608	Oscar De La Torre	312.226.0963 / ext. 237 312.226.0963 ext. 236	Basic
GPRenterprises	6832 W North Ave., 60707	Charles Ragans / Lillie Jones	(773) 312-3802 / (773) 312-3876 / (773) 312-3841	Basic
Greater Auburn Gresham	1159 W 79th Street, 60620	Norma Sanders	773.483.3696 off /	Workforce Development
Greater Southwest Development Corp - Business Resource Center	2601 W 63rd Street, 60629	Tina James	(773) 362-3378 off/ (773) 820-3097 cell	Business Development
Instituto del Progreso Latino	2520 S Western Ave., 60608	Christopher Boyce / Yesenia Cervantes / Marco Trujillo	(773) 890-0055	Workforce Development
Instituto del Progreso Latino	2570 S Blue Island Ave., 60608	Chistopher Boyce	(773) 890-0055	Workforce Development
Jane Addams Resource Corporation	4432 N Ravenswood, 60640	Neha Chitnavis	773.751.7106	Workforce Development
Jobs for Youth	17 N State Street 6th Floor, 60602	Clarence Sistrunk	773.567.0029	Workforce / Career Development
Jewish Vocational Services	216 W Jackson Blvd, 60626	Ebony Barney	312.499.4778 ext.106 / 312.499.4771 Fax	Workforce Development
Lawndale Christian Developmen Corporation - Lawndale Legacies Community Technology Center	3843 W Ogden Ave., 60623	Larry Dixon / Jeff Sweeton	773.762.8889 ext.25	Basic
LEED Council	1866 N Marcey, 60614	Danny Sheilds	773.986.0291/773-986-0460 ext. 235	Workforce Development
Little Black Pearl	1060 E 47th Street, 60653	Leon Haslip / Chinyera Moody	(773) 285-1211	Basic
Lou Rawls Foundation	1363 E 52nd St. 60615	Wanda Wms. Mitchell	(773) 729-0514 / (773) 729-9671	Basic
Mercy Housing Lakefront Harold Washington	4946 N Sheridan, 60640	Jose Roman	312.293.3223 / 312.293.3225	Workforce Development
Mercy Housing Lakefront 850 Eastwood	850 W Eastwood, 60640	Jose Roman	312.293.3223 / 312.293.3225	Workforce Development
Mercy Housing Lakefront Austin	4938 W Quincy, 60644	Cedric Nesbitt	312.293.3223 / 312.293.3225	Workforce Development
Mercy Housing Lakefront Englewood	901 W 63rd Street, 60621	Cedric Nesbitt	312.293.3223 / 312.293.3225	Workforce Development
Mercy Housing Lakefront Holland	240 W 107th Place, 60628	Daniel Olsen	312.293.3223 / 312.293.3225	Workforce Development
Mercy Housing Lakefront Pullman	901 E 104th Street, 60628	Licia Knight	312.293.3223 / 312.293.3225	Workforce Development
Mercy Housing Lakefront- South Loop	1521 S Wabash, 60605	Daniel Olsen	312.293.3223 / 312.293.3225	Workforce Development
Mercy Housing Lakefront Wentworth	11045 S Wentworth, 60628	Licia Knight	312.293.3223 / 312.293.3225	Workforce Development
Miguel Del Valle / Aspira Youth Development Center	3909 W Fullerton, 60647	Gricel Moran / Haydee Alvarez / IT contact: MAX Armendariz	(773) 252-0970	Basic
National Able Network	567 W Lake Street, Suite 1150, 60661	Tom Jurlina	855.994.8300	Workforce / Career Development
National Latino Education Institute	2011 W Pershing Road, 60609	Jennifer Sanchez	773.247.0707 ext. 264	Workforce Development
NEBC (Neighborhood Empowerment for a Better City)	4628 W Washington Blvd., 60644	Evelyn Ross		Workforce / Career Development
New Mt. Sinai	310 N Laramie Ave., 60644	Decatur Branch	773.287.1161 / 773.682.2767	Basic
Night Ministry	4705 N Ravenswood, 60640	Albert Lawson	773.506.6008	Basic
Onward Neighborhood House	5423 W Diversey Ave., 60639	Mauricio Blanco	773.622.3215	Workforce Development
Passages Alternative Living Programs, Inc. / Wallace Singleton Computer Training Center	10 W 35th Street, 3rd Floor, 60616	Saranna Davidson	312.225.3800 (Office) 312.225.0896 (Fax) 630.215.5326 (Cell)	Workforce Development

Appendix A

Organization	Address	Contact	Phone	Category
Phalanx Family Services	1201 W 115th Street, 60643	Laura Erving-Bailey DO / Ramone Giles / Tina Sanders CEO	773.261.5600 EXT. 32 / 312.912.4655 cell 773-261-5600 / 312.287.1353	Basic
Phalanx Family Services	4628 W Washington, 60644	Laura Erving-Bailey DO / Ramone Giles / Tina Sanders CEO	773.261.5600 EXT. 32 / 312.912.4655 cell 773-261-5600 / 312.287.1354	Basic
Poder Learning Center	1637 S Allport, 60608	Daniel Loftus	312.226.2002	Workforce Development
Prosser Career Academy	2148 N Long, 60639	Sebastian Seikowski	(773) 534.3241 / 773.255.6498 / 773.569.7116	Specialized
Pui Tak Center	2218 S Wentworth Avenue, 60616	David Wu	312-328-1188/ext 202	Workforce / Career Development
Restored Vision Youth Empowerment, Inc.	211 S Clark, #2052, 60690	Carolyn Ferguson	312.884.9575	Basic
South Central Community Services Inc.	8316 S Elllis, 60619	Daryl Shelton / Jimmy Brown M & W/ Gregory Amos- CFO	773.483.0900 ext. 228	Basic
St. Sabina / The ARK	7800 S Racine, 60620	Jocelyn Jones		Basic
St. Sabina Employment Resource Center	1222 W 79th Street, 60620	Phil Hunter		Workforce / Career Development
Teamwork Englewood	815 W 63rd Street, Suite 2, 60621	Rosalind Moore	773.488.6600	Basic
The Peace Corner Youth Center	5022 W Madison, 60644	Duane Wilson	(773) 261-5330	Workforce / Career Development
The Renaissance Collaborative Inc.	3757 S Wabash Ave, 60653	Patricia Abrams	(773) 924-9270	Workforce / Career Development
W.O.T. Foundation	46 E 26th Street, 60616	Joanne Glenn / Marthette Muhammed		Business Model
West Humbolt Park Development Council	3620 W Chicago Ave., 60651	Tom Otto	773.342.0036	Business Model
Westside Community Services Organization	325 S California, 60612	Berice Handy / Program Administrator George Henderson / CEO		Workforce / Career Development
Worldwide Family Center	4215 W West End Avenue, 60624	Patsy Berry / Lillie Jones / Carmelia Garmon	773.801.1838 / 773.895.4411 / 773.241.0412	Workforce / Career Development

CTC	PRIORITY NEEDS	COST	NOTES
ARK of St. Sabina	20 Desktop Computers / Server	$12,341.30	Lenovo ThinkCentre Edge 72 3484 - Core i3 3220 3.3 GHz/Acer V196HQLAb - LED monitor - 18.5"/Lenovo ThinkServer TS430 0393 - Xeon E3-1220 3.1 GHz/16GB RAM/HW RAID controller/2 1TB HD
Association House of Chicago	8 Desktop Computers	$4,289.52	Lenovo ThinkCentre Edge 72 3484 - Core i3 3220 3.3 GHz/Acer V196HQLAb - LED monitor - 18.5"
Breakthrough Ministries	10 Tablets	$3,457.80	Samsung Galaxy Tab 2 (10.1) WiFi
Casa Juan Diego	15 Desktop Computers	$8,042.85	Lenovo ThinkCentre Edge 72 3484 - Core i3 3220 3.3 GHz/Acer V196HQLAb - LED monitor - 18.5"
Center of Higher Development	Server	$1,617.50	Lenovo ThinkServer TS430 0393 - Xeon E3-1220 3.1 GHz/16GB RAM/HW RAID controller/2 1TB HD
Chatham Business Association	15 Desktop Computers / Server	$9,660.35	Lenovo ThinkCentre Edge 72 3484 - Core i3 3220 3.3 GHz/Acer V196HQLAb - LED monitor - 18.5"/Lenovo ThinkServer TS430 0393 - Xeon E3-1220 3.1 GHz/16GB RAM/HW RAID controller/2 1TB HD
Community Outreach Volunteers NFP	6 Desktop Computers	$3,217.14	Lenovo ThinkCentre Edge 72 3484 - Core i3 3220 3.3 GHz/Acer V196HQLAb - LED monitor - 18.5"
GPRenterprises	10 Desktop Computers	$5,361.90	Lenovo ThinkCentre Edge 72 3484 - Core i3 3220 3.3 GHz/Acer V196HQLAb - LED monitor - 18.5"
Jane Addams Resource Corporation	1 Desktop Computer / Server	$2,153.69	Lenovo ThinkCentre Edge 72 3484 - Core i3 3220 3.3 GHz/Acer V196HQLAb - LED monitor - 18.5"/Lenovo ThinkServer TS430 0393 - Xeon E3-1220 3.1 GHz/16GB RAM/HW RAID controller/2 1TB HD
Lou Rawls Foundation	10 Desktop Computers	$5,361.90	Lenovo ThinkCentre Edge 72 3484 - Core i3 3220 3.3 GHz/Acer V196HQLAb - LED monitor - 18.5"
NEBC	2 Projectors	$835.48	NEC NP-VE281X DLP projector - 3D
Onward Neighborhood House	15 Desktop Computers	$8,042.85	Lenovo ThinkCentre Edge 72 3484 - Core i3 3220 3.3 GHz/Acer V196HQLAb - LED monitor - 18.5"
The Peace Corner Youth Center	Server	$1,617.50	Lenovo ThinkServer TS430 0393 - Xeon E3-1220 3.1 GHz/16GB RAM/HW RAID controller/2 1TB HD
Worldwide Family Center	15 Desktop Computers	$8,042.85	Lenovo ThinkCentre Edge 72 3484 - Core i3 3220 3.3 GHz/Acer V196HQLAb - LED monitor - 18.5"
130 Computers 10 Tablets 5 Servers 3 Projectors Last updated July 30, 2013	Hardware Cost	**$74,042.63**	
	Tax	$4,627.66	
	Shipping	$1,229.47	
	Total Hardware Cost	$79,899.76	
	Nectel Technologies (Setup & Configuration)	$17,380.00	
	Total	**$97,279.76**	

Advisory Council Members

Name	Organization
Irma Lopez	DCEO
Joey Mak	DCEO
Kyla Williams	Smart Chicago Collaborative
Daniel O'Neil	Smart Chicago Collaborative
Danielle DuMure	City of Chicago
Francesca Rodriguez	City of Chicago
Dionne Baux	Smart Communities (LISC)
Greg Sutton	Tec Services
Jack Stonebraker	Best Buy
James Beattie	Lumity Board of Directors
Ken Gaebler	Walker Sands Communication
Mary Monroy-Spampinato	Microsoft
Peggy Luce	Chicagoland Chamber of Commerce
Bryant Payne	MK Communications
Marilyn Katz	MK Communications
Jerry Rocco	Cisco

CTC Connect — Technology Training Survey

1. The training started on time:

		Response Percent	Response Count
Yes		**100.0%**	54
No		0.0%	0
		answered question	**54**
		skipped question	**0**

2. There was sufficient time in the session to cover the material that was presented:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	20.4% (11)	37.0% (20)	**42.6% (23)**	3.22	54
				answered question		**54**
				skipped question		**0**

3. The material was presented in a clear and logical fashion:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	0.0% (0)	48.1% (26)	**51.9% (28)**	3.52	54
				answered question		**54**
				skipped question		**0**

4. All of my questions were answered:

	Poor	Fair	Good	Excellent	N/A	Rating Average	Rating Count
	0.0% (0)	0.0% (0)	38.9% (21)	**59.3% (32)**	1.9% (1)	3.63	54
					answered question		54
					skipped question		0

5. The training met my expectations:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	0.0% (0)	**59.3% (32)**	40.7% (22)	3.41	54
				answered question		54
				skipped question		0

6. The overall quality of the training:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	0.0% (0)	**50.0% (27)**	**50.0% (27)**	3.50	54
				answered question		54
				skipped question		0

7. Individual help was provided when needed:

	Poor	Fair	Good	Excellent	N/A	Rating Average	Rating Count
	0.0% (0)	0.0% (0)	**53.7% (29)**	44.4% (24)	1.9% (1)	3.48	54
						answered question	54
						skipped question	0

8. Any suggestions or comments to help us improve future training classes:

	Response Count
	12
	answered question	12
	skipped question	42

Q8. Any suggestions or comments to help us improve future training classes:

1	Now I can train someone!	Jul 17, 2013 1:54 PM
2	I feel more comfortable now!	Jul 17, 2013 1:47 PM
3	Great session!	Jul 17, 2013 1:47 PM
4	I really learn basic thinks but very helful	Oct 19, 2012 11:50 AM
5	Jeremy is an excellent instructor!!	Oct 19, 2012 11:47 AM
6	This training was excellent!	Oct 12, 2012 12:10 PM
7	Handouts will be extremely helpful for future reference.	Oct 12, 2012 12:08 PM
8	I think the training the way it is, is just fine.	Oct 5, 2012 11:51 AM
9	I found the training to be extremely informative. I look forward for the next.	Oct 5, 2012 11:47 AM
10	Every aspect of this training session was easy to understand and interesting. Would easily recommend to anyone who can make use of this.	Oct 5, 2012 11:46 AM
11	excited about the next class	Oct 5, 2012 11:46 AM
12	Keep up the great work!	Oct 5, 2012 11:46 AM

CTC Connect — Marketing Training Survey

1. The training started on time:

		Response Percent	Response Count
Yes		94.4%	17
No		5.6%	1
		answered question	18
		skipped question	0

2. There was sufficient time in the session to cover the material that was presented:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	38.9% (7)	38.9% (7)	22.2% (4)	2.83	18
				answered question		18
				skipped question		0

3. The material was presented in a clear and logical fashion:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	11.1% (2)	61.1% (11)	27.8% (5)	3.17	18
				answered question		18
				skipped question		0

4. All of my questions were answered:

	Poor	Fair	Good	Excellent	N/A	Rating Average	Rating Count
	0.0% (0)	0.0% (0)	**61.1% (11)**	38.9% (7)	0.0% (0)	3.39	18
						answered question	18
						skipped question	0

5. The training met my expectations:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	16.7% (3)	**55.6% (10)**	27.8% (5)	3.11	18
					answered question	18
					skipped question	0

6. The overall quality of the training:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	5.6% (1)	**72.2% (13)**	22.2% (4)	3.17	18
					answered question	18
					skipped question	0

7. Individual help was provided when needed:

	Poor	Fair	Good	Excellent	N/A	Rating Average	Rating Count
	0.0% (0)	0.0% (0)	**72.2% (13)**	22.2% (4)	5.6% (1)	3.33	18
					answered question		18
					skipped question		0

8. Any suggestions or comments to help us improve future training classes:

	Response Count
	4
answered question	4
skipped question	14

	Q8. Any suggestions or comments to help us improve future training classes:	
1	Speakers might work well with one on one better	Jul 17, 2013 1:36 PM
2	more one on one needed.	Jul 17, 2013 1:31 PM
3	Great facilitators! They also gave us time to work in groups to think about our current operations.	Jan 24, 2013 9:55 AM
4	Thank you!! It was great...maybe a little more time.	Jan 22, 2013 5:17 PM

CTC Connect — Volunteer Development & Habndbook

SurveyMonkey

1. How satisfied were you with the Volunteer Management brief on Best Practices?

	Very Satisfied	Satisfied	Not Sure	Dissatisfied	Very Dissatisfied	Rating Average	Rating Count
	72.7% (8)	27.3% (3)	0.0% (0)	0.0% (0)	0.0% (0)	4.73	11
					answered question		11
					skipped question		0

2. How clear was the course instruction and explanations?

	Very Clear	Clear	Somewhat Clear	Not Clear	Definitely Not clear	Rating Average	Rating Count
	80.0% (8)	20.0% (2)	0.0% (0)	0.0% (0)	0.0% (0)	4.80	10
					answered question		10
					skipped question		1

3. Did the instructor appear to have been knowledgeable about the course topics?

	Very Knowledgeable	Knowledgeable	Neutral	Slightly Knowledgeable	Not Knowledgeable
	63.6% (7)	36.4% (4)	0.0% (0)	0.0% (0)	0.0% (0)
				answered	
				skipped	

4. How helpful was the Volunteer Handbook?

	Very Helpful	Helpful	Haven't Read It Yet	Somewhat Helpful	Not Helpful	Rating Average	Rating Count
	10.0% (1)	30.0% (3)	**50.0% (5)**	10.0% (1)	0.0% (0)	3.40	10
					answered question		10
					skipped question		1

5. How likely would you be to take a higher lever of this course if offered?

	Very Likely	Likely	Not Sure	Not Likely	Definitely Not	Rating Average	Rating Count
	27.3% (3)	**45.5% (5)**	0.0% (0)	27.3% (3)	0.0% (0)	3.73	11
					answered question		11
					skipped question		0

CTC Connect — Fundraising Training Survey

1. The training started on time:

		Response Percent	Response Count
Yes		87.1%	27
No		12.9%	4
		Additional Comments:	5

answered question	31
skipped question	0

2. There was sufficient time in the session to cover the material that was presented:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	16.1% (5)	45.2% (14)	38.7% (12)	3.23	31
				Additional Comments:		4

answered question	31
skipped question	0

3. The material was presented in a clear and logical fashion:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	3.2% (1)	**51.6% (16)**	45.2% (14)	3.42	31

				Additional Comments:	1
				answered question	**31**
				skipped question	**0**

4. All of my questions were answered:

	Poor	Fair	Good	Excellent	N/A	Rating Average	Rating Count
	0.0% (0)	0.0% (0)	**45.2% (14)**	41.9% (13)	12.9% (4)	3.68	31

				Additional Comments:	3
				answered question	**31**
				skipped question	**0**

5. The training met my expectations:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	3.2% (1)	**54.8% (17)**	41.9% (13)	3.39	31

				Additional Comments:	2
				answered question	**31**
				skipped question	**0**

6. The overall quality of the training:

	Poor	Fair	Good	Excellent	Rating Average	Rating Count
	0.0% (0)	3.2% (1)	**58.1% (18)**	38.7% (12)	3.35	31

Additional Comments:	2

answered question	**31**
skipped question	**0**

7. Individual help was provided when needed:

	Poor	Fair	Good	Excellent	N/A	Rating Average	Rating Count
	0.0% (0)	0.0% (0)	**48.4% (15)**	41.9% (13)	9.7% (3)	3.61	31

Additional Comments:	2

answered question	**31**
skipped question	**0**

8. Any suggestions or comments to help us improve future training classes:

	Response Count
	9

answered question	**9**
skipped question	**22**

Q1. The training started on time:

1	I like things to statrt on time	Jul 17, 2013 1:16 PM
2	I almost think these trainings should be longer - I might be alone in this, but the two I have attended have been amazing and I thought they ended too soon. Very imformative and everything is on time and on point!	Mar 29, 2013 12:16 PM
3	But neither did I. ;-)	Mar 29, 2013 12:06 PM
4	It was delayed due to weather and allowed for participants to arrive	Jan 29, 2013 10:51 AM
5	trainer was on time and ready to present. Program participants did not arrive on time.	Jan 28, 2013 10:07 PM

Q2. There was sufficient time in the session to cover the material that was presented:

1	I could have stayed longer!!!	Jul 17, 2013 1:19 PM
2	The speaker, Ken Woods, was awesome. I learned at least two key things that I didn't know before even though the entire seminar was beneficial.	Mar 29, 2013 12:16 PM
3	This class needs more time to cover. it was very interactive	Mar 29, 2013 12:01 PM
4	to cover the general fundraising topics there was enough time but more sessions are needed to discuss specific areas in fundraising	Jan 28, 2013 10:07 PM

Q3. The material was presented in a clear and logical fashion:

1	We asked a lot of questions which can be frustrating to a presenter, but our presenter was great. He made it clear that he was here for us and not the other way around. LOVED IT!	Mar 29, 2013 12:16 PM

Q4. All of my questions were answered:

1	He was very knowledgeable Jonathan Great Job!	Jul 17, 2013 1:18 PM
2	I am very interested in fundraising at the personal and organizational level so I knew I'd have a lot of questions and they were all addressed. I have some actionable items I can take back with me to work on immediately and will be encouraging my ED to get a Donors Forum membership if we don't currently have one!	Mar 29, 2013 12:16 PM
3	Ran out of time, due to conversational engagement	Mar 29, 2013 12:06 PM

Q5. The training met my expectations:

1	I left with some gteat ideas.	Jul 17, 2013 1:14 PM
2	I'm energized. My ED did challenge our entire organization to see funding as everyone's responsibility as we all benefit from it and he has empowered us to go out and tell people how we impact our communities, he's encouraged us to tell our stories and build relationships and partnerships that can help sustain our programs and our mission. I've taken that seriously and am trying to do that.	Mar 29, 2013 12:16 PM

Q6. The overall quality of the training:

1	Great presenter	Jul 17, 2013 1:13 PM
2	These have been really beneficial!!	Mar 29, 2013 12:16 PM

Q7. Individual help was provided when needed:

1	I love being part of this CTC Connect program. I can see the long term benefits already!	Mar 29, 2013 12:16 PM
2	Due to the relationship with Lumity, I'm sure	Mar 29, 2013 12:06 PM

Q8. Any suggestions or comments to help us improve future training classes:

1	Pleas do this class again Mr. Carter you were awesome!	Jul 17, 2013 1:26 PM
2	Everything was helpful and presented very well.	Jul 17, 2013 1:23 PM
3	Thank you so much for this session.	Jul 17, 2013 1:23 PM
4	Jonathan and Melinda Carter are a great team!!!	Jul 17, 2013 1:20 PM
5	The class was good, I think the dialogue and feedback given by the participants was helpful. However, because of time constraints, going through the session devoted to do the appeal letter was not able to be done as planned.	Mar 30, 2013 5:43 PM
6	Just keep doing what you're doing. Your team is amazing and I wish you could bottle the amazing and sell that to us. I love to hear about your successes and it inspires me to want to have the same kind of success!!	Mar 29, 2013 12:16 PM
7	The material was excellent !	Jan 29, 2013 9:16 PM
8	information provided was very helpful. i walked away with great resources.	Jan 29, 2013 10:51 AM
9	have organizations participating in training complete a questionnaire or survey about their organization and what they seek to learn from the training. This allows the instructor to emphasis topics or subjects specific to the audience.	Jan 28, 2013 10:07 PM

CTC Connect — Professional Development

SurveyMonkey

1. How satisfied were you with the course content?

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Rating Average	Rating Count
	68.8% (22)	25.0% (8)	6.3% (2)	0.0% (0)	0.0% (0)	4.63	32
					answered question		32
					skipped question		0

2. How clearly did your instructor explain the objectives of the course?

	Extremely clearly	Very clearly	Moderately clearly	Slightly clearly	Not at all clearly	Rating Average	Rating Count
	64.5% (20)	32.3% (10)	3.2% (1)	0.0% (0)	0.0% (0)	4.61	31
					answered question		31
					skipped question		1

3. How likely are to take this course again?

	Very Definately	Definately	Not Sure	Not Likely	Definitely not	Rating Average	Rating Count
	53.3% (16)	46.7% (14)	0.0% (0)	0.0% (0)	0.0% (0)	4.53	30
					answered question		30
					skipped question		2

4. How satisfied were you with the time spent on each lesson topic?

	Very Satisfied	Satisfied	Not Sure	Dissatisfied	Very Dissatisfied	Rating Average	Rating Count
	65.6% (21)	34.4% (11)	0.0% (0)	0.0% (0)	0.0% (0)	4.66	32
					answered question		32
					skipped question		0

5. How useful was the information presented at the professional event?

	Extremely useful	Very useful	Somewhat useful	Slightly useful	Not useful at all	Rating Average	Rating Count
	65.6% (21)	34.4% (11)	0.0% (0)	0.0% (0)	0.0% (0)	4.66	32
					answered question		32
					skipped question		0

Program Evaluation Report
The CTC Connect Program
Prepared exclusively for Lumity, Inc.

A collaborative effort between Lumity, the City of Chicago, the Smart Chicago Collaborative, program stakeholders, and The HELP Institute

Distributed: September 26, 2013

FINAL VERSION

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Executive Summary

Introduction: This evaluation report concerns the Lumity CTC Connect program (Connect), funded by BTOP through the city of Chicago and administered by Smart Chicago Collaborative, in the amount of $436,155 from July 2011 to July 2013. This program was developed in response to the city of Chicago's report on the digital divide in 2007 addressing technology barriers faced by underserved communities in Chicago. The BTOP funding required services/trainings in technology, best practices, networking, and volunteerism. The program goal is to enhance CTC capacity and sustainability, achieved by reducing costs and enhancing funding opportunities.

The Program Context: There is a misalignment between the purpose of the grant and the data requested by the funder. Additionally, Lumity was encouraged to begin programming in July 2011, but funding was not received until late May 2012. This must be considered when evaluating results.

Results: Connect is wide and unfocused, and the CTCs are extremely heterogeneous in terms of services offered, and the quantity and social and emotional needs of their participants. In fact, CTCs portray themselves as social service organizations, not simply technology organizations. Connect may have enhanced CTCs' technological capacity (evidenced by increasing participation in CTC programs) and human capacity (evidenced by enhancing workplace interactions and communication, positive outlooks, self-confidence, and awareness). Sustainability may have also been enhanced via cost savings and new knowledge/skills that facilitated improved operations and use of equipment. Detection of these long-term outcomes at this nascent stage, however minute, is encouraging. Technology services are recommended to be employed *in conjunction with* knowledge, skill, and human development related services to enhance capacity and sustainability. Better results for smaller/less-established CTCs were realized on technology, networking, and best practice components, but not the volunteer component. The evaluation team's chief goals of justifying their work/program, developing their businesses, acquiring more staff, and receiving more grants have not been achieved thus far by participation in Connect, except perhaps in a few instances. Once again, these goals are short-term to long-term outcomes not yet capable of being realized. With proper utilization of this report's information and recommendations, a program model may be developed, which might be the first of its kind. This represents a significant opportunity to contribute to society, communities, and people.

Recommendations: Lumity must enhance its program management, planning, organizing, controlling, and service delivery. Connect must become more focused, which might informed by enhancing knowledge of CTCs and their participants. Incorporation of a management training component, along with delivering knowledge/skill related services *prior* to providing technology goods/services, would provide CTCs with necessary capabilities to effectively utilize offerings. Although these recommendations represent significant challenges, the Connect program has the potential and capability to realize significantly enhanced program performance and outcomes if these recommendations, generally speaking, are implemented.
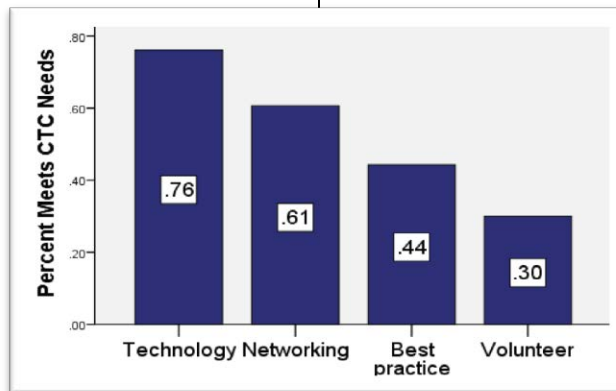
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Introduction

The overarching purpose of evaluation is to achieve program improvement. Achieving improvement intrinsically implies being open, transparent, and receptive to "negative" information regarding one's own program, performance, activities, or behaviors. Lumity staff and management performed well in this area, demonstrating desire to improve.

This evaluation report begins by introducing key terms utilized in this report, and the program logic model, which was developed by the evaluation team members. A full description of the CTC Connect program is then presented, including a description of the program context, program background, and program service delivery. The purpose of the evaluation project and the program goals and objectives are then presented, and the members of the evaluation team are introduced, including their views and concerns for this evaluation. The mixed methods evaluation design is then presented, as well as the overarching evaluation questions. Also described are the sampling, data collection, data cleaning, and data analysis methods. The results of the analyses are presented, followed by a discussion of their meaning, and finally recommendations are made based on the entirety of the report.

Key Terms Defined

This section displays abbreviations and acronyms utilized in this report.

CTC: Community technology center.

CTC participants: Those who participate in CTC programs (not in the Connect program).

Connect: Lumity's CTC Connect program.

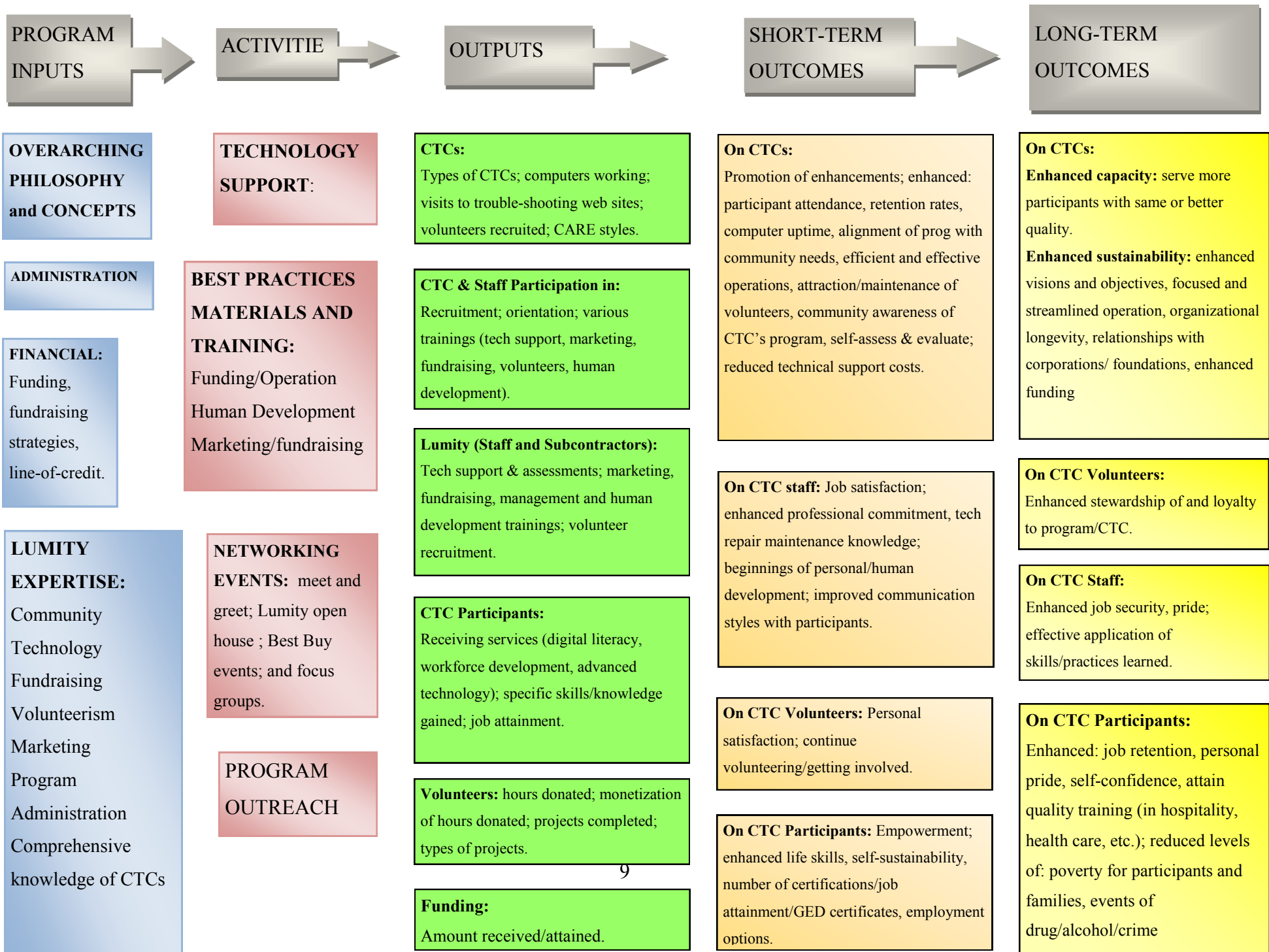**Lumity participants:** Those who participate in the CTC Connect program (i.e. the CTCs).

HELP: The HELP Institute.

Program Rational and Logic

A logic model is a visual representation of the "logic" of how a program works. Its purpose is to make the program overall more comprehensible. This visual representation of the program permits seeing what resources go into a program, the activities performed with those resources, the immediate outputs, the short-term outcomes, and the long-term outcomes. The following Connect program logic model was developed with input from the program evaluation team, as they are content experts. However, the logic model does not state the magnitude with which each of those possible outcomes is realized. Additionally, an evaluation team member suggested that the long-term outcome of enhanced funding should be presented as having

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primacy over others. This addresses the question of what outcomes *should* be pursued and achieved by such programs, which is a question for policymakers, although policymakers' decisions must also be informed by their constituents and the people they seek to help.

Presented on the next page is a condensed logic model of Lumity's current Connect program. The program has numerous components, and the logic model is therefore complex. In fact, only significant headings of components could be included, except in the outputs, and outcomes, where there is enough description to comprehend the overall logic of the program. The complete synthesized version of the logic model, in table form, is available for review in Appendix A for those needing or desiring a deeper understanding of the program.

PROGRAM INPUTS →	ACTIVITIE →	OUTPUTS →	SHORT-TERM OUTCOMES →	LONG-TERM OUTCOMES

PROGRAM INPUTS

OVERARCHING PHILOSOPHY and CONCEPTS

ADMINISTRATION

FINANCIAL: Funding, fundraising strategies, line-of-credit.

LUMITY EXPERTISE:
Community
Technology
Fundraising
Volunteerism
Marketing
Program
Administration
Comprehensive knowledge of CTCs

ACTIVITIE

TECHNOLOGY SUPPORT:

BEST PRACTICES MATERIALS AND TRAINING:
Funding/Operation
Human Development
Marketing/fundraising

NETWORKING EVENTS: meet and greet; Lumity open house ; Best Buy events; and focus groups.

PROGRAM OUTREACH

OUTPUTS

CTCs:
Types of CTCs; computers working; visits to trouble-shooting web sites; volunteers recruited; CARE styles.

CTC & Staff Participation in:
Recruitment; orientation; various trainings (tech support, marketing, fundraising, volunteers, human development).

Lumity (Staff and Subcontractors):
Tech support & assessments; marketing, fundraising, management and human development trainings; volunteer recruitment.

CTC Participants:
Receiving services (digital literacy, workforce development, advanced technology); specific skills/knowledge gained; job attainment.

Volunteers: hours donated; monetization of hours donated; projects completed; types of projects.

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Funding:
Amount received/attained.

SHORT-TERM OUTCOMES

On CTCs:
Promotion of enhancements; enhanced: participant attendance, retention rates, computer uptime, alignment of prog with community needs, efficient and effective operations, attraction/maintenance of volunteers, community awareness of CTC's program, self-assess & evaluate; reduced technical support costs.

On CTC staff: Job satisfaction; enhanced professional commitment, tech repair maintenance knowledge; beginnings of personal/human development; improved communication styles with participants.

On CTC Volunteers: Personal satisfaction; continue volunteering/getting involved.

On CTC Participants: Empowerment; enhanced life skills, self-sustainability, number of certifications/job attainment/GED certificates, employment options.

LONG-TERM OUTCOMES

On CTCs:
Enhanced capacity: serve more participants with same or better quality.
Enhanced sustainability: enhanced visions and objectives, focused and streamlined operation, organizational longevity, relationships with corporations/ foundations, enhanced funding

On CTC Volunteers:
Enhanced stewardship of and loyalty to program/CTC.

On CTC Staff:
Enhanced job security, pride; effective application of skills/practices learned.

On CTC Participants:
Enhanced: job retention, personal pride, self-confidence, attain quality training (in hospitality, health care, etc.); reduced levels of: poverty for participants and families, events of drug/alcohol/crime

Description of the Initiative

A full description of the CTC Connect program is necessary to more accurately comprehend its goals and objectives, the program participants, the services, and numerous other issues. This description begins with the background and history, then states program goals, stakeholders and evaluation team members, the current program cultural and environmental context, and finally the purpose of this evaluation.

Program Context, Background, and Delivery

Program context.

CTC Connect is a brand new program for Lumity, which began in July 2011 and was funded by three sources. What might be called the primary program funder is the Broadband Technology Opportunities Program (BTOP) through the City of Chicago and administered by Smart Chicago Collaborative providing a total of $436,155 for two fiscal years; it concluded in July 2013. This part of the program was developed in response to the city of Chicago's report on the digital divide in 2007 that mapped technological barriers faced by *underserved* communities in Chicago. A secondary funder, the Illinois Department of Commerce and Economic Opportunity (DCEO), provided funding for the Microsoft IT Academy portion of the Connect program; access was provided to 52 CTCs at approximately $46,429 total, or $893 for each site[1]. All CTCs electing to participate in the Microsoft IT Academy program were required to complete a train-the-trainer component to learn to use the program effectively, which Lumity provided in person. The third funder, Microsoft, provided software for the software donation component of the program; at least 84 licensed copies of Microsoft Office Professional were provided to CTCs, valued at a minimum of $10,080 total (84 x $120 each). However, this evaluation report concerns only the primary funder, BTOP, its goals and requirements, and the program discoveries of interest to them.

The BTOP funding required Lumity to provide the following services: technical assessments, support, and training; best practices materials and training; networking events; and

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[1] Source: e-mail communication with Kara Kennedy, director of Lumity

volunteer engagement. The agreement also required Connect participants (i.e. the CTCs) to report to Lumity the number of:

- new volunteers recruited and number of volunteers engaged
- individuals gaining general access to computers
- people taking a class/training (duplicated/unduplicated, adults/youth)
- improved work stations
- work stations
- hours of operation per business week and weekends

There are 74[2] CTCs from different communities involved in this program, therefore myriad characteristics must be considered for each target community, including the general culture of CTCs and Lumity. The CTCs were asked by a Lumity to categorize their chief service focus as one of the following:

- Basic: CTCs with general access to computers, internet, and basic instruction on how to use a computer
- Workforce Development: CTCs that offer programs to help individuals gain skills to secure and retain employment and/or seek advancement in their careers
- Specialized Training: CTCs that have access to software not necessarily related to employment such as Photoshop, website development, and graphic design
- Business Development: CTCs with programs designed to help small businesses and entrepreneurs with their back-office needs: general technology training; economic development; and work force training

Program background.

Lumity created the program based on the requested services in the RFP; this was not

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[2] Note: two days before distribution of this report it was learned that one case from Lumity's data set (containing the data reported to them by CTCs) was a duplicate organization, but with no data recorded. This means 74 CTCs participated in Connect. Because the duplicate case would not have been included in any statistical analyses, the effect of this should be minor. However, descriptive statistics including counts and percentages will be affected. Finally, this error is not related to HELP's survey data or any other information utilized herein, and should not affect the recommendations and conclusions of the report in general.

achieved via program theory development or program logic procedures. A year after the program started, Lumity submitted a budget modification to address a misalignment between the purpose of the grant program (enhancing capacity and sustainability of CTCs) and the data requested by the funder (numbers served by CTCs, number of trainings held, etc.). This is what prompted Lumity to partner with The Help Institute (HELP). Lumity was encouraged by Smart Chicago Collaborative to begin program operations in July 2011, but funding was not received for almost the entire first fiscal year; because of this, only direct services related to technology assessments and trainings, best practices, networking meetings, low level and priority tech support, and other services were offered that could be performed via partnerships that did not require monies. Not only does this highlight Lumity's desire and dedication to this program, but also possible effects on evaluation results. Funding began arriving in May 2012. This late funding caused many of Lumity's board members to consider shutting down the program until financial reimbursement was received, and possible layoffs of staff were being discussed. However, Connect staff had been building solid and trustworthy relationships with the initial participating CTCs and did not want to cancel or suspend the program because they felt positive results were realized. Networking events have been offered since the beginning, and the volunteer recruitment tool and volunteer management training has been offered since 2012 with an initial participation of 11 CTCs.   Although Lumity has records of how many times various components of the program were offered, such as technology support, best practice materials and trainings, and networking events, this information was not aggregated for effective program management and evaluation of the program.

Program service delivery.

The Connect program is administered via a partnership between Lumity and a small number of subcontractor specialists in specific fields. For example: technology support was provided by Nectel Technologies and Geek Squad; best practice materials and training was provided by Geek Squad (technical training), Davidoff Communications (marketing training), Wright Graduate School for the Realization of Human Potential (human development training), Ken Woods (volunteer management and fundraising trainings), Nectel Technologies (technology training), and Lumity Staff (technical assessments, technical training, and fundraising); and networking events were administered by Lumity staff. Davidoff Communications produced a best practices marketing manual for the CTCs in January 2013, which was distributed to

participants who attended a marketing training session, and was emailed to all CTC Connect participants regardless of attendance in the training; it was also made available via the CTC Connect website. Ken Woods developed a best practices volunteer management manual; the manual was completed in May 2013, and was emailed to the participating CTCs and posted on the CTC Connect website. Ken Woods also produced the best practices fundraising manual in June 2013, which was disseminated to the CTCs and posted on the CTC Connect website. Unfortunately, these best practices manuals were essentially distributed after the completion of this evaluation's survey administration, so evaluation participants did not provide information or feedback on the manuals.

Purpose of the Evaluation Project

Although the purpose of every evaluation is program improvement, the specific purpose of this evaluation project was the eventual development of a program model for replication. This is important, as it explains part of the evaluation design, which is exploratory as opposed to explanatory. Developing a replicable program represented a significant challenge, but also a significant opportunity for the City of Chicago, Smart Chicago Collaborative, Lumity, and the CTCs to become recognized leaders in this particular program. The challenge of this purpose is CTCs are varied in their structure and purpose, the participants they seek to help are varied, and the context within which they operate is varied. Further confounding this effort is three funding sources, although only the BTOP funding, previously referred to as the primary funder, has program goals, objectives, and requirements that are wide, deep, and "stringent." Lumity's partnership with HELP comprised two significant components in alignment with this purpose:

> (1) To determine the knowledge dissemination and sustainability effects of Lumity's Connect program services on the CTCs, which means that this component has the purpose of exploring and learning as opposed to testing. This component's purpose is exploring because this program is brand new and therefore still in development. In other words, it is unknown how Lumity's services will affect the various CTCs and their various participants. Therefore, learning the effects of the services, based in part on these variations, will elucidate whether and how the services are contributing to capacity and sustainability, which are the program goals, or whether other effects are realized. This exploration will establish a baseline for future evaluations, and should elucidate what is necessary to achieve enhanced CTC capacity and sustainability.

(2) To develop a standardized evaluation tool for the CTCs so that they may evaluate their own effectiveness on their participants. The purpose of having a standardized tool was for valid and reliable analysis amongst CTCs. In short, this tool was to represent a common language of the CTC programs that would be beneficial on many levels, including the CTC level, the Lumity level, the local government level, and perhaps even the national level. In the interest of transparency, HELP served as both subcontractor regarding development of this tool, and independent evaluator.

Program Goals and Objectives

According to Lumity's CTC Connect program funding agency, Smart Chicago Collaborative, its program goal is to increase the capacity and sustainability of CTCs in Chicago[3]; this specifically restricted Lumity to serving those CTCs within Chicago city limits[4]. The stated objectives in order to realize the program goal is leveraging existing CTC resources to save costs, and partnering with various organizations and corporations to create a sustainable model. Resources provided to CTCs were to include:

- Technology Support: tech assessment, which is assessment of the CTC program to document the current tech environment, and identify vulnerabilities and strategies to address them; call center & onsite tech support, which is access to technology professionals to troubleshoot technical problems by phone and limited onsite services as warranted; hands-on tech maintenance training, which includes ongoing training on maintaining their tech systems to increase their knowledge and skills and be less reliant on outside tech support as a component to the sustainability of their organization

- Best Practice Materials and Training: should comprise technical maintenance of hardware and software and troubleshooting, marketing strategies and tools, volunteer management including tools designed to create, operate, recruit, evaluate and sustain volunteerism, evaluation tools and tips to measure program effectiveness; and sustainability strategies

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[3] Source: program documentation provided to Lumity by funder
[4] Source: e-mail communication with Kara Kennedy, director of Lumity

to provide grant opportunity notices, proposal templates, grant writing tips and business development ideas

- Networking Events: create opportunities for CTCs to meet face-to-face to exchange ideas and build relationships with peers, and to experiment with networking forums regarding location, format, and inclusion of other participants such as corporate, foundation, and government representatives

- Volunteer Recruitment and Management Program: volunteer recruitment and management, evaluation, and sustainability strategies.

Although the funder provided the metric categories, Lumity itself provided specific benchmarks to meet regarding provision of service. The Smart Chicago Collaborative commented on Lumity's goals and agreed upon the following:

- Seek to serve 50-74 users per week at CTCs.

- Seek to serve a total of 132,000 users at CTCs during the term.

- Seek to have a total of 26,400 individuals participate in training classes held at CTCs during the term.

- Seek to recruit 15 new volunteers to support CTCs.

- Provide Technical Support to 70 CTCs

This information demonstrates that program logic has been established as providing the four categories named above in order to leverage existing CTC resources to save costs and to partner with other organizations, which is proposed to achieve the program goal of enhanced capacity and sustainability. This program logic appears to have been developed by legislation or other policy level personnel. Therefore, lack of program logic or theory in development of this program might produce positive results due to chance, and any negative results realized might not be due to misalignment with program theory or program process, and therefore represent a "false negative." This complicates determination of program effectiveness, seriously impacting decisions related to program funding and cancellation. There must be a theoretical connection between the services provided, how they are provided, and the results the program purports to achieve in order to permit effective evaluation and also enhance (or reduce) the credibility of this program. It would also provide readers of this report with information necessary to develop effective CTC-type programming.

Stakeholders and Evaluation Team

The following stakeholders were identified and selected for the evaluation team, whose purpose is to increase the credibility of efforts, implement interventions central to this evaluation, advocate for changes in order to institutionalize this effort, obtain further funding and expansion of the program, and accurately represent the CTCs. The evaluation team members are identified below:

- Francesca Rodriguez, City of Chicago
- Kyla Williams, SMART Chicago Collaborative
- Saranna Davidson, Passages (CTC)
- Daniel Loftus, Poder (CTC)
- Karletta Kelly, Chatham Business Development Center (CTC)
- George Crouse, CJG Communications, Inc. (CTC)
- Neha Chitnavis, Jane Addams Resource Corporation (CTC)
- Jonathan Carter, Lumity CTC Connect program director
- Adam Garcia, Lumity CTC Connect program manager
- Kara Kennedy, executive director of Lumity

Evaluation team's initial views, concerns, skills.

This evaluation project began in approximately October, 2012. At that time, an evaluation plan was developed, comprising the views, concerns, and skills of the evaluation team members; it highlighted strengths, challenges, and weaknesses of the program. This was an invaluable source of planning for the evaluation work. Each evaluation team member was asked a series of questions, identifying five components that stakeholders care most about: volunteers, grant development, collaboration, evaluation, and networking. The evaluation team's chief goal for this evaluation was defined as the ability to justify their work/program, develop their businesses, acquire more staff to perform necessary work, and receive more grants. A possible inference from this information is an emphasis on organizational issues as opposed to programmatic issues, such as the passionate pursuit of the organizational mission and enhancing participants' lives. Evaluation team member feedback was sought in response to this information; none was received.

Evaluation team members suggested this evaluation concentrate on the following components in order to determine program effectiveness: Lumity's program administration, evaluation and results, use of CTC services, and IT improvement. Themes within these

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categories are: follow through on promises made, and program improvement. Of course, this feedback is from a small number of people/organizations associated with Connect. Note that evaluation and results were suggested by the evaluation team, but the funder's decision to discontinue funding for these programs universally was made prior to this evaluation report. However, Lumity is seeking funding from other sources to eventually restart this program, and has restated commitment to use of this evaluation in order to improve the program.

Stakeholders felt that the Lumity Connect program excels at partnering and relationship building, that staff is open and communicative, but simultaneously needs improvement in communication and follow through with promises made in order to achieve results. It was also made clear that assessment of Lumity's performance is difficult because of the program's nascent nature. Suggested measurements comprised those not currently utilized: implementation timetable of Lumity's services; 30, 60, 90 day evaluation of participants; level of funding received from various sources; results of data submission to Lumity; behavior changes from trainings; stability of CTCs; performance of non-Connect organizations. These responses represent a well-balanced distribution between organizational and programmatic issues, and significantly contributed to this evaluation's measurements of program effectiveness.

The evaluation team felt this evaluation should be performed by building good relationships, identifying program and organizational needs, reporting those needs, and making necessary changes. Evaluation team members also felt CTCs themselves are possible barriers to the successful performance of this evaluation, especially regarding effective participation in the effort. The evaluation team members possess significant skills and attributes to overcome these barriers. The program evaluation team stated that CTCs are currently gathering data as they need it (i.e. sporadically); lack of time and priorities prevent them from consistently collecting data. Further, they would not know what questions to ask. Lumity wants to streamline the process of data collection – different funders want different data, but it is necessary to achieve a common understanding amongst them. Lumity is trying to find an open source program, and part of this is to be addressed by development of a CTC data collection and assessment tool. In general, the evaluation team's skills and attributes comprise the following areas: training, technology, interviewing and data analysis, organizational, relationship building, tool and curriculum development, operations management, program management, human resource management, public speaking, and data and maps of CTCs. With such breadth and depth of knowledge and

skill, this evaluation team clearly has the capability to successfully achieve the goals of this evaluation. Therefore, only commitment, desire, and teamwork are necessary. Stakeholders mentioned the questionnaire used to gather this information did not mention evaluation of program managers or staff, and CTC participants, and that this is necessary to achieve this evaluation's goals, along with organizational transparency. This was a significant observation and contribution.

Evaluation team members expressed ambivalence regarding what data to collect, i.e. whether it should be gender and age specific or something else, how it should be collected, and how to evaluate data to determine its veracity and usability. Evaluation team members also expressed a disconnect between measurements currently utilized and the data needed to tell the true story of the CTCs and the effects of their work on their participants. This evaluation sought to bridge that gap. Finally, CTCs had a clear concern regarding determination of organizational sustainability. This information identifies an area that might facilitate program success, as there seems to be a clear alignment between CTC's needs/concerns and the services offered by Connect.

Overall, all concerns, interests, and views of the evaluation team members were "positive." Any negatives or dissatisfactions seem to be rooted in sincere desires to achieve enhanced capacity and sustainability. No comments refer to political power struggles or otherwise unethical or improper behavior. What this information highlighted is that we might not yet know how to achieve enhanced CTC capacity and stability, and that learning this information is considered a gigantic step towards program improvement. HELP congratulates all evaluation team members on their willingness to explore themselves and opportunities for improvement of the Connect program. This was a significant contribution to the program and this evaluation project.

Evaluation team's final thoughts.

At the conclusion of the first draft of this report, which was after the initial data analysis, the evaluation team was once again convened to obtain their final thoughts. They were provided the opportunity to review the first draft, and then make comments, suggestions, or ask questions. Once again, this component provided invaluable information and therefore significant contributions to this evaluation report. CTC members of the evaluation team suggested the program goal was originally described to them as enhancing sustainability in the form of funding

or funding opportunities, and that the program changed from its original focus becoming much wider, and perhaps unfocused. This point was supported by a Lumity staff member, describing it as learning by doing. Another evaluation team member asked why 74 CTCs were originally targeted by the program requirements, suggesting a smaller number might have been more appropriate to determine outcomes and achieve program goals. A final and significant concern by the evaluation team was the absence of CTC reported data. Lumity's staff acted quickly on this concern, providing HELP with all reported data for incorporation into this evaluation report. A Lumity staff member also cited difficulties in achieving CTC participation in certain program activities, highlighting the necessary role of CTC participation in Connect for program effectiveness.

Evaluation Methods

Evaluation Design: mixed methods, sequential

The evaluation design was derived from the exploratory nature expressed by the evaluation team, and by the absence of program theory. The design was heavily influenced by the context of the program within its funding cycle and the forces upon it. In other words, because many CTCs have participated for only three months to one year at time of survey, short-term outcomes may not have been achieved yet, and long-term outcomes have definitely not been achieved. The intent, therefore, is to determine what has resulted thus far to aid in further program decision-making.

Focus groups covering all topics were employed to gather qualitative information, and also to refine the sequential quantitative instrument, which was administered electronically to those not participating in the focus groups. Data analysis incorporated information learned from the program context, stakeholders' feedback, and program documents such as the funder's agreement with Lumity. This intrinsically incorporates triangulation, resulting in enhanced validity and credibility of the findings. The overarching evaluation design has four phases, as presented below:

- Phase 1: evaluation plan development
- Phase 2: qualitative: focus group interviews/discussions
- Phase 3: quantitative: electronic and telephone survey
- Phase 4: data analysis
- Phase 5: report writing and distribution

Evaluation Questions

Development of the evaluation questions was influenced directly by the evaluation team, representing a benefit of HELP's evaluation model. First, consideration was given to measuring the program goals of enhancing CTCs' capacity and sustainability. Capacity was delineated as technology capacity and human capacity, so questions addressed areas such as quantity and availability of staff, computers, and participants served, and human skills and knowledge. The issue of sustainability addresses areas such as business development, funding received, marketing, and volunteers. Since understanding any phenomenon requires consideration of its context and significant factors affecting it, also sought was the program context and Lumity's service delivery performance. This resulted in the development of five overarching evaluation

questions, shown below:

1. What are the CTCs' program contexts?
2. How do the CTCs experience Lumity's performance?
3. What are the effects of Lumity's CTC Connect program on present and former CTC capacity?
4. What are the effects of Lumity's CTC Connect program on present and former CTC sustainability?
5. What are the effects of Lumity's CTC Connect program on present and former CTC participants' skills, knowledge, human development?

Sampling Methodology

Consensus sampling (100%) of all current and previous Connect participants was employed. A list of all current and previous Connect participants was acquired from Lumity staff, resulting in 74 CTCs, all of whom received an invitation to participate in the focus group interviews/discussions. Response was incentivized with free software offered by Lumity, valued at $200 or more. Those CTCs who did not participate in the focus groups were sent an electronic version of the survey instrument in Microsoft Word incorporating the field function. An additional and emergent phase was employed, requesting to participate in a telephone interview, as only seven CTCs agree to participate in the electronic version of the survey. Two additional CTCs agree to participate in the telephone version of the survey.

Data Collection and Cleaning Methods

Data collection began by requesting and reviewing program documents from Lumity staff, followed by evaluation team meetings and discussions. A complete list of the evaluation team members is available in the Description of the Initiative section, whose members include representatives from Lumity, CTCs, Smart Chicago Collaborative, and city of Chicago. These discussions defined the program context, including its background and history, the purpose sought for this evaluation by multiple stakeholders, and the program goals and objectives, all of which resulted in the evaluation plan. Included in the evaluation plan was the development of the program's logic model. Since most evaluation team members are representative of CTCs, discussions and information learned was extremely valuable. This represented phase one of data collection, contributing significantly to the evaluation overall, as data from future phases and the evaluation results may achieve enhanced comprehension of the Connect program, thereby

achieving enhanced utilization of evaluation results.

Phase two of data collection comprised focus groups, making significant use of echoing and probing by the evaluator. This means confirming responses for accuracy, and drilling down into responses by repeatedly asking why and how, which helps respondents to better understand their own thoughts, feelings, and perceptions, thereby providing deeper and more meaningful responses. This procedure also serves to uncover socially-responsible or incentivization-induced responses. From this procedure, it was learned that certain questions were unnecessary or unproductive, and other questions were more relevant and productive. This information significantly refined the survey instrument administered electronically to those who did not participate in the focus groups. This probing and echoing facilitated conversation and input from all members of the focus groups, which was continued until saturation or repetition was achieved. The focus groups were audio recorded, beginning with rights to privacy and confidentiality, in accordance with the American Evaluation Association's policies on ethical evaluation practices, and opportunities at the conclusion of each component and the focus group itself to ask questions or provide comments. The audio recordings were transcribed by an external firm specializing in transcription. Each focus group was synthesized into one response in the Microsoft Excel master database to contribute to later quantitative analysis in SPSS statistical analysis software. For example, one focus group had three participants, each of them serving participants of various ages; those ages were averaged to result in one case of ages as opposed to three. Due to the small sample size and desire to learn and explore about program effects, this method is appropriate.

The electronic survey instrument was administered during phase three via Microsoft Word using the form function. This permitted open-ended questions with fields comprising an unlimited space for entering text. Quantitative or closed-ended questions employed check boxes to select categorical responses. These responses were then copied and pasted into the master database in Microsoft Excel for later transfer to SPSS for data analysis. A second step of data collection emerged during phase three, comprising administration of the electronic survey instrument via telephone. This was deemed necessary due to low response rates. In this phase, the questions were read verbatim from the electronic survey to the participants, and responses were typed directly into the Microsoft Excel master database. However, the telephone provided the ability to interact and clarify questions for participants, possibly resulting in more valid and

better quality data than the electronically administered survey.

These three phases, although collecting essentially the same information, do so via various methods and sources. This design therefore comprises triangulation, a method known to enhance the validity and reliability of information and inferences. Also incorporated is data collected by Lumity from the CTCs. This includes how many people participated in their programs in the areas of: access to technology; training or technology courses; digital literacy; robotics courses; advanced technology training; transition to work force training; various best practice trainings; and workforce development, which includes the number of CTC participants gaining technology related employment. Some of this data was sent or acquired from some CTCs monthly via e-mail, telephone, or physical acquisition, but other data was sent or acquired sporadically, and the dates are not known. Therefore, only summary information may be used, (i.e. longitudinal or regression analyses are not possible).

Students to access computers and training participants are verified by the MS IT coordinator and the CTC Director of each CTC site (these numbers are obtained by classroom sign in sheets and visual confirmation). Successful completers are verified via Microsoft IT Academy completion of online courses (advanced educational programs initiated and received by the CTC Director). Transition to training or workforce programs are verified by conference calls or application approval with training center supervisors and instructors. Jobs acquired following training are verified through direct contact with employers.

Data Analysis Methods

According to the original plan, evaluation team members were intended to contribute to the development and performance of this evaluation, intrinsically incorporating their thoughts, needs, cultures, local context, societal norms, emotions, and much more. Such designs are known to provide more valid and usable results, and also enhance evaluation capacity of those participants. However, although all contributed to development, only minor contributions were made regarding performance of evaluation activities and tasks. Most significant contributions were obtained during development of the evaluation plan and program logic model. The contributions obtained, however, were very significant towards development of the evaluation design and evaluation questions, contributing to validity and credibility of this evaluation. We are grateful for those contributions.

Data analysis of the focus groups was performed prior to performance of the quantitative

survey instrument in order to inform it, which comprised three steps:

1) determine the themes, categories, and patterns within and between the identified components of this evaluation plan, including any new components discovered

2) summarize and synthesize each theme, category, or pattern identified in a manner that addresses each of the evaluation questions and sub questions

3) using the information from step two, make observations or draw inferences to determine the effects of the Connect program on the CTCs

This information informed development of the quantitative instrument to be administered electronically and via telephone.

Results and Findings

This section presents analyses of all information according to the evaluation questions. There are no normal distributions in these data, as might be expected; only non-parametric tests may be performed. The following evaluation questions represent the significant, overarching questions that the evaluation project seeks to answer. The evaluations questions and sub questions are presented in Appendix B.

Table 1: Survey Administration Methods

		Frequency	Percent
Valid	Electronic	7	50.0
	Focus	5	35.7
	Telephone	2	14.3
	Total	14	100.0

Five focus group interviews were provided on site at Lumity's offices in Chicago, comprising 18 participants from 16 different CTCs. Despite incentivization of free software for the electronic survey as well as the focus groups, only seven out of the remaining 54 CTCs agreed to participate in the electronic survey. Several e-mail communications from HELP and Lumity requesting CTC participation could not enhance those rates. Telephone interviews were also offered with the same incentivization; two additional participants were acquired. Table 1 demonstrates the itemization of each of the three survey administration methods.

1. What are the CTCs' program contexts?

The CTC program context is shown to be deep and wide. For example, a very focused program may be called narrow, but might be deep due its complex and social nature. In this case, because the CTCs and their participants are so varied, and also because the Connect program offered so many complex services, this program is extremely wide in addition to being deep.

Organizational Component.

According to information gathered by HELP, the average CTC organization was established in 2004, but the range is 18 years. Even though numerous CTCs were established in the 1990s and early 2000s, three survey participants, who were all telephone or electronic survey participants as opposed to focus groups, only recently began operating as CTCs. This represents 21% of HELP's sample, which is significant because new organizations or programs normally require 1 to 3 years to operate effectively. This might contribute to less than optimal CTC use of, or participation in, Connect services and activities for 15 of 74, if generalizing that 21% to the

population of CTCs. According to HELP data, five survey participants began participating in the Connect program in 2013 (see Table 2: shown in blue), and all participated in the telephone or electronic surveys as opposed to focus groups. Therefore we know that these organizations, which represent 35% of the sample, might not have had enough time to realize short-term outcomes, and certainly have not had enough time to realize long-term outcomes.

Table 2: Comparison of CTC Enrollment Date
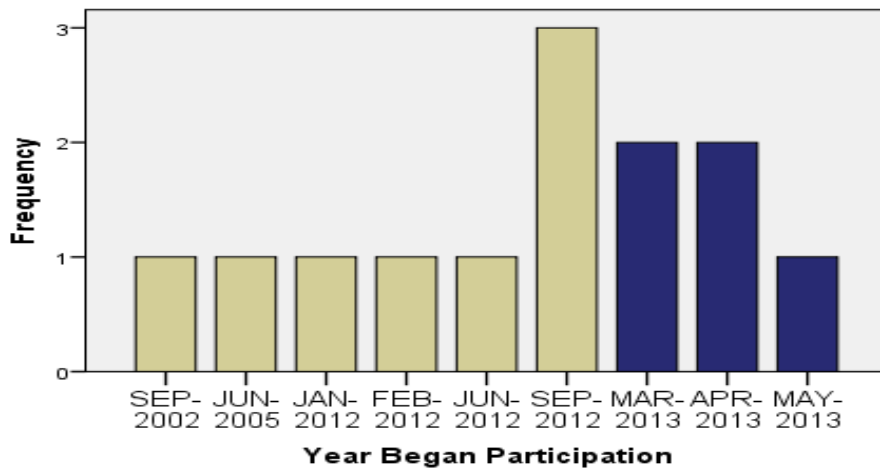
This may be said for others as well, who began participation and 2012, but it may be said with greater certainty for those beginning participation in 2013. This information must be considered when making inferences based on this data, as policy and program decisions might be based on those inferences. Lumity's data regarding program participation, for which the response rate was 25%, demonstrates participation beginning sometime in 2013, while the other 74% began participation sometime in 2012 or earlier. Twenty percent of the 74 participants do not have agreement data available, they also do not have a technology assessment performed, and only one participated in an orientation; however, almost all received some type of technology services. The data set shows that agreements were reviewed and signed by 58 CTCs, but Lumity suspects that agreements were signed by all CTCs. Therefore it is not known with confidence whether all CTCs reviewed and signed agreements, whether Lumity staff did not properly record the information, or whether Lumity did not review and sign agreements.

According to Lumity's data received from CTCs, the volunteer management component achieved the highest number of participants, followed closely by the technology component. The CTC orientation and training occupies third place, which is surprising because it would be expected to be at least tied for first place; however, since it is an orientation and not a program

service it might be removable from this graphic (see Table 3). This information was gathered from all 74 participants who responded with either yes or no. It is not known whether orientation was not provided to all 74 participants, or whether the date of their orientation was simply not recorded. It is possible that orientation was provided, but that participation was simply not recorded. Networking follows in second place with approximately 33% less participation, followed by fundraising training and marketing training, respectively.

Table 3: Connect Program Participation Comparison
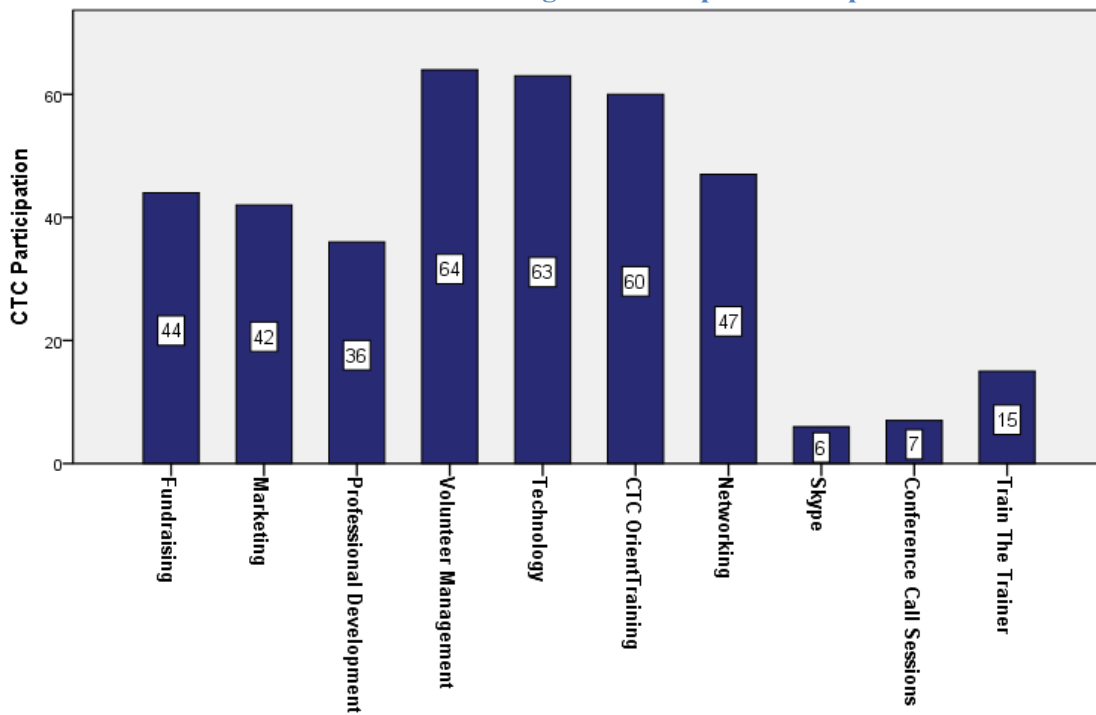
Lumity categorized the CTCs in one of four service categories based on their primary service offerings, and as expected, the qualitative interviews suggest that CTCs offer two or more of these categories of services. For example, one CTC might offer basic services to after school students, while offering advance training during the day to adults. Although this is "known," the full complexity of their service offerings, and the participants they serve, might not be known well enough to provide optimal service delivery (i.e. Connect must account for their service heterogeneity). The CTCs are located throughout the city of Chicago. Since various neighborhoods and other geographic areas of a city can comprise various cultures, racial groups, ethnic groups, socio-economic groups, and others, noting where CTCs are located might provide

additional insight into how they operate and what their needs might be in order to operate more effectively. Table 4 shows where the CTCs are located according to zip codes.

Table 4: CTC Location Comparison
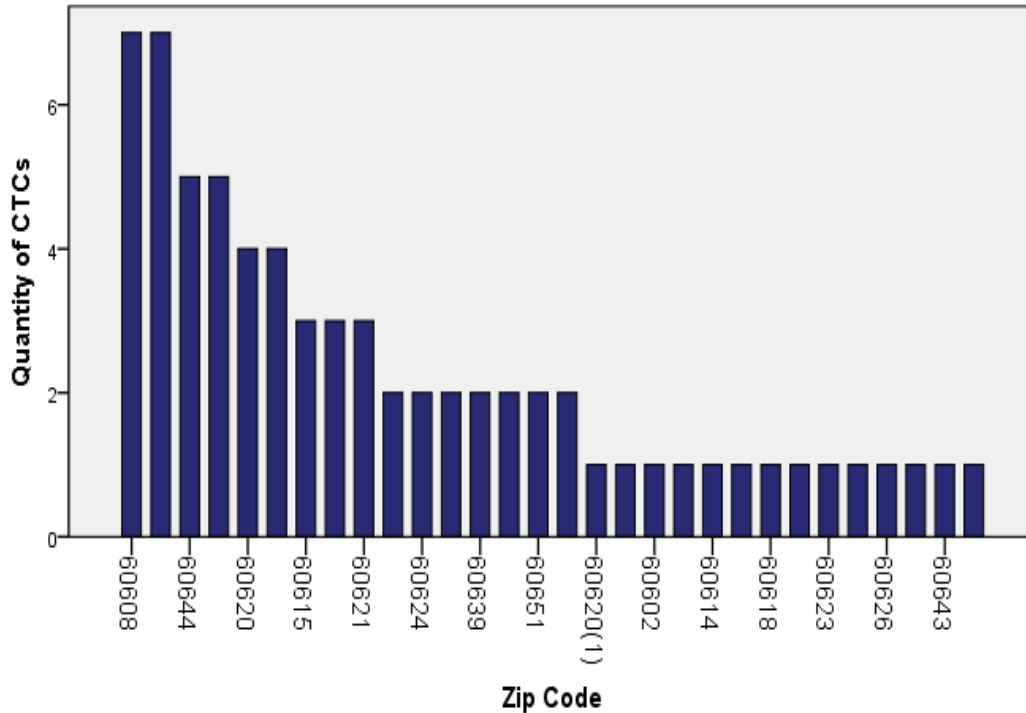
The CTCs serve an approximate average of 104 participants per month, however the standard deviation is 80 which is 77% of the average; the minimum served per month is five, and the maximum served per month is 300. This demonstrates that CTCs vary greatly according to size or participants served.

Target Participant Component.

Most CTC participants come from the following zip codes: 60639; 60619; 60608; 60620; 60617; and 60651. A brief glance at a zip code map of Chicago suggests that the zip codes represent various geographic areas of Chicago (i.e. north, south, etc.). Approximately 77% of CTCs serve mostly black participants, while approximately 23% serve mostly Hispanic participants. This is followed by whites, Asians, and then various other races and ethnicities. The CTC participants are approximately 48% male and 52% female; however, the standard deviation is approximately 12 percentage points, indicating a relatively large range. For example, one CTC serves approximately 35% men and 65% women, while another serves 80%

men and 20% women. This information once again demonstrates CTC variation, suggesting issues for program development, program delivery, and program evaluation.

The CTC participants' income levels were described in various ways, but it may be said that all are considered low income. This evaluation did not seek to determine particulars in this area. (For example, there was no examination of numbers or percent of CTC participants above or below federal poverty lines, e.g. for various family or housing situations). This is also true of education, where most were described as having lower levels of education, which comprised a range from no education, to high school, to certificate or some college. The same is true for age, ranging from young children to the elderly. More informative than those standardized categories, survey respondents described their participants as mentally ill, homeless, unemployed, veterans, and simply those seeking work. This represents very significant information toward program improvement.

Who do the CTCs serve?

"My participants come from all over Chicago!"

Table 5: CTCs' Participation Comparison
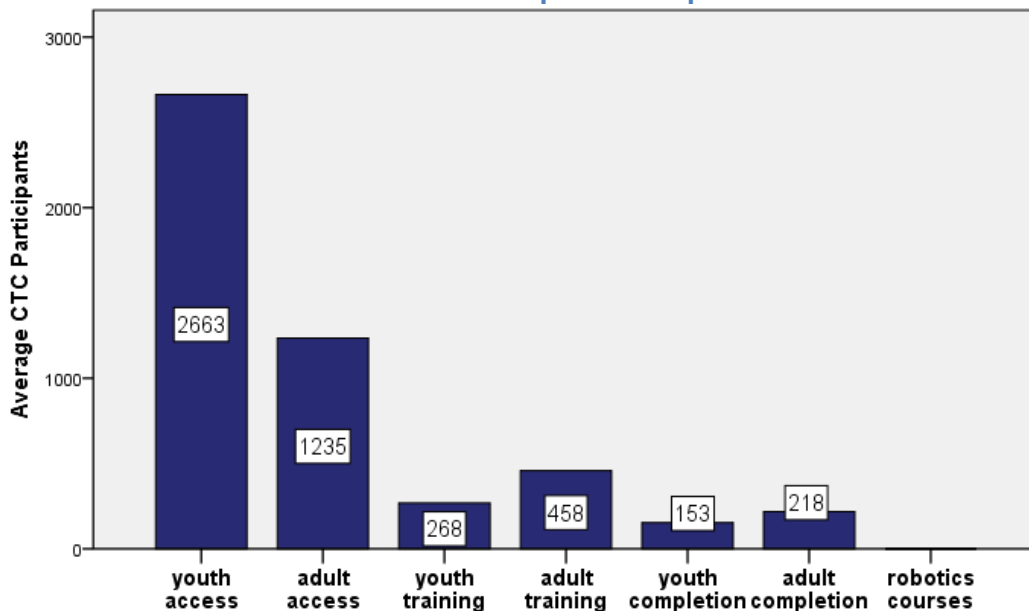
The previous paragraph demonstrates the immense breadth and depth of the CTCs and their participants. In an effort to understand those who CTCs serve, as more than just categories,

the focus groups inquired about those participants' unique needs and desires for effective participation in CTC programs. They were described as needing emotional support and encouragement, and also fun experiences because of unstable lives that lead to short attention spans, difficulty trusting people, and forgetfulness. Better knowledge of who CTCs serve has implications for improved delivery of the Connect program, as the people the CTCs serve intrinsically describes the uniqueness of each individual CTC.

Table 6: CTC Higher Learning Participation Comparison
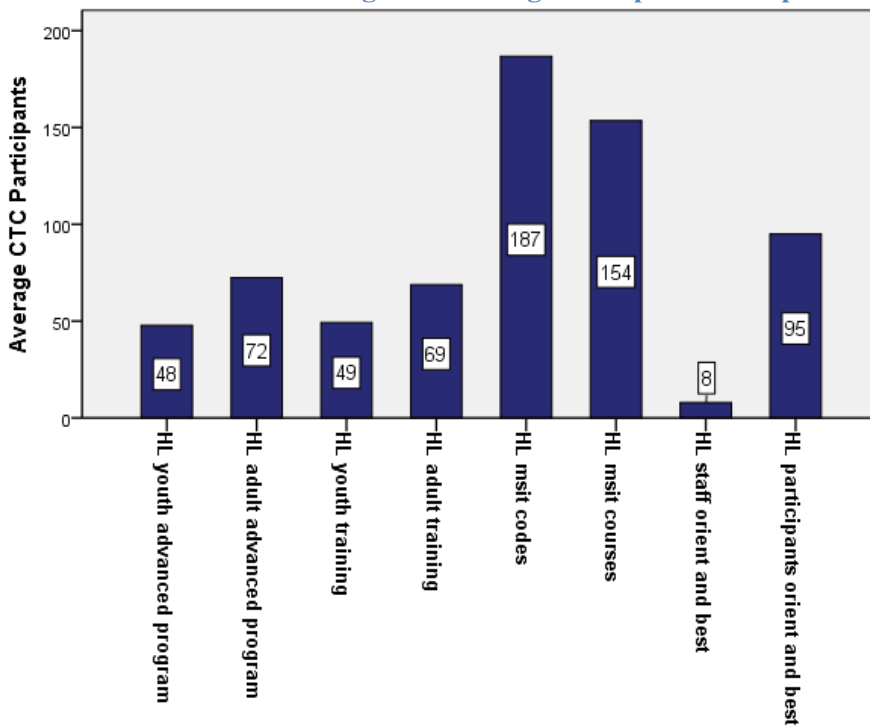
Numbers of those who participated in CTC programs are shown in Table 5 and Table 6. The standard deviations of all statistics are extremely wide; almost every standard deviation is at least 100% of the mean, and most are to 100%, 300%, and even 500% of the mean. This strongly suggests that the mean or median of these statistics are not valid representations of their populations. Because of this, any statistical analyses conducted using the statistics, even non-parametric analyses, should be viewed with extreme caution, and should be triangulated. Table 5 shows that youth and adult access to computer resources is by far the largest group of participants with an approximate average of 2,600 and 1,200, respectively. In a very distant

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second place are those youths and adults who participated in training with an average of 268 and 458, respectively. As might be expected, access to computer resources comprises the largest quantity of participants. Smaller numbers of participants are found in advanced classes or other trainings; most of those numbers are in the tens or low hundreds. This information might be useful for structuring Connect in the future.

Level of CTC Connect Participation.

CTC representatives rate their desire to participate in Connect as 83%, their sincerity of participation (when they participate) is rated as 76%, and their adherence to Connect's requirements were rated at 74%. These should be viewed as rankings to be compared against each other; to extrapolate, it may *not* be said that 83% desire to participate in Connect is "good," but it might be said that desire to participate is stronger than sincerity of participation, which is stronger than adherence to program expectations and requirements. Additionally, note that desire to participate was not rated very low (e.g. 25%), which might have suggested complete lack of desire to participate. Therefore, these perceptions might be called encouraging or representative of perceived program value. Further, these rankings are what might be expected, which somewhat supports validity of this data. The unknown, however, is the desire, sincerity, and adherence of the 59 CTCs who did not participate in this evaluation. We also do not know, of course, how those 59 CTCs perceived Lumity's management and staff, and performance, and the effect of the Connect program on their capacity and sustainability. This is a very significant concern, especially for this measurement, as it represents CTCs' feelings related to Lumity, its management and staff, and it services.

2. How do the CTCs experience Lumity's performance?

Program components.

The degree to which Connect offerings meet CTCs' needs are mixed. However, due to non-participation in, or non-receipt of, particular program services, not all survey participants were able to rate how well each of Connect's services met their needs. This is problematic for the performance of statistical analyses, but is not problematic for satisfaction ranking. For example, a relatively small number of responses were realized for three out of four categories of services: eight and nine responses out of 14 survey participants equals 57% and 64% of survey participants who responded to this question, respectively. This could impact statistical analyses, and although the responses received are valid in this description, a significant question regards

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those who have not participated, both in this specific measurement and in the evaluation overall.

Lumity administered satisfaction surveys of their own during the course of trainings and other service provisions via Survey Monkey, a web-based survey administration tool. Although their survey certainly represents significant work, and demonstrates the sincerity of their efforts, it is essentially unusable for this evaluation. This is because it is only available in summary form, i.e. the data set is not available, but mainly because nine different scales of measurement were used for nine services/activities (MS IT Training & Orientation, Marketing Training, Orientation, Fundraising, Training, Wright Training, Professional Development, Over-the-Phone Technology Support, Volunteer Development & Handbook, On-Site Technology Support). Although some comparative analysis is technically possible, some of the scales have only one summary response, while others have only two or three summary responses.

Table 7: How Connect Met Needs
(by service component)
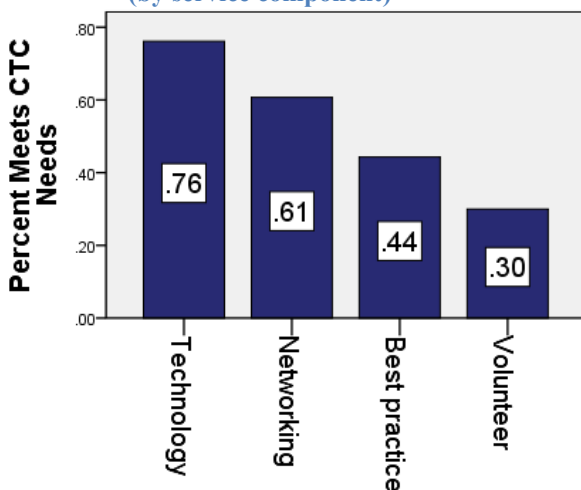
However, since all but one of the scales was a four-point scale, where numbers 1 and 2 could be considered "negative" perceptions and numbers 3 and 4 could be considered "positive" perceptions, it may be said that all summary responses were "positive." This is because all averages are somewhere between the ranking of 3 and 4. This suggests that CTCs were overall satisfied with those trainings/activities, including not only the content but also the administration of them. In fact, qualitative information collected from that survey is reasonably supported by this quantitative information. This information partially supports the Connect program as effective.

HELP's data suggests technology services were perceived as best meeting CTC needs, followed by networking, best practices, and finally volunteering, as displayed in Table 7. This information should be used cautiously in any statistical analyses, as it has weaknesses. However, it is valid as a ranking of how well each category of services was perceived to meet CTC needs. Its most appropriate use is comparisons amongst itself. Only one of the ratings was low enough

(volunteer management: 30%) to suggest off target services. This one descriptive does not suggest concern by itself, and the remainder of the analysis, including the qualitative analysis, must be incorporated into this possibility.

Qualitative data regarding the technology services are quite informative. Two CTCs stated they depend entirely on Lumity for IT support, another said they were promised free computers but did not receive them until a year later, and yet another said their IT manager did not want anyone accessing their IT. These thoughts were selected as representative of the qualitative feedback overall on the technology related services. Note the complete dependence on Connect by some CTCs, but also the refusal by others who have professional IT departments. This might suggest that organizational size or resources contribute to perceptions of satisfaction with the technology related services. Lumity's service performance was also identified as less than satisfactory at times, and superior at other times. Socially responsible answers are suspected by HELP in this area. This might be due to the significant incentivization offered by Lumity for participation in this survey, as some participants provided shallow feedback and were overeager to receive their incentivization; of course, some other unknown reason. Although HELP accounted for detected biases in the qualitative data as much as possible, such biases must be considered when developing inferences from this data.

There is a positive, medium strength relationship between the year an organization was established and its perceptions of whether technology services met their needs (Spearman's rho correlation: 0.530, p =.094), and with perceptions of whether the best practices component met their needs (Spearman's rho correlation: 0.664, p = 0.051). This means that the smaller/less-established a CTC, the more it perceives technology and best practices services to meet their needs. The year an organization was established might be prior to when their CTC was established. Further, there is a significant R-squared value, indicating 21% of the variation of perceptions of whether technology services meet their needs is due to the year the organization was established. There is no significant R-squared value for the best practices component. There are no significant relationships between the year an organization was established and perceptions of whether the networking or volunteering components met their needs. All of this suggests that CTCs who are smaller/less-established experienced the technology services and best practices services as meeting their needs more than larger/well-established CTCs. This relationship supports other information indicating that smaller/less-established organizations

would be the optimal Connect targets, as smaller/less-established organizations are most likely less organized and able to operate effectively and therefore are organizationally similar to small organizations. It also suggests that larger organizations, if sought as targets for Connect, need different services or need them delivered in a different way. The variability of the CTCs is demonstrated once again. These results align with logical expectations, and possibly support the data set as valid, once again.

The qualitative information shows that all smaller organizations claim a higher level of satisfaction with the four program components than the larger organizations, except for the volunteer component, which is equal. For example, one respondent stated, "We, the CTCs, need to be trained, so perhaps train us on programming, which might include hands-on training regarding technical issues; we don't have a staff, we need someone to call when we go offline." Another respondent stated, "Larger organizations have marketing and technology staff, so those services are not useful for them." Once again, these statements represent the sentiment of the qualitative discussions, and are supported by these quantitative data and analyses.

Smaller CTCs Have Different Needs

"We don't have a staff, we need someone to call when we go offline."

Other suggestions for improvement of Connect are elucidated by participants' experiences. They suggest better outreach or clarity of who to turn to for training events, considering some online, and the issuance of a best practice manual[5]. Still others suggest development of a purpose for each networking event, such as an educational topic, touring another CTC, inviting Lumity board members, or presenting stories for others to learn from. Concerning the volunteer portal, CTCs stated it is unhelpful. The process is either too

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[5] Note: several manuals were produced after data collection of this evaluation; see the Program Service Delivery section for specific details regarding what manuals were produced, and by whom.

complicated or requires too much time for the participants to devote because their individual projects require less time than the time required to obtain a volunteer, they need bilingual volunteers, and need volunteers at times of day when the volunteers are not available. There seems to be very strong interest in the volunteer component if it could be delivered in a manner that meets CTC needs, suggesting program theory is necessary for proper development.

Lumity management, staff, and program delivery.

Compliments and complaints seem to be in equal numbers and distributed equally across the groups of respondents. There is concern about socially responsible and incentivization-induced answers in this section, i.e. giving positive responses so as not to offend Connect staff or endanger future receipt of free services or products. For example, Lumity's performance and staff was described as excellent or perfect. Probing those responses to discover what Lumity did that was excellent or perfect lead to spurious (baseless) or non-substantive responses, such as: "They didn't do anything wrong." There is no apparent correlation between either excellent or poor performance by Lumity in any specific activity or function. Rather, satisfaction with Lumity's performance is random, suggesting lack of standardization in service delivery and customer service procedures, although other explanations are plausible. For example, according to Lumity's reported data, only 32 of 74 orientations were completed, representing 43%. It is not known whether those orientations were in fact not completed, or whether they were completed but not recorded as completed. If not completed, perhaps that lack of orientation contributed to CTC inability to make use of Connect's services. Two evaluation team members opined that most CTCs did not comply with reporting requirements because they misreport information to other agencies and do not want to get caught by reporting different information to Connect. Participants are happy overall with service performance, especially from Lumity staff, except they state confusion around the roles and responsibilities (i.e. to whom to turn for assistance or questions). This might indicate lack of sufficient program planning and organizing, but of course does not explain causation. As previously stated, only partial programming was offered for the first 10 months due to lack of funds. This or some other scenario might be the underlying cause, if in fact this suggestion is accurate. Subcontractor performance was described as very good, but also less than optimal, including the attempted selling of non-Connect services, which further confused Lumity's offerings and made some CTC feel pressured. Aggregate results suggest participants are overall satisfied with the program, but it seems program management, program

operations, and service delivery represent opportunities for program enhancement. There is insufficient data to conduct statistical analyses in this area, but if this information is correct, enhancing service delivery could enhance participant outputs and outcomes.

3. What are the effects of CTC Connect on present and former CTC capacity?

CTC capacity has been defined herein as having two components: technological capacity and human capacity. Therefore, the survey instrument attempted to determine the impact of technology services and knowledge/skill development services on CTC participant levels. The concept employed is that, if technology services can enhance CTC participant levels, then CTC technological capacity has been enhanced. (This measurement is not perfect because, of course, levels can increase with their current capacity.) Likewise, if knowledge/skill development services can enhance CTC participant levels, then the CTCs human capacity has been enhanced. This information should be utilized with the qualitative information to make that determination, and should also be used with caution, as it represents perceptions.

Lumity feels their services have improved services offered by CTCs and increased their program participation rates. Lumity supports these claims by stating that: their services maintain hardware and software of the CTC in order for them to maintain their services; they ensure that the CTC is operating within proper guidelines and practices, as prescribed by a set of best practices addressing operational and functional issues; their networking events facilitate participant collaboration via networking, which shares resources and offers support and assistance to other CTCs who may be struggling; and the volunteer recruitment tool permits professional volunteers to extend CTCs' finances, which allows skills to be taught to CTC participants who are unable to otherwise receive training in everyday business activities and practices. Lumity also states that they have improved 257 machines, and added approximately 40 machines, stating that without this correct infrastructure the machines would not function properly. Some of these structural enhancements include installing hundreds of feet of Cat5 cable, installing server racks and switches, troubleshooting systems, and updating computer systems. If all of this is accurate, then CTC technology capacity has clearly been enhanced. However, because it is known how many machines exist and how many were not working, although Lumity has this information in disaggregated paper format, the magnitude of that capacity enhancement is not known. This information contributes to the need for standardized and evaluation-capacity-building data collection processes of any future CTC program.

Therefore, although this is enhancement, it is not possible to state the *magnitude* of the enhancement. This information does, however, correlate with information learned during HELP's focus groups, once again bringing validity to the findings and data set.

The number of Connect services received by a CTC has a positive and medium strength relationship with knowledge/skill's perceived impact on CTC program participation rates (Spearman's rho correlation: 0.491, p = 0.089). Stated another way, the more services a CTC participated in, the more knowledge/skills learned were perceived to enhance participation in their programs. There are no such relationships with technology's impact on CTC program participation, which is unexpected because technology represents the largest concentration of service participation by CTCs, and also because it was perceived as meeting CTC needs more than any other category of services. Perhaps this information supports the program's current structure and design, as it is the full spectrum of services that provide perceived enhancement of CTC program participation; it is possible that enhanced knowledge and skills is responsible for enhanced capacity. This information and its inferences should only be utilized if it supports, and is supported by, other information.

There is also a strong, positive correlation between how well the volunteer component met CTC needs and knowledge/skills' perceived impact on participation (Spearman's correlation: 0.579, p = 0.103). This means that the more CTCs perceive the volunteer component to meet their needs, the more they perceive knowledge/skills learned has positively impacted participation in their programs. Once again, only nine cases have responded to the volunteer component, implying that such statistics, even these non-parametrics, should be utilized with caution. The qualitative data should be supported by this information in order to consider it useful. This information might simply tell us what we know, i.e. that gaining knowledge and skills enables us to better understand and better make use of particular services. If that is correct, it supports the services that enhance knowledge and skills in order to enhance other more concrete functions and activities. Other inferences might become apparent or evident based on other findings.

Cross tabs analysis comparing median values was performed on Lumity's reported data, searching for statistically significant relationships between knowledge/skill related variables (i.e. marketing training, professional development, volunteer management, technology, and networking), "computer related jobs" obtained by CTC participants, and "computer demanded

jobs" obtained by CTC participants. Although some significant relationships were discovered, this section is limited by the small sample size. For example, there is a very strong statistically significant relationship (Spearman's rho: 0.749, p = 0.004) between professional development services and the average wage of jobs attained. However, the number of cases who participated in professional development *and* reported jobs attained for their participants was 12 out of 36 who received professional development services; not all who received those services reported jobs attainment data. Nothing is known about those other 66% of CTCs. Of course, nothing is known about the 38 CTCs who did not participate in professional development services, and what would have happened if they participated. Interestingly, there is also a strong positive correlation between professional development and the number of adult access participants (Spearman's rho: 0.508, p = 0.011). This statistic has a count of 24, meaning that there is an unknown regarding 33% of those who participated in professional development services and reported on their quantity of adults who had access to computers. The same is true for professional development and adult training sessions (Spearman's rho: 0.425, p = 0.062, n = 20). However, considering that professional development has relationships with three dependent variables, and no other services have such relationships, more weight is given to the plausibility of these relationships.

It was suggested by the evaluation team that the CTCs themselves contribute to their own success or failure, and therefore the success of this program. There is no correlation between CTC's desire to participate, the sincerity of their participation, or their adherence to Connect expectations and requirements. This lack of correlation amongst any of these three "related" variables suggests they are unrelated in some unknown way, or possibly that the data set is ambiguous and representative of poor sampling and sample size. If these results are accurate, it might mean that the respondents themselves were not able to perspicaciously express their perceptions, which is a known phenomenon. The descriptive statistics for these three variables are shown in Table 8, which permit better comprehension of these data and their validity.

During HELP's focus group interviews/discussions, only one CTC stated their management is evaluated, and that management evaluates themselves. Respondents also stated there is not much evaluation of their operations. Only a few are evaluating their programs, and they are conducting output evaluations, not impact evaluations. Therefore, less than optimal program administration and organizational management could be a factor in how Lumity

services are utilized, which has been mentioned elsewhere in this document, and which might explain why some CTCs achieve larger benefits than others.

Table 8: Level of CTC Involvement in Connect Program

	N	Range	Min	Max	Mean	Median	Std. Dev.
Desire to participate	13	.62	.38	1.00	.81	.82	.203
Sincerity of participation	12	.60	.39	.99	.74	.76	.174
Adherence to expectations	13	.90	.10	1.00	.71	.74	.235

The number of services that a CTC participated in or received is not correlated with any of these three variables (i.e. the desire to participate, sincerity of participation, and adherence to program requirements and expectations). All three Spearman's correlation analyses were greater than p=0.44. If this information is accurate, it might mean that the number of services participated in or received does not affect a CTC staff member's desire to participate, the sincerity with which they participate, and how well they adhere to the rules. If this is the case, the program's wide structure may be supported, as participating in more services does not result in reduced desire, sincerity, or adherence to the rules. Of course, the opposite is true. However, participation and adherence have been cited as weak, therefore it might be the program's wide structure which has resulted in weak participation and adherence. This information might also support the concept of an unfocused program overall, meaning too many services, and therefore there is no correlation with desire to participate. This inference is better aligned with the qualitative data and the evaluation team's feedback. Once again, this information should support the qualitative information where possible, in order to achieve more validity and credibility herein.

The qualitative information shows that all small organizations claim a larger increase on participants served due to the technology, networking, and best practices components than the larger organizations; volunteering is claimed to have no effect by both larger and smaller groups, which corresponds with the CTC ranking of the volunteer component. There is insufficient data to conduct disaggregated analyses. Overall, however, there is no correlation between the perceived effect of technology on CTC program participation rates and the degree to which technology meets needs, best practices meets needs, networking meets needs, or volunteering

meets needs. It seems logical that perceptions of satisfaction with technology services would correlate with perceptions of technology's impact on CTC participation. If this information is correct, it might mean that the program meets their needs, but that it does not achieve the intended Connect impact of enhancing CTC program participation rates. This is plausible. Once again, it might also mean that respondents are simply not able to articulate what they truly think and feel, or perhaps that there is weaknesses in the data set.

The qualitative feedback stated that the rate with which community members participate in CTCs' programs might be related to *how* computers are used. The quantitative data does not fully support the qualitative data on this issue, but it does triangulate with evaluation team members' feedback. Perhaps additional qualitative interviews might be necessary to learn whether this is accurate. An evaluation team member suggested that the technology category was ranked first only because it was a major initial improvement, therefore providing the *perception* that this program component best meets their needs. This might suggest weaknesses in the data set, inability of CTC members to accurately articulate thoughts and feelings, or that the quantitative information is simply not organized to answer this question with fidelity.

The knowledge/skills learned had an average impact on perceived CTC program participation rates of 14.7%, while technology services had an average impact of 15.5%. Further, the standard deviation for both these variables is approximately 27% of their means, and the range is from 0% to 100% (see Table 9).

<p style="text-align:center">Table 9: Perceptions of Connect on Participation in CTC Programs</p>

	N	Range	Min	Max	Mean	Std. Dev.	Variance
Technology on Participation	14	1.00	.00	1.00	.155	.27	.072
Knowledge/skills on Participation	13	.98	.00	.98	.147	.28	.078

There are no negative impacts on participation, which was specifically addressed in HELP's survey. It may be useful to monetize participation in future evaluations to permit better comprehension of program value. Simple mathematical calculations, based upon *valid* data, might permit extrapolation of cost per participant, or cost per person trained in some specialty. If other similar programs used such measurements, benchmarking might be performed to enhance performance. At this point, it may only be said that both knowledge/skills learned and

technology related services are perceived to enhance CTC program participation rates by approximately 15%. Additionally, the qualitative data shows that trainings might be enhancing interactions, levels of confidence, awareness, and needs such as marketing and improved interaction amongst organizational members. Such enhancements in knowledge and skills could support the perceptions of 15% gains due to the Connect program. Respondents also cite more self-confidence and positivity. This translates into reaching out to other CTCs, which might be considered within the realm of one of the objectives of this program (i.e. the establishment of relationships with other organizations and corporations), greater levels of energy in work, and self-initiative; two participants stated no observable behavior change. Possible causation of these positive impacts is networking events. This qualitative data is supported by the quantitative data, bringing greater validity and credibility to these findings.

4. What are the effects of CTC Connect on present and former CTC sustainability?

The Connect program is perceived to have enhanced financial standing by an average of 10% (standard deviation: 15%; range: 50%). This supports the qualitative information, where respondents stated that no direct funding was received due to participation in Connect, but cost savings were realized. Cost savings is one of the objectives of the program. This means that CTCs did not have to make expenditures as they normally would, resulting in enhancement of financial position. However, one evaluation team member expressed dissatisfaction, citing enhanced funding (not cost savings) as the most significant objective initially represented to his/her CTC during Connect program outreach.

All focus group responses except one stated there has been no direct impact on funding received, but that services and products received from Lumity freed-up their budget to do other things such as purchasing software or computers, running an annual fundraiser more successfully, permitting ESL classes to use the computer lab thereby enhancing their offerings, or freeing-up staff members. One respondent stated their funding was enhanced by two staff persons because they were able to leverage the program and continue it, because they were able to establish a CTC lab. These outcomes contribute sustainability, but causation is not posited. An evaluation focused exclusively on this topic is appropriate, as learning whether such programs and activities *cause* enhanced funding could significantly impact policy decision making. Future evaluations might be necessary to determine the degree to which those gains actually occurred, as this study utilized participant perceptions which could be inaccurate. This

information possibly supports continuation of this program, and certainly supports further *exploration/evaluation* as to whether it should be continued. An evaluation team member reminds us that even if technology and infrastructure was significantly enhanced, management must make effective use of the enhancements. This informs what future evaluations might examine, as perhaps the potential for significant sustainability is present, but management is unable to realize that potential.

Table 10: Correlation Between Participants Served & Perceived Enhanced Funding
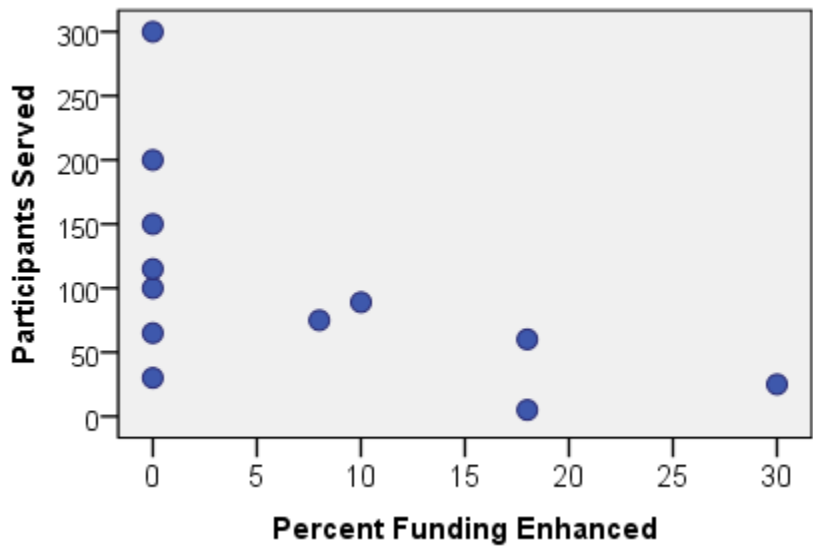
There is a strong negative correlation between the effect of Connect on funding and the number of participants CTCs serve (Spearman's rho correlation: -0.684, p= 0.014), which may be seen in the scatter plot in Table 10. The nature of the relationship shows that those CTCs with fewer participants have realized a larger impact on their financial position than those with more participants. In many ways, this is to be expected, and is supportive of the qualitative information which states that the biggest impact of this program can be found on smaller organizations; it might also be said that smaller organizations are the ones who need the most help.

Surprisingly, there is only one other possible, weak relationship with this funding variable: the perception of technology services on participation (Spearman's rho correlation: 0.386, p = 0.192). This suggests that the more technology services are perceived to impact CTC program participation, the more CTCs perceive Connect to have enhanced financial position. This data supports the qualitative information discovered, and therefore gives more credibility to the technology services for contributing to enhance financial position, which has already been posited. Therefore, this data might further support that information, but there must be caution

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because, even though small sample sizes and non-parametrics are afforded greater leniency in determining statistical significance, these results are stretching those limitations.

There are no other significant correlations with the funding variable. That includes: the three CTC based variables of desire, sincerity, and adherence; the perception of whether technology services, best practices, volunteer management, and networking meets needs; and also the effect of knowledge/skills learned on CTC program participation rates. These results confound other results discovered. For example, it might be expected that the enhanced financial position correlates with desire to participate, sincerity of participation, and the degree to which technology services are perceived to meet needs. It might also be expected to correlate with the impact of knowledge/skills learned on participation. This might mean that, once again, the data set has weaknesses, that respondents could not accurately convey their thoughts and knowledge, perhaps they do not know the answers to these questions, or perhaps some other variable is at play. This implies that this information should be utilized with caution in any policy making. Also note how 50% of respondents cited a 0% gain in financial position, two respondents from the focus groups cited an 18% enhancement, one respondent claimed 30%, and one more claimed 50%. This explains a lack of correlation, but more importantly how there must be some variation amongst these CTCs accounting for this wide discrepancy of perceived impact. Further analyses could examine and explore the differences between those who claimed 0% and those who claimed more positive rates. This might elucidate what program services or other service components, such as service delivery or CTC capabilities as previously mentioned, are contributory this data.

The degree to which best practices meets needs has a very strong negative correlation with the number of CTC participants served (Spearman's rho correlation: -0.807, p = 0.015). This means the more participants served by CTCs, the less the CTC is satisfied with best practices services. Stated another way, the fewer participants served, the more a CTC is satisfied with the best practices program. This confirms or supports the previous statement that smaller CTCs are more in need than larger CTCs. This testing supports the thought that smaller CTCs find more value in the best practices component than larger CTCs, which might contribute to their sustainability. Best practices also has a strong positive relationship with the impact of knowledge/skills learned on participation (Spearman's rho correlation: 0.794, p =.019). This means that the more knowledge/skills learned is perceived to impact participation, the more the

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best practices component is perceived as meeting CTC needs. This augments the previous test results by demonstrating the possible value of the best practices component.

There might be a medium, negative relationship between the impact of knowledge/skills on participation and the number of participants served (Spearman's rho correlation: -0.469, p =.124). This suggests the more knowledge/skills are perceived to impact participation, the fewer CTC participants are served. Once again, there must be caution in use of this information, but since several tests suggest the same result, it is possible that smaller organizations might achieve better results than larger organizations, or be the most in need. It appears that sustainability has been enhanced in some way, albeit mostly on smaller organizations, and that the magnitude of enhancement is not known. Further, it is still early to achieve and assess long-term outcomes such as sustainability.

During HELP's focus group interviews/discussions, most respondents stated they do not use information from the marketing training, but some said they began sending brochures or flyers, and one said the marketing training contributed to an idea for a fundraising program. Numerous responses imply that respondents possibly do not understand the marketing training, which could be due to its delivery methods, lack of CTC ability to comprehend it, or inability to convert that knowledge into action, which has been mentioned by evaluation team members and suggested by these results in other sections of this document. As with most services and trainings, some positive benefit is always realized, as appears to be the case here, but the magnitude is not known and further it is not known what the magnitude should be. Future evaluations might conduct literature reviews on marketing trainings to determine the outcome level against which these trainings could be measured.

Acquiring and retaining volunteers has proven difficult, according to the qualitative respondents. All nine responses, except one, were reported as 0% and 0%, respectively. These relatively poor results for the volunteer component are supported by this quantitative data. The possible reasons for these results might be due to lack of CTC time and skill, off target program development and delivery, or results of this evaluation's sampling efforts. This suggests future evaluations that achieve better sampling, and, if necessary, theory-based development of this component if program continuation is desired. Recall that other responses suggest a strong desire or need for this component, and Lumity claims significant impacts from the volunteer program. They state that, for those who utilized the volunteer matching portal, volunteer

projects were completed that enhanced CTC effectiveness and efficiencies. The following quotes concern projects for CTCs and for CTC participants[6], and support Lumity's claims:

> "The technology roadmap strengthened our bond and commitment to our members, community and partners. Working with [volunteer organization] was time well invested and I hope we have the opportunity to work with them again…"

> "This was a wonderful opportunity for our students to be exposed to the many IT career fields in banking. Our students were inspired to start thinking about their own career goals."

> "I was most amazed that there are people in higher level positions that were willing to teach us and spend that much time and effort with us."

> "I was amazed by the students' energy and enthusiasm for technology so I wanted to invite the students to [volunteer organization] to introduce them to the possibilities of an IT career… "

Specific volunteer projects include installation of computers and free troubleshooting, career development coaching for the CTC participants, and assessment of a CTC web site for donation enhancement. This section suggests the possibility of enhanced sustainability, which would be encouraging, even if minuscule, as time is still considered too short to achieve long-term outcomes. Interestingly, the focus group interviews/discussions that addressed whether CTCs are better able to justify their work to their stakeholders, which might be considered a component or outcome of sustainability, suggest very little evidence that CTCs are better able to justify their work. This might serve as a measurement of the magnitude of sustainability achieved in future evaluations. However, they cited benefits which definitely support and justify

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[6] Source of quotes: e-mail communication with Kara Kennedy, director of Lumity

their work to their stakeholders. Therefore, as previously suspected, the participants might not be fully capable of articulating what they know and what they do not know, and perhaps sustainability achieved at this point may be considered small, which is to be expected, and perhaps even better than what might be expected. A significant benefit is enhanced participation numbers, which does not necessarily justify an organization's existence or the value of its programs, but suggests value in the Connect program. There is an overall sincere appreciation of Lumity's services and offerings, and increased participation numbers might be driving any possible justification of programs. This seems plausible, as most programmatic decision-making is based on this most simple form of evaluation (i.e. counting output numbers).

5. **What are the effects of CTC Connect on present and former CTC skills, knowledge, and human development?**

There is a wide range of answers to this question, but a theme is that knowledge learned from other CTCs for referrals have enhanced knowledge/skills, and human development. Other possibilities include enhanced strategy making for the organization and Google for non-profits. HELP is curious about respondents' inability to define, or lack of awareness of, what knowledge has been acquired from Lumity services. Once again, appreciation for services and products seem sincere, and quantitative data shows that knowledge/skills learned have positively impacted CTCs, which supports these thoughts, although socially responsible answers are still of concern. Therefore, it appears that more knowledge and skill has been acquired than what has been reported by the focus group interviews. Additionally, of very significant concern is the population of CTCs that did not participate in this evaluation. Their input might *significantly* alter results and inferences.

As with previous questions, determining the answer to this question is complex and difficult to measure Once again, the variables that measure the impact of technology and knowledge/skills learned on CTC program participation rates is used in this question; recall that this variable concerns people that participate in *their* programs. There is no relationship between technology's and knowledge/skill's perceived effect on CTC program participation rates (Spearman's correlation: -0.130; $p = 0.672$), nor is there any significant difference between their means (t-test: $p = 0.866$), which suggests that each impacts perceptions of participation rates in different ways, although they achieve essentially the same results. This somewhat supports the use of knowledge, skills, and human development as a component of this program, which has

already been suggested, but more significantly suggests the need for future evaluation work to determine why this varies significantly from technology services, and specifically what results from those services. Regarding human development specifically, many participants were not able to verbalize any achievement from Connect, while others indicated that human development was achieved. Although socially responsible answers were perceived by HELP, it is expected that articulating human development outcomes is difficult and perhaps not even possible for some. It appears that knowledge/skills learned have, at a minimum, positively impacted perceptions of CTC program participation rates, as this quantitative data supports the qualitative data that essentially makes the same suggestions. One member of the evaluation team suggested that knowledge/skills learned was perceived to enhance participation rates by as much as technology services because knowledge and skills are needed to make computers do what is needed. It was also suggested that CTC staff is not technology proficient, so they assign more weight to the knowledge and skills. This represents significant information toward program enhancement, as one would expect CTC staff to be more technologically skilled/proficient than average. Although this suggests that CTC staff is less sophisticated than necessary, Lumity staff suggested CTCs are also extremely busy just trying to survive. These three inferences are all plausible and are either supported by, or support other data in, this evaluation report.

<div align="center">**Discussion**</div>

This section synthesizes the main themes and discoveries from the entire document. Recall that the goal of the CTC Connect program is to increase the capacity and sustainability of CTCs in Chicago by saving costs and partnering with various organizations. A secondary yet significant purpose of this evaluation project is to contribute to the development of a program model for replication. The following sections address significant components of this evaluation project.

The Program Context

The Lumity Connect program began in July 2011 and concluded in July 2013. Its funding of $436,155 was supplied by the city of Chicago and managed by the Smart Chicago Collaborative. The funding required technical support, best practices and trainings, networking events, and volunteer engagement. The calculations, budget, or rationale for determining adequacy of funds for required services is not known. The funding for this grant came from reallocation of indirect dollars budgeted in the original proposal. Knowing such information permits relative determination of whether financial resources were adequate for program delivery; in this case, no determination may be made regarding adequacy of funds. There is a misalignment between the purpose of the grant and the data requested by the funder to perform oversight and compliance; program participation numbers were required reporting, but this data does not inform determination of whether capacity and sustainability were achieved. Although Lumity was encouraged to begin programming in July 2011, funding did not arrive until late May 2012; Lumity almost canceled the program. This means Lumity had the financial ability to provide these program services properly for approximately 1.25 years, instead of the intended two years.

The context of the CTCs may be summarized as heterogeneous. They vary in terms of services offered, the number of participants served, the gender and ages they serve, their neighborhoods, their participants' cultures, and their participants' social and emotional needs. Similarities throughout the CTC context are their geographic location within the political boundaries of the city of Chicago, their participants are mostly black and Hispanic with lower levels of education and income, and said participants have significant social and emotional needs, acting as barriers to program achievement.

Even though CTCs appear to have participated with desire and sincerity, some

component of their contexts prevented them from reporting data to Lumity as required, and also from participating in this evaluation, which has the goal of improving the program specifically for them. This implies *significant* real or perceived barriers, as CTCs had the potential to receive significant benefits at no financial cost; their cost was their time required to attend trainings and networking events, and then make use of the knowledge/skills/connections gained. Organizations normally pay for such services. This represents a significant unknown.

Program Outputs

Program outputs are the results achieved immediately upon participation or completion of a program. They represent the simplest form of evaluation, often called oversight or compliance, determining whether basic program requirements were performed. They do not explain the impact of a program on its participants. Program outputs were achieved as desired, including number of CTCs served and number and types of services provided, except for achievement of funding by CTCs, which achieved zero outputs. However, that is a long-term outcome not expected to be achieved at this point.

Lumity's Performance

The CTCs experienced Lumity's performance in various ways that might be described, overall, as confusing yet beneficial; they were less than beneficial for some and superior for others. Regarding satisfaction and appropriateness of services offered, volunteering and technology services were most requested, followed by networking and fundraising. However, although technology services met their needs by 78%, volunteering services met their needs by only 28%, which is inferior to networking events at 68% and best practices at 40%. This suggests CTCs had the strongest desire for volunteer services, which aligns well with the evaluation team's initial observations, but that the volunteer component did not meet their needs as well as other components. It also suggests networking services, and especially best practices services, may or may not have *adequately* met their needs. Those needs represent an unknown that would significantly inform future program development and delivery and efforts.

The CTCs experienced Lumity's (their staff's and subcontractors') performance or service delivery as sincere, well intended, confusing, frustrating, and superior. A common thread was confusion regarding whom to contact at Lumity with questions, un-kept promises regarding communications and service delivery, and exactly what services Connect offered. The information suggests a lack of standardization in program delivery and lack of focus, despite

sincere efforts by staff to provide superior quality. The logic model stated that Lumity's expertise is a key resource necessary to achieve desired program outputs and outcomes. The information in this report suggests their technical knowledge in service areas is satisfactory, but their program administration might need enhancement, especially regarding facilitation of program expectations, project management, MIS management, and subcontractor management. It might also suggest influence by program context at inception, which was very challenging.

CTC Capacity and Sustainability

The Connect program may have enhanced CTCs' technology capacity and human capacity, as both the knowledge/skills learned and technology were perceived to enhance CTC program participation rates (the rates with which CTC targets participated in their programs) by 15% each. The program is also perceived to have enhanced CTCs' financial position by 10%. Therefore, sustainability may have also been achieved for numerous CTCs, but the true magnitude is unknown, and not enough time has elapsed to determine this effect with veracity, as this is a long-run program outcome.

Lumity installed or improved entire technology infrastructures, and installed a total of 40 machines during the course of the program. Additionally, trainings were conducted on technology maintenance and repair, volunteer management, marketing management, and human development, and participants perceived the attainment of knowledge and skills. The perceived enhancements in human capacity include: interactions and communication, positive outlooks, self-confidence, self-awareness, and awareness of organizational needs such as marketing, which might be mostly due to networking events and professional development training. The results of marketing trainings are ambiguous; CTCs do not report any knowledge/skills learned from these trainings, and yet indirectly articulate specifics such as development of fliers or new events directly inspired by marketing trainings. Results from the volunteer component are widely dispersed, where a positive impact at some level seems plausible even though significant challenges were also reported. For example, even though the volunteer component was perceived as *not* meeting needs very well, knowledge/skills acquired from volunteer management trainings might have translated into enhanced CTC program participation rates via utilization of said knowledge and skills. This is most notable for those who received direct training and assistance from Lumity staff. The same is true for professional development training, as it correlated with number of CTC participants who had access to computers and who

obtained computer related jobs. However, once again the magnitude is not known, and it might be too soon to determine this outcome with veracity.

The enhanced sustainability was not achieved via direct funding in the form of grants, but rather from cost savings (which is one of the program's objectives), structural improvements, machine installations, improved functionality of networks and machines resulting in effectiveness and efficiencies, and knowledge/skills learned that facilitated improved operations and use of equipment. The Connect program is supported to some degree by this information, specifically via technology services and *possibly* from best practices, which is a form of knowledge/skills enhancement. Technology seems to have its largest impact on CTC program participation rates initially, as a onetime event, while knowledge/skills and human development is ongoing and cumulative, and therefore might continue to enhance CTC program participation rates. Future evaluations may better determine this, as insufficient time has passed to measure these perceived impacts with veracity.

Although technology and knowledge/skills learned perceived the same amount of enhancement, approximately 15% each, they did so in different patterns. Further, the interaction between these two services is posited by this evaluation to be complementary, which supports the use of technology services *in conjunction with* knowledge, skill, and human development related services. This should, based on this information, save costs and build relationships with other organizations, thereby enhancing technology and human capacity, finally resulting in enhanced sustainability. Determining precisely *how* to do this should be informed by the recommendations and conclusion of this evaluation report.

Recurring Themes

Recurring themes are thoughts, activities, or results that appear throughout various parts of an evaluation project. When such "triangulation" occurs, meaning that the same thought, activity, or result appears in two or more places, or by two or more different methods within the same place, the information is considered more valid and reliable, and significant to the evaluation results, recommendations, and conclusion. A theme of the analysis is, although the data set is small with wide standard deviations, it consistently supports the qualitative data and input from others such as the evaluation team. The second theme suggests concern regarding the organizational cultures of both Lumity and the CTCs, acting as barriers to effective realization of short-term and long-term program outcomes. Generally speaking, these recurring themes

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revolve around issues related to program delivery by Lumity and program utilization by the CTCs, suggesting a problematic confluence of program development and the complex context of Lumity's participants. It seems likely Connect was developed and implemented without sufficient attention to precisely *what/how* services would be delivered to the varied CTCs, including what outputs and outcomes would be expected, and that services were not delivered as intended. Other suggested causes of problems were: some CTCs do not have the capability to make effective use of Connect services, which might be due to individual management or staff capabilities; smaller/less-established CTCs might still be developing and organizing; CTCs might simply be extremely busy just trying to survive; or not participating in Connect orientation left them ill prepared for proper participation in Connect. These themes negatively impacted program performance and results, and abilities to adequately evaluate Connect. These recurring themes were ubiquitous throughout this evaluation project, and are partially the result of the Connect being too wide and unfocused; this suggests enhancements needed in program management, program development, and program delivery. Finally, another ubiquitous theme throughout this evaluation project is the achievement of better results for smaller/less-established CTCs. Specifically, technology, networking, and best practices demonstrated larger impacts for smaller/less-established CTCs than for larger CTCs; only the volunteer management component did not demonstrate these results, providing insight into suggested enhancements of future program delivery. This theme was also ubiquitous throughout this evaluation project, and must be given significant consideration and incorporation into any future Connect-type programs.

The Evaluation Team's Goal

The evaluation team's chief goals for this evaluation were to determine whether CTCs could: better justify their work/program; develop their businesses; acquire more staff to perform necessary work; and receive more grants as a result of participation in Connect. Interestingly, focus group respondents did not perceive an enhanced ability to achieve these items. Data suggests that immediate outputs and some short-term outcomes have been achieved or are in the process of being achieved, in alignment with the logic model. These long-term goals *might* be more fully achieved at some point in the future. Although this is speculation, it is based on the logic model and its stages of progression. At this point, the answer to whether the evaluation team's goals have been achieved is: "no." However, these are short-term and long-term outcomes, and cannot be expected to be achieved at this nascent stage of the program. Future

evaluations should be performed in approximately 1 to 3 years from the date of this report to better determine whether these short-term and long-term outcomes have been achieved.

Evaluation Purpose

The design of this evaluation was exploratory with the purpose of learning in order to contribute to the development of a CTC program model, and therefore support future funding efforts. This evaluation has clearly contributed significant information toward model development, such as the complex and varied CTC environment, their possible inability to make use of goods and services (as provided), and the issue of organizational size and age. However, due to the nascent nature of the program, achievement of program objectives and goals cannot be fully demonstrated at this point in time. To be clear, this was known by Lumity and HELP at project inception, which contributed to the evaluation design of exploration and discovery, with the intent of identifying what has been achieved or not achieved at this point in the logic model, and contributing to the development of a CTC model for replication. Long-term outcomes are normally measurable in 1 to 3 years after program participation began; therefore, any indications of short-term outcome attainment, such as achieving cost savings, should be viewed very positively and aligned with what would be expected and desired.

<center>**Recommendations**</center>

Cancel, Continue as is, or Improve?

The Connect program should not be canceled due to inability to be effective, but it should not continue operating as it has been operating. Overarching information suggests that specific enhancements to program management and service delivery have the ability to enhance CTC operations and performance, facilitating achievement of their program goals. If the following recommendations can be implemented, at least to some moderate degree if not completely, Connect has the potential to improve significantly. Lumity management and staff are sincere, altruistic, and have the desire to improve, which is valuable and necessary for true program enhancement.

Organizational Recommendations

Lumity has been in a complex situation. As the program context demonstrates, it has faced significant barriers to effectively implementing and administering the Connect program. Other organizations might have rescinded when faced with such barriers. However, enhancements in program management, service delivery, and program MIS must be enhanced.

Program management refers specifically to program planning, organizing, and control. The development of an operations database or at least a program MIS, and also a program manual, is recommended that should be aligned with the program budget. This will ensure that program activities are capable of being performed with given resources, and the manual should also act as a guide for program management and program performance by outlining all significant program policies and procedures. This represents the connection between program management and service delivery, and will bring standardization to program services. However, service delivery might also be enhanced by training staff on planning and organizing their work in accordance with policies and procedures, as the connect program is quite complex and could result in staff inefficiencies and effectiveness. Part of that training should include proper collection and management of program data via an operations database or program MIS, also known as a component of evaluation capacity building when develop properly, which means collection and maintenance of data as part of normal operations to enhance an organization's ability to control and evaluate itself. Such a system might have the capability to schedule and manage service performance, produce weekly management reports, facilitate program participant (CTC) management and subcontractor management, and of course facilitate program evaluation

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activities.

Programmatic Recommendations

In general, the Connect program must narrow its focus, perhaps eliminating certain subcomponents of the four service components: technology support; best practice materials and training; networking events; and volunteer engagement. This would permit a larger concentration of resources on fewer activities, thereby enhancing service delivery performance and the effects of the program on the CTCs. A significant issue must be addressed regarding whom the program target should be in the future. Presently, the target is any and all CTCs, but results demonstrate that CTCs are tremendously varied. Since results clearly demonstrate more impactful results for less-established/smaller CTCs, and since the purpose of such public programs is to serve the underserved or possibly close the digital divide, less-established/smaller CTCs are the recommended target. This recommendation is also supported by the counterfactual effect of policy and program development, meaning that larger/well-established CTCs will most likely "succeed" anyway, so public funds must be used for those who are not likely to succeed without help. Of course, it is possible that people who attend larger/well-established CTCs might not succeed because not all large/well-established CTCs provide effective services, therefore supporting the argument of targeting larger/well-established CTCs. Targeting only small/less-established CTCs is not posited as the sole method of enhancing CTCs and contributing to community, but it is plausibly the most effective method to achieve policy and program goals. Additionally, because smaller/less-established CTCs face greater barriers and challenges, serving them will most likely require more resources.

Regardless of whether the target selected is small or large CTCs, not every CTC requires each four categories of services. Due to CTC heterogeneity, it is recommended that program orientation and any assessments, such as the technology assessment, be utilized to collect information to determine necessary services. For example, the people served by CTCs might inform Connect programmatic needs. If a CTC is located within an organization that provides housing for the homeless, perhaps marketing training is not necessary. This oversimplified example suggests how CTC participant variation informs service needs. In fact, although CTCs offer technology services, they describe themselves as social service organizations with participants who have troubling experiences and life situations in need of tremendous support. It is recommended that any assessment incorporate collection of social information regarding CTC

participants, such as emotional status, stability of home-life, ability to trust, and more. It is also recommended that the orientation and assessments collect information necessary to establish technology and knowledge/skill base-lines. This is necessary for periodic evaluation of the program, and might also contribute to better control of CTC participation in the program, especially regarding application of knowledge/skills learned and reporting required data.

An overarching concept emerging from the Results section is that the knowledge/skills component of Connect are equally significant to achievement of positive results as the technology component. In fact, they might be considered ongoing and cumulative, whereas the technology component is most impactful as one-time events and is not cumulative. It is recommended that strong consideration be given to providing knowledge/skill-related services *prior* to the provision of technology goods or services. This might ameliorate lack of valuing goods and services provided at no cost, which is suggested to result in their misuse or disuse, but more importantly will provide CTC management and staff with the knowledge/skill (i.e. capabilities) to make proper and effective use of said goods and services. Note that strong consideration of this concept is suggested, not necessarily implementing it without consideration of other possibilities to remedy ineffective CTC use of program goods and services.

The volunteer component is most in need of enhancement, especially regarding navigation of its procedures and structure. It was the most recommended service out of the four components. It is recommended that either the interface structure and procedures are modified, or training/assistance is provided to assist navigation. Navigation may not only be limited to the interface's structure and procedures, but also because of CTC issues, such as time or even staff capabilities. Therefore, it is recommended that the training/assistance be developed in a one-on-one manner to account for those underlying barriers. For example, training/assistance performed too fast or in a large group setting might not ameliorate the problem. Following these recommendations should result in a much more effective and worthy volunteer management program.

Recommendations for the networking events are structural in nature, meaning they could enhance their impact by overcoming barriers to participation and better align with their purpose. Those barriers appear to be location of events, costs associated with transportation or parking, and benefit achieved. Therefore, it is recommended to have events in various locations, possibly even at various CTCs, and to reimburse parking costs. Specific ideas mentioned include inviting

people from the technology community, and focusing on a different and unique topic at each meeting, such as a certain technology issue, or an issue encountered by a CTC and how they resolved it (or did not). Despite the networking events' positive impacts realized, it is strongly recommended that they align with building the types of relationships that at least have the capability to result in future funding opportunities. This appears to be the singular program component, as currently structured, with direct ability to provide opportunities for funding via relationship building, and therefore these recommendations must be incorporated into future program offerings.

The best practice materials and training component comprised many subcomponents. This appears to be a component that provided positive impacts on CTC knowledge/skills, resulting in service performance enhancements. A best practices manual was suggested by a CTC, but since that time Lumity developed and provided marketing, fundraising, and volunteer management manuals in electronic format. It is recommended that continued development occur in this area, whether in paper or digital format. Considering Connect's barriers to program success, including CTC organizational management, program management, and service administration issues, it is recommended that strategic management training be incorporated into the services. There have been some components of management training provided, such as volunteer management, evaluation tips, and strategies to address grant opportunities. Combining these wide and complex topics under one heading of "organizational management" might not only assist them to better serve their participants, but also enhance their participation in Connect. Considerable review and development of the services within this component is recommended, as it represents an area where program scope can be reduced, as previously recommended. For example, the marketing component has been ambiguous, and fundraising activities have been relatively absent from the results and discussion sections. Although this evaluation did not seek to explore these components in tremendous depth, their removal or restructuring into an organizational management training component must be at least considered. Perhaps such an exploration will uncover barriers to success and potential successes, suggesting development of those components.

Evaluative Recommendations

The recommendations in this section are considered significant and necessary to program enhancement and therefore adequate performance and goal achievement. A common theme

regarding future evaluation recommendations is the performance of a comprehensive literature review on CTCs, their service components, and benchmark measurements to understand baseline and performance measurements. However, there appears to be a dearth of extant literature on this subject, as these programs address what is commonly known as the digital divide, which is a relatively new phenomenon. Therefore, these evaluation recommendations also represent opportunities to contribute to knowledge in this field, and opportunities for Lumity to become one of the leaders in this field, if they can or choose to pursue these evaluative activities.

Perhaps the most concerning issue is the CTCs who did not participate in Connect, those who participated less than optimally, and those who did not participate in this evaluation. They represent the most significant unknown of the Connect program, and most likely possess the knowledge necessary to develop this program in a manner that achieves the most optimal results. It is strongly recommended that additional evaluations with those non-participant or non-compliant CTCs be conducted to determine underlying barriers to effective participation. This provides the opportunity to develop programs that, therefore, have the potential to achieve stated goals and objectives. This should be of interest to funders and taxpayers. It is strongly suggested that any potential funder strongly consider funding this evaluation work in addition to funding the program itself. Funders may consider this an investment, i.e. cost will be higher initially, but costs in the long-run will be much, much less, and impact on CTCs, their participants, communities, and other issues such as the digital divide will be greatly enhanced.

Future evaluation research should determine what program goals *should* be. To extrapolate, perhaps capacity and sustainability is not the appropriate goal for such programs. The evaluation team stated their reasons for participating in the program as: the ability to justify their work/program; develop their businesses; acquire more staff to perform necessary work; and receive more grants. A program based on these goals might result in significantly different services offered, or perhaps services offered in a different way. This information might also inform what type of CTC should be the target of future CTC programs. Whether program goals are determined to changed or unchanged, they must be accurately and comprehensively defined in order to provide services that can achieve them. Program goals must be reviewed and defined before another CTC program is implemented.

Conclusion

This evaluation report began by introducing the program logic model, developed by the evaluation team members. A full description of the CTC Connect program was then presented, including a description of the program context, program background, and program service delivery. The purpose of the evaluation project and the program goals and objectives were then presented, including how they influenced this exploratory evaluation design. The members of the evaluation team were introduced, including their views and concerns. The mixed methods evaluation design was presented, as well as the overarching evaluation questions. Also described was the sampling, data collection, data cleaning, and data analysis methods. The results of the analyses were presented, followed by a discussion of their meaning, and finally recommendations were made based on the entirety of the report.

The program context highlights issues affecting satisfactory program performance. The funder required technical support, best practices and trainings, networking events, and volunteer engagement services with the goal of achieving enhanced CTC capacity and sustainability. However, there is a misalignment between the purpose of the grant and the data requested by the funder. Additionally, Lumity was encouraged to begin programming in July 2011, but funding did not arrive until late May 2012. This challenging context must be considered when evaluating program management, service delivery, and outputs and outcomes.

The results of the analysis described Connect as wide and unfocused, and described the context of the CTCs as extremely heterogeneous, varying in terms of services offered and the quantity and demographics of their participants, such as their social and emotional needs. CTCs portray themselves as social service organizations, not simply technology organizations. Lumity achieved the desired program outputs, including number of CTCs served and number and types of services provided, except for receipt of funding by CTCs. Feedback on Lumity's performance suggests a lack of standardization in program delivery, despite sincere efforts to provide superior quality. Technology services met CTC needs by 78%, networking events met needs at 68%, best practices at 40%, and volunteer services met needs by only 28% despite it being the most popular service component.

The Connect program may have enhanced CTCs' technological capacity and human capacity, and perhaps their sustainability; however, the magnitude of enhancement is not known, and these are long-term outcomes not expected to be achieved at this nascent stage. Therefore,

their detection at this stage is encouraging. The enhanced capacity was achieved from cost savings and knowledge/skills learned that facilitated improved operations and use of equipment, but the magnitude of the enhancement is not known. Technology services has its largest impact on CTC program participation rates as a onetime event, while knowledge/skills and human development is ongoing and cumulative, and might continue to enhance CTC program participation rates in the long-run. Technology services are recommended to be employed *in conjunction with* knowledge, skill, and human development related services to enhance capacity and sustainability. The perceived enhancements in human capacity include: interactions and communication, positive outlooks, self-confidence, self-awareness, and awareness of organizational needs, which might be due to networking events and professional development training. Once again, the magnitude of these enhancements is not known. The results of marketing trainings are ambiguous, and results from the volunteer component and the professional development training are widely dispersed. Results in these areas seem to be enhanced for CTCs who receive one-on-one attention or training.

There is concern regarding program delivery by Lumity and program utilization by the CTCs. These ubiquitous themes negatively impacted program performance and results, and abilities to adequately evaluate the Connect program. Better results for smaller/less-established CTCs were realized on technology, networking, and best practice components, but not the volunteer component. The evaluation team's chief goals of justifying their work/program, developing their businesses, acquiring more staff, and receiving more grants have not been achieved thus far by participation in Connect, except perhaps in a few instances. However, these are short-term outcomes and possibly long-term outcomes, and cannot be expected to be achieved at this nascent stage of the program. Another evaluation should be conducted in at least one year to better determine these results. This evaluation project has contributed significant information toward a CTC program model by developing the logic model and identifying: the extremely heterogeneous CTC environment; CTCs' ineffective use of Connect offerings; and more impactful results realized by smaller/less-established CTCs. With proper utilization, the beginnings of a program model have been established, which might be the first of its kind.

It has been recommended that Lumity enhance its program management, planning, organizing, controlling, and service delivery. This specifically includes development of a program manual and a program operations database or MIS. It was also recommended that

Connect become more focused, incorporate data collection into program operations, and that enhancing their knowledge of the CTC context and their participants might inform how to become more targeted and focused. It was recommended that a strategic management training component be incorporated into Connect offerings to address CTC barriers to program achievement. It was also recommended to consider delivering knowledge/skill related services *prior* to providing technology goods and services in order to demonstrate value of Connect's offerings to CTCs, but most importantly to provide CTCs with the capabilities necessary to make use of said goods and services. Although these recommendations represent significant challenges, the Connect program has the potential and capability to realize significantly enhanced program performance and outcomes if these recommendations, generally speaking, are implemented.

Limitations

This section identifies limitations of this evaluation report. This information should be strongly considered by those intending to base policy-level, program-development level, and organizational-level decisions on this document. The limitations are presented below and random order:

      1.   CTCs did not report data as required; there is a reason for this, and its absence limited what this evaluation could learn. It has been suggested that CTCs did not report data because they were too busy, they lack the capabilities to do so, fear of being caught engaging in inconsistent reporting to various funders/agencies, or did not value the program so they simply did not comply. However, this evaluation did not attempt to perspicaciously determine the reasons why this is so. Therefore, it is an unknown, and is represented in the Recommendations section by strongly suggesting further research before policy-level and program-development level decision-making.

      2.   It was suggested that CTCs might not be able to define what knowledge has been acquired regarding: knowledge, skills, and human development, and that CTCs might not be able to articulate their experiences and feelings. This evaluation did not attempt to perspicaciously determine the reasons why this is so. Therefore, it is an unknown, and is represented in the Recommendations section by strongly suggesting further researched before policy-level and program-development level decision-making.

      3.   HELP suspects a strong possibility of socially responsible answers, especially regarding: sustainability; knowledge, skills, and human development. This is related to limitation number two (directly above). Although such responses were considered in the analysis, findings, discussion, and recommendations it is possible that some socially responsible answers were included in the analysis that should not have been, or vice versa. Although this is a limitation of all evaluation research, it is suspected to be a stronger limitation in this particular case. It is accounted for in the Recommendations section, in general, by strongly recommending additional research on the CTCs before utilizing this report for significant policy-level and program-development level decision-making.

      4.   Statistical analyses have significant weaknesses, and must not be considered or utilized individually for policy-level and program-development level decision-making. Policymakers and program developers must utilize only the Discussion and Recommendations sections for policy-level and program-development level decision-making. Those sections represent thematic synthesis of all information as a whole, strongly utilizing triangulation throughout, which is absent individual or an significant results.

      5.   Sampling results of this evaluation research might be termed *weak*. This represents a significant unknown, and although it has been accounted for by the rigorous design (thematic analysis with triangulation), it nonetheless represents an unknown. This has been accounted for in the Recommendations section by suggesting that the non-respondents and non-compliant CTCs must be further researched before policy-level and program-development level decision-making.

Acknowledgements

Sincere thanks and gratitude are owed to all those who participated in this evaluation project. This includes, first and foremost, the CTCs who contributed professional and personal comments, feedback, and insight. Those who participate in evaluation research "give of themselves," which can be stressful and discouraging, but also enlightening. We thank you for giving yourselves to this project, hope that you have learned from the experience, and also hope you will be rewarded with future program enhancements. The evaluation team members contributed significant amounts of time and thought to this evaluation project. We lost some some of you along the way due to job changes and unknown reasons, but regardless we thank you very much for giving yourselves to this project. We hope that you have also gained something from this experience, and that you will see your efforts realized in future program enhancements. Finally, significant thanks to Lumity management and staff for their sincere efforts and transparency. Participating in comprehensive and collaborative evaluation of your own organization is not easy. It can be frustrating and discouraging, but also extremely beneficial. We hope that you have benefited from this process, and that you will be rewarded via a greatly enhanced CTC Connect program.

This project would not be so informative if not for the sincere efforts of all of you, and we hope each of you has been treated with respect and dignity during this process. Congratulations on producing a valuable product, and thank you once again!

Appendices

Appendix A: Stakeholder Logic Model

INPUTS	ACTIVITIES	OUTPUTS Consider both quantity and hours of the following	SHORT-TERM OUTCOMES	LONG-TERM OUTCOMES
OVERARCHING PHILOSOPHY/CONCEPTS: CTCs and their participants face various societal barriers – we help them overcome those barriers by "teaching them to fish," enhancing their capacity and sustainability.

FINANCIAL: Funding, fundraising strategies, line-of-credit.

ADMINISTRATION: Program and operational budget, financial reports, hardware and software; Internal and external communication systems; desire and passion, organizational & programmatic MIS. Develop training curriculum, website, ensure appropriate type and level of equipment. | TECHNOLOGY SUPPORT: Provide tech support and training via phone and onsite, and hands-on instruction with tech support when onsite. Both include: assessments of CTC hardware/software, a report summarizing the results and recommendations, technology training on tech support, the MS IT Academy, and online access to tech support best practices.

BEST PRACTICES MATERIALS AND TRAINING:

Funding/Operations: Create an organizational profile on Community Corps; identify | CTCs: Types of CTCs; computers working; visits to trouble-shooting web sites; volunteers recruited; CARE styles.

CTC & Staff Participation in: Recruitment; orientation; various trainings (tech support, marketing and fundraising, volunteers, human development, volunteer management).

Lumity (Staff and Subcontractors): Tech support tickets; telephone tech support; onsite | CTCs: promotion of new software/operating system; increased participant attendance; increased training choices; reduced technical support costs; enhanced computer system uptime; ability to better align program with community needs; more efficient and effective program and organizational operations; enhanced ability to attract and maintain volunteers; enhanced participant retention rates; enhanced ability to secure program funding (diversification of sources); enhanced awareness of | CTCs: a) Enhanced capacity: ability to serve more participants with same or better quality. b) Enhanced sustainability: enhanced visions and objectives for the program and its members; more focused and streamlined operation; increased or enhanced relationships with corporate world, foundations, and other funding sources; enhanced organizational longevity.

CTC Staff: Enhanced job security and pride; consistent and effective application of skills/practices learned from |

Facilitate CTCs' fulfillment of their roles/expectations: Must be willing and able to find employment; program qualification, intake and assessment, TABE testing, sign-up with Illinois Job Link; specific Lumity Staff dedicated to specific CTCs (by geography, CTC model, CTC target, etc.). Marketing, communications, and PR informing existing and potential CTCs of program and its value. LUMITY EXPERTISE 1. Community: Must understand, connect with, and form relationships with various groups and communities to gain trust of them and CTCs. Willing Participants, Communication, sharing info amongst CTCs. 2. Technology: Technology hardware and software; assessment skills; website resources; WebX and MS IT Academy	appropriate projects to submit; volunteer recruitment training; free access to the Community Corps portal. Human Development: Social Emotional Intelligence; proper attire; initial CARE Profile Training on social-emotional intelligence; disseminate training materials and assignments; follow-up training; training on how to be aware of barriers faced by humans. Marketing/fundraising: Training on fundraising and marketing and promotion planning; fundraising tips, tools and strategies, crowdsourcing tool (Internet donation tool; training on volunteer projects for Community Corps;	tech support; tech assessments; marketing trainings; fundraising trainings; volunteer recruitment and management trainings; human development trainings. CTC Participants: receiving services (digital literacy, workforce development, advanced technology, others?); specific skills/knowledge gained; demographics served; job attainment; from specific neighborhoods/zip codes; Volunteers: hours donated; monetization of hours donated;	CTC's program/contribution to community (media coverage); enhanced ability to self-assess & evaluate. CTC staff: Job satisfaction; enhanced professional commitment; enhanced knowledge to address tech issues; enhanced knowledge of necessary technology maintenance; beginnings of personal/human development; improved communication styles with participants. CTC Volunteers: personal satisfaction; increased desire to continue volunteering/getting involved.	training. CTC Volunteers: Enhanced stewardship of program/CTC. Enhance loyalty to program/CTC. CTC Participants: Enhanced job retention; reduced levels of poverty for participants and families; enhanced quality of life (?); reduced events of drug/alcohol/crime; enhanced ability to attain quality training in hospitality, health care, etc.); enhanced personal pride; enhanced self-confidence.

knowledge; evaluation tools; program descriptions; computers; crowdsourcing tool. 3. Fundraising: Customized for individual CTCs. 4. Volunteerism: Training knowledge for recruiting and managing volunteers. 5. Marketing: Events should have but information left with them to tell people what to do next so that people don't forget. messaging/branding, 6. Program Administration: Cultural sensitivity and awareness; Lumity staff development and management; subcontractor management; program participant management; MIS management; project management. 7. Comprehensive knowledge of CTCs Must know: the various CTC models; various program goals; various program targets; level of competition; type and level	guidance on managing volunteers. NETWORKING EVENTS: Include: meet and greet before trainings and orientations; Lumity open house; Best Buy purchase; and focus groups. PROGRAM OUTREACH: Meetings, assessments, site visits, promotional emails, phone calls, self-evaluations, CTC enrollments, volunteer assignments. Lumity staff to monitor the matching process to ensure nonprofits and volunteers that are matched get connected.	projects completed; types of projects. Funding: amount received/attained.	CTC Participants: empowerment; enhanced life skills; enhanced self-sustainability; increased number of certifications/job attainment/GED certificates; increase of employment options.	

of technical equipment/knowledge necessary for all types of CTCs and participants; level of support from CTC leadership for program: adequate budget allocation, staff development, transparency; accuracy of treating targeted population; methods used to treat target; qualifications of staff; and that CTCs are end-user trainers, not IT specialists.				

Appendix B: Evaluation Questions and Sub Questions

1. What are the CTCs' program contexts?
   a. What are the CTCs': missions; program goals; culture and environment; services offered; type of CTC (basic, workforce development, specialized training, business development).
   b. target participants; frequency of participant contact/interaction; participants served; volunteers recruited; neighborhoods; unique needs and desires; time in existence; time participating in CTC Connect; services received from, or activities participating in, CTC Connect; level of technical knowledge; zip code; neighborhood?
   c. CTC level of participation: sincerity of participation, desire to participate, adherence to expectations of participation or receive of services?

2. How do the CTCs experience Lumity's performance?
   a. Structure/design of program and program components?
   b. Management, staff, and program process performance?
      i. Management? Program administrators? Support staff? Contractors?
         1. Communication? New CTC orientation? Service performance (what they do & how they do it)? Customer service? Staff commitment? Desire to help? Staff teamwork? Passionate pursuit of mission? Alignment between CTC Connect program, Lumity program administration, and Lumity mission? Lumity distribution of information: aggregate CTC information; Lumity self-evaluation?

3. What are the effects of Lumity's CTC Connect program on present and former CTC skills, knowledge, human development, economic development?
   a. Capacity and sustainability?
   b. CTC management and staff behavior changes?

4. What are the effects of Lumity's CTC Connect program on present and former CTC capacity?
   a. What is the total space capacity regarding number/quantity of: staff, computers, desks/equipment, services provided, participants served?
   b. What are the current number/quantity of: staff, computers, desks/equipment, services provided, participants served?
   c. What were those numbers/quantities before participating in CTC Connect?

5. What are the effects of Lumity's CTC Connect program on present and former CTC sustainability?
   a. Ability to justify work; development of business; funding received; marketing; volunteers

Appendix C: Technology Enhancement Descriptions

CTC Connect Program – Technology Support

Casa Juan Diego

- Tone/terminate/label 12 Cat5 cables

- Run 100' electrical conduit with Cat5 cable

- Install inside/outside cat5 mount plates

- Install/label/terminate 12 Cat5e female

- Update all PCs

GPR Enterprises

- Mount 1 Rack, 1 Switch and Patch panel

- Tone/terminate/label 24 Cat5 cables

- Connect 14 cat5 1' cables from patch to switch

- Run 250' Cat5 cable

- Install inside/outside cat5 mount plates

- Install/label/terminate 12 Cat5e female

- Install 2 inside/outside cat5 mount plates

- Install/label/terminate 12 Cat5e female

Teamwork Englewood

- PC Setup

- Install Windows XP, Office, Deepfreeze and Remote Software on 8 PCs

- Install hard drives, memory and troubleshoot 10 PCs

- Install 16 port switch

- 21 Cat5 runs, Install 2 switches, move PCs to computer table and check hardware.

- 4 full installs (Win 7 Pro) - 1 full install with upgrades and software for cloning (Win XP pro)

The ARK of St. Sabina

- Mount 2 racks, 2 switches, and 2 patch panels

- Tone/terminate/label 45 cat5 cables

- Connect 45 patch cables – switch to patch

- Run 200' electrical conduit with cat5 cable

- Install/label/terminate 45 cat5 connectors

- Install inside/outside electrical plates

- Install Win XP, Office 2010, Deepfreeze and updates on 12 PCs

The Peace Corner Youth Center

- Troubleshoot; install OS and applications on 1 PC

- Install – Configure Deepfreeze on 14 PCs

- Fix one PC and Install Win 7 and Office software

- Configure Cisco 890w router and switch

- Install Windows 7 and Office on 6 PCs with updates

- Recreate admin and user account on all PCs

- Install remote desktop software

- Installations of rack mount, patch panels and switches

- Terminating cables to patch and installing cable management patch and ties

Worldwide Family Services

- Install Windows XP, Office 2010, on 12 PCs

- Troubleshoot 15 PCs, Memory Specifications and hard drive

- Run 10' electrical conduit and 60' cat 5 cable

- Mount rack, switch and patch panel

- Tone/terminate 30 Cat5 cables

- Connect 35 cat 5 1' cables from patch to switch

- Run 30' Electrical Conduit with Cat5 cable

- Install inside/outside Cat5 mount plates

- Install/terminate 30 Cat5e female

- Install Windows XP, Office, Deepfreeze and remote software on 30 PCs

- Configure 48 port managed Cisco switch with 3 virtual LANs

- Install and upgrade Memory on 11 PCs

- Install Windows XP and Office 2007 on 12 PCs

CJG Communications

- Reinstall Windows 7 Pro, Install Office and Deepfreeze
- Run Cat5 cable for 9 network devices
- PC updates and software installations
- Change PC name and add them to same workgroup
- Install remote desktop software and Deepfreeze
- Inventory all hardware
- Install cloud drive and created user credentials

Passages Alternative Living Programs

- 17 Cat5 runs for 16 network devices plus one backup
- 2 full installs and 4 upgrades to Windows 7 Pro
- Change PC names, created users and reset admin accounts
- 10 PC updates (remote)
- Inventory all hardware (remote)

Center of Higher Development

- Install Windows 7 Pro and Office 2013 on 10 PCs
- Install updates
- Join PCs to Domain, test users and install printers
- Move 9 PCs to new location

Greater Auburn Gresham

- Tone/terminate/label 35 cat5 cables
- Connect 35 patch cables – switch to patch
- Configure Cisco 890w router and switch
- Mount rack, switch and patch panel
- Create image of Windows 8
- Deploy image on 12 PCs

- Install Deepfreeze

Gads Hill Center

- Install 3 wall mounts, 3 switches and patch panel
- Tone/terminate/label 72 Cat5e cables
- Re-wire labs where needed
- Run 200' electrical conduit with Cat5 cable

Community Outreach Volunteers

- Install Windows XP, Office, and Deepfreeze on 3 PCs
- Repair Ethernet cables and terminate with RJ45 connectors
- Install Windows XP, Office, and Deepfreeze on 12 PCs
- Repair cables by switch and run 8 partial Cat5 lines

National Latino

- Install Deepfreeze and clean 16 PCs

The Renaissance Collaborative

- Clean, install Deepfreeze and configure cloud drive on 10 laptops
- Clean, install Deepfreeze on 1 PC

Westside Baptist Ministers Conference

- Install Windows XP Pro on 12 PCs
- Install Office 2007, and Deepfreeze
- Clean all PCs
- Install switch, ran 14 network cables to switch

Bronzeville WOT

- Install Windows 7 Pro, Office 2010 on 6 PCs
- Configure 3 network printers and connect to PCs

Chatham Business Association

- Mount 2 racks, 2 switches and patch panel

- Install Windows 7 Pro, Office 2010 and Deepfreeze on 19 PCs

- Tone/terminate/label 20 Cat5 cables

- Connect 20 Cat5 1' cables from patch to switch

- Run 150' electrical conduit with Cat5 cable

- Install 20 inside/outside Cat5 mount plates

- Install/label/terminate 20 Cat5e male

- Configure Cisco 890w router and switch

- Install 2 TV ceiling mounts with TVs

City Light Church

- Install Windows XP Pro and Office 2007 on 6 PCs

- Setup 6 PCs and run network cable

Neighborhood Empowerment for a Better Community

- Install Deepfreeze and configure user accounts on 8 PCs

- Install Office 2007 on 8 PCs

South Central Community Services

- Install Deepfreeze and configure Admin accounts on 8 PCs

- Install Office 2010 on 10 PCs

- Install and configure 2 network printers on lab PCs

Poder Learning Center

- Update all PCs

Onward Neighborhood House

- Update all PCs

Appendix D: Map of CTC Locations in Chicago Metropolitan Area

Figure 1: Locations of CTCs in Chicago
Source: Provided to HELP by Lumity

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