



**ICT training and employability:  
Integrated service delivery in United States  
workforce development networks**

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## EXECUTIVE SUMMARY

This study investigates how Community Based Organizations (CBOs) that provide basic information and communication technology (ICT) training integrate this training with other services and utilize a network of service providers to improve employability prospects for lower wage, lower skill populations in the United States.

Research targeted organizations that provide basic ICT training and for whom employability is either their primary or one of their main goals. Based on semi-structured, in-depth interviews with eight training organizations, more than 40 interviews with service providers and 46 survey responses from 19 states, research showed...

- Wrap-around services complement basic ICT training. Soft skills and job placement complement ICT training. ICT is necessary but not sufficient for employability.
- Basic ICT training is core; specialized training organizations (STOs) provide advanced training and certification. CBOs often emphasize basic ICT skills and rely on STOs for advanced training. Basic ICT training can provide an entry point to formal education.
- Most CBOs that provide basic ICT training are highly collaborative. CBOs describe harmonious relationships with other CBOs, STOs, government and employers. They partner to complement their offerings.
- Partnerships with other CBO and government agencies are most common for support services (e.g. transportation, housing, childcare). These services address indirect, important facets of employability.
- Customization of training and coordination with employers are accomplished by conducting surveys and focus groups, creating advisory boards, and consulting local labor statistics.
- New clients for basic ICT training are recruited from across the network of service providers.

## CBO PRACTICES PROVIDE INSIGHTS AND LESSONS...

- “One job, not two.” Employability describes different workforce goals. Some focus on “finding a job,” others tend towards re-skilling for better pay. The distinction shapes the way training is designed.
- Greater combinations of services are required to address increased barriers to employment. ICT skills are almost never the missing link. Low skill, low wage workers typically require multiple services to improve employability.
- Embedding basic ICT in other program offerings improves training effectiveness.
- Developing partnerships to deliver a range of services allows for specialization.
- Volunteers and mentors build clients’ soft skills and social confidence. Experience interacting in work-like environments helps trainees get hired and succeed at work.

## 1. Introduction

Information and communication technology (ICT) skills are increasingly fundamental for workers beyond the ICT sector. Lower wage, lower skill workers now need ICT skills to enhance their employability. Auto repair, retail and health care are examples of industries where incorporation of ICT into their workflows has raised the bar for workers.

As important as basic acquaintance with ICT has become, it is only part of the answer to job preparation. The employment literature is clear about the importance of soft skills, such as interpersonal communication, teamwork, and work attitudes or habits, for employability (Herr, 2006). Social ties and personal networks are also recognized as crucial to finding a job and succeeding at work (Granovetter, 1996).

Community Based Organizations (CBOs) are important intermediaries to provide the skills and networks that enhance employability among disadvantaged populations. The ICT training services these organizations provide can help workers acquire skills to compete and gain social mobility (Chapple, 2006).

Previous research is compelling regarding the employability requirements for lower wage, lower skill workers: ICT, soft skills and social networking are givens. This study builds on this by inquiring into the ways CBOs efficiently deliver these services to engage clients and ultimately improve their employability prospects. Toward that end, we investigated:

- How CBOs integrate ICT training into their larger array of programs
- The arrangements and partnerships that CBOs devise to deliver ICT training and complementary services.
- Ways that CBOs consult local employers or otherwise tailor training to local economic conditions

CBOs represent an important node in the workforce development network, especially for lower wage, lower skill workers. Greater understanding of their roles, partnerships and programming should advance our knowledge of the contribution of ICT skills to employability. This study is designed to inform CBO practitioners, policymakers concerned with workforce development, and donors who support ICT training or employment programs.

## 2. Research Methods

The study examines CBOs in the United States that provide basic ICT training and identify employability of their clients as one of their main goals. For some of these organizations ICT training is their primary service. For others, ICT training is deeply embedded in larger employment programs and describes one facet of their work.

The findings are based on more than 40 interviews with relevant service providers in formal and informal contexts, including the 2007 Washington State Workforce Development Summit, where we met and participated in focus groups with representatives of CBOs, government agencies, community colleges and employers.

For the second stage of the research we completed eight semi-structured interviews with organizations chosen to represent a diversity of geographies, target populations and program design choices. The CBOs interviewed by phone were selected from the portfolios of 2005 and 2006 grantees of Microsoft's Unlimited Potential (UP) program. This program, part of the company's corporate citizenship initiative, provides cash, software and training materials (UP Curriculum) to nonprofits around the world focused on skills training for social and economic inclusion.

CBOs were selected to represent different regions of the United States. The CBOs target a variety of trainees including youth, women, immigrants, and unemployed people. We selected six urban organizations and two that serve rural communities.

Finally, we implemented a web-based survey to examine how a broader range of organizations would respond to the findings that emerged from our interviews. The survey, also addressed to organizations that describe ICT training and employability either as their primary goal or one of their main goals, yielded 46 completed surveys from organizations in 19 states. We publicized the survey by emailing contacts and posting on list serves such as the Community Technology Center List and Community Informatics List.

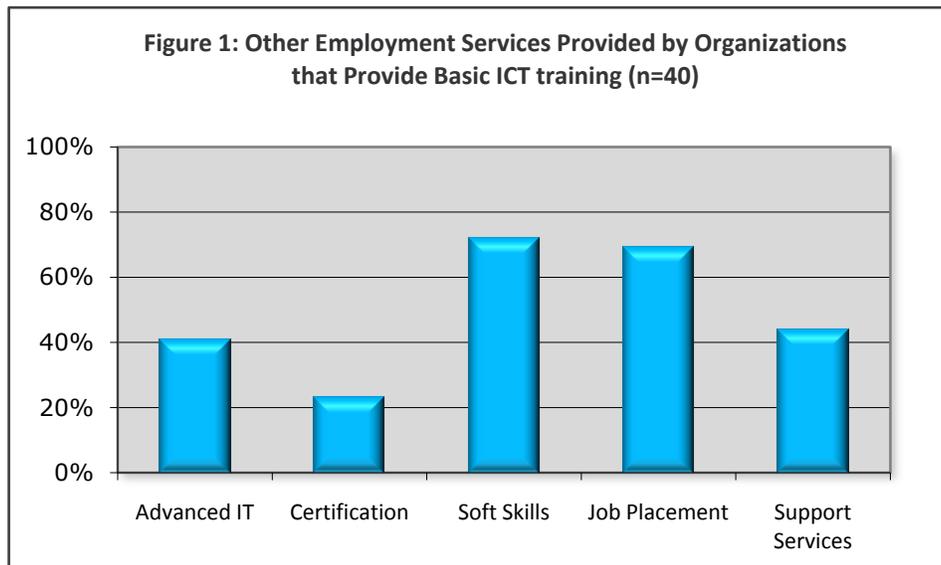
This research focuses predominantly on the approaches of training providers and is based on their views. While some of these organizations measure outcomes (e.g. number and type of jobs obtained by clients of their programs), comparing data across organizations was beyond the scope of this study. Assessing client outcomes, understanding employer perspectives, and evaluating the ultimate effectiveness of various workforce development strategies are all appropriate areas for future research.

### 3. Employability and ICT Training

#### 3.1 WRAP-AROUND SERVICES COMPLEMENT BASIC ICT TRAINING: SOFT SKILLS + JOB PLACEMENT + BASIC ICT

In both interviews and surveys, CBO representatives said ICT training is connected to a larger array of services. While the specific menu of programs differed by site, patterns emerged that demonstrate ways that ICT training is coordinated with other offerings. The survey data reveal patterns in the considerable effort these organizations provide to enhance the employability of their clients.

Organizations are most likely to supplement basic ICT training with soft skills (72%) and job placement services (69%). Several organizations incorporate all three types of services into a unified program. For example, computers are used in classroom job-hunt exercises, resume writing and applying for jobs online (see Figure 1). These skills are sometimes taught in ICT classes, but may also enhance employment classes or be integrated into an English as a Second Language (ESL) curriculum without being the focus of the class.



Combining ICT competence with training in other skills is often considered critical for employability. Respondents related stories of employers that are as concerned with soft skills such as “coming to work on time,” “working well in team settings,” and “communicating clearly” as they are with facility with information technology. While it is not useful to compare the relative importance of familiarity with a keyboard versus coming to work on time, programs concerned with employability need to advance both. This sentiment is reflected in the survey responses. Seventy-two percent strongly agree and 24% agree that “ICT skills are critical to employability.” When asked “overall, how important is IT training to the people your organization serves,” 37% responded “extremely important” and 43% “very important.”

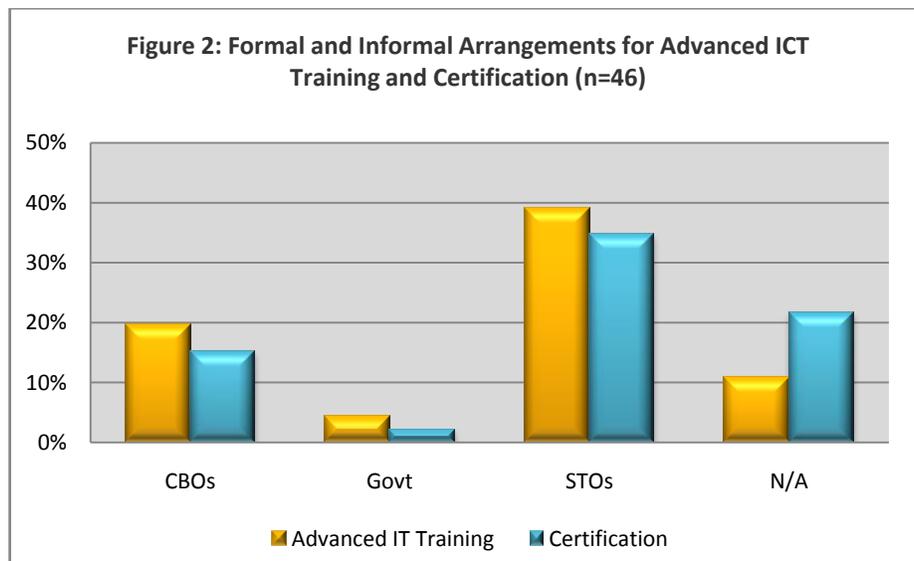
Thus, the shared view is that wrap-around services such as soft skills and job placement are necessary complements to basic ICT training.

### 3.2 BASIC ICT TRAINING IS A CORE SERVICE; SPECIALIZED TRAINING ORGANIZATIONS (STOS) PROVIDE ADVANCED TRAINING AND CERTIFICATION

While basic ICT skill training is typically regarded as fundamental for employment, these organizations are less likely to offer advanced training and certification. In some cases state Workforce Investment Act requirements apply strict timelines that do not allow for more involved, lengthy training. But in other cases interview respondents assert that basic ICT skills coupled with soft skills training is more appropriate. Several respondents even said that certification and advanced training are unimportant because employers aren't looking for experts. Their perspective is that employers are likely to be looking for hires that "are able to list the skill on their resume, but formal certification is not necessary." Because software changes so rapidly, advanced training is often seen as less valuable because "workers will need to be retrained anyway."

For those students for whom advanced training and certification are important, many organizations reported that these services are best handled by specialized training organizations (STOs) such as community colleges and vocational schools. To this end organizations enter into collaborative arrangements to ensure that these services are available – 40% have arrangements with STOs to provide advanced training and 35% have arrangements for certification (see Figure 2)

In several interviews, respondents reported that specialized training is a natural next step for some learners and that their basic ICT training provides a valuable entry point to prepare students for advanced formal education. The confidence and discipline, as well as ICT knowledge, that comes from successfully completing basic training can catapult learners into more advanced training programs.

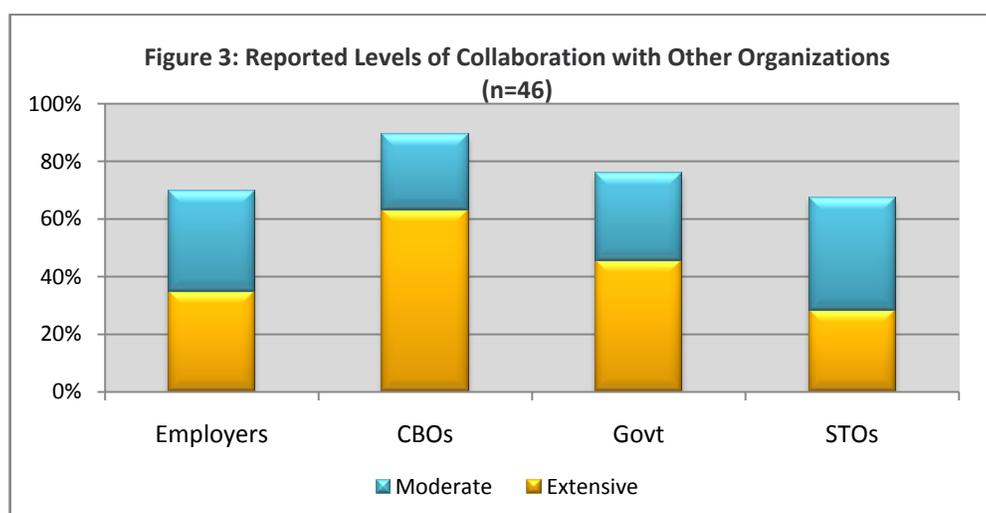


## 4. Collaborations and Partnerships

### 4.1 MOST CBOs THAT PROVIDE BASIC ICT TRAINING ARE HIGHLY COLLABORATIVE

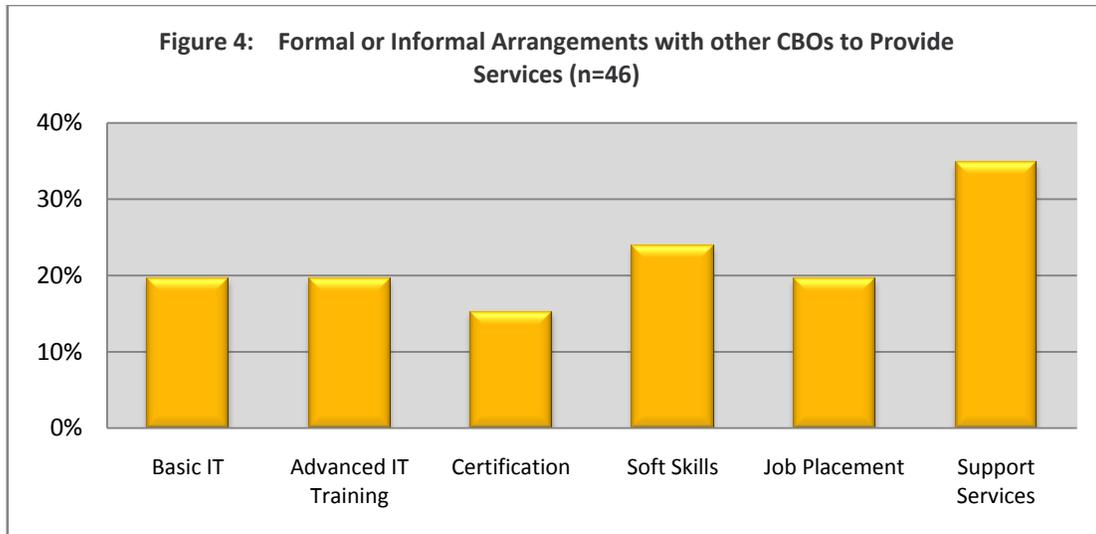
The arrangements CBOs develop with STOs to provide advanced training are indicative of the way they deliver services generally: they form partnerships to complement their own offerings. Even organizations with elaborate, integrated in-house employability programs describe themselves as collaborative and connected.

Ninety percent of survey respondents reported moderate to extensive levels of collaboration with other CBOs, as shown in Figure 3. Interviews revealed strong understanding of other organizations' programs, often including a willingness to refer clients to and share information with other service providers. Some organizations actually showed a preference for referrals in certain cases. In fact, 72% reported that referrals from other organizations are one of the top three ways that clients find their way into respondent ICT training programs.



### 4.2 CBO AND GOVERNMENT PARTNERSHIPS ARE MOST COMMONLY FOR SUPPORT SERVICES

Support services such as transportation, housing, and childcare address indirect, yet important, facets of employability, especially for workers seeking promotion or better jobs. In some cases access to a food bank or health care is essential. Low wage workers who want to add skills, attend training, or find employment farther from home need assistance beyond ICT. The most common purposes for formal or informal arrangements with CBOs surround these types of support services (see Figure 4). Most formal and informal arrangements with government agencies are also typically for the provision of these services. Support services address fundamental needs that may be different from the core competencies of CBOs that provide ICT training, and in these cases organizations often use their networks to supplement their own programs.



### 4.3 POLICY COORDINATION WITH GOVERNMENT AGENCIES

CBOs that provide basic ICT training cite government as an important partner in advancing client employability. While traditional government support services are useful, the interviews also revealed interesting examples of policy coordination based on the ability of government agencies to engage with other stakeholders.

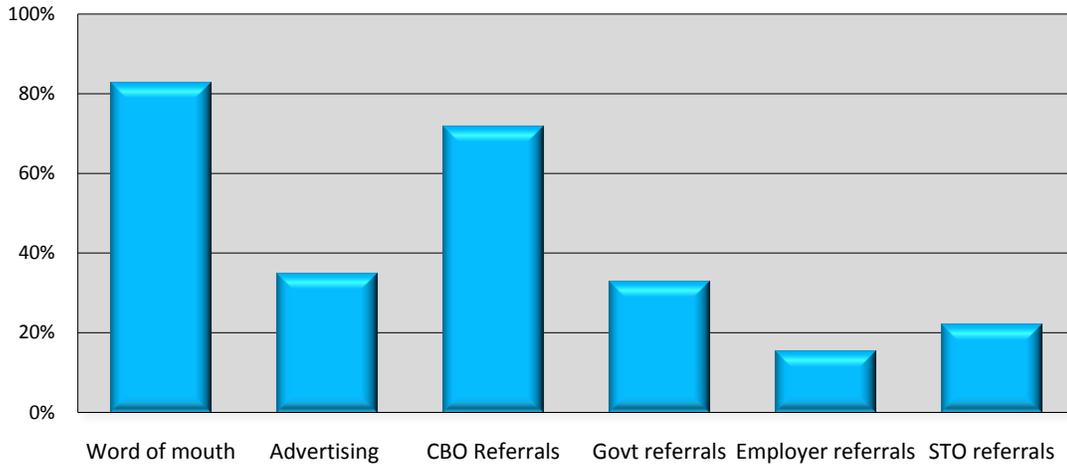
In Houston for example, following the surge of people displaced by Katrina, the mayor and city agencies held ongoing weekly meetings with business and nonprofit organizations to coordinate a collective response. The neighborhoods where the survivors relocated were predominantly low-income areas without adequate transportation and with few employment opportunities. Technology for All, a Houston nonprofit that supports community technology centers, actively collaborated with housing and transportation policy makers and other stakeholders to extend jobs, education and other opportunities to the new arrivals. Connecting workers and jobs is a city planning issue; Houston explored community technology access and training as a remedy.

While Katrina stimulated a collective response that most municipalities may never need, collaboration with government officials to link ICT training with core planning across business sectors, service provider niches and governmental departments provides a useful model.

### 4.4 CLIENTS ENTER ICT TRAINING FROM ACROSS THE NETWORK OF SERVICE PROVIDERS

Trainees are recruited from a wide variety of sources. Sometimes users “come to the center for free email and end up signing up for job training or the food bank.” In other cases people visiting community centers for any number of reasons “see a vibrant, shiny computer laboratory and have to come in to check it out.” Comfort with the center and staff is frequently cited as an important factor for encouraging new users to experiment with computers (see Figure 5)

**Figure 5: Top Ways Trainees Learn of Basic ICT Training Programs (n=46)**



When organizations were asked to select the top ways that trainees learn of their programs “word of mouth” (82%) and “CBO referrals” (72%) are the most common. ICT training programs can also draw new users to CBOs, providing access to the other services they offer. Sixty-five percent of survey respondents think ICT training allows the organization to attract people whom they have never reached in the past. Seventy-eight percent of respondents think ICT training enhances the visibility and reputation of the organization.

**People’s Resource Center (PRC):**

**Co-locating computer labs in community spaces**

The PRC of DuPage County, Illinois provides a wealth of social services to community members. One element of the PRCs’ work is to partner with local organizations to open computer labs in police stations, churches, community centers and other public spaces throughout the county. Partner organizations provide space and staff; PRC provides computers and technical support.

Increasing ICT capacity in these community organizations improves public access to technology and supports the work of neighborhood organizations. Volunteers in organizations that host the computers, as well as other neighborhood groups, make flyers, newsletters and help with training. The free access not only provides community members with valuable information resources, but also informs them of other services and organizations working in their communities.

By locating public access hotspots where people already congregate, PRC increases both the social vitality of their partners’ facilities and awareness of PRC programs among CBOs and community members.

## 5. Tailoring Training to Local Labor Needs

Fifty-seven percent of survey respondents coordinate with employers to tailor programs to local job trends and employer needs. Organizations do this in various ways – for example, by conducting direct surveys and focus groups with employers, and creating well-connected advisory boards.

Close relationships between CBOs and employers help workers find jobs. CBOs build relationships with employers to develop volunteers and mentors that assist trainees. These programs provide one-on-one training and give trainees confidence and familiarity in work settings where they may lack experience. Several people we talked with identified the personal connections between trainees and volunteers as one of the great benefits of their programs. Direct interaction builds “confidence and familiarity” that helps people find the right jobs, interview well and eventually succeed at work.

Employers also have an incentive to participate. The Internet has made it easy and inexpensive to apply for many jobs at one time. The resulting flood of resumes from job postings has led employers to use outside sources to narrow the pool of applicants. Understanding the quality of training programs and even working with CBOs to tailor training and find the right employees can be an asset for employers.

Jewish Vocational Services (JVS) in San Francisco is doing particularly interesting work in this regard. In addition to extensive volunteer networks that build effective and well-supported programs, JVS is developing training programs around specific industries that are growing in the Bay Area. Legal services, health care and retail all have customized training programs with high placement rates supported by the credibility JVS has established with employers.

## 6. Lessons Learned

This research attempts to deepen our understanding of how organizations that provide basic ICT training programs approach employability. The practices and patterns provide insights into the services and issues these organizations believe are important, as well as examples that we hope are relevant to other organizations. A number of particularly salient themes emerged from the research.

### **“ONE JOB, NOT TWO:” EMPLOYABILITY DESCRIBES DIFFERENT WORKFORCE GOALS**

Respondents differed in what they meant by preparation for employability. Donors and policy makers often think of employability in terms of “finding a job,” as if the trainee was unemployed and needed ICT skills to find or obtain work. Among workers and CBOs the conception of employability tends towards reskilling or getting a better job. Many workers who hustle for minimum wage at multiple jobs see ICT training as a means to increase earning power. For them, employability is about fewer, better paying jobs. “One job, not two” as one person told us. The distinction matters because it shapes the way training is offered: unemployed, “idle” workers have more flexibility than people working two jobs. According to several CBO practitioners, the “time, transportation, and mental energy to learn and study,” are among the important challenges that must be taken into account.

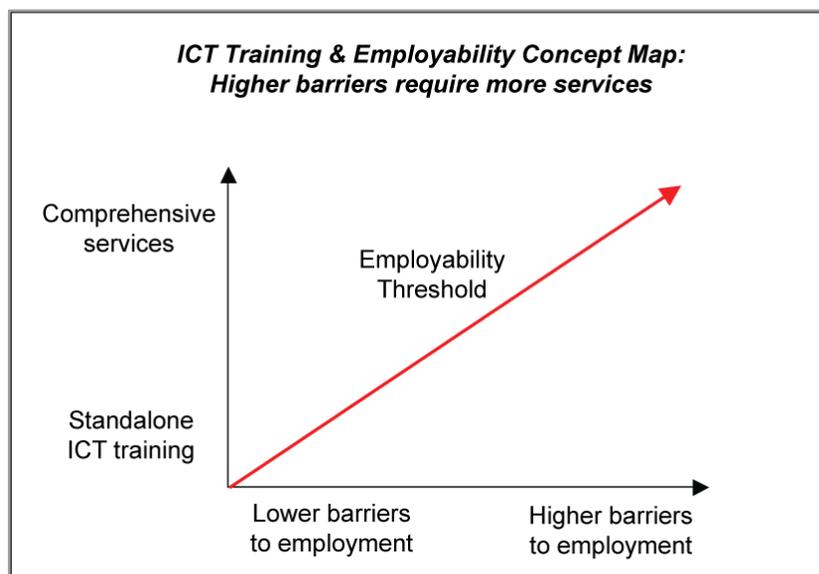
### **GREATER COMBINATIONS OF SERVICES ARE REQUIRED TO ADDRESS GREATER BARRIERS**

ICT skills are almost never the missing link that miraculously transforms employment prospects. Lower wage, lower skill workers typically face multiple barriers, many of which are more complex than unfamiliarity with email or word processing. ICT literacy cannot be isolated from larger social and personal contexts. Soft skills as well as solutions to challenges such as childcare, transportation, time, and appropriate attire are important. Homeless and immigrant populations operate under additional constraints. The hurdles are diverse and individualized and ICT must be integrated into this larger context of needs to credibly advance employability.

The following conceptual map (see Figure 6) describes the increasing range of services required for an individual to improve their employability prospects. The X-axis includes both personal barriers (e.g. homelessness, cognitive disabilities, etc.) and community barriers (e.g. declining manufacturing jobs). The Y-axis describes the range of employability services, from standalone ICT training to wrap-around and support services. The employability threshold, or the point at which the individual has access to services sufficient to achieve her employment goals, increases with the challenges faced.

In limited circumstances practitioners believe that standalone ICT training, such as keyboarding or help with email, tipped the balance for disadvantaged trainees. The majority of organizations represented in our study serve populations that require multiple services to improve employability.

Figure 6: ICT Training and Employability Threshold Map



#### EMBEDDING BASIC ICT IN OTHER PROGRAM OFFERINGS

Embedding ICT training in a larger array of employment services can improve the effectiveness of training itself. The eat-your-vegetables approach to ICT that leads students rote through lessons simply because they will someday be good for them is less effective than applying ICT to concrete goals that trainees value. Resume writing, job search, budgeting for entrepreneurs, business plan writing and email with mentors or family members living abroad are examples of integrated ICT training that use ICT to teach other valuable skills in an engaging, applied manner. Respondents describe more student energy and interest in lessons when training programs serve practical ends the students value. For instance, training youth to use “art software motivates them to experiment and play in a way that spreadsheets never will.”

#### DEVELOPING PARTNERSHIPS TO DELIVER THE FULL RANGE OF SERVICES

The ecosystem of employment service organizations is diverse and collaborative. CBO respondents reported that clients receive services from a number of organizations and are cooperatively referred between these groups. Staff members describe close professional relationships with staff from other organizations. Government agencies also play important roles in the networks of service providers. Private sector partnerships vary widely, ranging from non-existent to relatively passive, symbolic advisory boards to active consultation and training around high-growth industries. Closer coordination with employers that are actively tracking and shaping the demand for labor in their locality seems promising.

Developing strong relationships and coordinating programming across organizations allow service providers to refer clients elsewhere depending on the needs of each client. While there are clear advantages to providing many services under one roof, distributing services across the network can promote efficiency through specialization. Each actor in the network has strengths that can be leveraged.

## **VOLUNTEERS AND MENTORS BUILD SOFT SKILLS AND SOCIAL CONFIDENCE**

Finding a job requires more than technical skills. Comfort around the water cooler also matters. While we did not focus on employers in this research, when CBOs describe employer demands for soft skills such as communication and teamwork, they seem to be referring to deeper notions of social comfort and familiarity. Employers want to hire workers who share their attitudes and values toward work.

As nonprofit and governmental intermediaries design programs to help people overcome barriers to employability, the social connections these intermediaries forge represent important assets to job seekers. Programs that make use of volunteers and mentors give trainees experience interacting with people who work in the business environments they want to enter. Experience and confidence in these sorts of social interactions build soft skills and prepare trainees for interviews and the eventual workplace.

## Conclusion

The research revealed important dimensions of basic ICT training programs, such as the importance of combining ICT training with soft skills and job placement. In some cases, CBOs apply ICT to employability programs in such tasks as resume writing and job searching.

The network of service providers plays an important role. CBOs utilize other organizations to provide support services, advanced training and certification. Occasionally, an organization will refer a client to an organization that specializes in that client's needs even if they provide the service. CBOs actively refer clients and develop partnerships to provide the right combination of services for individual clients.

As collaborative as these organizations appear, employer participation seems to be an area that is ripe for additional innovation and modeling. Employers are invaluable for identifying employment trends and skills that workers need. Social interaction with trainees is also critical to long term success in the workplace and many organizations strive to acquaint their clients with employers. Demonstrating the utility of CBO training programs to employers can enrich employment prospects for trainees and create a reliable pool of workers for employers. Employer participation is a substantial asset.

Fifty-seven percent of CBOs report collaborating with local employers. In one sense, this could represent progress, since several organizations told us that previously they based training exclusively on what users requested. However, 43% do not collaborate with employers. Furthermore, among those who do mention collaboration, some examples seem less robust than others. An "advisory board" might be comprised of hands-on members that shape curriculum, hire interns and actively drive programming, or, it could be symbolic and simply represent attending an annual meeting or making a donation.

Creating efficient, effective mechanisms for employer participation is challenging. Organizations with successful programs are valuable models that should be supported by donors, government agencies and the entire service provider network.

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