



Effective Strategies for Utilizing the Internet and Other Technologies To Provide Work Supports to Low-Wage Workers

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Editor's Note: This SIPR Policy Paper examines how innovative technologies are being employed to assist low-wage workers and employers in developing "work supports" to serve as a bridge for individuals in moving from public assistance to independence. It is the first in a series of essays in support of SIPR's project on the Benefits Access Learning Cluster, an effort funded by the Charles Stewart Mott Foundation and managed by Senior Fellow April Kaplan to identify effective employer-based models for raising awareness of and participation in work-support programs and to develop and disseminate knowledge about best practices to employers, benefit-program administrators, human-service agencies, and other important stakeholders.

Introduction

This paper takes a broad view of work supports as well as a broad range of tools and programs that assist low-wage workers to qualify for, find, obtain, retain and advance in employment. Programs including benefits such as cash assistance, Medicaid, Food Stamps and housing, as well as traditional supports such as child care, transportation and work related expenses are highlighted. It also takes a broad view of Internet tools and other technology used to provide work supports to low-income workers.

With the advance of the Internet and other computer technology, there has been constant experimentation and variation. This paper does not attempt to document all of these approaches but rather to select a variety of approaches that have shown promise.

New tools and technologies are allowing new approaches. These, in turn, are leading to completely different ways of thinking about programs, services and approaches for delivery to low-income workers. Successful use of tools and technology in one area is rapidly leading to its use in other areas. The programs serving low-wage workers have long been challenging for workers and case managers who want to create genuine career ladders and deliver supports for people moving out of poverty. These rapidly developing tools and technologies can help give a fresh start and communicate that applicants and low-wage workers are like everyone else and can progress up the ladder to better paying jobs. None of these tools and technologies is perfect, and there is no single one which will meet all needs. However, there are now many more choices than before, and this should be recognized as a welcome development to both low-wage workers and the agencies serving them.

Scope

Use of the Internet and other technologies has been growing at an exponential rate. This paper will explore some of the most useful and promising of these technology tools. It will

explore the technologies from the perspective of different groups of users and how their use will ultimately help low-wage workers. This paper will also identify some other less practiced strategies.

These tools provide help to different groups of users. Explored are tools used directly by low-wage workers, tools used by the agencies serving the low-wage workers (public, non-profit, private), tools used by employers, and tools used by vendors who are under contract with government and other agencies to serve low-wage workers.

Approach

Types of Support

The following distinctions are useful. *Direct* tools are used to help a worker obtain employment and to get the supports needed to keep working and to advance to better jobs. *Indirect* tools are used to help agencies, employers and vendors become more effective in serving low-wage workers. If they can do a better job, or do more with the same resources, there will be a positive impact on low income workers.

Questions for Each Example

It is helpful to formulate a common set of questions for each of the tools. These are useful for understanding each tool, for comparing it to other tools and for evaluating its relative effectiveness. The following questions will be used for each of the examples.

- a. What is the specific technology?
- b. Who uses the tool?
- c. How is the tool used?
- d. What are the benefits for using the tool?
- e. How does the tool support low-wage workers?
- f. What are the results of using the tool and cost/benefit if available?
- g. What are the challenges?

Included Technologies

The different technologies discussed are listed below, along with a brief definition of the technology. While these technologies can seem complex and difficult to understand,

they do allow for more choices and innovations particularly from a cost perspective.

a. *Internet*

This is also known as the World Wide Web. It is available to anyone without any special clearance or security. Access may take place at home, in a library, in a job center, at work or anywhere where there is proper equipment and a connection. A computer could be a desktop, a laptop, a Personal Digital Assistant (PDA), or even a cell phone. There are many types of connections, including through a phone line, a dedicated line, a cable TV line, a wireless connection (which is a short-range radio connection) or through an “air card” (which is like a cell phone).

b. *Intranet*

The Intranet is defined as a private computer network that uses Internet protocols. It is very similar to the Internet and can often be accessed through the Internet. When accessed through the Internet, it is sometimes referred to as the “Extranet.” However, access and security is tightly controlled. Users must enter an ID and password. Intranets are used by organizations which have large numbers of users and sensitive confidential information. Many organizations develop their own telecommunication network. However, because of cost and geographical dispersion of users, most will also include connection through Internet providers. This also allows access to staff who are working at home or who are traveling. Regardless of the connection, access is restricted by ID and password.

c. *Server-based*

This is very restrictive. Users are directly connected to a server with no connection to a wider network or to the Internet. Organizations such as prisons use this approach to limit access.

d. *Computer-based*

This refers to technology tools that can operate on an individual personal computer (PC) without any connection outside of the PC. It includes software that can run from the PC’s hard drive or off of a Compact Disk (CD) or a Digital Video Disk (DVD). In this configuration, PCs are in a stand-alone mode.

e. *Interactive Voice Response*

Interactive Voice Response (IVR) is telephony-based technology. IVR tools are being used extensively by businesses as they have moved away from having a live receptionist answer all incoming calls. We are all familiar with getting a recorded message and a choice of three or four options. IVR systems interact with users in a number of different ways. They allow users the choice of multiple connections. They allow input through touch or voice. They can operate at a very simple level, such as with a decision tree of choices where to direct the call, or at a very sophisticated level with connections and interactions with computers or with the Internet.

f. *Information systems*

Most agencies serving low-wage workers use

information systems. These are computerized applications. Initially they were created to replace case files and other paper processes. They have become more sophisticated in terms of what they do and who uses them.

g. *Data (including reports, data warehousing, matching)*

The initial focus of automation and computerization was to provide case managers with tools to help them work with individual cases. This has allowed case managers to determine eligibility, issue benefits and track activities. Program managers have realized the value of the resulting data created for managing the programs. This has resulted in the creation of simple data tools, such as reports, but is becoming increasingly sophisticated with data warehousing and computer matching.

h. *Closed circuit video*

These tools allow the capture and transmission of live video to and from one location to another location. It is like a live TV broadcast with a very limited set of viewers. There are many different options for transmission.

i. *Identification systems (finger, swipe card, Universal Product Code)*

These are tools which can be used to efficiently and uniquely identify a person. They all involve a reader. The technology is getting cheap and portable.

h. *Hybrid*

This term refers to the use of multiple tools or technologies to create a new tool. The development of hybrid tools has become a significant source of innovation.

i. *Mass communication (print, TV, radio, mailings, web sites)*

A persistent challenge for organizations that work with low-wage workers is “getting the word out.” Traditional mass communication technologies continue to be used as well as newer technologies such as informational web sites.

Specific Applications

Listed below are key areas where the application of technology and tools are making a significant difference in the realm of work supports.

Mass Communication

There has always been a need to reach a mass audience. Agencies and employers have long used traditional mass media to reach low-wage workers. The press, radio and television are used to provide information about jobs, training and work supports. In the past decade, the Internet has emerged as a new and different mass communication tool.

- a. It is rapidly becoming the norm for agencies serving low-wage workers to use web sites as a source of information about their offerings—and for good reason. After all, web sites serve a mass audience and can be a

permanent rather than a one-time source of information. These sites are increasing in importance as a growing proportion of the public expect to get information through the web.

Moreover, a web site can communicate to multiple audiences simultaneously. Through choices and links, they can provide a wealth of information that is selected by the individual user. A good example is the Newark Emergency Services for Families, Inc. (NESF) web site. NESF provides Emergency, Homeless, Self-Sufficiency and Health Care services: <http://www.nesfnj.org/>

- b. Web sites are increasingly used to communicate the structure, organization, programs, services, contacts, funding, statistics and other vital information about agencies that serve low-income workers. This is information that previously was not easily accessible or available. It is now often available to anyone who is interested in viewing it. Over time, this information should help to improve the performance of agencies and the coordination across agencies as more people both within and outside of the individual agencies gain a better understanding of how the agencies are structured and what they do. Web sites unleash the power of accurate and timely information.

The Hennepin County/Minneapolis web site for Health, Housing and Social Services is a good example of a site providing this kind of information: http://www.co.hennepin.mn.us/vgn/portal/Internet/hccha_nnelmaster/0.2324.1273_1708.00.html

- c. Web sites also have the capability of using a multi-media approach. For instance, the Denver Workforce Center (<http://www.milehigh.com/>) has incorporated “podcasts” into its site. Podcasts are short recorded messages that can be downloaded via the Internet and be played on the computer to which they are downloaded. Denver’s first podcast is a recording of the mayor addressing business owners.

Efficiency

Making the process of applying for work supports more efficient is one of the most important recent developments. This area has not been up-to-date in its use of technology and modern practices. It has long been inefficient, costly and time consuming for low-wage workers and for agencies, employers and vendors. While businesses such as airlines and banks have adopted new technology, government has lagged behind. This is now changing with some areas of innovation within government. In addition, the federal government is now encouraging and mandating states to implement new technology. For some programs, like Food Stamps, the federal government is also giving applicants the right to decline to have a face-to-face interview, which opens the door for using new technology.

This development is significant for several reasons. The first is that the costs of taking and processing applications in person with a paper-intensive process are increasing at a time when organizations are not getting additional staff. The second is that an application for programs such as Food

Stamps, TANF and Medicaid is often the gateway for other services and work supports. The third is that this empowers individuals and organizations, and it could result in more people discovering that they are eligible for benefits, services and supports. The fourth is that these new approaches recognize that the individuals applying for programs and services don’t have time to sit around all day in an application process and that many are in fact working.

a. *UI Applications*

Virtually all states have implemented Internet-based and IVR-based applications for Unemployment Insurance applications. This has reduced costs, saved applicants and agencies time, and resulted in a quicker re-attachment to the workforce. This is a good model that has been in place for a lengthy period of time (at least a decade). Wisconsin, for instance, was one of the first states to develop and implement this application model. The Telephonic Initial Claims System (TICS) went statewide in 1996. The Internet-based option was added in 2003. Wisconsin’s web site for these two options is listed below:

<http://www.dwd.state.wi.us/uiben/apply.htm#apply>

b. *Internet Simulators*

Many states have developed Internet simulators to predict which programs or services an applicant may be eligible to receive. These have been in existence in many states for several years. They are designed to be used directly by applicants. They have a number of limitations, however. The biggest is that they are informational and not a part of the application process. After using the simulator, most applicants then have to go through the same old application process that has existed for decades. Even so, the simulators are useful sources of information for applicants and low-wage workers. In addition, they were an important first step towards the development of Internet-based applications. As an example, Indiana’s simulator is shown below. It is also a good example of a multilingual approach:

<http://www.in.gov/qualcheck/>

c. *Internet-based Applications*

Several states, with encouragement from the federal government, have gone beyond simulators and developed Internet-based applications that collect all of the information needed for eligibility for Food Stamps, public health insurance and other programs. These are often located on the same web page as the Internet simulator. These new Internet-based application tools must deal with the issue of verification documents. They usually give the applicant one or more choices, including faxing, mailing, electronically scanning or presenting the documents in person. They also must forward the collected information and documents to an official government worker to finalize the eligibility determination. The government worker is often at a different location. The Federal government has developed similar Internet applications for SSI/SSDI and associated benefits.

For the Massachusetts screening tool and on-line Food

Stamp Application see:

<https://service.hhs.state.ma.us/ier/jsp/screening/LoginServlet?Application=Screening>

For the Access Florida tool see:

<http://www.dcf.state.fl.us/ess/>

For the Access Wisconsin tool see:

<https://access.wisconsin.gov/access/>

d. *Call Centers*

Making eligibility changes is a laborious and time-consuming process for program participants and workers alike. Worse, changes are often buried in mountains of paperwork, as workers and agencies are inundated with hundreds of phone calls. Many agencies are changing this process by standing up call centers that use hybrid technologies to efficiently handle this work. Such hybrid technologies include IVR technology and call-center management software. Agencies all over the country have been facing increasing caseloads and decreasing staffing levels. Because of pressure to reduce taxes, state and local governments have been unwilling to address this issue by simply adding staff. Unfortunately, in many locations, service has deteriorated as workers have become overwhelmed and citizens have become increasingly frustrated in their ability to get through.

One bright spot to emerge out of this is the introduction of call centers. They reduce costs and increase productivity. Several different examples are listed below.

- The state of Wisconsin used Food Stamp error reduction dollars to set up call centers in four different counties (Milwaukee – largest; Dane – large; Lacrosse – medium; Washington – small). These were set up to allow recipients to report eligibility changes affecting Medicaid, Food Stamps, Child Care and TANF. Dane County is a good example. It assigned four eligibility workers to the call center and used a sophisticated call routing system to minimize wait time for callers. The call center processes about 55,000 calls per year. This has kept error rates low. It also has reduced the “phone tag” that used to exist and freed up time for the remaining workers to do more complex work.
- San Antonio, Texas, has set up a call center to handle all sanctions and appeals. By doing this, the city was able to meet tight timeframes and to gather needed documentation. This helped make the possibility of sanctions very real to participants. It resulted in more appeals being upheld in favor of the agency. Conciliations were also handled by phone contact so the resolutions were not unduly delayed.

e. *Expanded Use of IVR Technology*

One of the most common complaints of participants is that they can’t get through to their caseworker. At the same time, workers complain that they are inundated with calls and can’t possibly handle the workload. IVR technology is being used to address this problem. With a calling tree, many of these calls can be handled

with a recorded message or an automated lookup of a benefit amount or a routing to a call center. Those calls that do go to a worker can be further enhanced as done in Hennepin County, Minnesota, where the phone call will simultaneously bring up the participant’s case on the worker’s computer. If one of the choices is a call center, this will even further reduce the number of calls that end up with an individual case worker. As we all know from experience, a calling tree can be very frustrating. They need constant refinement and feedback from users. Some are very good. Some are poor. As an approach, it is much better than trying to call a worker who is too overwhelmed to respond.

f. *Use of IVR and Swipe-Card and Similar Technology for Tracking*

Agencies serving low-wage workers need to keep track of the services they are providing. A number of different technologies are being used to identify a person and record that he or she has gone into a job center or is attending a scheduled activity.

IVR technology can be used to show that a person has shown up. In New York City, for example, home-healthcare workers use it to call in from a patient’s home. New York City also uses IVR technology for child-care attendance for payment purposes.

In Milwaukee in the late 1990s, one of the large work-experience sites used magnetic swipe cards to record hours attended in assigned work-experience activities.

While magnetic swipe cards are commonly used, the Westside Workforce Center in Denver recently has started using a small plastic card with a Universal Product Code (UPC) on the back. (Grocery stores use these for discount clubs. And the card can be attached to a key chain.) The UPC code is read by a scanner to identify the person. Denver officials plan to use this to show activity in the job center and to track attendance in assigned training and other activities. Likewise, YouthPlaces, a program in Pittsburgh, Pennsylvania is using barcode technology but with a handheld scanning device. Nightly, this data is transmitted to the office using a wireless modem. As a result, staff has access to information and data for program management the next day.

Some agencies are using low-cost electronic finger-touch pad technology to identify applicants for benefit programs. This has been very effective for reducing fraud in New York City. In a similar vein, the Hadera, Israel, Employment Center uses finger-touch pad technology designed by the Dutch firm Agens to identify individuals coming into the Employment Center. As participants go into a training room, they place their finger on a pad on the wall, and it records their participation in the activity.

Multiple Alternatives

It is important to highlight that the new tools and technologies make it possible to offer applicants and low-

wage workers multiple paths for accessing benefits, services and supports.

- a. Florida is a very good example. It has integrated many of these tools into Customer Service Centers. Citizens can choose whether they use a paper application or an Internet application. They can interact with workers in person or over the phone.
- b. The Internal Revenue Service Volunteer Income Tax Assistance Program (VITA) is another example which provides technology tools and one-on-one help for low-wage workers to assist them in filing tax returns and in accessing the earned income tax credit. VITA sites often provide financial literacy training and help participants avoid cash-checking and tax-preparation services, which can be exploitive. In several cities, including Minneapolis and Newark (planned), the VITA sites are located in welfare-to-work offices and job centers to further enable the connection with low-wage workers.

Technology as a Way to Enhance and Extend Existing Systems

Computerized administrative systems are extremely important for delivering benefits and work supports to low-wage workers. Most of these systems were developed in the 1980s and 1990s. Many are out of date. Unfortunately, for most states they are too expensive to replace. Some states and local agencies are using technology to improve and extend the life of these systems.

- a. *Web based front-end*
This is an excellent approach for adding life to old systems. Maryland has recently built a web front-end to its Work Opportunities Management Information System (WOMIS), which it uses for tracking work program participants. It is a mainframe work-activity tracking system which case managers previously only accessed by paper. Now, through the Internet, case managers are able to access the system without the restrictive and expensive equipment that was previously needed. There are other examples like this around the country which have extended the life of tracking systems, welfare systems, child care payment systems, Workforce Investment Act (WIA) systems and others. This takes the immediate pressure off of developing hugely expensive replacement systems. The rapid change in technology is likely to have a large impact on how systems are designed and maintained in the future.
- b. *Tracking for substance abuse*
New York City's Substance Abuse Tracking and Reporting System (STARS) facilitates the exchange of information between the city and its substance abuse treatment vendor providers by allowing vendors to submit program participation information, employment information, graduations and discharges, substance abuse test results and transfer requests. It is used by more than 100 vendors to monitor the progress of patients as well as their compliance with treatment and rehabilitative plans. This system is Internet-based and it interfaces with New York's primary welfare and work

tracking systems. By using this system, New York has been able to reduce costs by only paying for individuals who participate in treatment. It has also virtually eliminated the problem of waiting by not paying for unused slots.

Data Matching

This is another good example of how data from administrative eligibility and tracking systems can be used in other ways to support low-wage workers.

- a. *Wage and new hire*
All states have systems which collect quarterly wages and identify new job hires for most of the employees within the state. The federal government has a National Directory of New Hires (NDNH), which combines all of the state data. While this has been used for the Child Support program, the federal Administration for Children and Families is now making this data available to states for the TANF program. Both the state and federal data can and should be used by state programs which support low-wage workers. Often the agencies serving these individuals don't know that they are working or have just started a new job. With this information, agencies can help low-wage workers retain their jobs, advance to better jobs, and to access transitional benefits and other work supports.
- b. *EITC*
The earned income tax credit is a federal program for low-wage workers. The maximum federal EITC benefit for the 2006 tax year is \$4,536 for families with two or more children and \$2,747 for families with one child. Twenty states, including the District of Columbia, have a state earned income credit which is added on top of the federal credit. In addition, three local governments offer local EITCs. Across the country between 15 and 25 percent of eligible workers are not claiming EITC. In addition, many low-wage workers are paying exorbitant amounts for tax-return preparation and/or refund loans (RALs). States and federal government have creatively reacted to this situation.
 - One of the primary approaches at the state, federal and local levels has been information campaigns through traditional mass communication outlets (press, television, newspapers, etc.). The Internet is also now being used. A good example is an informational web site prepared by the Center on Budget and Policy Priorities (<http://www.cbpp.org/eic2006/>).
 - The aforementioned VITA program has resulted in volunteer-staffed sites all over the country. These provide free tax preparation, help with filing for EITC, and may include financial literacy training. Most operate during the tax season and often at multiple locations with varying business hours in a community. Several cities, such as Newark, are locating VITA sites in one-stop job centers. Minnesota is planning on running summer tax clinics to help people with prior-year returns and with amendments to their returns.
 - While all of these efforts are positive and have increased use of EITC, there is still a large group of people who have not claimed the credit but could do

so. The state of Minnesota is piloting a different approach in Hennepin County. In addition to the normal mass communication information campaign, they have performed a data match between the TANF electronic case files and the Department of Revenue electronic files of families who have filed for the state EITC. The match identified 12,000 low-wage workers who were potentially eligible for EITC but did not file for it. In addition, the match identified the estimated amount of EITC they could receive using a three-year allowable back claim. The project was also unique in that it didn't just send out a letter to the individuals but it contacted them by phone and invited them in for an interview. While the evaluation of the pilot has not been completed, the preliminary results are positive, with EITC claims increasing significantly during pilot period.

- c. *Supports a person is not receiving (but is most likely eligible to receive)*
Data matches can be used to identify work supports which are available but not being used by low-wage workers. This approach can be most effective with individuals who have already been interacting with agencies. The match should be followed by a personal contact.
- For instance, matches could identify working TANF participants who are not using available training vouchers.
 - Another example is a match that could identify low-wage workers in public housing who are eligible to participate in the Department of Housing and Urban Development's Family Self-Sufficiency program (FSS). As their income increases, usually their rent and utility contribution increases. The FSS program allows the increased contribution to be escrowed in an asset-building account that will eventually be available to them.
 - In Newark, a match identified low-wage individuals who were not using the free Abbot Pre-K child-care program. This program can be helpful for both parents and children.
- d. *Geo-mapping and address matching*
Many low-wage workers are being served by multiple programs and services. By using mapping and matching tools, it is possible to gain a better understanding of where these are being provided. The results can be used for locating and coordinating the services. In Minnesota, Hennepin County conducted a match to identify families that had as many as ten case workers and then used the information to better coordinate case management and services.

Placing Technology Where It Is Needed

One of the trends, supported by technology, is to provide more choices for accessing programs and services. The old days of waiting for hours in an office and then being referred to another office are gradually ending. It is good that this is happening because low-wage workers who need these programs and services cannot sit around all day and work at

the same time. It is a more respectful approach and recognizes the value of their time.

- a. *Job centers*
Job centers remain an effective approach because multiple programs, services and agencies are together in one physical location. They also tend to be technology intensive for the agencies, their staff and the public who are using the centers. Because of the economies of scale they can often afford to have the latest in tools and technology. Many job centers now have banks of self-serve PCs for Internet-based job searching. They have resource rooms with PCs which often can function in a stand alone, Internet or intranet mode and are used to support training, literacy skills and searches for labor market information. This provides access to those who don't have equipment or an Internet connection at home. It also teaches people how to use the tools, which is good since many jobs require use of similar tools.
- b. *Internet*
As more services, information and processes are available through the Internet, they can be accessed anywhere that a person has an Internet connection, including at home. We expect that the digital divide between those who have access and those who don't will diminish. A good example is in Memphis, where PCs and Internet connection will be installed in public housing.
- c. *Equipment placement*
Low-cost PCs with access to the Internet can be placed in hospitals, clinics and other service agencies for the purpose of processing applications on location. Another innovative approach is to have this equipment in prisons for offender-reentry programs to sign up individuals for Food Stamps, cash assistance, veterans benefits, Social Security, Medicaid and work programs at the time of release. This is a public-safety issue to help ensure that these individuals have supports needed to go to work and avoid a return to criminal behavior.
- d. *Mobile office*
Essex County, New Jersey, has created a Mobile Citizens Services Office. It is a bus-sized, handicap-accessible vehicle equipped with four offices and state-of-the-art technology, including laptop computers, wireless computer connections and cell phones that enable county staff to expedite the processing of applications for services online. This gives them the capability to go anywhere in the county, such as a public housing areas, to process applications for Food Stamps, general assistance and other programs on the spot. See: <http://www.essex-countynj.org/index.php?section=pr/print/92206>.

Distance Learning

Distance learning is emerging as a significant use of new technology and as a tool to help address a very difficult issue for many low-wage workers. The pressing need and dilemma is to get work quickly, to retain work and at the same time to upgrade skills and certifications to be able to advance to better paying jobs. This is particularly difficult for low-wage

female workers who are caring for children and who often don't have transportation. The traditional classroom approach is simply not a viable option for many people.

a. *Online learning*

This is an important model which uses computerized Internet-based training. The Dallas Workforce Development Board (WDB) jointly developed a model for welfare-to-work participants with Business Access, a private company. The participants were given a computer, Internet access from their home and online courses. This model is now in use throughout Texas and has spread to other states, such as New Jersey. Studies in both states show good job retention, an increase in wages and faster transition off public assistance. Many of the participants say that they would not have been able to take the training if it was not available online in their homes. Participants who successfully complete the program are allowed to keep the computer and can continue to access the online courses. For the Dallas WDB site, see:

<http://www.worksource.org/WSMain.shtml>. For the Business Access site, see <http://www.business-access.com/default.asp>.

Some of the important characteristics of online learning are described below:

- It needs to be used selectively because it is not useful for everyone.
- There are already a large number of developed courses.
- The courseware can be very flexible and cover areas such as job readiness, general skills and targeted skills for specific jobs.
- A program of courses can be geared for different purposes. For instance, some can be geared to preparation for obtaining a job. Some can be geared to skills needed for Job retention and advancement
- Employers value certifications that show an employee or job applicant has reached a competency level or has completed a specific set of training courses. Online learning can be set up so that at the successful completion of a course or series of courses, the student will receive a training certification that is acceptable to employers.
- Online learning can be combined with periodic meetings with an instructor and with online tutors. This can be very helpful to make sure that students are using the tool correctly.
- This technology can provide learning continuity over time. One of the problems with much of the available classroom training is that each class, trainer and organization has a different approach. With online learning, training can build on past training and the students don't have to adjust to different learning systems and teaching styles. A pilot program in New Jersey will apply this concept of continuity by using the same computerized courseware for returning offenders. It will use stand-alone computers in the prison, online learning in the halfway house and then continued access to online learning in the community during and after the parole period.

- Literacy is a significant issue for low-wage workers. Courseware can be geared to different literacy levels and the use of online learning can increase literacy skills.

- It can be used with many different types of participants, including TANF, general relief, offender reentry (prison, half-way house, community), and high school drop outs. Online learning was also shown to be flexible enough to be used with Hurricane Katrina evacuees.

- Federal programs such as TANF are putting much more emphasis on accurate tracking of hours and activities. Online learning programs such as those implemented in Texas and New Jersey incorporate this tracking as part of the courseware.

b. *Videoconferencing*

Videoconferencing can be used to make training available off site and to provide interpreter services for individuals for which English is a second language. In Wisconsin, Dane County and a consortium of several other smaller counties have used this technology to make training available to the smaller counties. Without it, the participants would have to travel long distances.

c. *Increased use of distance learning*

Through grants from the Sloan Foundation, the Rutgers University Sloan Center on Innovative Training and Workforce Development has provided technical assistance on distance learning to many states. See: <http://www.itwd.rutgers.edu/mainPages/index.htm>.

Through grants from the Nicholson Foundation, the Rutgers University Center for Women and Work is working on several projects for using distance learning in the women's prison and for the reentry population in New Jersey. See: <http://www.cww.rutgers.edu/>.

Job Center Information for Job Seekers and Employers

One of the principle concepts behind one-stop job centers is that they bring together employers and job seekers. The original idea was to bring them together in the same physical location. The Internet has greatly expanded the concept. Internet web sites can provide information about the programs, services and activities at the physical centers. They can also create a "virtual job center" which is not limited to a physical location. They can organize and make available large amounts of information. The types of information that are becoming available for job seekers and for employers are listed below:

a. Internet-based information for job seekers:

- Looking for a job
- Career information
- Occupation and wages
- Training
- Work supports (child care, health care, food assistance, tax credits, unemployment compensation, etc.)

b. Internet-based assistance for employers:

- Filling jobs and finding qualified applicants

- Retention strategies
- Labor market information
- Business services and assistance
- Tax credits for hiring target populations

For the web site serving the welfare-reform trailblazing state of Wisconsin see: <http://wisconsinjobcenter.org/>. For the web site serving the 13-county region of Texas serving the Houston-Galveston area see: <http://www.theworksource.org/index.html>

Community-Based Systems

A promising and innovative use of technology is a community-based system which allows many community organizations to use one system to track their activities and efforts to serve a common group of participants. For instance, the slot-management system in Essex County, New Jersey, uses many vendors to provide employment and training, and work support services. A common problem in many states is the management of slots to maximize available services. Too often agencies complain of not getting enough referrals. Essex County has developed a slot management system. It has helped them to maximize available services and to avoid unused slots and waiting lists.

Approaches to Technology Transfer

In this paper we have provided examples of some of the ways that technologies and tools are being used to support low-wage workers. Since this is a rapidly changing area, there are many innovations that we have not discussed and undoubtedly many more under development. This raises an important issue. How is it possible to stay abreast of new developments and to adopt and transfer them? Following are suggestions.

Target

Clearly identify the target groups for the tools and technologies and the involved programs and services. This makes it possible to identify the federal and state oversight agencies and to access their web sites. For instance, the Food Stamp program is a work support used by many low-wage workers. The federal Food and Nutrition Service website has information about useful tools and technologies. See: <http://www.fns.usda.gov/fns/default.htm>.

Stay Informed

Identify and sign up for Internet-based newsletter services. For instance, for the TANF program, the Welfare Peer TA Network sends out weekly e-mails about changes, research and innovations involving the TANF program. To access the web site and sign up see: <http://peerta.acf.hhs.gov/emaila.htm>.

Identify Funding Sources

Identify federal and state funding sources for technology transfer. These may support the following:

- Experts can visit states, cities or counties.
- Conferences are held to promote state-to-state or city-to-city dialog. Peer-to-peer dialog has proven to be an effective way of transferring technology and tools.
- Some programs will pay for visits and sometimes for building or transferring the technology.

Research and Studies

Identify research organizations and associations that study low-wage workers. Many of these organizations study tools and technologies and make their studies available on the Internet. Some examples include the Institute for Research on Poverty (<http://www.irp.wisc.edu/>), Manpower Demonstration Research Corporation—or MDRC—(<http://www.mdrc.org/>) and Urban Institute (<http://www.urban.org/>).

Resource List

Through the Urban Partnership Initiative, the federal government has compiled a list of resources of information from public- and private-sector entities involved in supporting low-income and at-risk families.

Private Sector

Sometimes the private sector will be willing to build or donate technology as a contribution to the community.