DIGITAL BRIDGE

Providing Digital Access to Low-Income Job Seekers During the COVID-19 Pandemic

Seattle Office of Economic Development

Goodwill
Because jobs change lives

Pacific Associates

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Uplift Northwest

InterConnection

Acknowledgments

This report was a collaborative effort of Seattle Jobs Initiative, the Technology and Social Change Group at the University of Washington Information School, The City of Seattle Office of Economic Development, and the Seattle Information Technology department.

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Many thanks to participants and staff at Seattle Jobs Initiative, Goodwill, Pacific Associates, Partners in Employment, and Uplift Northwest for their feedback and input.

Evaluation research was funded in part by the University of Washington Population Health Initiative.

Executive Summary

The digital divide has long been recognized as a factor contributing to the economic marginalization of low-income communities, particularly Black, Indigenous, and other communities of color (BIPOC communities).[1–7] The pandemic transformed the digital divide from a long-simmering issue to an immediate crisis as schools, training programs, and essential services rapidly moved from in-person to virtual in March 2020. The City of Seattle's Office of Economic Development and Seattle Information Technology recognized that low-income job seekers were among those most immediately impacted by the shutdown and least likely to have access to a device and internet connection in their homes. As a response to the COVID-19 emergency, they immediately reached out to workforce development partners at Seattle Jobs Initiative (SJI) to determine how to identify those in need and establish a process for getting those individuals connected to the internet and ensure they had a functional laptop to access training and services. Together, they developed Digital Bridge, a pilot project to improve digital access for low-income job seekers in Seattle and articulate the steps needed for larger-scale program delivery and community impact.

The Digital Bridge demonstration project launched in July 2020 with funding from the City of Seattle Office of Economic Development and Comcast. Employment support program partners included Seattle Goodwill, Partners in Employment (PIE), Pacific Associates (PA), Uplift Northwest (formerly Millionair Club Charity or MCC), and the Congolese Integration Network. Previous digital equity project collaboration brought in the Technology and Social Change Group (TASCHA) at the University of Washington Information School with funding from the University of Washington Population Health Initiative to assist with the evaluation and InterConnection as an equipment and internet provider. Between July 1st and December 31st, 2020, SJI, Seattle Goodwill, PIE, PA, and Uplift Northwest distributed 193 laptops and 174 wireless internet hotspots to job seekers and workforce training participants. These devices allowed those individuals to access the internet, training, services, and jobs while maintaining the social distance required during COVID-19.

Digital Bridge was a challenging but successful pilot program. All partners are using the launch experience to improve service delivery. The work of Digital Bridge is continuing with additional funding. The authors' and our organizations' intent is that this evaluation serves to inform scaling, improvements, and the development of similar programs and the policies and investment necessary to deliver quality, effective programs for un- and underemployed job seekers on their career and digital opportunity pathways.

Key Takeaways

- Providing low-income job seekers digital access via a functional laptop and adequate internet connection is essential for an inclusive recovery. The pandemic has brought into sharp relief how lack of digital access and skills increasingly shuts individuals out of the economy and civil life.

- Digital access alone is not enough. Those who have lacked access and skills need immediate, quality, and culturally responsive technical support and skills training to take advantage of digital access.
- There is no one right-fit device or internet connection. Device selection and internet program enrollment need to consider the program requirements and participants' needs and barriers.
- The refurbished computers can be higher-touch than new devices, which increases the need for a program to have high quality control and inventory management in place and adequate time budgeted for support.
- The community-based organizations are well situated to support increasing digital access for low-income job seekers, particularly in BIPOC and immigrant and refugee communities. They are also the most resource-constrained. Quality digital bridge programs require financial support, staff time resources, and training and assistance to fully integrate digital inclusion service delivery into existing employment program delivery. Otherwise, we risk only reinforcing the inequities among community based organizations and in the larger Seattle-King County community.
- Likewise, the frontline workers who directly interact with low-income job seekers need training and skills to support digital novices. A quality program will provide separate technical support. Still, frontline staff often must do on-the-spot troubleshooting to help clients participate in training, submit job applications, or log on to an interview on Zoom. It is necessary to equip frontline staff with the skills to serve participants and ensure that staff are empowered and effective in their roles.

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Digital Bridge Implementation

Digital Bridge was an emergency response to the nationwide shutdown in March 2020. Low-income job seekers and training program participants needed digital access immediately, and there was little time available to test assumptions in program design. The core goal of Digital Bridge was to provide low-income job seekers with a functional laptop and internet connection. To that end, SJI and its CBO partners, Partners in Employment (PIE), Pacific Associates (PA), and Uplift Northwest, identified eligible participants and enrolled them in Digital Bridge in addition to enrolling them in SJI's workforce development programs. After the initial distribution wave, Seattle Goodwill joined the project, leveraging their existing programming and expertise to get more laptops out faster.

The City built on an existing partnership with InterConnection to provide eligible participants refurbished Windows laptops and Mobile Citizen hotspots. The group leveraged the City's Internet for All Working Group to identify the applications and resources that InterConnection preloaded on the laptops before distribution. The list the working group developed included Windows 10, the Microsoft Office 2010 Suite, and several browser favorites and desktop shortcuts to websites where participants to access additional services and resources (see Appendix A).

Seattle Information Technology also worked with Comcast and Wave to develop a sign-up process for their low-income internet programs. The Comcast grant was to pay for 12 months of internet access through all three providers, Comcast, Wave, and Mobile Citizen.

Initial Program Design

A key assumption program designers made was that Digital Bridge devices and internet service provided through mobile hotspots or cable broadband could be distributed through case managers and career navigators as any other support services. To that end, SJI added two new questions to their intake process:

- Do you have a working laptop or desktop computer at home?
- Do you have internet access at home?

Getting Devices to Participants

The initial design assumed that upon an SJI program participant* answering "no" to either or both questions, the case manager would enroll them in Digital Bridge. After enrolling them, the case manager would place an order to InterConnection for a refurbished laptop and hotspot or help the participant navigate the sign-up for the low-income internet programs at Comcast or Wave, depending on where the participant lived. Finally, the participants

* SJI prioritizes serving Basic Food Employment and Training (BFET)-eligible participants. BFET requires households to be at or below approximately 130% of federal poverty line (FPL). BFET is Washington state's Supplemental Nutrition Assistance Program Employment and Training (SNAP E&T) program, which provides 50/50 matching funds for tuition and other eligible training-related expenses to participants enrolled in Basic Food (SNAP) assistance while pursuing training and looking for a job.

were given contact information for InterConnection so they could access technical support as needed. However, it quickly became apparent that this was not a sustainable model for several reasons, primarily among them:

- **Participants needed far more hands-on support than simply handing them a device**. Digital novices need structured digital skills instruction, assistance with setting up an email and other gateway access points, hands-on help from a trusted source to troubleshoot user errors, and hardware and software issues. Unfortunately, case managers did not have the time or skills to provide this to all participants who needed it, and participants had difficulty accessing support through InterConnection.
- An additional and new support service with a separate request protocol from the standard support services would have been challenging to implement under optimal conditions. **During the summer and fall of 2020, meeting participants' other basic needs while social distancing was already straining case managers' capacity.**
- **The steps between a case manager placing an order to a participant receiving a device were cumbersome and time-consuming**, often too long for a participant who had enrolled in a short-time training. The time it took for the computer refurbisher to fill an order and the case manager to distribute it forced some participants to rely on cell phones or go to friends or family's homes where they could access the internet for the first several days of training.
- **Socially distanced distribution is complicated and time-consuming for case managers, adding unforeseen costs to the program**. Several methods were employed, including a pick-up event outdoors at InterConnection, low-contact distribution outside SJI's office, or CBO partners' facilities. InterConnection shipped some devices directly to participants. However, most frequently, the case manager met participants somewhere in the community to minimize their use of public transit.

Getting Participants Connected to the Internet

The initial program design prioritized connecting participants to low-income wireline broadband programs because those connections are more stable. The Mobile Citizen hotspots provided by InterConnection were an alternative for cases when the participant was insecurely housed, outside of Comcast and Wave's service areas, or the participant already had a low-income internet connection, but the speed was not enough to support the multiple people in the household participating in school or training online simultaneously (e.g., a parent in training and children attending remote school).

It quickly became apparent that both participants and case managers prefer the hotspots. Case managers defaulted to the hotspots because it simplified the process. The low-income broadband connection sign-up process was complicated to help participants navigate remotely. In contrast, the hotspot simply required them to add it to the InterConnection order and distribute it to the participant with the laptop.

Participants preferred mobile hotspots for several reasons. First, it was far simpler to receive the hotspot. Navigating the online forms or signing up over the phone is difficult for digital novices, particularly those who speak English as a second language. Second, many are unhoused, insecurely housed, or move frequently, and connecting and reconnecting wired internet service is either impossible or cumbersome. Finally, the hotspot offers a higher connection speed than the low-income broadband programs[†] and gives participants internet access away from home. Consequently, nearly 90% of participants opted for the Mobile Citizen hotspots.

Providing Technical Support

The program design team contracted with InterConnection to provide a dedicated technical support line for Digital Bridge participants through which they would document what issues participants sought help for to inform future program design, particularly digital skills training and device selection and configuration. Participants were introduced to the technical support line through an brief orientation on Zoom and technical support staff attended many of these sessions. Case managers were regularly reminded to encourage participants to use this resource. Finally, SJI provided InterConnection with contact information of a select number of participants so that technical support staff could reach out to them.

Despite these efforts, the line went largely unused. The reported reasons included participants

- Not feeling comfortable reaching out to someone who was unfamiliar.
- Not feeling comfortable navigating the phone tree system and leaving a voicemail when someone was not available.
- Needing help immediately.
- Lacking the vocabulary to explain their problem over the phone, particularly for English Language Learners.

Whom Did Digital Bridge Serve?

Most SJI programs require that participants' household income be 200% or less of the federal poverty line (FPL) based on the last three months of income. SJI partners with PIE and the Congolese Integration Network to serve immigrant and refugee communities and PA and Uplift Northwest to serve unhoused participants.

Goodwill's training programs target similar low-income and immigrant refugee communities with similar income thresholds for wraparound services. The Digital Bridge partnership had a similar mission to Goodwill's Digital Equity Project that seeks to provide 21st-century digital skills, so all learners have training and access to digital

[†] At the launch of the program, Comcast and Wave both offered low-income broadband connections with download speed of 25 Mbps and upload speeds of 3Mbps. Since the launch of Digital Bridge Comcast has increased the Internet Essentials download speed to 50 Mbps and upload speed to 5Mbps. Mobile Citizen speeds varies based on the network it connects to, the download speed is up to 25 Mbps for 4G LTE and 100 Mbps for the LTE Plus network and the upload speed is up to 15 for the 4G LTE and 23 Mbps for the LTE Plus

hardware and connectivity for employment and basic needs. This initiative allows Goodwill to deliver its mission in new ways to close the digital divide and overcome traditional geographic and capacity barriers—especially for communities that lack equitable access and resources.

Participant Need

Accordingly, 25% of participants had no household income in the previous three months, and an additional 41% had less than $1,000 per month of household income for the last three months.

In addition, more than one-third of participants were unhoused, which includes living on the street, in a vehicle, tent, or RV, in a transitional or emergency shelter, and couch surfing or staying with friends and family temporarily. [8]

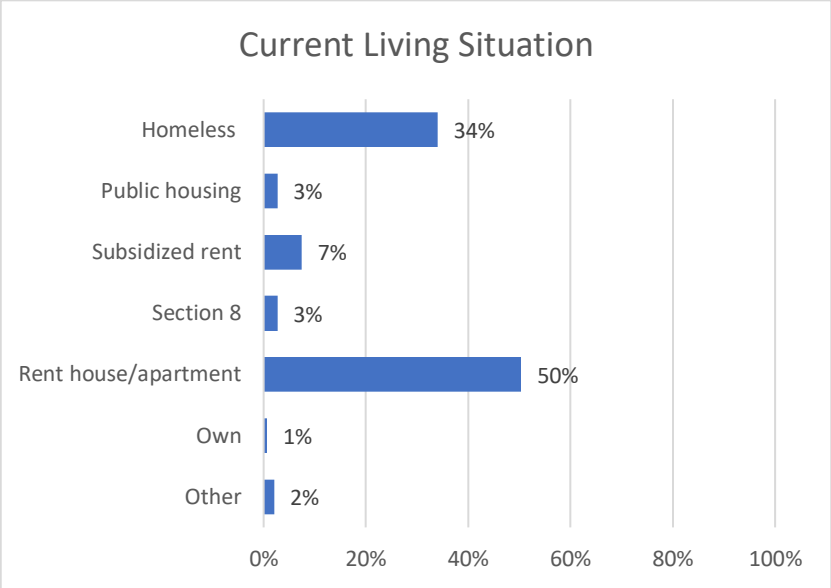

Figure 1. Digital Bridge participants' living situation at enrollment

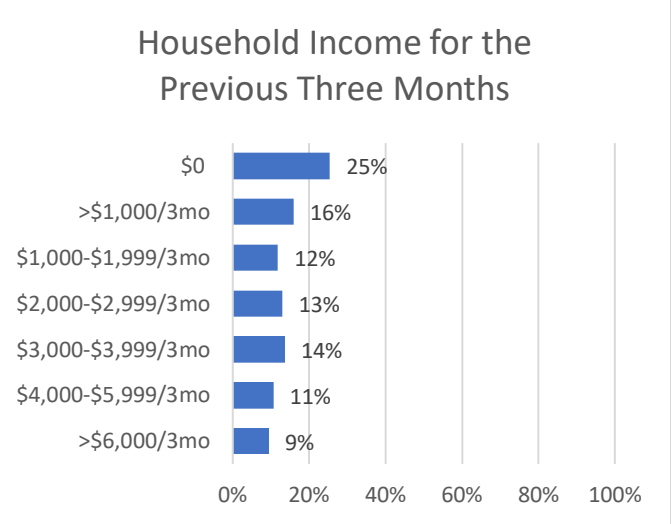

Figure 2. Digital Bridge participants' household income for the 3 months preceding enrollment

Only 7% of participants owned a desktop or laptop computer, and nearly two-thirds of participants only had smartphones. The largest group of participants, 39%, reported no internet access at all. Only 15% had home internet access, predominantly low-income programs, which they may have signed up for through a child's school district to allow them to participate in remote schooling. As noted above, low-income broadband connections often do not have the speed necessary to support multiple people using online meeting platforms simultaneously.

Participant Skills

Once enrolled in Digital Bridge, the SJI evaluator asked participants to complete a survey about where they received help and how comfortable they were using a computer (see Appendix B) and participate in an audio diary and interview study with TASCHA at UW (n=15; see Appendix C). SJI evaluator also created a Northstar Digital Literacy learners account for each participant and asked them to take three gateway digital skills assessments: basic computer skills, internet basics, and using email. In addition, they were encouraged to take Windows operating system, information literacy, and career search skills assessments and explore all the Northstar Digital Literacy's assessments and learning modules (see Appendix D).

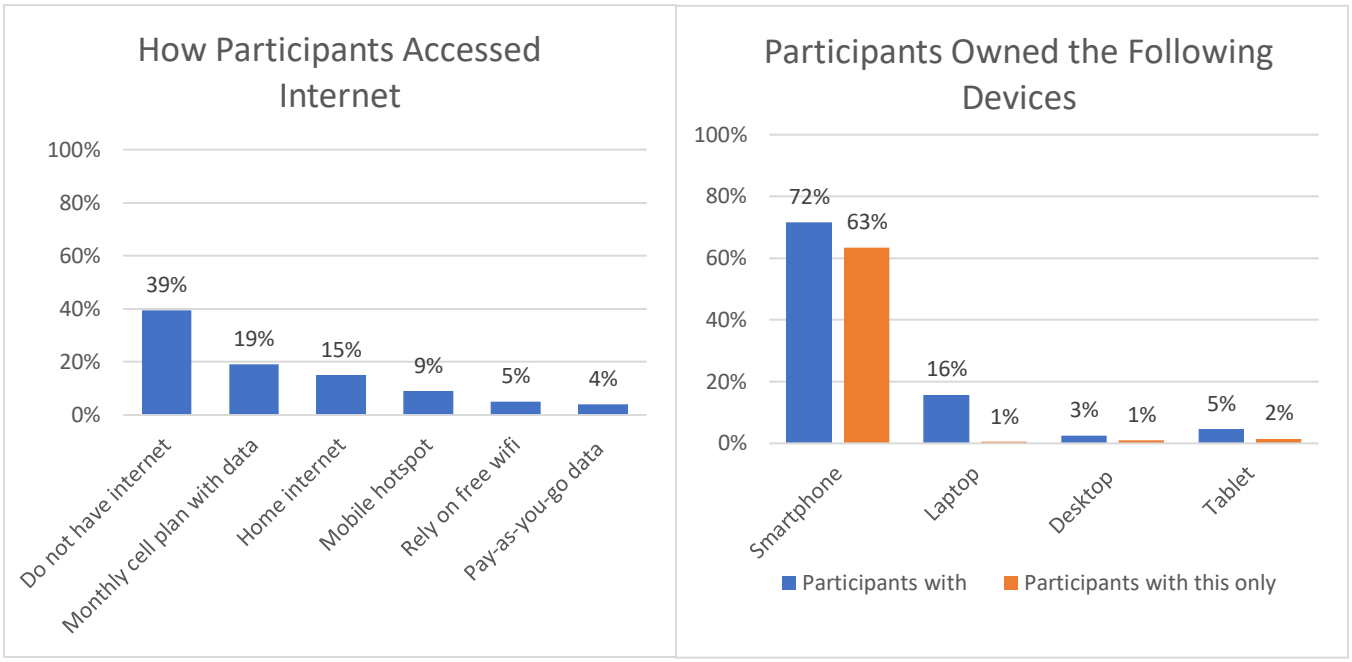

Figure 3. How participants accessed the internet and what devices they had before enrollment in Digital Bridge

One hundred thirty-seven participants completed a survey. Despite the overall lack of access, most participants reported being at least somewhat comfortable using a computer, using the internet, and taking a computer training course. More than 47% reported being very comfortable using a computer, and 53% were very comfortable using the internet.

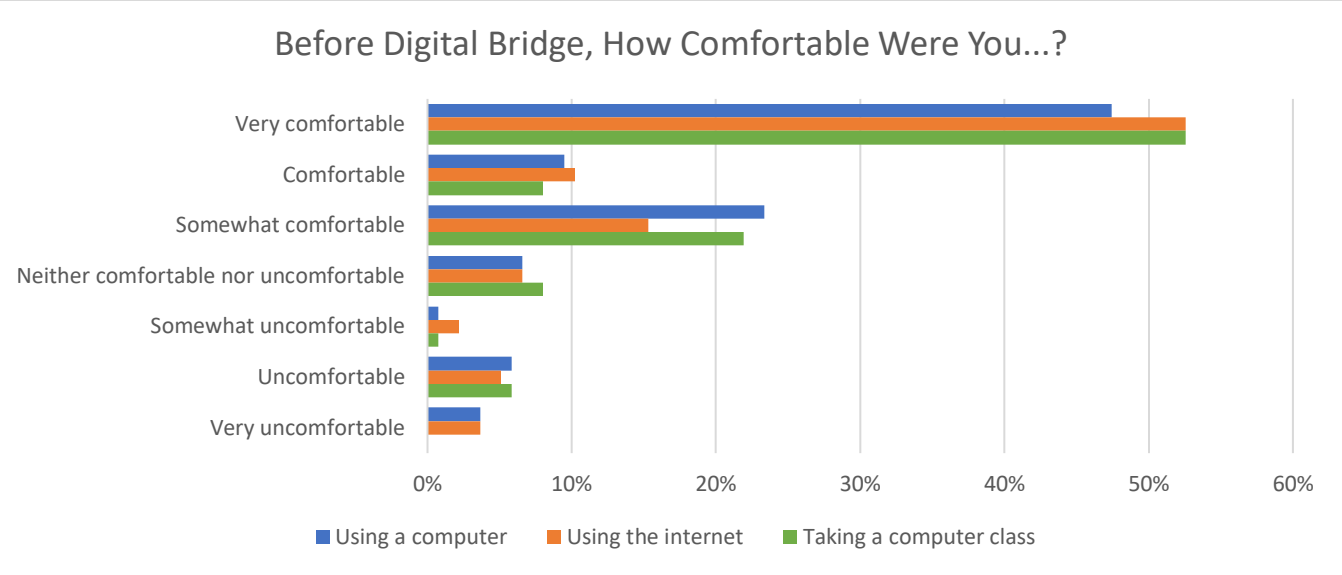

Figure 4. Participants' comfort level before with computers, the internet, and taking a computer class before enrolling in Digital Bridge

In contrast, when fifty-two participants completed 180 unique online assessments[‡] and 29 participants completed the paper-based screener,[§] only 23% of the assessment scores were proficient. Though basic computer skills and email use assessment scores were somewhat higher, most participants who took these assessments were not proficient. This is consistent with the amount of time case managers reported spending helping participants learn how to log into Zoom, use online learning platforms, respond to the survey online, and log into their Northstar learner's account.

[‡] Some participants completed a single assessment multiple times. Only the first score for each participant for each assessment was used.

[§] Northstar's paper-based screener is 14 questions aligned with the online basic computer skills assessment.

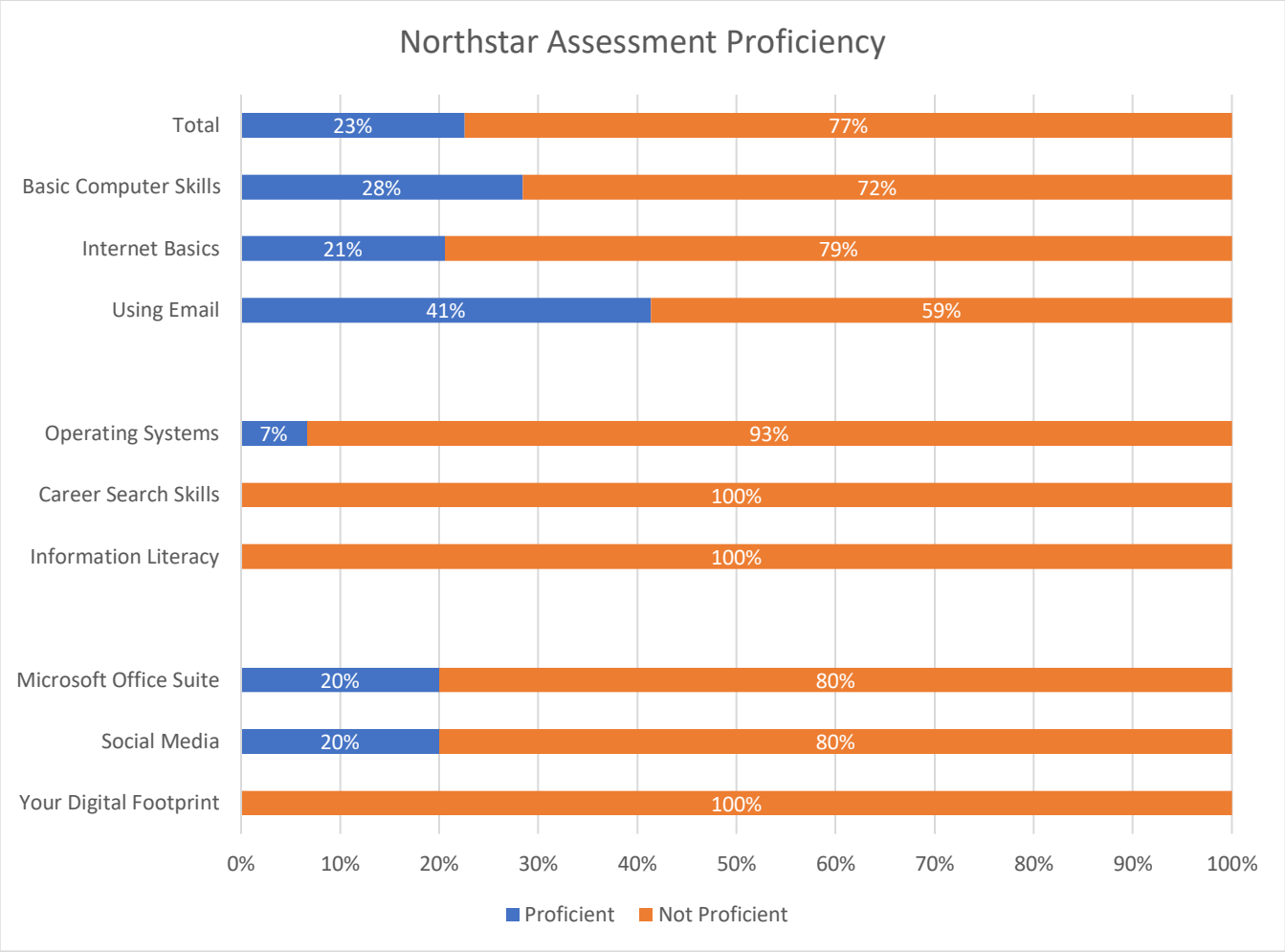

Figure 5. Percent of participants score "proficient" on Northstar assessments

In the UW interviews, participants described conducting various online activities such as using maps, conducting web searches, and finding educational aids for their children. However, conversations revealed gaps in knowledge of the basics, such as not knowing how to use web bookmarks, retrieve a deleted email, and take a screenshot. Although some interviewees felt like they did not need assistance with digital skills, most were interested in learning more about technology. Some topics included:

- General laptop and smartphone use to feel "comfortable" or "efficient"
- General email use
- Downloading and using applications
- Web navigation
- Online job search.

Participant Demographics

SJI's collaboration with the Congolese Immigration Network and PIE was very successful, and Digital Bridge reached immigrant and refugee communities. Seventy-three percent of the participants were Black/African American, a large percentage of whom are recent Congolese immigrants. Seventy-two percent of participants are between 25 and 54 and thus are more likely to have family and caretaking responsibilities than workers newly entering the workforce and senior workers.

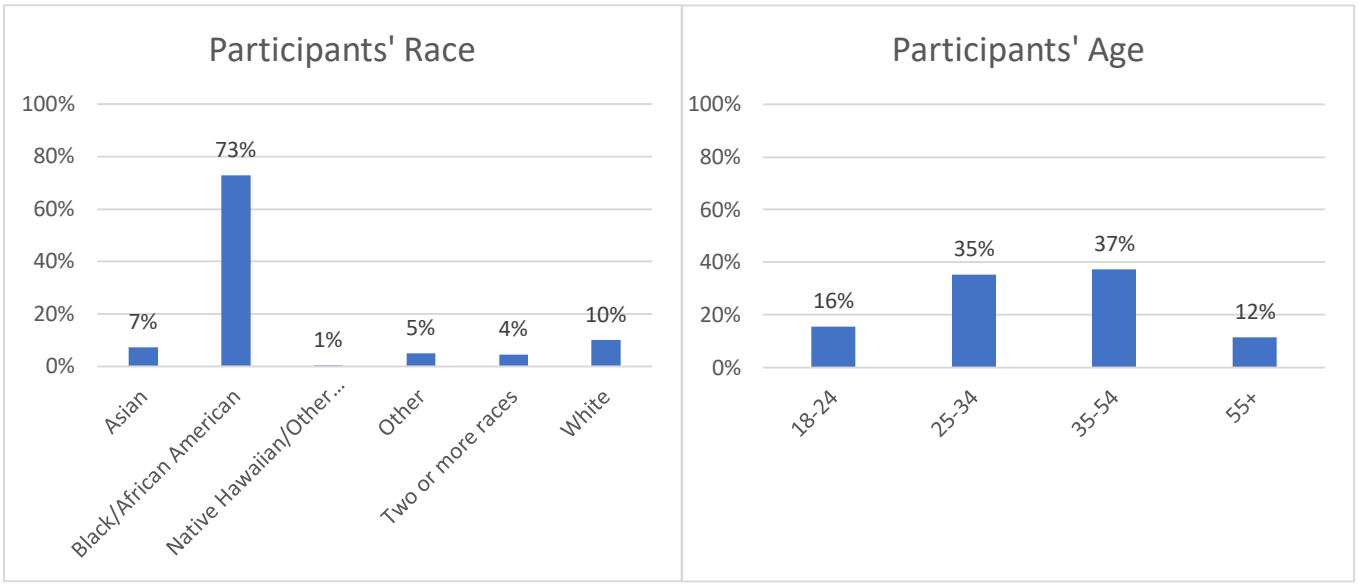

Figure 6. Participants' race and age

Most of the participants were women, and most participants lived in a household of two or more. This is notable first because BIPOC women were the most likely to be pushed out of the workforce during the COVID shutdown.[9] BIPOC women disproportionately hold jobs that cannot be done remotely, and that women disproportionately bear the child and other dependent[10,11**] care burden. Many women were forced to leave the workforce and cannot re-enter the workforce while childcare is limited, and K-12 schools are all or primarily remote. Digital Bridge offered participants of all genders who have caregiving responsibilities an opportunity to engage in training and access services. However, the near-term employment prospects for people with caregiving responsibilities continue to be limited because a lack of childcare and other dependent care remained a substantial barrier through the first half of 2021. It is also notable that Digital Bridge served individuals in households of three or more because the potential impact of digital access is multiple by the number of members of the household.[††]

** Elderly and disabled adult family members.

†† Size of the household is a formal federal designation to determine income eligibility and likely underrepresents the potential impact of providing internet connection as immigrant and refugee communities often have much more complex and numerous households and many low-income individuals and families were doubling up thanks to loss of income from COVID layoffs and fear of eviction.

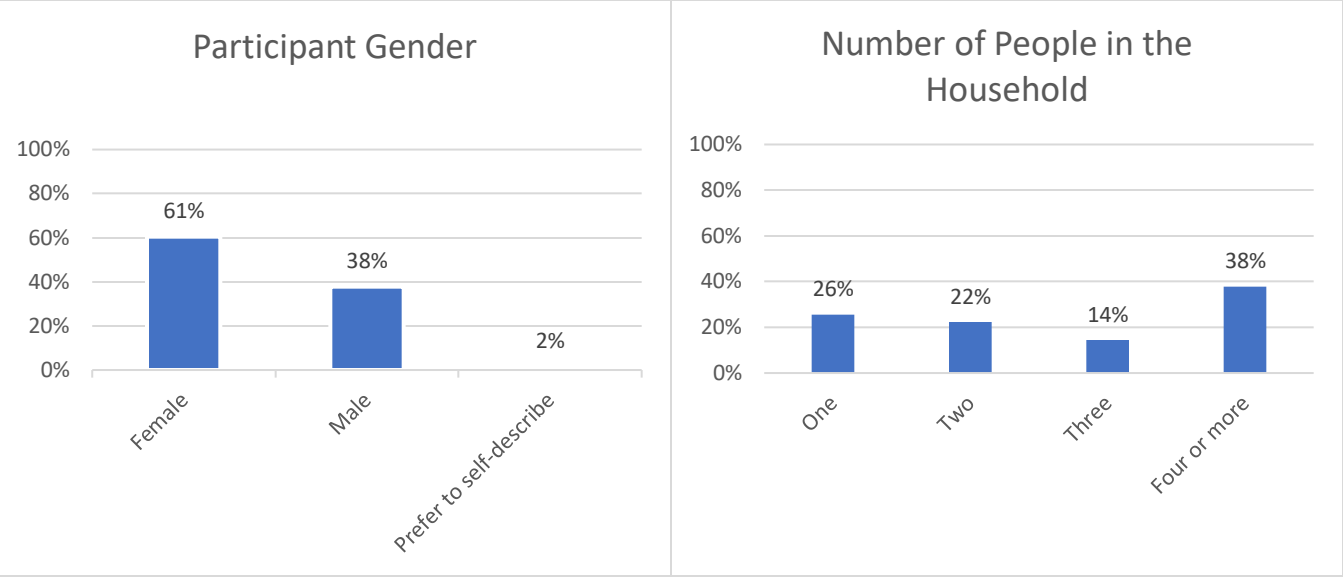

Figure 7. Participants' gender and the number of people in participants' households

What Was the Impact?

The laptops and internet distributed in the Digital Bridge program served as an essential conduit to employment services and a lifeline to other essential information, maintaining family and social inclusion, and as tools for other household members to connect to services and opportunities. The primary goal of providing Digital Bridge participants with laptops and internet connection was to allow job seekers access online job training and look for employment. At the time, typical locations for job seekers (e.g., libraries, community centers, WorkSource centers, and social service agencies) were operating primarily or entirely virtually. However, program designers always recognized the additional benefits that internet access providers had and were intentional in the project design to take full advantage of this. Other benefits include accessing other services, finding legal and consumer information, and, particularly during social distancing, communicating with friends and families and connecting with community (e.g., faith communities, clubs, and organizations) online. In addition, other household members can use the internet connection and laptop. Providing it to participants gives access to entire households and, during the shutdown, an internet connection was a lifeline to the world for whole families.

Internet Access

Case managers have long recognized how the digital divide insidiously impacted those who lacked access and skills throughout the application process and on the job. For example, a job seeker who did not regularly use email might get passed over for a job or labeled "unreliable" or "unmotivated" by a supervisor because they did not respond to an email even in jobs requiring few or no digital skills. The expectation that an applicant or worker uses email may not be clear to the job seeker, and thus the skill gap is never identified.

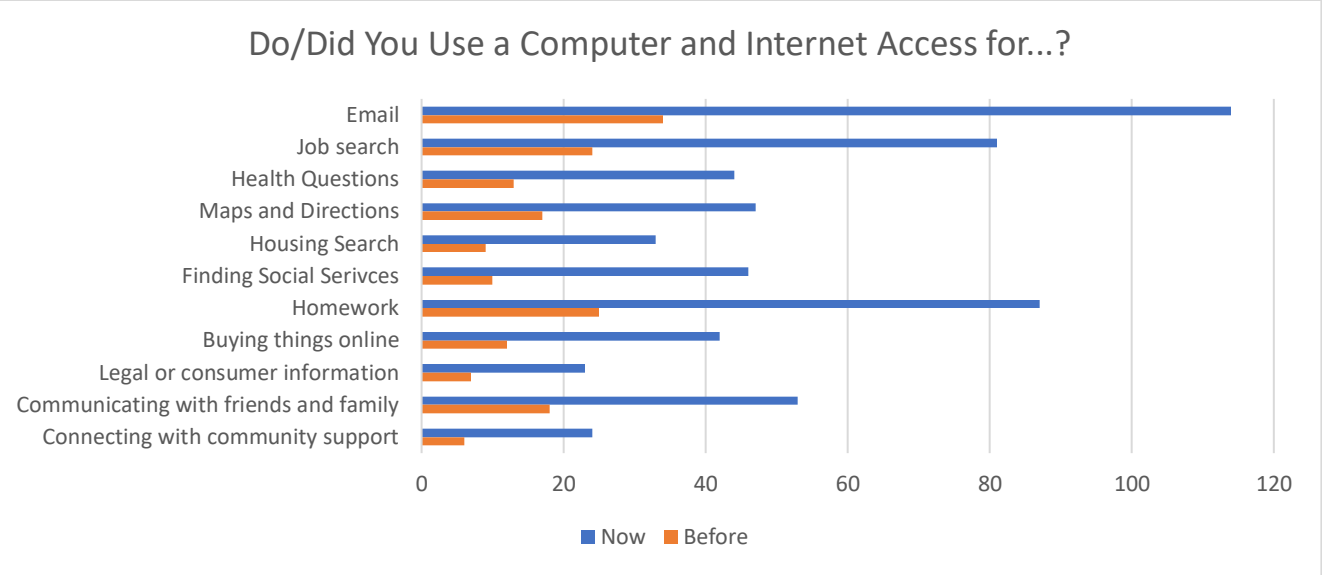

Figure 8. What participants used the computer and internet access before and after enrollment in Digital Bridge

Participants reported improvement in their lives. Better access to a computer and the internet enabled them to significantly increase their use of email and go online for job search, health, learning, and other activities. Participants were asked what they used a computer and the internet for before enrolling in Digital Bridge and now. There is a marked increase in all the uses. The largest increase was in the number of individuals who said they were using email and homework, while housing search and connecting with community support saw the greatest percentage increase.

During interviews, all participants described that enrolling in the program had a positive impact on their lives. Some participants described using their Internet connections with their new laptops, smartphones, and televisions. A few that had hotspots would take it with them outside their home and use it in place of a data plan. However, others did not realize that you could use the hotspots with technology besides their laptops or were concerned with losing it. Interviewees described various ways they used their technology, including digital literacy skill-building, English language learning, searching for employment, connecting with friends and family, shopping, participating in religious services, and entertainment. Some of the participants interviewed were also caregivers - either to young children or a sibling's guardian. The technology access enabled these participants to complete tasks on others' behalf.

Training

SJI and Goodwill's programs aim to move individuals along a career path to jobs with family-sustaining wages. As both organizations and their partners focus on those furthest from opportunity, the training programs are first-step and short-term. They prepare participants for entry-level jobs and to pursue further training and education.

SJI expanded its programming during the pandemic to meet the increasing demand from newly laid-off individuals and those who had otherwise left the workforce. Digital Bridge participants took part in Introduction to Healthcare Apprenticeship Pathways (IHAP), Career Navigation Services, BFET Re-Entry, GED/HS Navigation, Uplift Northwest, and Trades programs at SJI and one of four digital skills courses at Goodwill. Career Navigation, GED/HS Navigation, and Re-entry programs involved one-on-one assistance with help writing a resume, applying for jobs, and learning job readiness skills and other wraparound services (e.g., transportation, clothing, medical care). SJI's IHAP, Uplift Northwest, Trades programs, and Seattle Goodwill's computer skills training courses are formal training.

Program	Number of Participants
SJI	**143**
CareerReady: Advanced Manufacturing	1
BFET Re-Entry Program	14
Career Navigation Services	*71*
GED/HS Navigation	*1*
IHAP	*41*
Uplift Northwest	*13*
Trades	*2*
Goodwill	**50**
Grand Total	**193**

Participants reported learning several different types of digital skills in addition to their enrolled training programs skills. Most frequently mentioned was using Zoom and Teams and searching for a job. This is notable because the 143 SJI participants were receiving no formal digital skills training. They acquired these skills through

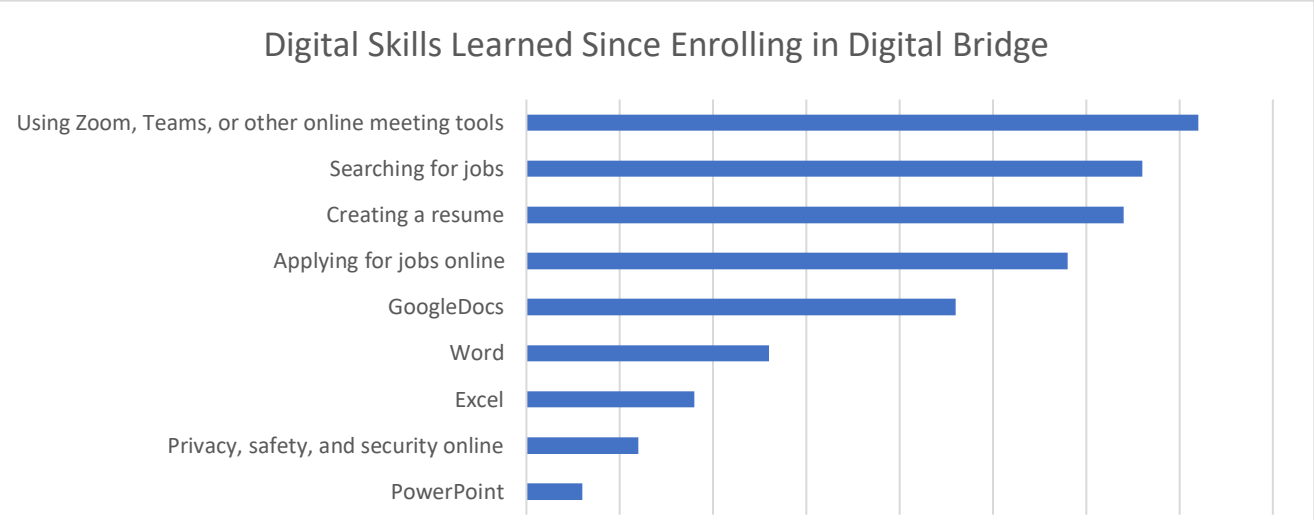

Figure 9. Digital Skills participants learned since enrolling in Digital Bridge

informal trial-and-error and with the case manager's and family's support. Interviewed participants noted that simply using the computer to participate in job training and work with case managers online improved their digital skills. The participants who spoke English as a second language sought out informal learning activities to improve their English language ability through YouTube classes and watching movies in English.

Most participants did not use the Northstar Digital Literacy Curriculum available through the program; many struggled with the additional login and navigating the unfamiliar website without instruction. Because Northstar was not integrated into most training programs but was an extra add-on, the usefulness was unclear to participants. Participants also stressed that taking an entirely self-paced/self-supported class was difficult and wanted more structured help than Northstar provided.

Employment

Inadequate digital access became a massive barrier for employment program trainees when the programs, services, and operations went online. Some students were able to complete the training with Digital Bridge support and went on to job placements. However, as expected, given the overall labor market conditions and the barriers many Digital Bridge participants face, the overall job placement rate is low through June of 2021. However, 26 of the 143 participants have been successfully placed, 25 were placed in a full-time position. Their average hourly wage is $18.39, and 14 of those participants were placed in career-path jobs supported by SJI programming.

Job Title	Number of Participants	Average Hourly Wage
Assembly Production	5	$17.55
Security Officer	4	$17.88
Food Processor	3	$15.91
Patient Sitter	3	$18.40
Environmental Services Technician	2	$17.74
Retail Associate	2	$15.10
Social Service	2	$19.00
Nursing Assistant-Certified	1	$16.00
Delivery Driver	1	$30.00
Janitor	1	$15.75
Medical Assistant	1	$23.00
Welder	1	$27.60
Total	26	$18.39

Of note are the patient sitters, environmental service technicians, and certified nursing assistant jobs. These participants were enrolled in Introduction to Healthcare Pathways (IHAP), the first training program supported by Digital Bridge. IHAP[‡‡] was a newly designed program three-step program in which participants complete a step, enter the workforce, and return to take part in the next step and move along the career pathway as they are able. IHAP was set to launch in-person in March 2020. The program manager and instructor redesigned and moved the program online—however, the individuals targeted for this training largely lack digital access. Digital Bridge was essential to launching this program, which has since had five cohorts of Step 1 of training, placing participants in the patient sitter and environmental service technician jobs, and one cohort of Step 2 of training, placing participants in certified nursing assistant jobs.

What Lessons Were Learned?

One of the primary objectives for Digital Bridge was to learn what was needed to successfully provide personal computer and internet access for low-income job seekers. This objective includes identifying the steps and associated costs of deploying laptops and at-home internet connections to low-income individuals in conjunction with employment programs and how to do so at scale. As a demonstration project, it evolved, and researchers at SJI and TASCHA at UW collaborated to collect data about how the program was changed, what worked well, what did not, and to identify critical elements for a successful program in collaboration with our partners.

Program Evolution and Integration

Goodwill has operated the space of digital skills instruction for several years. They provided guidance for how to improve implementation when they joined the project in September 2020.

- Goodwill bulk ordered 50 laptops and 50 hotspots to distribute the devices as they identified eligible participants.
- Goodwill has IT support in-house that has established protocols for managing and preparing devices for participant use. These include:
    - Established inventory management processes.
    - Basic functionality checks before distribution.
    - Setting up a single login for all laptops to prevent participants from being locked out of the laptop and aid in later troubleshooting.
    - Time available to support and troubleshoot with participants.

[‡‡] IHAP is a partnership with SEIU 1199 Training Fund, the Healthcare Industry Leadership Table (HILT), and Swedish Hospitals to develop pathways into healthcare jobs with living wages for marginalized communities. It is the first step on a 3-step program, a three-week training program focused on job readiness skills for the healthcare setting. Participants who complete it are given priority consideration at Swedish and other employers for entry-level jobs in nutrition and environmental services, where they are covered under SEIU 1199's bargaining agreement. After one year of employment, participants are for Training Fund benefits, which they can use to pursue Step 2 and 3 to advance in the field if that have not already.

- Goodwill instructors and case managers have established relationships with the in-house IT support and can easily provide a warm hand-off when participants need IT support.
- Goodwill participants are taking part in structured digital skills instruction, and thus they consistently address crucial gateway skills and access points through the training.

While SJI and CBO partners were not able to fully replicate Goodwill's methods of implementation, given the resources available, SJI did adapt by:

- Identifying a single program manager who:
    - Manages inventory.
    - Troubleshoots laptop issues remotely first with the participant and then with InterConnection before returning nonfunctional devices to InterConnection to minimize the time participants cannot use their laptops.
    - Proactively reaches out to participants after their case manager distributes the devices to confirm they could use their laptops and connect to the internet.
- Bulk ordering devices in advance of program enrollment to simplify distribution and ensure that participants have a working laptop and internet connection before the start of training.

The case managers identify eligible participants in the new process and submit a request to the Digital Bridge project manager. The project manager assigns a laptop and hotspot to the participant and provides the device to the case manager to distribute to the participant. Next, the case manager arranges distribution with the participant doing a low-contact pick-up outside the SJI office or at a location accessible to the participant. The program manager follows up with a phone call to the participant, checking that the participant has turned on the computer, it is working, and it is connecting to the internet.

Technology Needs

One of the critical questions at the project's outset was what sort of devices should and could be employed. The usual budgetary constraints were compounded by the high demand for and limited availability of laptop computers and hotspots in the summer and fall of 2020. The City of Seattle's partnership with InterConnection was capitalized on to get a steady supply of laptops and internet service with hotspots as funds became available versus the months-long lead time through other outlets.

For internet service, the City also worked with Comcast and Wave to develop contracts to enable organizations like SJI and Goodwill to subsidize or sponsor fixed cable broadband internet service using the internet providers' existing low-income internet offering. However, there were delays in completing agreements, and barriers, user errors, and hardware problems made it difficult for digital novices to navigate. The program team drew three critical lessons drawn from this:

- There is no one-size-fits-all technology, even within a single program.
- Technical support needs to be easy-to-access and culturally responsive.
- The system for enrolling and distributing internet services needs to be well developed and in place before participant service ramp-up. Launching early in the COVID pandemic certainly complicated initiating new systems by all parties.

Laptops: Not One Size Fits All

Program and case managers must balance a program's demands and participants' skills and select the best device.

Digital Bridge employed refurbished Windows laptops for three reasons:

- Reduce per-unit costs to supply as many people as possible with laptops.
- Reduce ecological footprint.
- Supply chain issues and demand for laptops in 2020 made it difficult to secure a large number of new laptops.

However, the refurbished laptops obtained for this pilot turned out to be very time-intensive for employment program staff. Some of the laptops had significant hardware and battery issues, keeping many participants from using their laptops for weeks, given the challenges of returning the laptop to InterConnection during the COVID-19 shutdown. In addition to actual hardware and battery issues, there were many user errors and unrealistic expectations about battery life that required the same staff time to troubleshoot or return to InterConnection for resolution. Whether it was a hardware problem or user error, participants who experienced it were discouraged and case managers were embarrassed. Additional quality control, clarification of terms and a resolution process between the partners and the refurbisher, and backup replacements would have been helpful. In addition, to a more thorough orientation to the machine for case managers and participants may have prevent some user errors and misunderstandings.

InterConnection requires that laptops have at least 50% battery life to distribute. However, even 50% battery life on a refurbished PC limits the utility for unhoused participants who had limited options for charging their laptops when libraries and other public spaces were closed. The refurbished laptops are also often more complex than many digital novices need or can set up independently. The cost savings from purchasing refurbished laptops were more than offset by the additional staff time needed to troubleshoot and guide digital novices through set-up.

New, simpler Chromebooks were a good fit for some of the digital novices. They are easy to navigate and have a longer battery life. However, they do not support the software required for some training programs.

Internet Connection: Faster, Easier

Participants and caseworkers vastly preferred mobile hotspots, but programs still need a backup wired connection option.

In contrast to the more complex assessment and decision-making needed for selecting the right laptop for participants, both participants and case managers have found that the mobile hotspots, by and large, serve the participants well. However, buildings and locations throughout the Seattle region that do not receive adequate signal to use a hotspot and wired connections are more stable. Therefore, programs need to have a wired broadband connection option. To make it a better option, the speed of the low-income programs needs to meet or exceed that offered by the hotspot, and the sign-up process needs to be simplified. The number of people relying on the connection is also a factor in assessing whether a household needs a higher bandwidth service or multiple internet connections.

Technical Support

Participants need reliable, in-language support for their technical needs.

Participants were hesitant to use the unfamiliar outside help from InterConnection and found it challenging to navigate when they did. Case managers would prefer in-house support, but if using an external partner for that support, the program will need to make efforts to build trust in those external partners. Integrating technical support partners into the program orientation and warm hand-offs (i.e., the case manager calls the technical support partner with the participant and makes the introduction) between case managers and technical support may help build that trust. It will reinforce that participants should seek help for technical problems from the technical support partner help when participants' existing support, primarily friends and family, cannot solve their problem.

Digital Skills Support

The rapid move to online delivery of training and services highlighted the digital skills gaps of both frontline workers and participants. Both groups identified a need and desire to have structured training to improve these skills.

Participants

Participants want structured digital skills instruction.

Participants report that they are interested in structured digital skills instruction with a live instructor. Many initially reported feeling confident but discovered that they did want more support. While a few participants found the preloaded resources and Northstar training useful, for the most part, they went unused. Several participants said they did not know what to click on or did not understand the language or use of Northstar. Case managers

felt like the shortcuts to learning materials preloaded on the computers cluttered the desktop and created confusion for participants. There was little to no time budgeted for case managers or a digital navigator helper to guide participants through these learning resources and Northstar, which could have helped the utilization.

Project staff

Project staff need sufficient training to support participants.

Case managers also reported needing digital skills instruction. Case managers were not hired for their digital skills. Pre-pandemic, they were expected to demonstrate basic office productivity skills (e.g., email, accessing information online, entering data into a database, and using basic office suite software). They had to rapidly expand their use of digital tools while dealing with a surge of new participants and participants in crisis in the spring of 2020, leaving them overburdened and strained. They were not well-prepared to quickly transition to remote work and support digital novices navigating online platforms and training while troubleshooting hardware and software issues.

In a separate survey SJI conducted of workforce development organizations in King County (n=38, see Appendix E), 75% (25) of those who responded to the question reported that staff had to expand or develop new digital skills for working remotely. These skills include using video conference platforms, the Cloud, AdobeSign. The next most frequent answer was developing skills to provide services remotely. Case managers indicate they need more training and support to develop these skills.

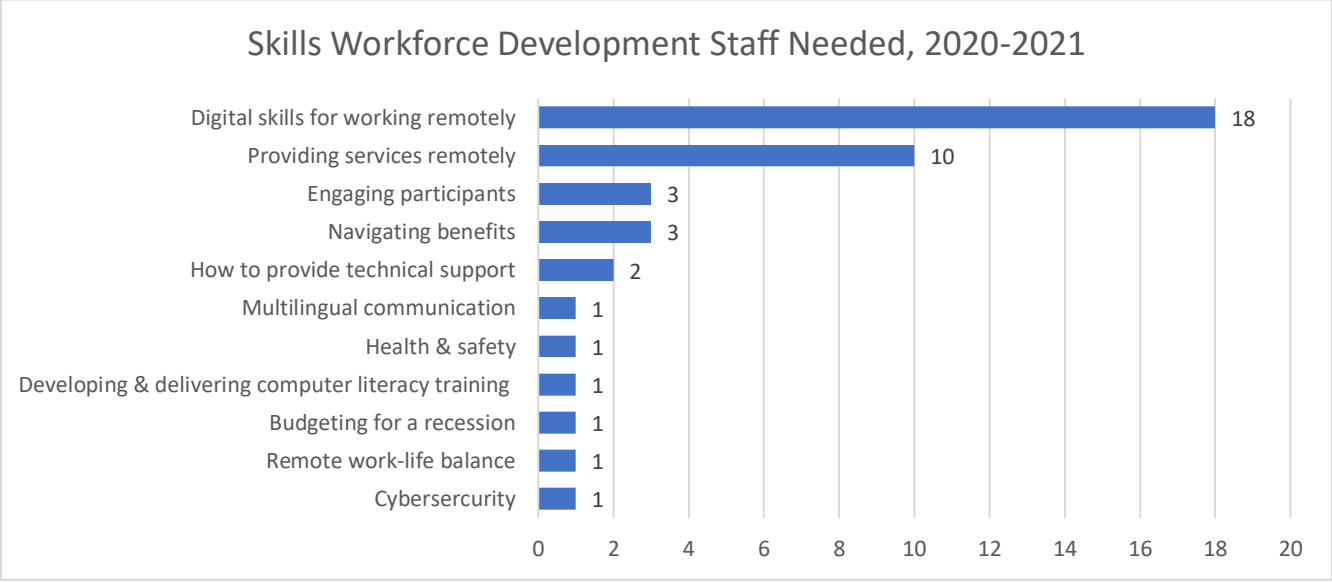

Figure 10. Skills workforce development organization representative report their staff needed in 2020-2021

Communication

The COVID-19 shutdown forced program designers and case managers to adapt their communication methods. Program designers capitalized on the ability to meet more frequently via video conferencing. Meanwhile, case managers and evaluators engaged in trial and error to fill the gap left by the lack of in-person contact with participants.

Understanding Participant Communication Skills and Needs is Essential to Get Started

Understanding participant communication skills, tools, and preferences is essential to get started. Many digital novices prefer text communication.

Email was not an effective way to communicate with many clients, especially early in the program. First, before receiving a device and internet, some participants had no way of accessing their email, and some clients did not have a working email address. And many who had access were not in the habit of using email to communicate.

Many participants use text messaging or WhatsApp (requires an Internet connection) to communicate. One case manager started using WhatsApp early on and had greater success in getting responses to requests for information. The SJI evaluator subscribed to a texting platform and noted increased engagement. Participants do need to set up and use email to apply for jobs, and it was clear, participants increased their use of email over the course of the program. However, the texting was critical to add to the case managers' and evaluator's toolbox. An initial phone or in-person assessment with the participant could help identify the need and establish preferred, effective communication methods.

Project staff

Frequent meetings promote understanding, clarity about roles and responsibilities and allow project staff to be flexible and adapt the program to meet participant needs.

As noted, program designers capitalized on the ability to meet frequently via video conferencing. As a result, program designers were regularly engaged in problem-solving and troubleshooting together and prioritized flexibility and adaptability. One noted that the frequent check-ins helped keep front of mind the primary objective of serving the participants and, crucially, informed those who do not engage in direct services about the specific challenges and needs participants face. It also helps communicate needs and adjust client intake and to project reporting.

In contrast, there was no specific Digital Bridge kick-off meeting that included all frontline staff or sessions scheduled with frontline staff and all project collaborators. It was noted that this created some gaps in knowledge: InterConnection was unaware of the demands on case managers, and case managers did not understand the constraints about InterConnections processes. A single kick-off meeting may not have resolved all those issues

but would have clarified roles and responsibilities and lines of communication so those gaps could be addressed more quickly.

Collaborating partners

The Digital Bridge program is noteworthy for its success in bringing together local government agencies, multiple non-profit community-based service organizations, higher education, and technology industry partners. Overall, the collaborating partners worked very well together, bringing areas of expertise that would not have been available or possible if any single agency or organization was delivering Digital Bridge. SJI served a critical role in communications and implementation as the central program delivery agency. Regular meetings and a system for collaborating on documents were essential, as was time to orient new participants. A small group served as a de facto steering committee, communicating out as needed. There was great value in having a knowledge ecosystem of programmatic, technical, political, communications, operating systems, and client knowledge at the table together. We learned that identifying the necessary personnel and allocating adequate staff time is critical to real-time participation in processing and decision making, defining roles, and negotiating timelines for document production and action. Equally important is planning for adjustments for client and organizational needs, particularly in a period of such high uncertainty.

Recommendations

Digital Skills Training

Both participants and frontline staff identified the need for formal digital skills instruction and early digital skill training needs assessment. **Job training program intake should include an assessment of digital skills. Participants, particularly digital novices, need structured training with an instructor to introduce them to gateway skills and ensure that they are clearing key gateway points** and can tackle self-paced instruction. The City of Seattle convened a Digital Skill Steering Committee to determine what skills should be considered gateway skills for assessment and training (see Appendix F).

Case managers could refer participants who are not yet proficient to a training partner for digital skills instruction before starting job training. Alternatively, job training programs could incorporate short-term digital skills boot camp upfront rather than assume participants have the necessary skills and allowing them to sink or swim accordingly. Integrating digital skills into the program would minimize the number of transitions a participant must make and the potential for those participants to drop off and not complete job training.[§§]

[§§] These transitions increase the administrative and logistical demands on participants who must enroll in yet another program with yet another organization.

Incorporating digital skills instruction requires both funding for the structured instruction and time. Short-term programs may need to be extended to incorporate a digital skills component. However, these are critical components of any job training program now that digital access is a basic employment requirement.

Tech support

One of the most persistent issues throughout Digital Bridge was addressing participants' problems with their computers. Case managers became the de facto tech support for many participants despite having no training and being already over capacity meeting participants' other basic needs during a pandemic. Case managers report that in-house tech support, like Goodwill, would be ideal. Providing tech support in-house or partnering with another organization to provide support is doable if the **tech support is:**

- **Accessible** so tha**t** participants can reliably and directly reach technical support staff via phone, not via an online platform, and are not routinely sent to voicemail**.**
- **Culturally responsive**, the technical support staff is competent in navigating troubleshooting with digital novices from various cultures without engaging in a deficit model that assumes the user has failed.
- **Preferably in-language for participants who are English Language Learners.**
- **Involves a good relationship between case managers and technical support staff** so case managers can make a warm hand-off.
- **It is adaptive** to adjust delivery to be most effective for the employment organizations and participants.

Right-fit technology

As supply chain issues ease and program timelines extend, it is possible to consider a wider variety of devices to meet participants' needs. Digital Bridge has demonstrated that there is no one right device or connection that works for all participants. **It is critical to strike a balance between having various options and maintaining a streamlined enrollment, distribution, and support process.**

Device

Policy and decision-makers often desire to use refurbished laptops to make these programs green and maximize the supply budget. However, refurbish laptops created an additional layer of complexity in the context of the rapid deployment for digital novices . The refurbished PC laptops are often configured to be more machine than digital novices need and are comfortable navigating independently. They also have a substantially shorter battery life than a new PC laptop or Chromebook. However, they are also the most fully functional, supporting software required for some training programs. Their use demands high quality control *and* staff time dedicated to supporting participants so they can use the laptops.

Program designers need to establish what the program will require, identify participants' needs and barriers, and balance those accordingly. For example, it may be challenging for unhoused participants to charge their devices. Chromebooks have a much longer battery life, which significantly improves accessibility for them. However, participants may not be able to access software required by their training program via a Chromebook and Chromobooks requires an internet connection to run, which may not be consistently available. **Digital Bridge evaluators have developed a comparison table based on feedback from case managers and Goodwill tech support (see Appendix G).**

Internet

Similarly, wireless internet hotspots seemed like an optimal choice. They give participants the flexibility to use the internet away from home. A participant does not need to to disconnect and reconnect service if they move if they are using a hotspot.

However, even in dense urban areas, wireless service may not be reliable in some locations; there are dead zones both inside and outside buildings. Participants who live in these dead zones require a wired connection. While Comcast has improved connection speed, the speeds of low-income programs are still lower than what a typical household uses,[4] and the sign-up process for both Comcast and Wave continues to be a barrier for participants. **Low-barrier sign-up for low-income broadband programs would significantly improve the process for both participants and case managers.**

CBO capacity

Bridging the digital divide requires more than just handing out laptops and hotspots. Job training program participants need digital skills instruction and ongoing technical support to ensure that their devices do not become pricy paperweights. The pandemic exacerbated inequities within the social service sector. The CBOs closest to the communities with the relationships necessary to do this well were already strapped for capacity. **Funding and capacity-building are necessary for these CBOs to take on the increasingly critical job of getting people connected to the internet with affordable and sufficient service and using those services to meet their needs** (see Appendix G for example costs). Increased staff training is the most critical element in ensuring the participants' technical issues are resolved.

To integrate Digital Bridge into their programming, in addition to the base devices and internet service sponsorship, CBOs need funding for these elements:

- Inventory management
- Digital skills training for staff

- Basic tech support training for staff[***]
- In-house or contracted tech support that is culturally responsive and, ideally, in-language.
- Instructor-led digital skills training for all participants.
- Staffing time for partners' communications, materials development, and evaluation.

In addition, **as digital navigator programs are built out and implemented across the social service sector, they must build capacity in these organizations and communities**.

Launching Digital Bridge was a challenging but successful pilot program, delivered in response to and during the COVID crisis. It brought together multiple public, private and non-profit organizations in working partnership to provide essential digital access to low-income job seekers. The employment programs refined intake and delivery systems for their services and increased awareness and expertise in planning and delivering digital equity services (devices, internet, skills training, and support). All partners are using the launch experience to improve service delivery. The work of Digital Bridge is continuing with some additional funding. It is the authors' and our organizations' intent that this evaluation serves to inform scaling, improvements, and the development of similar programs as well as the policies and investment necessary to deliver quality, effective programs for un- and underemployed job seekers on their career and digital opportunity pathways

[***] Even if tech support is outsourced to another organization, including the tech provider, CBO staff will often be the first point of contact for a participant seeking help. Having basic tech support training will help those frontline staff make a better hand-off to tech support.

Works Cited

1. Wedlake S, Keyes D. *Digital Skill Sets for Diverse Users: A Comparison Framework for Curriculum and Competencies*. City of Seattle Digital Equity Initiative

2. Derrick A. Mayor Durkan and Seattle City Council Release Internet for All Gap Analysis Report with Action Plan to Increase Access to Internet and Close the Digital Divide. Office of the Mayor. Published September 16th, 2020. Accessed November 19th, 2020. https://durkan.seattle.gov/2020/09/mayor-durkan-and-seattle-city-council-release-internet-for-all-gap-analysis-report-with-action-plan-to-increase-access-to-internet-and-close-the-digital-divide/

3. Scheerder A, van Deursen A, van Dijk J. Determinants of Internet skills, uses and outcomes. A systematic review of the second- and third-level digital divide. *Telemat Inform*. 2017;34(8):1607-1624. doi:10.1016/j.tele.2017.07.007

4. Wheeler T. Don't replace the digital divide with the "not good enough divide." Brookings. Published June 21st, 2021. Accessed June 29th, 2021. https://www.brookings.edu/blog/techtank/2021/06/21/dont-replace-the-digital-divide-with-the-not-good-enough-divide/

5. Bergson-Shilcock A. *The New Landscape of Digital Literacy*. National Skills Coalition; 2020:27. Accessed July 30th, 2021. https://www.nationalskillscoalition.org/wp-content/uploads/2020/12/05-20-2020-NSC-New-Landscape-of-Digital-Literacy.pdf

6. NW 1615 L. St, Washington S 800, Inquiries D 20036 U-419-4300 | M-857-8562 | F-419-4372 | M. 53% of Americans Say the Internet Has Been Essential During the COVID-19 Outbreak. Pew Research Center: Internet, Science & Tech. Published April 30th, 2020. Accessed August 14th, 2021. https://www.pewresearch.org/internet/2020/04/30/53-of-americans-say-the-internet-has-been-essential-during-the-covid-19-outbreak/

7. A Digital Divide Builds a Steeper Wall of Inequality. CLASP. Published April 26th, 2019. Accessed March 10th, 2020. https://www.clasp.org/blog/digital-divide-builds-steeper-wall-inequality

8. Carson K, Marlet E. *Seattle's Energy Efficient Building Operations and Construction Industries Workforce Report*. Seattle Jobs Initiative; 2021. https://www.seattlejobsinitiative.com/low-income-research-and-innovations/labor-market-research/https://www.seattlejobsinitiative.com/low-income-research-and-innovations/labor-market-research/

9. Scopelliti,Demetrio. Has COVID-19 affected mothers' labor market outcomes? : Monthly Labor Review: US Bureau of Labor Statistics. Accessed June 29th, 2021. https://www.bls.gov/opub/mlr/2021/beyond-bls/has-covid-19-affected-mothers-labor-market-outcomes.htm

10. Why has COVID-19 been especially harmful for working women? Brookings. Published October 14th, 2020. Accessed June 29th, 2021. https://www.brookings.edu/essay/why-has-covid-19-been-especially-harmful-for-working-women/

11. Gender Differences in the Economic and Social Impact of the COVID-19 Pandemic. Women In Academia Report. Published July 8th, 2020. Accessed June 29th, 2021. https://www.wiareport.com/2020/07/gender-differences-in-the-economic-and-social-impact-of-the-covid-19-pandemic/

Appendix A: Laptops Preloaded Content

Applications preloaded onto devices:

1. Microsoft Office 2010 Suite
2. Windows 10
3. Antivirus software

Along with links to specific workforce development training programs, the following content was loaded as links as Favorites in browser and as shortcuts from desktop:

Resource	Link
COVID-19 Resources	
City of Seattle COVID-19 page (includes translations)	http://www.seattle.gov/mayor/covid-19
Public Health of Seattle King County COVID-19 (includes translations)	https://www.kingcounty.gov/depts/health/covid-19.aspx
City of Seattle Affordability Portal (eligibility criteria for benefits available in the City)	https://www.affordableseattle.org/
Unemployment website and directions	
Employment Security Department (sign up for unemployment benefits)	https://esd.wa.gov/
WorkSource Seattle King County	www.worksourceskc.org
Seattle Jobs Initiative	http://www.seattlejobsinitiative.com/
Video Conferencing Tools	
Skype	https://www.skype.com/en/
Zoom	https://zoom.us/
Google Hangouts	https://hangouts.google.com/
Translation	
LanguageLine Solutions Quick Reference Guide	PDF
Online learning links for essential functions	
Northstar	https://www.digitalliteracyassessment.org/launch-from/8919-UTYZ-seattle-jobs-initiative
Digital Learn	https://training.digitallearn.org
GCF Learn Free	https://edu.gcfglobal.org/en/

Resource	Link
Seattle Public Library's Online Learning page (includes Lynda.com, Mango Languages, Microsoft Imagine Academy)	https://www.spl.org/online-resources/online-learning
National Cyber Security Alliance	https://staysafeonline.org/stay-safe-online/
Additional Resources	
King County Workplaces Reopening	English: https://www.kingcounty.gov/depts/health/covid-19/workplaces/food-establishments/reopening.aspx Translation: https://translate.google.com/translate?hl=en&sl=en&tl=es&u=https%3A%2F%2Fwww.kingcounty. gov%2Fdepts%2Fhealth%2Fcovid-19%2Fworkplaces%2F food-establishments%2Freopening.aspx

Appendix B: Intake, Pre and Post Program Surveys

Additional Intake Questions

- Do you currently have: (check all that apply)
  - Computer (laptop or desktop?)
  - Tablet
  - Smartphone
- How do you get internet now, if you do? (check all that apply)
  - I don't have any internet service.
  - I rely on free wifi locations.
  - I have a monthly cell plan that includes internet.

    If yes, has the amount of data allowed been a problem?
  - I buy minutes and data for my phone as I can.
  - I have a mobile hotspot that provides wifi from:

    __Library
    __InterConnection /Sprint/Mobile Citizen
    __T-Mobile
    __Verizon
    __Other_____
  - I have internet service at home from

    __Comcast
    __Wave
    __CenturyLink
    __Other
    __I don't know.
    - If you have internet from Comcast or Wave, do you have the low-income service (Internet Essentials from Comcast, Simply Internet

Presurvey

- Do you know how to connect to wifi?
- yes
- no
- I don't know.
- If you had internet access before receiving this laptop, do you use it for any of the below? (check all that apply)
  - Email
  - Job Search
  - Health questions
  - Maps or directions

- Housing search
- Find Social Services
- Homework
- Buying things online
- Legal or consumer information
- Communicating with friends and family
- Connecting with other community support (e.g., faith communities, clubs, organizations)
- Other (please describe)

- On a scale of 1 to 5 (one =not comfortable and five =very comfortable) how comfortable are you using a computer?

- On a scale of 1 to 5 (one =not comfortable and five =very comfortable) how comfortable are you connecting to and using the internet?

- Have you taken any computer training before, either on its own or as part of another program?

- On a scale of 1 to 5 (one =not comfortable and five =very comfortable) how comfortable do you feel taking a computer class?

- Where do you go for technical support now?
  - Internet,
  - Library,
  - Uplift Northwest (Millionair Club),
  - SJI,
  - Friend,
  - Family member
  - other _____,
  - I don't have any support.

Post-survey

1. Did you receive: (check all that apply)
   - Computer
   - Internet Service

2. Have you had any problems using the computer or the internet service?

3. If so, what problem did you experience?

4. Did you try to get any technical support?

5. Where did you get help?
    a. InterConnection
    b. Case manager
    c. Internet
    d. Library
    e. Uplift Northwest (Millionair Club)
    f. Friend
    g. Family member
    h. Other _____,
    i. I don't receive any support.

6. How was your experience getting help?

7. Do you use your computer and internet access for any of the below? (check all that apply)
    - Email
    - Job Search
    - Health questions
    - Maps or directions
    - Housing search
    - Find Social Services
    - Homework
    - Buying things online
    - Legal or consumer information
    - Communicating with friends and family
    - Connecting with other community support (e.g., faith communities, clubs, organizations)
    - Other (please describe)

8. On a scale of 1 to 5 (one =not comfortable and five =very comfortable), how comfortable are you using a computer?)

9. On a scale of 1 to 5 (one =not comfortable and five =very comfortable) how comfortable are you connecting to and using the internet?

10. On a scale of 1 to 5 (one =not comfortable and five =very comfortable) how comfortable do you feel taking a computer class?

11. On a scale of 1 to 5 (one =not helpful and five =very helpful) how helpful has it been to get this computer?

12. On a scale of 1 to 5 (one =not helpful and five =very helpful) how helpful has it been to get this internet service?

13. Where do you go for technical support now?
    - Internet,
    - Library,
    - Uplift Northwest (Millionair Club),
    - SJI,
    - Friend,
    - Family member
    - Other _____,
    - I don't have any support.

14. What other technology skills would you like to learn?
    - Creating a resume
    - Searching for jobs
    - Applying for jobs online
    - Excel Skills
    - Word Skills
    - PowerPoint or creating a presentation skill.
    - Google Docs or working with files online.
    a. Privacy, safety, and security online
    b. Using Zoom, Teams or other online meeting tools
    c. Other _____,
15. Any other suggestions or things you would like to share?

Appendix C: Participant audio diary and interview protocols

15 Digital Bridge participants opted in to participate in a confidential audio diary and interview study of their experiences in the program. UW researchers asked Digital Bridge program participants to leave audio diaries for seven consecutive days and to participate in a phone interview afterward. Participants received small compensation on a Visa gift card for each voicemail and participating in the interview. Data was collected in October and November of 2020.

Audio diary protocol

Hi, you've reached the UW Digital Bridge Study. In your message, please respond to the following questions. All of your answers are confidential.

- Please tell us your first and last name.
- Please tell us how you have used technology today, including phones, computers, and the internet.
- Please tell us about your experience and things that went well or any problems that you had.
- Were you able to do the things you needed to do today? Tell us what could have helped you?

Interview protocol

Semi-structured interview

General Questions

Questions we ask everyone:

- How long have you been working with SJI?
- Can you tell me how you found out about the program and what led you to enroll?
- What technology have you received from SJI, and how have you used it?

Experience Questions

Previous tech experience

<u>Employment Goals - Pre-COVID</u>

- Can you tell me about your job goals, what was your job search experience like before Covid?
- How have your goals changed since Covid?
- What has been hard or challenging as you try to meet your goals?
    - What has been easier to deal with?

<u>Internet Access</u>

- How do you currently access the internet?
    - Probe: computer, phone, other devices
- How do you feel about having technology and an internet connection?

Technology Use

- Can you tell me about other ways you use technology? This doesn't have to be related to your job goals. It could be about other aspects of your life.
    - Socializing, Entertainment, Education, Services/Administration
- What do you want to learn to do on your computer?
    - Probe: for learning, for employment.

Support

- What do you do when you need help using your computer/phone?
    - Probe: people, public library, online resources
    - Probe: resources on your desktop, calling InterConnection (getting computer set up and connected to the internet), phone help from the library, help from SJI
- Before COVID, did anyone assist you using the internet?
- Did you use technology support?
    - How could this service help you better?

Diary Follow Up Questions

These questions can be specific to the person's diary entries.

Specific Experiences

- You mentioned X in your diary, can you tell me more about that experience?
- Depending on the situation:
    a. Was there a resolution? Who helped you?
    b. If that situation happened again, how would you feel about it?
        - Would you feel confident/comfortable going through that again?

Thematic questions

- Question-based on overarching themes that come up over the diary week.

Appendix D: Northstar Digital Literacy Assessments and Learning Modules

Essential Computer Skills	Essential Software Skills	Using Technology in Daily Life
Basic Computer Skills★	Microsoft Word Office 2016	Social Media
Internet Basics★	Microsoft Excel Office 2016	Information Literacy☆
Using Email★	Microsoft PowerPoint Office 2016	Career Search Skills☆
Windows 10☆	Google Docs	Your Digital Footprint
Mac OS		Supporting K-12 Distance Learning✧

★Requested

☆Encouraged

✧Introduced after the Digital Bridge Launch

Appendix E: Digital Skills Steering Committee Summary

Introduction

The DSSC Mission statement:

A coordinated intervention that institutionalizes a common assessment and intake for digital literacy, accelerates the rate of access digital network proficiency and other key employability skills, and provides an established network of 'next steps' for learners to advance their career and training interests does so with lower subsidy cost in Seattle.

All DSSC members represent institutions that interact in the workforce development system locally. DSSC members initially launched this project as a tactical way to understand each other's operations and practice service coordination.

Below is a list of common and standardized "gateway" digital skills all individuals need to access services through a computer and internet for Community Based Organizations and local workforce development institutions to use in assessment and program design.

Gateway Digital Skills

The DSSC Project Team identified these skills as essential:

1	**Devices**	Identify pointer shapes and the functions they represent (spinning wheel (loading), iBeam (text), arrow (basic clicking), hand pointer (clickable links)
2	**Devices**	Access and control audio output features (volume, mute, speakers, and headphones)
3	**Devices**	Identify and locate the camera and microphone on the device
4	**Devices**	Identify icons on desktop/ home screen
5	**Devices**	Identify whether or not a device is connected to the internet
6	**Email**	Log in to email.
7	**Email**	Create and send an email, including recipient address, subject, and message.
8	**Email**	Add an attachment to an email
9	***Email***	*Open and download an email attachment.*[11]

10	**Email**	Use caution when opening or replying to an email from an unfamiliar source, downloading attachments, following links, or giving out personal information.
11	**Email**	Sign out of email, especially when using shared computers.

Assessment criteria:

- Efficient
- Portable
- Measurable
- cross-institutional
- Project Approach
- Augment, not hinder, customer goals

Project elements and considerations

Several institutions are interested in using the Gateway Skills checklist. Some will include as part of their procurement process; others will use a checklist as part of their referral process between institutions.

Some intend to use the checklist regardless of this evaluation project.

The DSSC Project team recommends a coordinated approach to the Gateway Digital Skills assessment across DSSC member institutions wherever practical to evaluate its utility and underscore the intent of service coordination.

Project components and budget considerations

1. Community consultation
2. Project management and coordination
    a. Identify project partners
        i. CBOs
        ii. Institutions
    b. Develop MOUs and Release of Information
    c. Technical assistance for using the assessment
    d. Collate and monitor Gateway Skills assessment deployment
3. Evaluation of deployment, utility
4. Timeline

Appendix F: Workforce Development System Temperature Check Survey

Following is a short survey about what organizations that do workforce development training are currently doing and plan to do in the next three months.

1. Where are your frontline staff currently working, and how are they engaging with participants/clients? *

	Staff are mostly or all in the office	Some staff are in the office, some remote	Staff are mostly or all remote
Services are primarily in-person			
Some services are in-person, some virtual			
Services are primarily virtual			

2. Is your organization currently conducting any workforce development training for job seekers? (select all that apply)

*Workforce development training is any instruction or training aimed at helping job seekers find a job. It includes job search skills (e.g., writing a resume, how to interview), job readiness and soft skills, basic and occupation-specific skills. **

- Training is on hold
- Fully remote training (training is all online)
- Hybrid training (hands-on components of training are done in-person, and classroom instruction is done online)
- In-person training (training takes place 100% in-person, excluding homework)
- Not applicable

3. How many people are seeking job/skills training now? *

- Many more than pre-COVID
- More than pre-COVID
- About the same as pre-COVID
- Fewer than pre-COVID
- Far fewer than pre-COVID
- Other - Write In (Required)
- Not applicable

4. What training are job seekers looking for? (select all that apply)

- Job search skills (e.g., resume, interview, LinkedIn, networking)
- Job readiness skills/soft skills (e.g., communication, conflict resolution)
- Basic digital skills (e.g., using a computer, email, online search)
- Intermediate digital skills (e.g., using office suite software)
- Occupation-specific technical skills - Write In (Required)
- Other - Write In (Required)

5. What additional skills have your organization needed staff to have/develop in the past year?

6. What additional resources has your organization needed to meet jobseekers' needs this year?

7. What programs or projects at your organization would you highlight?

Appendix G: Device Selection Matrix

Priority (see below for description)	PC	Chromebook	Tablet
Account set-up (guest access, with Gmail account)		☑ with internet connection	
Battery life	☒	☑	☑
Data included			☑
Durability/fixable	☑	☒	
Ease of use	☒	☑	☑
Functional without internet connection	☑	☒	☑
Performance (RAM)	$200 for mid-tier refurbished[†††] $400 for entry-level new	$180 for entry level $400+ for mid-tier	
Plug-and-play operation	☒	☑	☑
Price point	☑ refurbished ☒ new	☑	☑
Reset for other users (erasing personally identifiable information)		☑	
Supplement/complement other devices			☑
Supports software (e.g., MS Office)	☑	☒	☒
Training program requirement	☑		
Transition between devices		☑	☑
Weight (accessibility for older/disabled clients)			☑

[†††] InterConnection supplied mid-tier reburbished lapotops for $180-$200 per device.

Priorities Description:

Account set-up (guest access, with Gmail account): Chromebooks allow access via existing Gmail accounts and quick access in guest mode. Logging in via a Google account does require an internet connection as does using the Google suite of programs. In contrast, PC laptops require a Microsoft account to set it. Participants do not typically have a Microsoft account, so this is an additional step, and additional account information participants must remember. However, PC laptops do not require an internet connection to set-up, access, or use an account.

To simplify the process with laptop PCs and ensure that participants could use the laptops out of the box, Goodwill set up PC laptops with a generic local account with the same login across all machines to provide ongoing tech support. However, this requires additional staff time, and these accounts are not as secure.

Battery life: Typical usage of a new, entry-level laptop is 4-5 hours. InterConnection's standard for refurbishment is 50% of battery life or at least 2 hours. They supplied a 30-day warranty that covered a battery replacement for a battery with less than 2 hours of life per charge. In contrast, the average Chromebook has a battery life of approximately 10 hours.

Data included: Tablets often include data connection and do not need a separate broadband or hotspot connection. However, tablet data plans are significantly more expensive than unlimited data plan via free standing hotspot. Laptops require that participants have a broadband connection or hotspot to connect to the internet but are functional without an internet connection. Chromebooks require an internet connection for basic functionality.

Ease of use: Some devices are designed to be used more intuitively. Tablets are similar to smartphones, which most participants use. Similarly, the Chromebook operating system, ChromeOS, is streamlined and much of the operation and maintenance (e.g., updates) is automated. There are tradeoffs explored below. However, tablets and ChromeOS are less likely to be overwhelming for digital novices or require them to troubleshoot and do maintenance. All of the devices require technical support in order to ensure they are functional for participants and frontline staff will still need training to be able to support their use and participants still need to gain these digital access skills.

Price point: Chromebooks start at $180, and a mid-range, mid-performance machine is $400. New PC laptops start at $380-$400, with mid-range, mid-performance machines priced at $600-$800. InterConnection provided refurbished laptops to Digital Bridge for $180-$200 per unit.

Tablets have a much more extensive price range, starting at $90. However, tablets that function as a substitute for a laptop or Chromebook have a typical price point of $200-$250.

Performance (RAM): Chromebooks start at $180 and mid-range, mid-performance machine is $400. New PC laptops start at $380-$400, with mid-range, mid-performance machines priced at $600-$800. Refurbished laptops are $180-$200 per unit for mid-tier machines.

For example, InterConnection provided the following laptops

Make	Model Family	RAM	Number
Dell	Latitude	8GB	104
	Inspiron	8GB	3
	XPS	8GB	1
HP	EliteBook	8GB	30
	ProBook	8GB	21
Lenovo	ThinkPad	8GB	40

The Chromebook the project team was able to source at a similar price point was:

Make	Model Family	RAM
Samsung	Chromebook	4GB

Reliability: Chromebook's ChromeOS is designed to be simple with little customization and basic maintenance is largely automated, resulting in a largely plug-and-play experience for users. In contrast, PC laptops have many settings which one can customize but complicate operations. In addition to the more hands-on maintenance, refurbished PC laptops may experience a higher rate of hardware issues (e.g., overheating, nonresponsive trackpad, faulty charging port). However, PC's flexibility means the machines are more durable and fixable. Tech support is far more likely to be able to access underlying issues and repair it or, in the case of hardware issues, replace individual components.

Reset for other users (erasing personally identifiable information): Chromebooks returned to the distributing organization can be easily reset via a built-in function, Powerwash, which reliably erases personally identifiable information. PCs can also be reset, but the process is more time-consuming.

Supplement/complement other devices: Tablets can be set up to sync with phones and laptops, allowing for an easy transition between the three, taking advantage of the tablet's greater portability, built-in data access, and longer battery life when full functionality is not required. This is more advanced set-up and their place in basic digital access programs should be limited given their constraints.

Training program requirement: IT helpdesk and other key training programs require a PC laptop to access.

Transition between devices: Chromebooks use the participant's Google account and the cloud-based Google Drive and Google's office suite programs. Activity on a Chromebook readily syncs with phones and tablets. Participants can easily access their activity history from the suite of Google applications from a PC or Mac laptop if they use Chrome and sign in to their Google account. Similarly, tablets readily sync with phones and, depending on the manufacturer and the applications used, with Chromebooks, Chrome on PCs, or Mac laptops. However, without and internet connection, Chromebooks are not functional.

PC laptops may also access the Google suite via a browswer or use Microsoft's OneDrive while also being able to use programs and save files locally. The variety of options increase the flexibility but make transitioning between devices more complex.

Supports software (e.g., MS Office): Some training programs require that users learn Microsoft Office suite programs (e.g., Word, Excel) and other programs native to the Windows operating system. ChromeOS's simplicity is dependent on running only web-based applications, which means they cannot run many programs that require local installation and, while the Microsoft Office suite web-based apps can be accessed from any device considered, only PC laptops run the fully functioning applications.

Weight (accessibility for older/disabled clients): Tablets weigh less and do not require a separate hotspot, making them more accessible for people who have difficulty lifting or holding onto items.

Appendix H: Example Costs
Digital Bridge

Access	Estimated Per Participant Costs	Example Participant A Cost	Example Participant B Cost	Example Participant C Cost
Device (one of the following)				
New PC laptop	$700		$700	
Refurbished PC laptop	$350	$350		
Chromebook	$350			$350
Connection (one of the following)				
Low-income broadband connection	$0			
Hotspot	$75	$75		$75
Internet Service (12 months)	$120	$120	$120	$120
Sub Total		**$545**	**$820**	**$545**
Program Costs*				
Staff training				
Program Administration (one of the following)				
Device & connection program administration & basic career navigation	$300-400			$400
Device, connection, & occupational training program administration & career navigation	$600-800	$600	$800	
Wraparound services**	$500-3,000	$500	$700	$2,000
Sub Total		**$1,100**	**$1,500**	**$2,400**
Training (one or both of the following)				
Digital literacy training	$600-800	$600	$800	$700
Occupation-specific training	$2,500-4,500	$2,500	$4,500	$3,500
Sub Total		**$3,100**	**$5,300**	**$4,200**

Total	**$4,745**	**$7,620**	**$7,145**

*Program costs will vary widely depending on how much infrastructure and programming the organization has to integrate digital access programming. It will also depend on the program service population. Those who are furthest from opportunity require more intensive support to overcome barriers.
*Wraparound services include childcare subsidy, clothing, emergency rental assistance, medical-related costs (e.g., training required physical exam, dental work, eyeglasses), hygiene supplies, transportation (e.g., bus pass, gas card, car tabs, driver's license fees, bicycle repair), emergency utility assistance, work/training permits and fees (e.g., certification fees, exam fees, WA state ID), work/training supplies (e.g., books, supplies, tools, uniforms, personal protective equipment). SJI has a lifetime cap of $3,000 for wraparound services. A typical participant receives approximately $2,000 from SJI. Case managers connect participants to other services for additional support services (e.g., housing and utility assistance).