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Advising Goodwill Industries of Akron for Investment in a Digital Skills Training Service

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Brady Dearth, Dayjon Harris, Annamarie Nedeljkovic, Brandon Welsh, and Zoe Williams
Advising Goodwill Industries of Akron for Investment in a Digital Skills Training Service

Primary Research Project Report

Honors Project 6400:220-001

Dr. Susan Hanlon

April 29, 2022

Introduction

The digital divide refers to differential access between those members of society that do not have access to computers and/or the internet, or do not have knowledge about digital technology and the members of society who do have access and knowledge. More simply put, the digital divide is the gap between the digital “haves” and the digital “have nots.” On one side of the gap, it is the underprivileged members of society like people below the poverty line, the elderly, and people with disabilities, and the other side of the gap are wealthy individuals and younger generations (Holcombe-James, 2021; Lissitsa, Chachashvili-Bolotin, & Bokek-Cohen, 2017; The Digital Divide, n.d.). There are four distinct components of the digital divide: infrastructure, inclusivity, institutions, and digital proficiency, but for this paper, the focus of research will be on digital proficiency (Chakravoriti, 2021). Digital proficiency is the ability of an individual to use digital technology both efficiently and effectively in order to help better facilitate their living and working lives (Grefen, 2021). Hence, digital proficiency corresponds to the digital skills that people have in order to effectively navigate the digital world.

In today’s environment, computers are everywhere, and individuals need a basic understanding of how to use digital technology in order to be successful in their job and in the job market. Almost every day, there is new technology coming out, and with these technological advances, it leads to a changing work environment in which there is greater digitization and use of digital technology, causing for a need to reevaluate the skills necessary to be successful in today’s workplace (Lewis, 2020). As a result, to be successful in today’s workplace and labor market, it is imperative that individuals increase their digital skills on a continual basis. It is crucial to invest in digital skills for the workforce as they have become essential for individuals

to be able to participate in the labor market, and they enable workers to be agile and adapt to changing needs as technology evolves (Jagannathan, Ra, & Maclean, 2019).

With increasing technological innovation, it has led to skill sets for jobs that are complex and changing at a rapid pace. In fact, computer skills are an increasing part of human capital required by employers, and these skills help to mitigate worker displacement and promote reemployment for workers who are displaced (Peng, 2017). People that possess digital skills are less likely to lose their jobs when it comes to organization realignments and downsizings, and if they do lose their jobs, they are likely to find new employment opportunities more quickly than those who do not possess digital skills.

To participate in and be successful in today's workplaces and labor markets, individuals must achieve digital literacy. Digital literacy is the ability of users to perform intuitively in digital environments in order to access the wide range of knowledge found within the digital world. However, it is more than just a technical skill as it requires a cognitive dimension to think critically and problem solve in a digital environment (Martinez-Bravo, Sadaba-Chalezquer, & Serrano-Puche, 2020). In the United States, roughly 16 percent of adults who are digitally illiterate translate into approximately 31.8 million Americans who do not have sufficient comfort or competence with digital technology (In the United States Stats in Brief, n.d.). As a result, there is a growing concern about the digital skills gap in the United States because 31 percent of workers lack digital skills, with 13 percent of workers having no digital skills and 18 percent falling into the category of limited digital skills (Bergson-Shilcock & National Skills Coalition, 2020). Fortunately, digital literacy is not an innate ability. For example, one is not born with the ability to use a spreadsheet such as in Microsoft Excel. Instead, digital literacy is a skill that must

be learned and acquired, which can be done through training and practice with using different digital technologies (Nyikes, 2018).

Methodology

As a result of the growing digital skills gap, this research report seeks to answer the following questions: What digital skills are important for workers now? What digital skills will be important for workers to have in the future? Do employers offer digital skills training to their employees? Are employers willing to use a third-party organization for digital skills training? How much are employees and employers willing to pay for digital skills training? Ultimately, the goal of this report is to inform our client organization if a digital skills training service would be a profitable business segment for them to invest resources into in order to expand their organization's ability to generate revenue in a sustainable manner.

To gather information for the report, a focus group was conducted with five individuals who have a background in human resources or experience hiring employees to help gather insight into what digital skills they found most important in today's labor market, as well as the digital skills that might be important for individuals to develop for the future workplace. The five individuals ranged in experience from three years in human resources and/or hiring experience to forty-nine years' experience. Additionally, the individuals provided diverse perspectives as some currently worked as general recruiters, talent acquisition specialists, and company executives. One participant was the Vice President of Human Resources for her company and another participant was the President of his company. This diversity in age, experience, and perspective provided valuable insights to help us develop our surveys. The focus group was held on February 2, 2022, over Microsoft Teams which made the recording and transcription process more

efficient. Following the completion of the focus group, we analyzed the information to develop two surveys – a survey for employers and a survey for employees.

The employer survey was answered by individuals who were members of an organization's executive team or a member of the human resources department, and it asked questions related to employer industry type, employer size, preferred method of training (i.e., onsite, virtual, etc.), willingness to use a third-party training vendor, and how much the company was willing to spend on training per employee. To distribute this survey, we reached out to members of the University of Akron HR Advisory Board, the Akron Area SHRM Board, Greater Akron Chamber of Commerce, and our focus group participants. Additionally, the Goodwill management team distributed the survey to some of their employer contacts. In total, we had 104 respondents for this survey. After reviewing the data, 29 responses were removed due to incompleteness or invalid information, which resulted in a total of 75 usable responses.

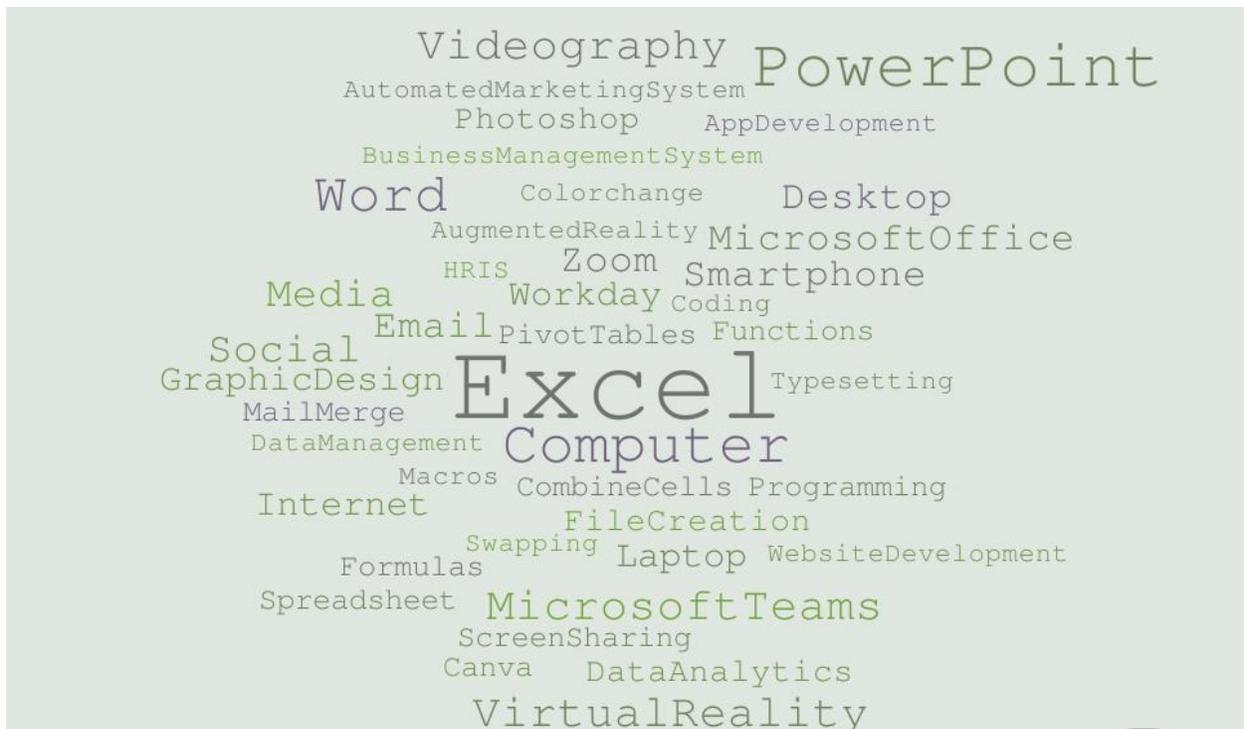
For the employee survey, any individual was eligible to participate. This survey asked individuals to self-rate themselves on various digital skills, to rate their willingness to participate in digital skills training, and to indicate what digital skills they would be interested in learning, etc. To distribute this survey, our focus group participants helped by forwarding the survey to employees and coworkers at their organization. Additionally, the survey was sent out to members of the University of Akron HR Advisory Board and the Akron Area SHRM Board in which members were encouraged to share the survey with their coworkers. To increase the sample size of this survey, the Goodwill management team included a link and advertisement for the survey in their weekly email newsletter, which was sent out on Monday, February 21st. In total, we had 155 respondents for this survey. After a review of the data, 13 responses were

removed due to incompleteness and not providing valid responses, which resulted in a total of 142 usable responses.

Focus Group Analysis and Survey Development

To develop surveys that would be shared with employers and employees, a focus group was conducted with HR professionals to learn about their experiences with digital skills training and their thoughts on what digital skills were most important for success in the current workplace. First, a word cloud was created for the different digital skills that were discussed during the focus group. By analyzing the frequency of digital skills mentioned, it helped determine the skills that were in highest demand for employees and employers, which were included in our surveys. Also, several themes were developed from an analysis of focus group participants' answers. Please refer to **Figure 1** to review the word cloud.

Figure 1. Focus Group – Digital Skills Word Cloud



It is important for employees to have various levels of digital skills, depending on their job position and industry. Foundational digital skills are nonspecialized, and they are important for carrying out a job but are not the main substance of the job (Hecker, Loprest, & Urban Institute, 2019). This includes things such as knowing how to use technology, turning on a computer or accessing the internet, using technology to perform a specified task, writing a resume or email, and being able to combine base-level digital skills with problem solving abilities. Skills identified in the focus group that fall under this category include: the ability to use a computer (laptop and/or desktop), the ability to use a smart phone, email, searching the internet to find information, and the ability to create a file on a computer.

Next, specialized digital skills are more advanced and technical in nature, and they are typically found in jobs that require more complex digital abilities than the average job, such as for a software engineer or IT support person (Hecker et al., 2019). These include skills such as coding, computer programming, social media management, etc. Skills identified in the focus group that fall under this category include: videography, coding, graphic design, adobe photoshop, programming, social media, website/app development, data analytics, and virtual reality.

In between foundational and specialized digital skills, there are intermediate digital skills which typically are entry-level requirements for working in a particular job. These skills vary depending on the type of job, but typically, it is necessary for individuals to be able to use Microsoft Office software applications at this level (Beblacy, Fabo, & Lenaerts, 2016). Skills identified in the focus group that fall under this category include: Microsoft Office applications (i.e., Excel, Word, PowerPoint, etc.), collaboration technology (i.e., Zoom, WebEx, Microsoft Teams, etc.), human resource information systems (HRIS), automated marketing system, and

business management system. Please refer to **Figure 2** below to see a breakdown of the different digital skill levels and the frequency that they occur in the focus group transcript.

Figure 2. Digital Skills and their frequencies

Digital Skill Level	Digital Skill	Frequency
Foundational Digital Skills	Computer (includes occurrences of laptop & desktop)	21
	Smart phone	5
	Email	2
	Internet	2
	Creating a file	3
Total Foundational Digital Skills		33
Intermediate Digital Skills	Microsoft Office	5
	Word	10
	Excel (includes Excel tools (i.e., Macros, Pivot Tables, etc.))	39
	Power Point	14
	Microsoft Teams	7
	Zoom	5
	Screen Sharing	2
	HRIS (includes mentions of Workday)	5
	Business Management System	1
	Automated Marketing System	1
Total Intermediate Digital Skills		89
Specialized Digital Skills	Videography	7
	Coding	2
	Programming	2
	Data Analytics	3
	Adobe Photoshop	2
	Graphic Design (includes color change, typesetting, swapping, and Canva)	8
	Social Media	6
	Website Development	1
	App Development	1
	Virtual Reality	7
	Augmented Reality	1
Total Specialized Digital Skills		40

Based on these findings, the employee survey was developed for individuals to self-assess their familiarity (i.e., Not at all, Somewhat, and Very) with both foundational and intermediate digital skills. For example, for foundational digital skills, employees rated their familiarity with emailing, using a search engine, and more, and for intermediate digital skills, they rated their familiarity with the various Microsoft Office applications. Since specialized digital skills have more of a future need focus based on participants responses, these skills were assessed on the employer survey. For example, employers were given these digital skills as response options to the question “What digital (computer) skills would increase your organization’s ability to compete in the future?”

The most frequently discussed digital skills during the focus group were related to the Microsoft Office Suite. This includes programs such as Excel, Word, PowerPoint, and Microsoft Teams. Excel (including mentions of various Excel tools) was the most frequently recorded skill with 39 occurrences, followed by PowerPoint with 14 occurrences. Microsoft Word occurred a total of 10 times, Microsoft Teams occurred 7 times, and Microsoft Office occurred 5 times. In total, the entire Microsoft package was mentioned 75 times, which led us to develop our first theme from the focus group.

Focus Group Theme #1: *While digital skill levels may vary depending on the job, Microsoft Office knowledge is a general need for most jobs.*

Since digital skills such as Excel, Word, PowerPoint, and Microsoft Teams were the most frequently discussed skills, they are some of the most important skills that workers need in today’s workplace. To understand what digital skills employees need to get hired, we asked the focus group participants the question(s): When looking to hire new employees, what are the digital skills that you look for? What’s the minimum amount of digital skills you look for when hiring an employee, and what would constitute a deal breaker?

While answers to this question varied among participants, as they stated that the digital skills needed would be dependent on the type of job that they were hiring for, Microsoft application knowledge was a minimum requirement for employees. For example, one participant stated, “A deal-breaker would be no experience in PowerPoint, Word, or Excel,” and another participant stated that being familiar with the Microsoft package would be the minimum number of skills needed to get hired with digital skill requirements increasing as job complexity increases (Digital Skills Focus Group, 2022). This is consistent with prior research as intermediate digital skills, such as the ability to use Microsoft Office software applications, are an “entry ticket” for mid- and high-level jobs (Beblacy et al., 2016). To increase one’s chances of getting hired, it is imperative for people to develop skills in Microsoft Office applications, as they are seen as requirements for getting hired. Therefore, on our surveys we asked employees to self-rate their skills on Microsoft Office applications, such as Excel, Word, and PowerPoint as well as asked employers if these were skills that needed developed within their current workforce.

Focus Group Theme #2: *Excel skills are in hot demand, and employees want to learn Excel skills.*

Mentioned previously, Excel was the most frequently occurring digital skill in the focus group transcription. Additionally, Excel was the skill that the majority of focus group participants wished they had received more training on in their career. In fact, when asked the question – What digital skills do you wish you received more training on in your career? – three of the five participants mentioned Excel. One participant who is three years removed from college and is working in a recruiter role stated that she wished she could have taken more classes and trainings related to Excel to learn about various formulas and tools to help teach older employees in her department. Another participant, who is Vice President of Human Resources for her company, stated that she wished she had learned about Macros (an Excel tool)

earlier in her career because they are useful and make things easier in her job. The third participant, who has over 49 years of human resources experience, stated that Excel was at the top of his list for skills he wished he received more training on throughout his career. While the third participant was able to rise to leadership positions, such as Chief HR Executive for an Akron-based company, he felt that he only ever “muddled through using Excel” and believes he could be more efficient if he received training on the various features Excel has to offer (Digital Skills Focus Group, 2022).

Since Excel was the most frequent skill mentioned and the most desired area for more training, participants were asked the question – Which particular tools within Excel do you think are most necessary for people to have experience with? For this question, there were no specific tools that stood out among the rest. Instead, the different types of tools more than likely varied depending on their different job roles. In all, the following Excel tools were identified by participants: experience creating a spreadsheet, macros, using functions/formulas (i.e., V-lookup), formatting data (i.e., Combining Cells, Sort & Filter), visualizing data (i.e., Pivot tables). In total, various Excel tools were mentioned 11 times throughout the focus group, increasing Excel skills frequency to 39 occurrences. Consequently, in the employee survey, individuals were asked to assess their familiarity with these various Excel tools to establish areas in Excel that may need more targeted training.

Focus Group Theme #3: *Many employees still struggle with simple computer tasks, and employees are too afraid or embarrassed to speak up if they lack skills.*

Research shows there is growing concern about a digital skills gap with finding that 31 percent of workers lack digital skills, with 13 percent of workers having no digital skills and 18 percent falling into the category of limited digital skills (Bergson-Shilcock & National Skills Coalition, 2020). Someone with no digital skills is unable to do four of six simple computer

tasks, such as using a mouse, has no prior computer experience, or is unwilling to take a computer-based assessment, while on the other hand, an individual with limited digital skills can complete simple tasks, such as sorting emails into different folders, with the use of a simple interface and a few steps (Gurchiek, 2020). During the focus group, one participant revealed that many of her employees likely fall into the limited digital skills category. While her employees are required to work with a computer, she stated that many are unable to perform basic computer tasks. For example, they have difficulty creating a file on their desktop, and they struggle to use already built Excel spreadsheets where the employee just needs to type in values as the formulas have already been created for them (Digital Skills Focus Group, 2022).

While many employees still struggle with these simple computer tasks, they are also often too afraid to speak up and get the help they need when they lack these skills. When asked why people don't get training to increase these skills, one participant stated, "I think there's a degree of embarrassment for people to admit in today's world that they don't know how to do these things" (Digital Skills Focus Group, 2022). A recent survey conducted by Salesforce highlights this fact that employees may feel ashamed or embarrassed to ask for help in learning digital skills. Over 23,000 workers across 19 countries were surveyed, and they found that over 75 percent of workers don't feel equipped to operate in the digitized workplace. However, while workers recognize that they lack these digital skills, only 28 percent are actively involved in digital skills training (Salesforce, 2022).

While no specific reasons for the low percentage of workers involved in digital skills training was provided, it may be due to employees' hesitancy to ask their employers for training or help, or it may be because their organization doesn't offer digital skills training, which leads us into our next theme.

Focus Group Theme #4: *Employers believe employees already have the necessary digital skills, and they face obstacles – mainly time – for offering training.*

Focus group participants were asked the question – Does your current employer or any previous employer offer digital skills training? From this question, we hoped to better understand a few things. First, we wanted to know to what extent organizations offer various digital skills training, and secondly, we wanted to know how training was offered (i.e., onsite, virtually, etc.) to employees. From the participants’ responses, most of their employers do not offer digital skills training for skills, such as Microsoft Office. One participant stated that they currently only provide training to the staff to use the businesses core operating systems. However, they have discussed offering classes to their employees on skills, such as Word and Excel, but they currently do not offer such trainings. Another participant said, “employers seem to anticipate that the existing staff already have these digital skills,” and thus, they leave it up to the employees to learn the skills on their own (Digital Skills Focus Group, 2022).

When asked why training wasn’t offered, time was the most common obstacle for training. One participant stated that in today’s fast paced workplace, it is very difficult to get everyone on the same schedule, especially with the increasing amount of remote work that is taking place. Additionally, another participant mentioned that time would be an issue for in-house training facilitators because most employees have their own day-to-day tasks to accomplish, which makes it difficult for them to be able to teach other team members skills (Digital Skills Focus Group, 2022). Therefore, it is very difficult for an organization to be able to schedule an in-person training session that enough employees would attend to make it worthwhile, and it is difficult for them to find an in-house employee that has the time and necessary skills to facilitate a training. This finding appears to indicate that if training were needed for a particular skill, it may be best for an organization to hire an outside vendor to

provide the training, as most organizations likely struggle to find the time to develop and conduct the training in-house. As a result of these obstacles, on the employer survey, we asked employers if their organization would be willing to use a third-party service to provide digital skills training as well as assessed their preferred methods for how they would like training to be offered.

Focus Group Theme #5: *There are currently no specific Akron-area companies that offer digital skills training as a service to other organizations.*

To better understand the competitive landscape for digital skills training services, focus group participants were asked if they were able to identify any organizations in the Akron-area that offer formal digital skills training. For the most part, participants were unable to identify any organizations that offer digital skills training as a business-to-business service. This is consistent with research. While Ohio will have approximately 151 computer training establishments in 2021 with expected sales of \$33.9 million, it is estimated that there will be zero computer training establishments in Akron, Ohio in both 2021 and 2022 (Barnes Reports: (NAICS 61142), 2021).

Mostly, participants were only able to name self-learning platforms for digital skills training such as LinkedIn Learning, Grow with Google, or YouTube, where individuals can watch videos and learn different skills on their own time. Additionally, one participant mentioned she had attended an Excel training provided by Fred Pryor, an organization that provides business seminars across the United States, that was paid for by her company. She also mentioned that the Akron Public Library has offered some digital skills training classes in the past, but that is more of a public service than a business-to-business service. With these findings, in the employee survey, individuals were asked if they had ever used any of these self-learning platforms to help develop skills. Also, since we were unable to identify any local digital skills training vendors to understand how much they charge for services, employers and employees

were asked in the surveys to provide an estimate of the amount of money they would be willing to spend on digital skills training to help us better understand the potential profitability of a digital skills training organization.

The surveys that were created from the conclusion of the focus group can be found in the appendices of this report. **Appendix A** refers to the Employee Survey and **Appendix B** refers to the Employer Survey.

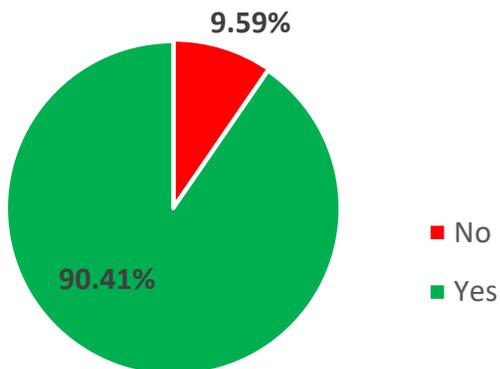
Survey Analysis

Following the completion of the focus group, two surveys were created and distributed. These surveys were used to gain more information on the topics discussed in the focus group with a larger sample size.

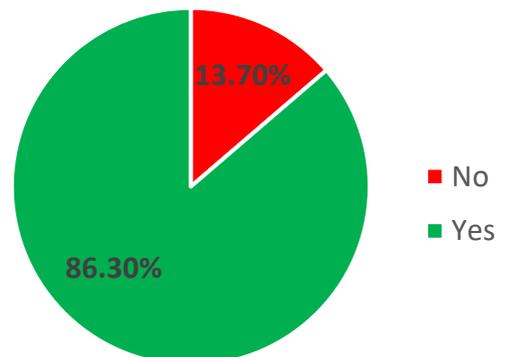
Since digital skills training was the main focus of our research, it was important to understand if employers believed there was a digital skills gap within their workforce or within their surrounding area labor market. If it was found that there was high concern for organizations in facing a digital skills gap, then it would show that there was a need for employees to be trained in digital skills. Please refer to **Figure 3** below.

Figure 3 – Concern of a digital skills gap within the workforce and/or the labor market

% of Employers that believe a digital skills gap exists in the wider labor market



% of Employers that believe there is a digital skills gap in their workforce



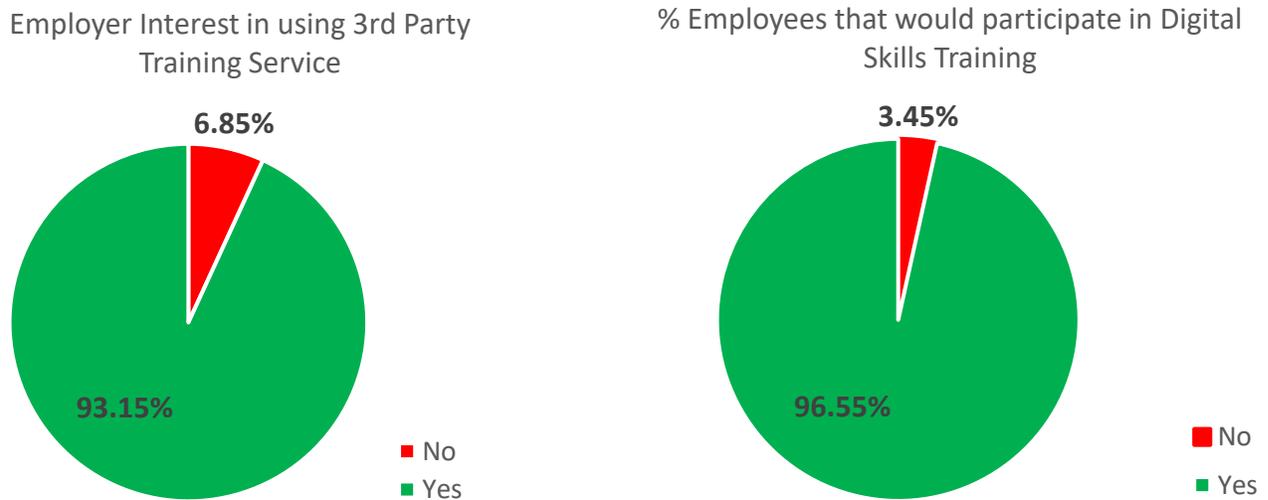
From the employer survey, approximately 86 percent of employers indicated “yes” that there was an existing digital skills gap within their organization and approximately 90 percent of employers indicated “yes” to there being a digital skills gap within the surrounding labor market. This is consistent with previous research as 80 percent of company executives are highly concerned about a possible digital skills gap facing their organizations (Fall & Ascher Webber, 2020). This provides pertinence to the fact that organizations and employees should engage in digital skills training. As the workplace grows more digitized and as technology becomes more advanced, the need for digital skills for employees and organizations becomes more important.

With a high percentage of employers believing there is an existing digital skills gap, one would assume that these organizations are already offering digital skills training to help reduce this gap. Of the 75 employers that participated in our survey, 66 employers, or approximately 88%, indicated that they do offer digital skills training to their employees. However, this conflicts with information received during our focus group session. During the focus group, it was learned that most employers assume that employees already have the digital skills needed to perform their job or will learn it themselves. Additionally, the majority of the focus group participants indicated that they did not train employees on skills, such as Microsoft Office applications (i.e., Word, Excel, PowerPoint, etc.), and that they only offered digital skills training that enabled their employees to use the systems required for their job (Digital Skills Focus Group, 2022). Although a large percentage of employers indicated that they do provide digital skills training to their employees, it is not known to what extent that this training is offered as it could very well just be training to use the essential systems for the business. In the future, it would be insightful to survey employers to know the extent that they provide digital skills

training on more transferable digital skills, such as Microsoft Office Applications, Adobe Photoshop, etc.

Since the end goal of our research was to determine if a digital skills training service would be a profitable endeavor for Goodwill Industries of Akron, employers were asked the question, “If an outside organization (i.e., third-party) were to offer a digital skills training service, would you be interested in using such a service?” Of the 73 employers who answered this question, approximately 93% indicated that they would be interested in using an outside organization for providing digital skills training to their employees. In addition, when individuals were asked the question, “If your employer were to offer digital skills training, would you want to participate?”, approximately 97% of survey participants indicated they would want to participate in digital skills training. Please refer to **Figure 4** below.

Figure 4



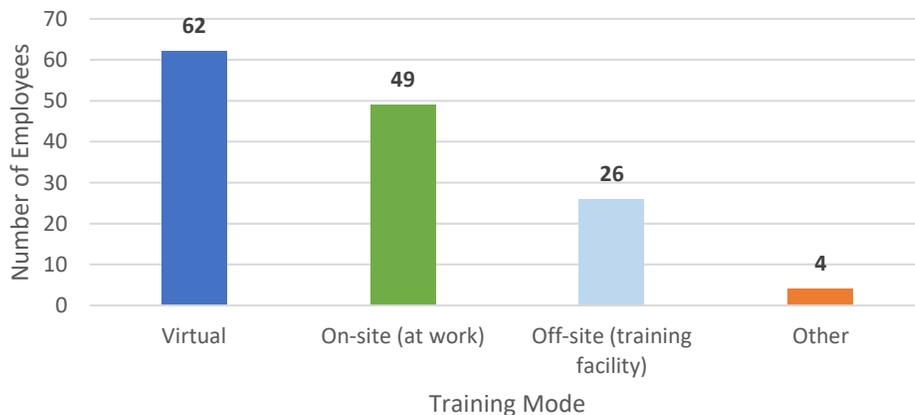
With a high percentage of employers and employees answering “yes” to these questions, it shows that there is demand for digital skills training services. With strong interest from employers and employees, the next logical step(s) for an organization to understand when

entering this industry are: the mode of training preferred by employers and employees, the training content that is needed and desired by employers and employees, and the cost that employers would be willing to pay for digital skills training.

Figure 5 – Employers’ Preferred Mode of Training



Figure 6 – Employees’ Preferred Mode of Training



When reviewing **Figure 5** and **Figure 6** above, the first thing that stands out is that the preferred mode of training by both employers and employees is virtual training, with 62 employees and 35 employers preferring virtual training as their top choice mode of training. This is interesting because it is not consistent with prior research, as 42% of employees worldwide prefer learning in a classroom with a group, compared to only 13% who prefer learning online and 6% who prefer learning virtually with a group (i.e., webinar) (Statista, 2022). However, the

information used for this Statista report was from 2019, which was the beginning of the COVID-19 pandemic. As a result of many people moving to remote work throughout the COVID-19 pandemic, it is possible that the increased familiarity in working online led to this shift in how employees preferred to learn and receive training on the job. Therefore, this could be a possible area for future research to see how the COVID-19 pandemic affected employees' preferences for mode of learning and training.

Not only do the two groups have the same top choice for training mode, but they also have the same exact order-ranking for training modes. Virtual training is the most preferred option, on-site training is the next most preferred option, and off-site training is the least preferred option across both groups. Consequently, if an organization were to begin offering digital skills training as a service to other organizations, it is best that they are capable of offering their service delivery in a virtual capacity. While virtual training delivery is preferred across both groups, one aspect that we failed to determine is whether virtual training was preferred synchronously or asynchronously. Synchronous virtual training would require a training instructor teaching the skills over a platform, such as Microsoft Teams, to employees in real-time, while asynchronous virtual training would require the creation of videos and training content that employees can access and complete at their convenience. Therefore, this is an area of research that can be looked at more in the future to best determine how virtual training should be conducted.

To understand the training content that may be provided by this service, individuals were asked to rate their familiarity with various digital skills and programs on a three-point scale (Not at all, Somewhat, and Very). Individuals self-assessed themselves on general computer skills that were identified during the focus group. These skills include things such as emailing, creating a desktop file, using a search engine, and converting a Word doc to a PDF. Additionally,

individuals were asked to rate their familiarity with programs that were identified as important during the focus group, such as Microsoft Excel, Microsoft Word, Microsoft PowerPoint, Adobe Photoshop, and virtual content sharing programs (i.e., Zoom, Microsoft Teams, WebEx, etc.).

Figure 7 – Individuals’ Familiarity with General Computer Skills

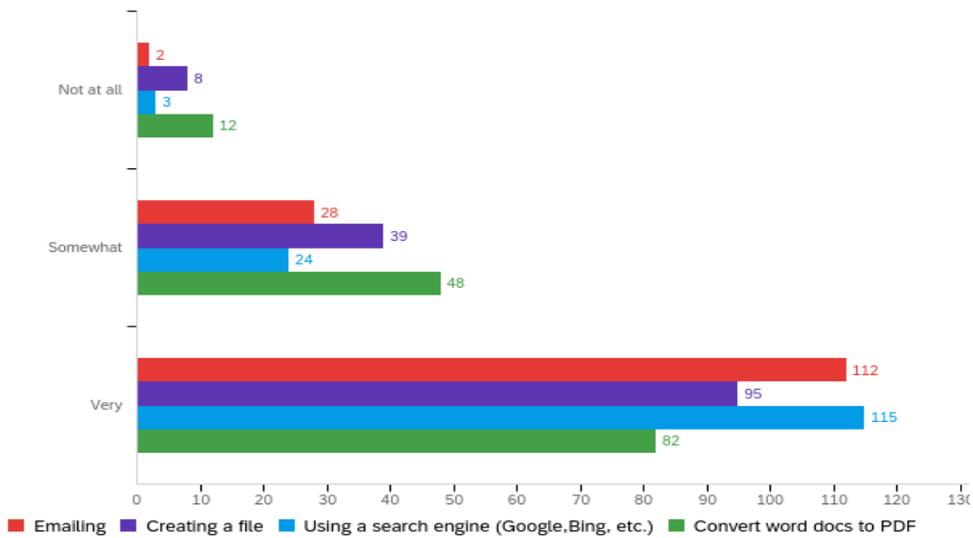
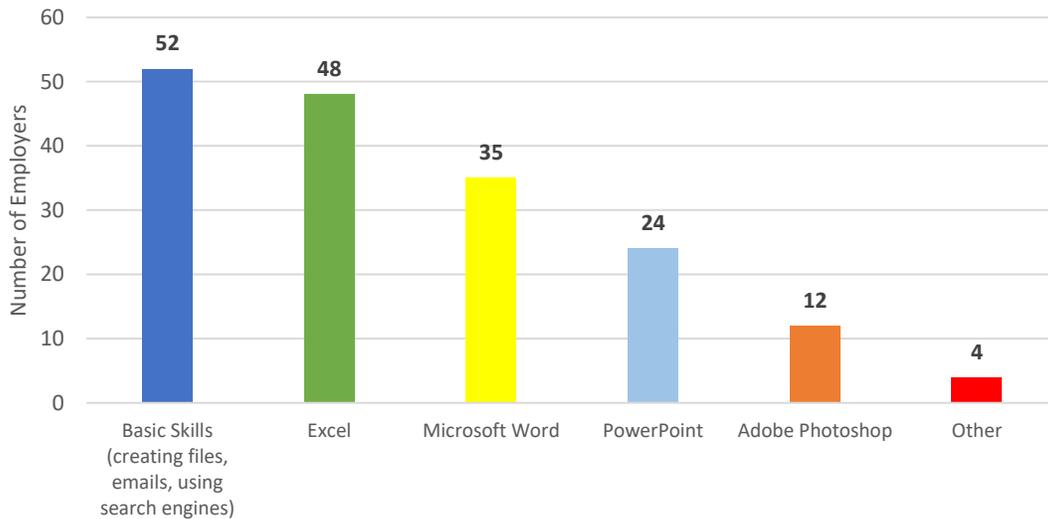


Figure 8 – Digital Skills Employers believe need Developed in their Employees



When reviewing **Figure 7** above, it is apparent that the majority of survey respondents are “very” familiar with general computer skills, such as emailing, using a search engine, and creating a file. With approximately 68 percent of the survey respondents reporting that they are

employed, it makes sense to see such a large number of participants indicating that they are “very” familiar with these digital skills. **Figure 8** above depicts employers answers to the question, “What digital (computer) skills need to be developed in your employees?”, and 52 employers indicated that general computer skills were what employees needed developed the most, followed by 48 employers indicating that Excel skills needed to be developed within their employees. Therefore, when it comes to general computer skills, employers and employees differ in their assessments significantly. In the focus group analysis, it was uncovered that many employers believe their employees still struggle with basic computer tasks, which is consistent with the findings from the employer survey (Digital Skills Focus Group, 2022). As a result, it is possible that individuals in the employee survey may have rated their familiarity with these skills in a manner that portrays them more favorably than what is actually true. Due to this, it would be a good idea for a business-to-business digital skills training service to include training lessons that teach these more general computer skills as employers indicated them as a need for development within their employees.

Figure 9 – Familiarity with different programs across age groups

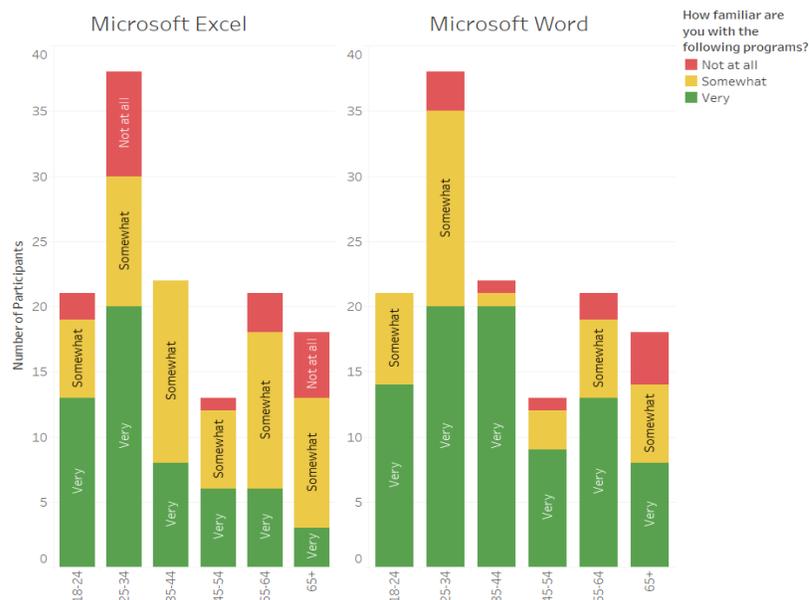
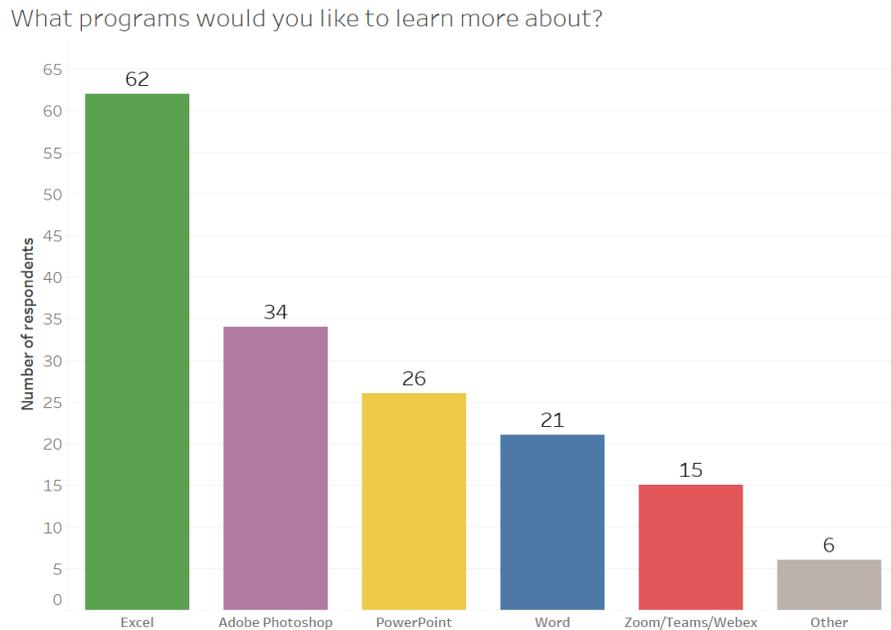




Figure 9 above depicts the number of individuals across six age groups that responded to our survey questions, “How familiar are you with the following programs? Microsoft Excel, Microsoft Word, Photoshop, PowerPoint, and Zoom/Teams/WebEx.” There was a wide age range for respondents in this survey, most frequently being age 25-34, and least frequently being age 45-54. As one can see, the younger respondents more frequently stated they were “very” familiar with particular programs, scaled proportionately across age groups. There is also a differing level of familiarity when moving from program to program. People are generally more familiar with Microsoft Word than they are with Microsoft Excel, for example, and are more familiar with Excel than they are with Photoshop.

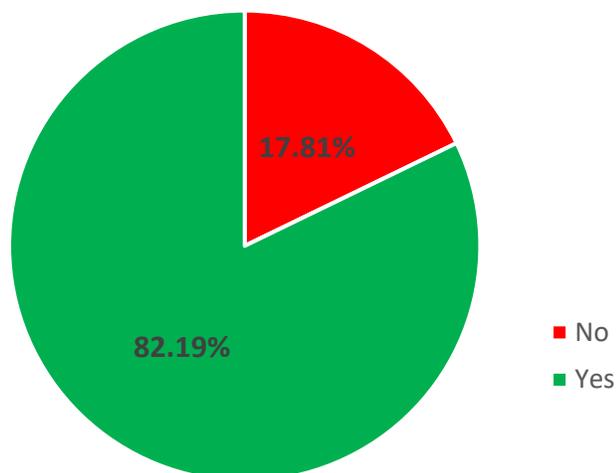
Figure 10 – What programs would you like to learn more about?

In **Figure 10** above, it presents the results of the employee survey question, “What programs would you like to learn more about?”, with Excel, Photoshop, PowerPoint, Word, and Zoom/Teams/WebEx listed as possible answers. These are the same programs that were listed in **Figure 9**. The most frequently selected program that respondents expressed interest in learning more about was Microsoft Excel (37.8% of responses), despite people being much less familiar with Photoshop overall, according to **Figure 9**. A possible explanation for this is Excel’s modest familiarity rating combined with its perceived value in the workplace. People are likely to want to learn more about a program that they will be able to use. Conversely, **Figure 8** revealed that many employers believe that Excel is a skill that needs to be developed in their employees, above other programs given as potential responses. It indicates that Excel is a widely used program for a variety of office roles, employees have a strong desire to refine their skills with the program, and employers wish for their employees to have more skill with it. Another area to consider is Adobe Photoshop. With the second highest frequency of responses in **Figure 10** and

the lowest overall level of familiarity in **Figure 9**, it would seem that employees have a moderate desire to learn more about Photoshop and would benefit from doing so. However, Photoshop received a very low number of responses from employers in **Figure 8**, indicating that Photoshop either has low demand in the workplace, or it is used mainly in specialized roles and less for the day-to-day operations than Excel can handle.

The survey results have shown that there is a need for digital skills training, and that there is also a willingness to participate in these training courses. The final part of the survey revolves around the cost and willingness to pay for this type of service as well as if employers are willing to use the service on a subscription basis. In the employer survey, participants were asked the question, “Would you be willing to participate on a subscription basis for training services?”. 60 employers indicated they would be willing to use a third-party digital skills training service on a subscription basis, which accounts for approximately 82 percent of the total employers surveyed. These results are depicted in **Figure 11** below.

Figure 11 – Willingness to Use Training Service on a Subscription Basis



In the employee survey, participants were asked the question, “If you have to pay for a digital skills course (one-hour session), how much would you be willing to pay?”. There were

multiple comments that if these skills are needed for work, then they should be paid for by the employer. However, on average, for a one-hour digital skills training session, employees indicated that they would be willing to pay \$48.90. The results that were received from the employer and employee survey differed dramatically, but this result was expected. Many individuals felt that these types of services should be paid for by the employer as on-the-job training. Therefore, employers were asked a similar question, “How much would you be willing to spend per employee for digital skills training?”. On average, employers were willing to pay \$862.66 per employee for digital skills training. This question resulted in a large range of responses from as low as \$20 to as high as \$5,000. The reason for this wide range occurred due to the way survey participants answered the question. For example, some individuals answered the question as if it was about how much they would be willing to pay per training while other individuals answered with how much they would be willing to pay each year per employee for digital skills training. Because of this, the average price of \$862.66 was lower than what would be the true average. **Figure 12** below depicts summary statistics for responses to the employee and employer survey.

Figure 12 – Summary Statistics – Willingness to Pay

	Minimum	Maximum	Mean	Median	Mode
Employee Response	\$10	\$250	\$48.90	\$50	\$50
Employer Response	\$20	\$5000	\$862.66	\$650	\$1000

It is evident that employers are willing to pay more than \$800 per employee per year on digital skills training. From the focus group and surveys, it was mentioned that employees have used other platforms for obtaining digital skills. These platforms include LinkedIn Learning, Fred Pryor, YouTube, Coursera, Grow with Google, and Khan Academy. From a total of 142

respondents, 55 participants had used LinkedIn Learning, 112 participants had used YouTube, and 37 participants had used Coursera to learn a digital skill. Additionally, 31 participants indicated that they had participated in Fred Pryor training sessions, 35 participants had completed a Grow with Google certification course, and 43 participants indicated that they had used Khan Academy to increase their digital skills. These platforms provide courses to help individuals increase their digital skills, and they range in prices from as low as \$0 (i.e., YouTube, Khan Academy) to \$300+ per training (i.e., Fred Pryor, LinkedIn Learning, Coursera). A breakdown of the costs for these different platforms can be found below in **Figure 13**.

Figure 13 – Cost for Digital Skills Training Platforms

Learning Platform	Subscription Cost
LinkedIn Learning	\$323.88 Annual Subscription
Fred Pryor	\$499.00 Annual Subscription
YouTube	Free Online Platform
Coursera	\$399.00 Annual Subscription
Grow with Google	\$39.00 per month by subscription on Coursera (IT Support, User Experience Design, Project Management, and Data Analytics Certificate)
Khan Academy	Free Online Platform

The digital skills training service that we intend to provide would most likely resemble that of LinkedIn Learning and Fred Pryor by offering a mix of synchronous and asynchronous virtual trainings, along with the possibility for onsite training. After conducting secondary research and primary research through focus group and surveys, we propose the following recommendation for Goodwill Industries of Akron to help fund their mission.

Client Recommendations

After conducting primary and secondary research, we recommend Goodwill Industries of Akron use the money received from the Makenzie Scott grant to create a business that provides digital skills training services to organizations. This proposed solution would involve Goodwill running and operating a subscription-based virtual digital skills training service for organizations. The service will be able to provide both synchronous and asynchronous virtual trainings. However, there will be the possibility for onsite trainings if that were to be preferred by the client organization. This service would provide courses in basic computer skills (i.e., email, converting documents to PDF, etc.), Microsoft Office applications, Adobe, and virtual content sharing programs (i.e., Zoom, Microsoft Teams, WebEx, etc.). Also, we propose that Goodwill work directly with these organizations to create content that is organization specific for trainings. This might include things such as the use of CRM platforms, HR specific platforms, and other training programs dependent on the client organizations' needs. In doing this, it would allow this training service to differentiate itself from competitors by offering trainings that are more organization specific to better fit client needs. Additionally, by offering organization specific trainings, this could be a premium package offering that can be used to produce higher profitability.

Our recommendation is closely aligned with one of Goodwill's current missions for providing job placement services and trainings. In order for Goodwill to implement this plan, they will have to expand upon their current training offerings. We propose that Goodwill follow the following action steps to launch this program successfully.

Action Steps

- 1) First, Goodwill will need to hire an outside consultant to do further research on the idea of a digital skills training services. This consultant will help them better understand the costs they can charge, the content they can provide, organizations that are willing to sign up for their service, and any further questions that we have proposed in our recommendations for future research. Additionally, this consultant can work to overcome the limitations of our research to help provide a better overall picture of this digital skills training service. We estimate that this process will take about a year.
- 2) After receiving information from the consultant, Goodwill would next want to begin hiring employees to help run this operation. For the first year or so, we believe Goodwill would need to hire a training instructor, an instructional designer, a graphic designer, and administrative support position. Once these employees are trained and have created training content, Goodwill can begin their next phase.
- 3) After training content has been created, Goodwill can begin marketing their services and begin to find interested employers for this service.
- 4) Now that Goodwill has clients, they can begin their service and start providing digital training courses. As the business line grows, Goodwill can decide how they would like to expand. We propose that Goodwill begin offering their skills training virtually and then expand into a hybrid model by offering the option for onsite trainings. We also suggest that Goodwill offer trainings that are organizational specific to help differentiate themselves in the market. Onsite trainings would require Goodwill to purchase a laptop cart and laptops (estimated 25 laptops) that they can take to organizations for training participants to use.
- 5) After years end, Goodwill will need to re-evaluate their services and readjust prices to reflect the demand for their service and the quality of their offering. As the service continues to grow, more trainers will need to be hired to help support Goodwill's new venture.

In the following section, we provide a breakdown of Goodwill's pro forma financial statement and what sales they would need in order for Goodwill to break even to cover the costs of the Bus Rider Pass and Gas Fuel Card program.

Financial Report

The basis of this project was to create a solution for Goodwill Industries of Akron that would be profitable enough on a yearly basis to help fund their overall mission towards closing the gap on barriers to transportation. The yearly costs for their Bus Rider Pass and Gas Fuel Card

program are approximately \$250,000. Looking at competitors and our survey analysis, **Figure 14** below is a pro forma financial report for our newly recommended business venture for Goodwill Industries of Akron.

Figure 14 – Pro Forma Financial Report

Year 1		Year 2		Year 3		Year 4		Year 5	
Revenue		Revenue		Revenue		Revenue		Revenue	
Subscription Price (Annual)	\$0.00	Subscription Price (Annual)	\$ 650.00	Subscription Price (Annual)	\$ 650.00	Subscription Price (Annual)	\$ 650.00	Subscription Price (Annual)	\$ 650.00
Number of Subscriptions	0	Number of Subscriptions	0	Number of Subscriptions	750	Number of Subscriptions	1000	Number of Subscriptions	1250
Total Revenue	\$0.00	Total Revenue	\$0	Total Revenue	\$ 487,500.00	Total Revenue	\$ 650,000.00	Total Revenue	\$812,500.00
Expenses		Expenses		Expenses		Expenses		Expenses	
Consultant Salary	\$78,000	Training Instructor Salary	\$49,000.00	Training Instructor Salary	\$ 49,000.00	Training Instructor Salary	\$ 49,000.00	Training Instructor Salary (x2)	\$ 98,000.00
		Instructional Designer Salary	\$69,000.00	Instructional Designer Salary	\$ 69,000.00	Instructional Designer Salary	\$ 69,000.00	Instructional Designer Salary	\$ 69,000.00
		Graphic Designer Salary	\$53,000.00	Graphic Designer Salary	\$ 53,000.00	Graphic Designer Salary	\$ 53,000.00	Graphic Designer Salary	\$ 53,000.00
		Administrative Support Salary	\$43,000.00	Administrative Support Salary	\$ 43,000.00	Administrative Support Salary	\$ 43,000.00	Administrative Support Salary	\$ 43,000.00
		Training Laptops (\$800 x 25)	\$20,000.00	Laptop Maintenance	\$ 2,000.00	Laptop Maintenance	\$ 2,000.00	Laptop Maintenance	\$ 2,000.00
		Laptop Cart	\$825.99	Marketing	\$ 9,400.00	Marketing	\$ 9,400.00	Marketing	\$ 9,400.00
		Marketing	\$9,400.00	Year 1 & 2 Profit Loss	\$ 322,225.99	Year 3 Profit Loss	\$ 310,125.99	Year 4 Profit Loss	\$135,525.99
				Bus Pass & Fuel Card Program	\$ 250,000.00	Bus Pass & Fuel Card Program	\$ 250,000.00	Bus Pass & Fuel Card Program	\$250,000.00
Total Expenses	\$78,000	Total Expenses	\$244,225.99	Total Expenses	\$ 797,625.99	Total Expenses	\$ 785,525.99	Total Expenses	\$659,925.99
Profit	(\$78,000.00)	Profit	(\$244,225.99)	Profit	\$(310,125.99)	Profit	\$(135,525.99)	Profit	\$152,574.01

To get the digital skills training service up and running for Goodwill Industries of Akron, we believe it will take them about two years before they can begin offering the service and generating revenue. From the Mackenzie Scott grant, we project that Goodwill will need approximately \$323,000.00 to get the program up and running. In year 1, Goodwill will hire a consultant to better understand the cost they can charge, competitors within the digital skills training industry, and to answer questions we were unable to answer within our own research. Therefore, in year 1, we do not expect any revenue to be generated, and there will be an expense of approximately \$78,000, which is the average salary for a consultant (Glassdoor, 2021).

In year 2, the service will begin to develop the content needed to offer training to organizations. To develop training content, we believe that Goodwill will need to hire the following individuals: a training instructor (average salary \$49,000), an instructional designer (average salary \$69,000), a graphic designer (average salary \$53,000), and an administrative

support staff member (average salary \$43,000) (Glassdoor, 2021; U.S. Bureau of Labor Statistics, 2021). Once these individuals have created training content, Goodwill can begin to market this new business as well as seek clients by presenting their business plan/new service offering through various marketing platforms. While we do not know the exact cost for marketing, we project that Goodwill use about 2-3% of future revenue amounts for marketing. Additional costs in year 2 include the purchase of laptops (average cost \$800) and a laptop cart for any onsite trainings (Statista, 2021).

In year 3, Goodwill can begin offering digital skills training to client organizations. We have set an annual subscription price at \$650.00 per employee, which is the median price we found employers were willing to pay. Per our survey findings, employers were willing to spend on average up to \$862 per employee on digital skills training per year. Additionally, through secondary research, it has been found that companies with between 100 and 999 employees spend roughly \$1,700 on training per learner per year, and companies with over 1000 employees spend on average \$1,000 on training per learner per year (Statista, 2022). However, since competing digital skills training platforms cost between \$0 to \$499 a year, we projected a price of \$650 annually to begin with in order to successfully enter the market. The hired business consultant can help make a more accurate determination for what to charge for the training subscription.

Other costs for year 3 remain the same primarily with the four salaries of the employees needed for the training service as well as for marketing expenses. However, the cost to purchase laptops and a laptop cart have been substituted for general laptop maintenance. In year 3, we added the \$250,000 cost for the Bus Rider Pass and Fuel Gas Cards program because this would be the first year that the training service would begin generating a revenue.

In year 4, we expect the training service to grow in demand, leading to an increase in the number of subscriptions. This increase in subscriptions will help us be able to continue to pay off the startup costs that we incurred in starting this service. As the service expands and Goodwill gains market share within the industry, in year 5, we expect that Goodwill will need to hire an additional training instructor to help support the increased number of subscriptions. At the conclusion of year 5, we project that the training service will have recovered all of its startup costs, and it will have produced approximately \$152,600 in profit.

Research Limitations

Although this research project provided useful insights, it is just the beginning of understanding how effective a service like this could really be. Large factors like time constraints and limited budget put some restrictions on this research. Since we only had a few months to conduct research, we were limited in how extensive the research could be. As we uncovered items in our analysis, we were unable to potentially follow up with survey participants to gain a better understanding of answers to questions. For example, as we analyzed the employee and employer survey, the majority of participants responded that they would prefer virtual training as the preferred mode of training. However, in our survey(s), we never specified if these virtual trainings would be self-paced training videos (asynchronous) or real-time instructor led virtual trainings (synchronous). As a result, this is an area of research that should be explored further in the future.

Another primary limitation of our research is that we had to rely on a convenience sample for survey data. As a result, the majority of our survey respondents were white (83.46%). Therefore, the survey was lacking in responses from other ethnic groups, which means the results may not be truly representative of the entire population. Another primary limitation of the study

was that we were limited in the number of employers we could reach. For the most part, we were unable to reach employers independently and had to rely on personal referrals by the Goodwill management team and the University of Akron staff. Also, we were unable to verify the location of the offices of the companies that the employers managed or owned.

Given that the survey was administered virtually, we were unable to get responses from individuals without access to digital devices. In the future, it may be beneficial to gather data on the digital skills of individuals who lack access to digital devices in order to possibly expand this training service beyond a business-to-business service to help solve some issues relating to the digital divide.

Recommendations for Further Research

For future research, we recommend doing more in-depth primary research about an individual's willingness to pay for digital training services, more specifically different companies' willingness to pay. In the employer survey, we asked "How much would you be willing to spend per employee for digital skills?", and we received a wide range of answers and numbers to this question. However, nothing gave us a solid idea of how much to charge for this digital skills training service. Also, it would be useful to take a more in-depth look at the competitors in this market to better understand their financial costs.

Another recommendation is to conduct primary research that would involve more individuals who are unemployed. Since the focus of our research was on whether a digital skills training service offered to organizations would be a profitable idea or not, we mainly focused our attention on gathering information relating to individuals who were employed. Thus, future research should explore unemployed individuals, which would allow researchers to compare the

digital skills of employed and unemployed individuals to help pinpoint if the cause of unemployment may be due to the digital divide.

One of the biggest questions that we failed to answer in this research was specifically how virtual training should be offered. Across both the employee and employer survey, virtual training was the preferred method of training. However, while we understood that virtual training was desired by both these groups, we did not have the time to go back and have a focus group to see if they preferred synchronous (real-time, instructor-led) virtual training, asynchronous (self-paced) virtual training, or a hybrid between the two modes. Therefore, a future question that needs to be explored is, what is the mode of virtual training (asynchronous, synchronous, or hybrid) that employees and employers would prefer to receive digital skills training?

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Appendix A – Employee Survey – Digital Skills Survey

Start of Block: Introduction

As Honors Business students at The University of Akron we are working with Goodwill Industries of Akron on a project pertaining to digital skills training. This survey is voluntary, anonymous, and will only take around 5-10 minutes to complete. At the end of the survey there will be an opportunity to enter into a drawing for a chance to win one of ten \$20 gift cards. Thank you for taking the time to complete our survey!

End of Block: Introduction

Start of Block: Broad Questions

Q1 Did you know that Goodwill Industries of Akron provides job placement services and training?

Yes

No

Q2 How many electronic devices do you personally own (i.e smartphone, tablet, laptop)?

0

1

2

3

4+

Q3 Please select all of the electronic devices you own.

- Smart Phone
- Tablet
- Laptop/Desktop
- Other (please specify)

- None

Page Break

Digital skills are defined as the skills needed to use digital devices, communication applications, and networks to access and manage information.

Q4 How familiar are you with the following programs?

	Not at all	Somewhat	Very
Excel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Word	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PowerPoint	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adobe Photoshop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zoom/Teams/Webex	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 How familiar are you with the following tools on excel?

	Not at all	Somewhat	Very
Sort & Filter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
V-lookup	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Macros	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pivot Table	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Functions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6 How familiar are you with these general computer skills?

	Not at all	Somewhat	Very
Emailing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating a file	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using a search engine (Google, Bing, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convert word docs to PDF	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7 Which of these self-learning platforms have you used to learn a skill?

	Yes	No
LinkedIn Learning	<input type="radio"/>	<input type="radio"/>
YouTube	<input type="radio"/>	<input type="radio"/>
Fred Pryor	<input type="radio"/>	<input type="radio"/>
Coursera	<input type="radio"/>	<input type="radio"/>
Grow with Google	<input type="radio"/>	<input type="radio"/>
Khan Academy	<input type="radio"/>	<input type="radio"/>

Q8 If you were to receive training on digital skills, how would you like the training to be offered?

- On-site (at work)
- Virtual
- Off-site (training facility)
- Other _____

End of Block: Broad Questions

Start of Block: Skip Logic

Q9 Are you currently employed?

- Yes
- No

Skip To: End of Block If Are you currently employed? = No

End of Block: Skip Logic

Start of Block: Block 2 - Demographics

Q16 What is your gender?

- Male
 - Female
 - Non-binary
 - Prefer not to self-identify
-

Q17 What is your race?

- Asian
 - Black
 - Hispanic
 - White
 - Other
-

Q18 What is your annual household income?

- \$0 - \$25,000
 - \$25,001 - \$50,000
 - \$50,001 - \$75,000
 - \$75,001 - \$100,000
 - \$100,000+
-

Q19 What is your highest level of educational attainment?

- Less than High School
 - Some High School
 - High School Graduate
 - Some College
 - College Graduate
 - Doctoral
-

Q20 What age group do you fall into?

- Under 18
- 18-2
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

End of Block: Block 2 - Demographics

Start of Block: Block 5

Q21 Please enter your email for a chance to win one of ten \$20 Amazon gift cards!

End of Block: Block 5

Start of Block: Block 1 - Main questions

Q10 Where are you currently employed?

Q11 What is your current job title?

Q12 What level of importance does computer technology play in performing your job?

	Not at all important	Less important	Moderately important	More important	Most important
1	<input type="radio"/>				

Q13 What programs would you like to learn more about?

- Excel
 - Word
 - PowerPoint
 - Adobe Photoshop
 - Zoom/Teams/Webex
 - Other _____
-

Q14 If your employer were to offer digital skills training, would you want to participate?

- Yes
 - No
-

Q15 If you have to pay for a digital skills course (1 hour session), how much would you be willing to pay?

End of Block: Block 1 - Main questions

Appendix B – Employer Survey – Digital Skills Training

Start of Block: Default Question Block

As Honors Business students at The University of Akron we are working with Goodwill Industries of Akron on a project pertaining to digital skills training. This survey is voluntary, anonymous, and will only take around 5-10 minutes to complete. At the end of the survey there will be an opportunity to enter into a drawing for a chance to win one of ten \$20 gift cards. Thank you for taking the time to complete our survey!

End of Block: Default Question Block

Start of Block: Block 1

Q2 What is the name of your company?

Q3 Where is your company located? (Please specify city and state)

Q4 What is the size of your company (number of employees)?

Q5 What industry sector best describes your organization?

- Manufacturing
- Retail
- Food Services
- Financial Services
- Construction
- Healthcare
- Other _____

Page Break _____

Q6 Digital skills are defined as the skills needed to use digital devices, communication applications, and networks to access and manage information.

Q7 Does your company currently offer digital (computer) skills training?

Yes

No

Q8 Are you concerned if there is a current digital skills gap in your workforce?

Yes

No

Q9 Are you concerned if there is a current digital skills gap in the broader labor market?

Yes

No

Q10 What digital (computer) skills need to be developed in your employees?

- Basic Skills (creating files, emails, using search engines)
 - Excel Skills (v-lookup, macros, functions, pivot tables, etc.)
 - Microsoft Word
 - PowerPoint
 - Adobe Photoshop
 - Other _____
-

Q10 What digital (computer) skills would increase your organization's ability to compete?

- Coding/Programming
 - Website/App development
 - Data Analytics
 - Social Media
 - Virtual Reality
 - Other _____
-

Q12 If an outside organization (i.e., third party) were to offer a digital skills training service, would you be interested in using such a service?

Yes

No

Q13 How would you prefer training be offered?

On-site (at work)

Virtual

Off-site (training facility)

Other _____

Q14 How much would you be willing to spend per employee for digital skills training?

Q15 How many employees in your organization would benefit from digital skills training?

Q16 Would you be willing to participate on a subscription basis for training services or pay for specific training services when needed?

Yes

No

End of Block: Block 1

Start of Block: Block 2

Q17 Please enter your email for a chance to win one of ten \$20 Amazon gift cards!

End of Block: Block 2
