

Seven Hills Foundation Assistive Technology Expo

An Interactive Qualifying Project Report

Submitted to the faculty of Worcester Polytechnic Institute

In partial fulfillment of the requirement for the

Degree of Bachelor of Science

Sponsoring Agency:



Submitted to:

On-Site Liaison: Jean Des Roches, Assistive Technology Program Director,
Project Advisor: Creighton Peet,
Project Co-advisor: Chickery Kasouf

Submitted by:

Franklyn Buckner
Nicholas Martin
Chau Tran
Anthony Vigliotta

Date submitted: 3 March 2017

Abstract

Due to constant changes in Assistive Technology, it can be difficult to keep up with advancements. Working with the Seven Hills Foundation, we hosted a pilot event that taught their staff, disabled individuals, and the public about the latest in AT. We conducted exit surveys to collect feedback to determine if Seven Hills should host the event annually. All of our planning documents and recommendations were given to Seven Hills as a database to expedite their planning for future events.

Acknowledgments

We would like to first thank Seven Hills Foundation for sponsoring our Interactive Qualifying Project. Thank you the following people for helping us with our project throughout our 7 weeks at Seven Hills Foundation:

Seven Hills Foundation Expo Team

Jean DesRoches - Assistive Technology Program Director (**Sponsor**)
 Steve Kessler - Assistive Technology Specialist
 Jonathan D'Amico - Home Based Supports Coordinator (Rhode Island)

Seven Hills Foundation: Development Team

Kate Myshrall - Vice President of Advancement
 Elizabeth Vittum - Assistant Vice President of Development
 Peter Demko - Multimedia Communications Associate

Seven Hills Foundation: Maintenance Team

Mike Kendrick - Facilities Director
 Ed Doucette - Construction Manager
 Judy Vogel - Secretary
 Ken McDonnell - Advancement Associate

Worcester Polytechnic Institute Project Advisors

Professor Creighton Peet (Advisor)
 Professor Chickery Kasouf (Co-Advisor)

Additional Acknowledgments

All of the vendors who participated in our Expo or took the time to respond to us.
 All of the volunteers who helped run the Expo.
 All of the SHF Superusers who helped staff the Expo.
 All of the attendees who have participated in our surveys.

Thank you to Seven Hills Expo Team; we would not have been able to complete this project without all of your support and assistance every step of the way. Development printed flyers and

marketed our Expo to the Staff and public, and Maintenance assisted us with the layout of the Expo and general questions regarding the Bingo Hall. Thank you to our professors for advising our IQP and our report. Again, thank you all for your support!

Frank Bucknor

Nick Martin

Chau Tran

Anthony Vigliotta

Authorship

Chapter	Writer	Revisions
<i>Abstract</i>	Chau Tran Frank Bucknor	All
<i>Acknowledgments</i>	Chau Tran	Frank Bucknor
<i>Authorship</i>	All	All
<i>Table of Contents</i>	Anthony Vigliotta	All
<i>Table of Figure/Tables</i>	Anthony Vigliotta	All
<i>Executive Summary</i>	Nick Martin	All
<i>Introduction</i>	Anthony Vigliotta	Frank Bucknor Nick Martin
<i>Background</i>	Chau Tran Anthony Vigliotta	All
<i>Methodology</i>	Frank Bucknor	Nick Martin
<i>Results</i>	Nick Martin	Frank Bucknor
<i>Recommendations</i>	Frank Bucknor	Nick Martin
<i>Conclusion</i>	Nick Martin	Frank Bucknor
<i>References</i>	Anthony Vigliotta	Anthony Vigliotta Nick Martin
<i>Appendices</i>	All	All
<i>Database/Database Manual</i>	Anthony Vigliotta	

Table of Contents

Abstract	1
Acknowledgments.	2
Authorship.	4
Table of Contents.	5
Table of Figures.	11
Table of Tables.	12
Executive Summary	13
1.0 Introduction.	15
2.0 Background.	18
2.1 Assistive Technology Solutions for Disabilities Served by Seven Hills.	19
2.1.1 Assistive Technology.	19
2.1.2 Assistive Technology Services.	22
2.1.3 Seven Hills Superusers.	22
2.2 Contents of an Expo.	23
2.2.1 Audience.	24

2.2.2 Vendors.	27
2.2.3 Speakers.	27
2.2.4 Incentivization.	29
2.2.5 Biotech Vendor Product Show..	30
2.3 Assistive Technology Organizations.	30
2.3.1 Similar Organizations.	32
2.4 Summarization.	33
3.0 Methodology.	35
Establishing the Scope of the Expo.	36
Establishing Vendor Attendance and Interest	38
Cost Analysis and Final Logistics.	40
Laying the Foundation for Future Expos.	41
4.0 Results & Analysis.	44
4.1 Expo Planning Results.	44
4.1.1 Contacting Potential Vendors.	45
4.1.2 Speaker Decision.	46

4.1.3 Expo Registration Page.	46
4.1.4 Attendee Demographics.	47
4.1.5 Gathering Seven Hills Superuser Volunteers.	48
4.1.6 Gathering General Volunteers.	49
4.1.7 Expo Layout	49
4.2 Expo Results.	50
4.2.1 Expo Attendee Outlook.	50
4.2.2 Expo Vendor Outlook.	51
4.2.3 Expo Staff and Volunteer Views.	53
4.2.4 Expo Cost Analysis.	57
4.3 Database Results.	58
5.0 Recommendations & Conclusions.	60
5.1 Recommendations Concerning Attendees.	60
5.1.1 Individuals with Disabilities.	60
5.1.2 Caretakers Accompanying Individuals.	61
5.1.3 Those in the Market for an Assistive Device.	61

5.2 Recommendations Concerning Staff.	62
5.2.1 Allocating Staff Members.	62
5.2.2 Networking and Relationships.	63
5.3 Recommendations Concerning the Expo & Costs.	64
5.3.1 Time and Sessions.	64
5.3.2 Capturing Feedback.	65
5.3.3 Costs.	65
5.4 Third Party Recommendations.	67
5.4.1 Judy Fask: Worcester Public Schools Transition Rehabilitation Specialist	67
5.4.2 Roxy Rocker: REquipment Representative.	67
5.5 Conclusion.	68
References.	71
Appendix A: Seven Hills Foundation Organization.	74
Appendix B: Seven Hills Foundation Affiliates.	77
Appendix C: Abbreviations.	82
Appendix D: Seven Hills Expo Team Information.	84

Appendix E: Surveys.	85
Appendix F: Additional Interviews Conducted.	93
Appendix G: Assistive Technology Devices Categories.	96
Appendix H: Assistive Technology Services Detail	98
Appendix I: Funding Assistive Technology.	99
Appendix J: Expo Promotion.	102
Appendix K: Expo Layout	103
Appendix L: Expo Pamphlet	104
Appendix M: Battery Interrupter Workshop.	107
Appendix N: Expo Cost Breakdown	108

Table of Figures

Figure 1: Who Attended. 43

Figure 2: Heard about Expo. 43

Figure 3: Expo Organization and Layout 46

Figure 4: Expo Time and Duration of Attendees. 48

Figure 5: Attendees Learned from Expo. 49

Figure 6: Attendees Enjoyed. 49

Figure 7: Attendees Come to Future Expo. 50

Figure 8: Vendor Expectations. 51

Figure 9: Vendor Execution Results. 52

Figure 10: Vendor Response to Come to another Expo Hosted By SHF. 53

Figure 11: Volunteer Identified. 54

Figure 12: SHF Expectations. 54

Figure 13: Vendor Execution. 55

Figure 14: Volunteer Interest in Future Expo. 56

Figure 15: Expo Poster/Flyer 101

Figure 16: Seven Hills Bingo Hall Blueprint 102

Figure 17: Draft 1 Expo Layout Plan. 103

Figure 18: Draft 2 of Expo Layout Plan. 104

Figure 19: Final Expo Layout Plan. 105

Table of Tables

Table 1: Cost 57

Executive Summary

There are organizations in the U.S. that help disabled individuals overcome the problem of how to properly use an assistive device to help them perform daily activities. These devices were designed to create a higher quality of life for these individuals, but only if they have the knowledge to operate them. Since these assistive devices are changing rapidly due to technological change, organizations are having trouble keeping up with these changes, including one organization in the Greater Worcester area, Seven Hills Foundation (SHF).

Disabled individuals will use assistive technology if it's beneficial, effective, and affordable. Because of this, it becomes very important for the disabled individuals and their aides to understand different types of assistive technology. Without the knowledge of how to use these devices, the devices may not be as helpful. However, with the proper knowledge, the aides can help increase the quality of life for disabled individuals. This forms a direct relationship between an aide's knowledge and the quality of life for a disabled individual. Our project aimed to begin to create a solution to this problem by determining whether a mini Expo that was designed to help the aides improve their knowledge and confidence with AT so that their disabled clients would be more satisfied and empowered by the services that SHF was providing to them.

The main objective of this project was to organize and help carry out a mini Expo so that Seven Hills could use our results to potentially put on a larger Expo. To meet this objective, we have identified the following sub-objectives. First, we needed to identify possible vendors and speakers who are contributing to helping disabled individuals and who could attend the Expo.

Second, we had to determine with the Seven Hills staff all costs associated with carrying out an Expo. Third, we had to determine the effectiveness of the mini Expo as a way to help SHF design a larger Expo in the future. Finally, we wanted to determine the best means possible to help Seven Hills put on future Expos more easily. To accomplish this, we compiled all of our findings into a database with a manual that is easy to navigate, so that SHF staff could find specific information relevant to any part of the Expo planning process.

After we carried out the Expo, we gathered results, recommendations, and conclusions from various surveys that were distributed to Expo staff, attendees, and vendors. From the attendee survey, we found that more than 85% of attendees were happy with the organization and layout of the Expo. The attendees also said they would be very interested in attending another Seven Hills event or Expo in the future. From vendors, they all were happy with how the Expo was conducted and they would come to another event. The Expo staff had very similar responses. They would all come back to the Expo, however, only 83% said it exceeded their expectations. There were a few major recommendations that we observed, the first being that the Expo was scheduled to be too long. The sessions worked well, however the sessions were too long. The next recommendation was that the layout needs to be improved slightly so we can catch everyone for the exit survey as some of the attendees walked behind the vendors to exit and missed the survey. The last major recommendation was to have more stations that are interactive so individuals with disabilities can try more devices.

1.0 Introduction

Assistive Technologies (AT) enhance the capabilities of countless individuals struggling with varying disabilities. The Rehabilitation Engineering Research Center on Communication Enhancement ([2016](#)), defines an assistive technology device as “any item, piece of equipment, or product system, that can be acquired commercially, adjusted, or even custom built, that is designed to enhance, retain, or improve the quality of life for individuals with disabilities” (paragraph 1). With employment of biomedical engineers expected to increase 23% between 2014 and 2024, the rapid advancement of AT is also expected ([Bureau of Labor Statistics, 2015](#)). This growth is much higher than in other occupations and a direct result of the increasingly more high tech medical devices. Because of these advances, it can be difficult for organizations and families assisting disabled individuals to keep up with the increasingly sophisticated technologies.

According to Mrs. Jean Des Roches (personal communication, November 21, 2016) of the Seven Hills Foundation (SHF), it can be difficult for SHF staff to keep up with AT. Keeping the staff and clients appropriately trained can be very challenging. Caregivers cannot train their clients without understanding these devices themselves. Unfortunately, due to a lack of time or incentives to receive training, and because of constant upgrades in AT, this can be a challenge. Because of this, Seven Hills managers feel the organization can better fulfill its ability to serve those with disabilities and improve their quality of life by giving staff more and better training opportunities. But how best to achieve this training is still uncertain.

The problem of how to keep their staff up to date on the changes in AT is a problem for many organizations that work with people with disabilities. SHF and other similar organizations have made many attempts to solve this problem before. Some of these organizations have had Expos for AT devices each year. However, these Expos have changed locations and are therefore no longer able to support the people in the previous locations. As the devices found at these Expos are expensive, Seven Hills also has provided information to help individuals and families purchase these devices through loan programs.

Seven Hills has attempted to solve all of these problems through the use of research projects ([Bingel, 2016](#)), workshops, clinics, and many other approaches. However, these strategies have not completely solved their problems. Seven Hills staff feel that a mini Expo might be a possible first step towards putting on a larger Expo, should the mini Expo prove to be successful in training both staff and clients in new AT. However, so far SHF has never carried out any type of Expo.

The goal of our project was to help SHF determine if an Expo would be a good solution for achieving better training and exposure to AT for staff and clients. To achieve this goal we helped organize host a pilot Expo at Seven Hills that could lay the foundation for any larger Expo they might choose to host in the future. We identified how to organize and run an Expo, what previous AT Expos have accomplished, who potential speakers and vendors would be, what hands-on AT activities could be included in an Expo, and what local and state resources were available for carrying out an Expo. We also provided SHF with a database that organized all the information we had gathered in the process of planning and hosting the pilot Expo. After completing the Expo, we evaluated how well an Expo would help Seven Hills achieve its larger

goal of training and education. The SHF staff and the assistive devices they prescribe help disabled individuals develop the means to pursue employment, recreation, social interaction and a higher degree of independence. Clients also directly benefit from SHF staff being more familiar with a wider range of AT.

2.0 Background

There are a wide variety of events that are designed to help individuals with their disabilities. In this chapter, we will discuss the disabilities and Assistive Technologies (AT) that are the focus of the work that the Seven Hills Foundation (SHF) does. Also, we will provide information about a few general educational events, and events specifically teaching AT. In this chapter, we discuss the specific components involved in carrying out an Expo.

2.1 Assistive Technology Solutions for Disabilities Served by Seven Hills

Seven Hills Foundation (2016a) is an integrated health and human services nonprofit organization. Through their integrated clinical, educational, and community-based supports led by their 3,700 employees, they help people "SEE the possibilities, BELIEVE in themselves, and ACHIEVE their dreams" (Paragraph 1).

2.1.1 Assistive Technology

Assistive technology (AT) is defined as “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities” ([Assistive Technology Program Department of Disabilities, 2016, Paragraph 1](#)). AT is provided through devices and services that were first defined in federal law in the Individuals with Disabilities Education Act (IDEA) of Public Law 101-476 ([United States of America S.a.H.o.R., 1990](#)). AT does not include a medical device that is surgically implanted, or any replacement of such device ([Georgia Department of Education, 2004](#)). The IDEA uses the term “device” to provide a broad

definition, to allow flexibility to refer to a range of assistive technology solutions. Below is a chart that will show the differences between similar low-tech and high-tech Assistive Technologies.

AT Category	Low-Tech	High Tech
Education	Pencil Grip / Adapted Pencil	Portable Word Processor
Communication	Word Prediction Software	Text to Speech
Deaf and Hard of Hearing	Voice Amplification	Speech to Text
Blind and Low Vision	Glasses	Magnifying Software
Mobility	Wheelchair	Electric Wheelchair

Table (1). Examples of low to high-tech technologies. (Autism Adventures, 2011)

High-tech devices are often more expensive and may be controlled through electronic, digital, or computer components. They also may require training courses to understand how to properly operate them. Some examples of these devices are power wheelchairs and scooters, digi-drive technology, voice recognition software, magnification software, and voice activated devices ([Georgia Department of Education, 2004](#)). The digi-drive technology is a machine operated through the use of a joystick made for the disabled individual's fingers. Voice activated devices, such as a telephone, help those who have severe physical disabilities and do not have the capabilities to operate simple devices such as a telephone.

Although these technologies can prove to be more useful to a disabled individual, they can be extremely costly. Low-tech AT devices may be less advanced than their high-tech counterparts, but they still can be very effective. In most cases, low-tech devices require little to no training to use and are relatively inexpensive compared to high-tech devices. Some of these

devices may have electronic or complex components (Riviere, 2003). However, these devices are much less advanced than the complex components of the high-tech assistive technologies.

According to Georgia's Assistive Technology Act Program ([2016](#)), some examples of low-tech devices include reachers and grabbers, specialized grips for writing utensils, manual wheelchairs, audiobooks, alternative computer mice or keyboards, and electronic organizers. Due to the simplicity of low-tech devices and the limited amount of training required to use them, these are typically the devices that most people tend to prefer. These devices are also popular among consumers as they are the better financial choice. "Assistive technology devices are available in a variety of categories to address functional capabilities of students with disabilities" (para 8).

These categories include but are not limited to: Academic and Learning Aids, Aids for Daily Living, Assistive Listening Devices and Environmental Aids, Augmentative Communication, Computer Access and Instruction, Environmental Control, Mobility Aids, Pre-vocational and Vocational Aids, Recreation and Leisure Aids, Seating and Positioning, and Visual Aids, which are all defined in Appendix F (getATstuff, 2016, Paragraphs 3-13). Assistive technology presents itself in a wide range of forms with high and low-tech variants, allowing individuals to make a choice that best fits them.

2.1.2 Assistive Technology Services

Consistent with Georgia's Department of Education ([2004](#)), Assistive Technology service is defined as "Any service that directly assists a child with a disability in the selection, acquisition, and use of an assistive technology device" (Paragraph 24). Assistive technology services span multiple disciplines, which are described in depth in Appendix G. Assistive

technology services are critical to the use of assistive technology devices and their selection.

2.1.3 Seven Hills Superusers

Seven Hills has their own internal staff group that works as superusers. These workers provide services to individuals throughout SHF's network and inform them on how to operate different AT devices. They each can have their own area of expertise in the different areas of assistive devices, or they can just have a broad knowledge on many different types of devices.

According to Steve Kessler of Seven Hills Foundation (Personal Communication, February 22, 2017), "There are no certifications necessary to become a Superuser".

2.2 Contents of an Expo

According to the National Organization on Disabilities ([1998](#)), 29% of all families in the United States have at least one member with a disability. That means roughly 20.3 million families might need or are already using assistive technology. Whether a person has an assistive device or needs one, they need to learn how to use the technology by themselves or by their caretakers. That number does not include the friends, family members, caretakers, assistants, doctors and physicians who need to learn the AT devices as well. With this being said, there is no best option when it comes to educating the public about assistive technology. The Leadership Conference on Civil and Human Rights and The Leadership Conference Education Fund ([2010](#)) provide many different options, like individual training, assistant training, Assistive Technology Fairs, Programs and Expos, online tutorials and more.

Although advances in modern technology have allowed individuals and companies to promote their products and ideas online, hosting an event to promote technologies attracts consumers by appealing to them on a personal level. The Bureau International Des Expositions (2016) defines an Expo as an “event that aims at educating the public, sharing innovation, promoting progress and fostering cooperation” (Paragraph 1). According to Mike Thimmesch of Skyline (2009), Many companies choose to host or participate in Expos to raise awareness of the brand or company, present products face to face, build relationships, develop new markets, and to see what their competitors are doing. WorkWise, LLC ([2016](#)) states that face-to-face interactions are arguably the most powerful way to establish important relationships and demonstrate trust and reliability. This is why many businesses and organizations host expos, fairs, conferences, and fundraisers. Hosting these types of events requires a large amount of

preparation to create a successful event that can meet their goals. In this section, we will provide some of the most important characteristics to know about when hosting these events.

2.2.1 Audience

Identifying the target audience and what type of setting the event should use is crucial to how the audience takes in the information ([Linden & Creighton, 2008](#)). Some events could have an open area with vendors along the perimeter of the space, which is very common for fairs, festivals and galleries. This allows the attendees to explore what is available to them and give them the choice to visit whichever vendors pique their interest. Although the attendees may not go to all of the vendors, they have a strong preference for which vendors that they want to go to.

A different approach would be having vendors in different sections of a venue with the audience receiving a vendor schedule ([Attard, 2016](#)). This forces the audience to visit each vendor, which is advantageous to the vendors, but the audience might not be interested in visiting all vendors. The audience does obtain more information on all of the vendors, but if the schedule gives the vendors a short amount of time per session, then the audience may not have a complete understanding of each vendor's product and its strengths and capabilities. A mix of both organizational types can be seen at conventions and does work fairly well; however, this can be more expensive and needs a larger venue with more vendors. Ultimately, the coordinators of the event should be able to determine what type of audience setting is needed for the event being hosted.

Certain styles of education might work better with some audiences than others. An example of this would be the difference between the Assistive Technology Program ([2016](#)) hosted in Sudbury, MA, compared with the Assistive Technology Fair ([Hrin, 2016](#)) at Penn

State. The Program in Sudbury was open to the public and had the audience sit down while speakers presented different assistive technologies to them. The Fair at Penn State focused more on an audience who would directly try out the technology, so they set up the venue to be more interactive than in Sudbury. Next to each technology booth was a technician ready to explain how to use each technology one-on-one with the user. The Expo at Clarkson University ([2016](#)) targeted special educators, therapists, administrators, disability advocates, service providers, family members and individuals with disabilities. The Expo was the most effective at targeting a large audience because of the various styles of education within the Expo; these styles included those at Penn State and Sudbury plus keynote speakers and a larger venue.

2.2.2 Vendors

Another important detail that needs to be considered are the vendors for the event. The vendors should contribute to the event itself, whether it be with food and water or a technology to display (Woodward, 2017). It would be out of place to have a vendor that does not fit into the overall theme of the event.

Vendors generally want to sell a product at most events, but according to Yaniv Masjedi, VP of Marketing at Nextiva ([2013](#)), sometimes a vendor could be asked to display their business or product to gain publicity or recognition. Vendors could display their products, give a brief description in a gallery or workshop setting, and possibly sell the products. The coordinators would decide this based on what outcomes they wanted from the event (Woodward, 2017). This might involve a compromise with what the vendor might counter-request. There are certain situations where selling a product might disturb the flow of the Expo, for example, if the Expo is tightly scheduled with workshops and information sessions.

Vendors at an AT Expo would be the companies or organizations behind each technology displayed. The vendors at every event all have the same role, which is to present their technology and explain how it works, its benefits and features. At the Low Vision Faculty Host Conference, vendors provided information on low vision evaluations to determine which technology would be best for the user ([Hoogendoorn, 2016](#)). The vendors also discussed insurance coverage for each technology presented. At the Assistive Technology Expo at UMass Medical School ([2016](#)) in Worcester, MA, vendors provided full demonstrations as well as information for doctors, patients, family members and students. If the event had breakout sessions like the Assistive Technology Expo at Clarkson University ([2016](#)), vendors would be able to speak more in detail during their session. The more time a vendor has to talk about their technology, the more information that can be provided to the audience.

Seven Hills Foundation staff have also commented on how technology today is far more flexible than in the past (Jean Des Roches, 2016). Today, thanks to competition and advances in technology, vendors competitively offer products that provide less expensive alternatives than others. For example, Seven Hills heavily referenced the Amazon Echo as a viable and cheaper alternative to Smart Homes, a newly emerging trend among AT consumers.

Vendors should also be initially separated into categories based on what disabilities their technologies serve (Planetizen, 2016). Taking this approach would not only attract a broader audience with varying needs, but it would also allow the audience and staff to compare devices and make their own judgments of each vendor's devices relative to other vendors.

2.2.3 Speakers

There are different types of speakers who could be needed for any type of event (Talent, 2015). For example, A Master of Ceremonies, or MC, controls the general event and the filler speaking portions such as welcoming remarks, introductions of speakers, and announcing breaks and transition times. If the event is mainly a showcase with constant speakers or special shows on one stage, an MC would be necessary.

Keynote speakers ([Hourigan, 2016](#)) are the most important speakers at an event. This speaker is the one who draws the whole event together and reveals why the event came to be by addressing any problems or ideas that would have sparked the need for the event (Talent, 2015). Keynote speakers are typically the most expensive speaker as they have a lot of background knowledge on the subject of the event and are usually well known for their work on the subject. Keynote speakers require strong communication skills so that they can capture the public's attention within a short period of time while being able to touch upon every point that is necessary for the event.

According to Mike Hourigan ([2016](#)), a professional keynote speaker, another type of speaker is one that usually comes along as a vendor and speaks about their product, if requested. These vendor representatives would give a short or long presentation depending on how much time is set in the schedule for the vendor. Typically, at Expos there would be multiple vendors speaking simultaneously in different locations to give the public a more flexible approach to the vendors and the information that is important to each attendee.

Speakers can be a principal part of an event if the goal is to inform the audience about the importance of AT. for example (Talent, 2015). Speakers could be the main attraction of the whole program and not only control the flow of the event but also inform, educate or inspire the

audience in a certain way. The Assistive Technology Expo at Clarkson University ([2016](#)) was a two-day event with multiple speakers, and a keynote presentation having a special keynote speaker, Therese Willkomm, Director of ATinNH. However, a keynote speaker is not necessary at all events. The Assistive Technology Expo at UMass Medical School ([2016](#)) did not have a keynote speaker but did have multiple speakers for different assistive technologies related to autism, stroke, and aging. The Low Vision Faculty Host Conference also boasted having multiple speakers that all gave information on many different types of AT for the visually impaired without requiring a keynote speaker ([Hourigan, 2016](#)).

2.2.4 Incentivization

According to Harold Stolovich (2010), properly constructed incentive programs can increase performance by as much as 44 percent. Setting an incentive may engage participants more, thus improving the performance of the desired outcome. An incentive program would need to be planned thoroughly in order to fit the problem's needs (Stolovich, 2010). Adam Ramshaw of Genroe (2015) has explained a few different incentive plans that are used in events. One such incentive is a lottery. A lottery incentive is when participants receive a chance to win a prize by completing a certain task. This approach might be more difficult as it requires registration. If the task requires the participant to register, though, the impact is almost the same as conditional fixed payment (2015). This is also confirmed by a trial run by Health Services Research (2011).

House Officers' Web-Based Survey

Incentive	% Assigned to Arm	Response Rate, <i>N</i> (%)
Lottery [*]	50	183/358 (51.1%)
Conditional fixed payment [†]	50	223/400 (55.8%)
Total		406/758 (53.6%)

Table (2). Health Services Research survey results (Halpern, Kohn, Dornbrand-Lo, Metkus, Asch, Volpp, 2011, pg 1669).

2.2.5 Biotech Vendor Product Show

We visited one such Expo at WPI Gateway Park in early January, the Biotech Vendor Product Show. Professor Kasouf notified us of this Expo through an email flyer that he received. This Expo was spread around the main floor lobby with vendors lining the perimeter of the room. We visited this expo to get a first hand experience of an expo, and to also gather information about how an expo is coordinated. We spoke to many vendors and coordinators who gave us some insight into the duration of planning the event. Vendors have told us of applications or requests ranging from 1-8 months, sometimes longer. For this specific expo, companies applied to be vendors four months in advance of the actual date. This expo also did not seem lacking or empty without a speaker.

2.3 Assistive Technology Organizations

Seven Hills Foundation, Inc. ([2016e](#)) is the parent organization that anchors eleven individually operating affiliates. They provide the functions of business, human resources, facilities maintenance, information technology, construction, marketing, communications,

fundraising, and the Office of the President. Each affiliate organization is a separate 501(c) 3 non-profit, which is led by an Executive Vice President. Although Seven Hills Foundation encompasses all of these organizations, only a few actually work primarily with individuals with disabilities and assistive technology. For a complete list of affiliate organizations, please see Appendix B. We will now describe those affiliates that directly work with disabled individuals.

One major affiliate organization is the Seven Hills ASPiRE! ([2016c](#)). ASPiRE! offers innovative and creative programming that provides opportunities for individuals with intellectual and developmental disabilities, autism, and brain injury to develop skills necessary to pursue interests in employment, recreation, and social interaction. Seven Hills designed the ASPiRE! model to help individuals enrich their lives, broaden core competencies, and enjoy a full range of activities while cultivating a network of community relationships. All services are person-centered and promote community integration—helping each person optimize his or her personal, social, and vocational competency to live successfully in the community. ASPiRE! Consistently hosts programs and workshops divided by age (child, teen and adult) to assist the participant's integration into schools and the workforce by giving them the tools that they need to build the relationships necessary to succeed, depending on their specific life struggles.

Seven Hills Community Services (SHCS) ([2016b](#)) supports individuals with disabilities to live in various residential arrangements. The goal of SHCS is to provide each individual with a comfortable, safe and beautiful home while keeping him or her closely connected to family members, friends and the community. SHCS has branched out to provide residential arrangements in more than 50 communities in Massachusetts to please their participants and also spread their influence to a larger area for their expanding services.

Seven Hills Family Services (SHFS) ([2016b](#)) offers a network of services to families and loved ones with disabilities to further expose them to social interaction, friendship, residential and day supports and personal achievement. SHFS hosts multiple programs including Shared Living and Adult Family Care, Sports, Recreation & Leisure, Respite, and much more to ensure that the people with disabilities are achieving the highest quality of life with and without their assistive technology.

Seven Hills Rhode Island (SHRI) ([2016b](#)) supports more than 1,000 children and adults with various disabilities throughout Rhode Island. SHRI has a wide range of programs and services that include day habilitation, rehabilitation, behavioral health, workforce training, placement and support, and recreation. Through the use of AT, the staff are able to effectively change the lives of the individuals they serve so that they are able to become as independent as they can in their day to day lives.

2.3.1 Similar Organizations

Easter Seals ([2016](#)) is a very well-known organization that provides resources and services for people of all ages with disabilities. The services of Easter Seals are specifically designed to meet individual needs through a team of professionals who are ready to help on a one-to-one basis. They also welcome family members to participate in any programs to support the families and also provide important information to best help their loved ones.

United Cerebral Palsy (UCP) ([2016](#)) is an organization that provides support services to individuals with a wide spectrum of disabilities aside from Cerebral Palsy. One of the more important services that they provide is financial assistance. They provide financial support to any individual who fits the requirements and also the mission of ensuring a life without limits.

UCP focuses on advancing independence and productivity through their direct services and affiliate network. UCP has previously helped millions with disabilities reach their optimum life potential.

Parents Helping Parents (PHP) ([2016](#)) is a nonprofit organization that directs their information and services to the parents of disabled individuals. PHP provides information, support services and multiple different training sessions for these families to build a supportive and motivational group for each other, and provides assistance with choosing the right AT as well as funding for eligible individuals.

2.4 Summarization

According to Hector Torres, “Biomedical engineering is expected to be the fastest growing occupation, with a whopping growth project of 72% between 2008 and 2018, according to the Bureau of Labor Statistics”(Torres, 2010, Paragraph 1). This is because biomedical engineering encompasses both technology and health care, two growing industries within the U.S. economy. With both of these industries constantly growing, AT is constantly released. Keeping up with this rapid pace is a challenge that organization such as Seven Hills Foundation faces. A recent research team from Worcester Polytechnic Institute (WPI) tried to solve this issue ([Bingel, Cornwell, DiMilia, Meersman, & Ngoc, 2016](#)). They created a database that allows for anyone with access to it to log in and search for almost any AT. Once one finds the AT they are looking for, there is a link to more information about the device. At the link there are photos, a description, and a hyperlink to a website where one can purchase that exact device. Although this has been very useful to SHF staff, it did not fully solve their problem.

Along with this, SHF ([2016d](#)) has tried to get their staff and the public educated on how to use AT through the use of many different events that anyone can attend. These events include workshops, clinics, family nights, support groups, educational events, family support on the go, and an education series. All of these are ways in which SHF promotes their cause and tries to address their mission. At some of these events, there are interactive learning sessions for anyone interested. This gives the attendees the opportunity to learn how to operate different AT devices. In the description of the events, SHF discusses the different disabilities that each event would cover so staff and the public can decide which events to attend. SHF ([2016a](#)) holds these events multiple times every month, so this allows people to come when they want and not be forced to come because the event was only held once. In order to let the public know when these events are, SHF uses social media pages, such as Facebook and Twitter. SHF uses these pages not only for promoting events, but also promoting their cause to educate the public on the new AT devices that become available. In doing so, the public and staff at SHF also have the information on when the events will take place where they can learn how to use new AT devices. Although SHF is working hard to eliminate the problem of staying up-to-date on how to operate new AT devices, they have not fully solved it. The learning events that they hold address this problem, but they have been looking for a more effective way to accomplish this. Holding an Expo may be one way to do this. In the next chapter we will describe how we went about helping SHF decide if an Expo is the best way to accomplish their goal.

3.0 Methodology

This project had one central goal: to provide a means to keep Seven Hills' staff, clients, and the general public informed about the latest developments in Assistive Technology while optimizing costs and offering points of interaction for attendees. The Seven Hills Foundation, for some time now (reference to Rhode Island SHF Expo), has decided that the best way to do this would be with an Expo showcasing various AT. An Expo in any field typically takes 12 to 18 months to plan, so given a 7-week timeline working with Seven Hills, our objectives became to (1) help SHF plan and host a pilot Assistive Technology Expo at their Worcester location. This would provide insight into whether or not a future Expo might be successful based on our collective experience. And (2) to provide Seven Hills with database that housed information they could use to more effectively host future Expos. We decided to use a Google Site as our platform for the database. By using a Google Site, we were able to synchronize it with all of our surveys and other information hosted on Google Drive, to act as a hub for contact lists, planning documents, survey statistics and inferences, interview transcripts, cost analyses, and the like.

To accomplish these objectives, we had four different sub-objectives that led to the Expo and its evaluation. These objectives were establishing the scope of the Expo, determining vendor and speaker interest and availability, completing a cost analysis and logistical arrangements, and laying the foundation for potential future Expos.

Establishing the Scope of the Expo

In order for a pilot Expo to successfully come together in the short time we had, we decided it would be best if the Expo were largely staffed and promoted within Seven Hills and by organizations that already had a working relationship with SHF locally. Our team originally planned on identifying the disabilities or the AT that the Seven Hills Foundation worked with most frequently in order to dictate what and who would be featured in the Expo. Since the reach of their organization is so vast and Seven Hills helps individuals with a wide range of disabilities, there was no shortlist of disabilities or Assistive Technologies that they worked with. Instead, we decided the Expo would be best organized if we found vendors that satisfied different broad categories of disabilities and their respective assistive solutions (i.e. sight, hearing, home automation, etc.). With this approach we were able to move forward in identifying vendors and organizations that met those criteria. We compiled contact information for all vendors with local offices who had a relationship with Seven Hills, and placed that information in our Google Site database.

Finally, there was a promotional effort for the expo. Working with Seven Hills' Development Department, we made drafts of fliers and banners to advertise the Expo using their approved image assets. Afterwards, Development's graphic designer Peter Demko (see Appendix D) made finalized versions of our fliers and banners that matched Seven Hills' media standards. These advertisements were dispersed by Development using Facebook, Instagram, Twitter, Constant Contact, and their smart televisions. We strategically placed fliers around the WPI Campus Center and spoke with professors and students at Worcester State

University, Clark University, and Worcester Polytechnic Institute who were affiliated with either Biology, Engineering, or Computer Science. The Development Department created an online portal for attendees to RSVP for the Expo, using software they have used in the past. Having attendees register through this portal provided us with a list of people who were interested in attending an AT-related event and might be again in the future. Having people RSVP for the event also gave us an indicator for how many gifts we should purchase to give to attendees upon entering the Expo. Based on our projected attendance, we decided that 200 sling bags could cover expected attendees, and would not be cost prohibitive given our budget.

We also decided that having a workshop at the Expo would offer a point of engagement for attendees, and would leave them with another item to take home to remember the Expo by. In keeping with the theme of the Expo, we decided that the workshop would teach attendees how to construct a low-cost, low-tech do-it-yourself(DIY) assistive device. That way any attendee could walk away with a piece of AT that they created, could appreciate, and perhaps even use themselves. Since the items were low cost, if an attendee discarded the item the loss would be minimal. Steve Kessler, the Seven Hills Foundation AT Specialist (see Appendix D) provided us with the book Assistive Technology Solutions in Minutes: Ordinary Items Extraordinary Solutions Book II by Therese Willkomm, PhD, ATP. ((REFERENCE)). Using this book we had several options for low cost, easy to construct items that could be featured in our workshop. We ultimately decided that creating a battery interrupter would be the best because people would be able to attach it to any consumer electronic device that used a battery, and the item was a real, working smart switch that someone with a disability might be able to use. In addition they were cost efficient-- enough materials for *over* 300 complete battery

interrupters was about \$75. Since there were so many options for low cost and low tech DIY assistive devices, the book was also on display at one of the Expo stations for attendees to freely look through, in case they saw anything that might be of use to them or others.

Establishing Vendor Attendance and Interest

The Expo also had the intention of informing those within the AT community as to the latest innovations in Assistive Technology. To accomplish this, we identified common categories of disabilities with AT solutions, and sought out vendors and devices that could represent each category.

In order to understand what vendors look for in an Expo, our team attended an Expo for Biology firms at the WPI Gateway Building, at the recommendation of Professor Chickery Kasouf. Each team member spent about a half hour talking to representatives about how many Expos they annually attend, turnaround time for deciding whether or not they would be able to attend an Expo, and any associated costs and benefits. The most often repeated message from this Expo was that vendors were typically booked in advance, and that if their schedule happened to be clear, depending on the Expo, a group might decide to attend an event that same day. With this in mind, we decided that we had to immediately move forward with reaching out to vendors given our very narrow timeline.

The list of contact information for vendors that we created was already filtered on the criteria that they had some sort of working relationship to SHF and were local in some way. In addition, this list of vendors satisfied the broad categories of AT we had hoped to represent at

the Expo. We drafted one universal email introducing potential vendors to the Expo and requesting their attendance. Working with Seven Hills staff, we decided which vendors *we* should reach out to with this email, which vendors SHF should reach out to, and which vendors we could expect timely responses from. Having SHF staff contact vendors was meant to expedite response times, since an email coming from someone working at Seven Hills has a much lower chance of being ignored and the recipient would know it was official. Seven Hills staff had their own personal connections within the AT industry and would take full initiative in contacting those individuals. After eliciting a response, we would be copied into an email and take over further correspondence.

While the Development Department was hosting an online portal for attendee registration, our team designed and hosted a portal on our Google Site for Seven Hills' Superusers to choose which booths at the Expo they would like to staff (see Appendix **M**). This allowed volunteers to easily choose which session(s) they could work and what technology they were familiar with enough to demonstrate. Recording this information in our database will allow SHF to know which Superusers were familiar with which devices, and who might be interested in staffing a similar event should they host an event in the future.

Since the Expo was on a weekday, Seven Hills staff had to find coverage for their daytime obligations. Upper-level management supported the event and sent emails encouraging Superusers to staff the Expo and get coverage. Where possible, management did what they could in order to facilitate Superusers receiving this coverage.

As vendors and Superuser volunteers began to confirm their attendance for the Expo, we added them to separate email aliases in order to push weekly updates every Friday via email. We

did this so that leading up to the Expo, we could create a consistent line of communication and have no one feeling left in the dark.

Cost Analysis and Final Logistics

As we planned the Expo, given that SHF's own office space served as the venue all of the costs were within Seven Hills' \$2,000 budget, with costs totaling \$1,333. In addition, there was the absorbed cost of the additional power draw for stations that needed it during the Expo. For a breakdown of all costs for hosting this Expo, categorized as food, giveaways, and signage, please see Appendix N. Being able to look back at the costs for this Expo will be valuable to Seven Hills, as they can use their judgement on which costs were and were not justified.

Early in the project our team reached out to Seven Hills staff members Mike Kendrick and Ed Doucette (see Appendix D) in order to receive a floor plan of Seven Hills' bingo hall. Our team then overlaid our thoughts for the Expo's layout, stations, and our projected flow of attendees. Later in the project when the attending vendors were finalized, we used one of our weekly updates to ask vendors how much space they would need, if they needed a power source, and if they needed other special accommodations. This information directly affected the layout of the Expo. Once all vendors had sent their needs to us, we were able to make one final layout. We then worked with SHF's marketing team in order to make a version of the layout that would be given to attendees upon entering the Expo (see Appendix K) so that they knew the location of vendors and what was happening in what spaces. This layout was a part of a larger pamphlet that was given to attendees at the door (see Appendix L) that had more

information about the vendors in attendance.

Final logistics then included creating signage to note entrances, exits, bathrooms, curbside foam signs, and wordcloud banners for the venue, ordering table cloths, and making table-tents to mark vendor tables. The cost for all signage was \$44, plus an additional \$8 so that every table had a table cloth. We pushed weekly vendor updates every Friday so that vendors were constantly aware of the status of the Expo and could reach out to us at any time with questions or concerns.

Laying the Foundation for Future Expos

Lastly, our team provided the Seven Hills Foundation with attendee feedback about the Expo, since this was a pilot event and feedback would determine the potential for future events. Team members had rotational positions during the Expo and asked participants questions to understand where the Expo had succeeded, where it may have fallen short, and how it could be improved. Drawing on our experience talking to vendors at the Gateway WPI Expo earlier in the term, and using metrics such as comparing registered versus actual attendees, average time spent at the Expo, and asking individuals how engaged they were and how much they learned from the Expo, we offered a variety of criteria that might indicate whether or not this Expo was a success. Additionally, we each took time to participate in the Expo ourselves to experience and critique the event ourselves.

We also used iPads provided by Apple and Seven Hills to host an exit survey (see Appendix E). We chose iPads since they offer a fast, user friendly interface. In this survey we asked attendees if they were willing to answer more of our questions in the future. If they

agreed, their information was recorded and placed in our database. We then contacted 13 individuals who were willing to offer more of their opinions via email. In this email, we thanked them for their participation and made it clear that the Expo was a pilot event. In this email was a link to questionnaire with six short answer questions asking why they attended the event, and how we future Expos could be better. We let respondents know that their feedback regardless was very appreciated, but they did not need to feel pressured to answer all of our questions. Like everything else, this information was also turned over to Seven Hills in the website database we made for them.

Finally, we conducted a brief meeting with two members of the Seven Hills Expo Team. In this meeting we recapped the site's features, and provided additional insight into changes in its contents after the Expo. In addition, we provided a manual on how to use and edit the site, all of its contents, and everything we produced (such as surveys and sign up forms) so that anyone on the staff could use them themselves.

Throughout our project our team successfully hosted an Expo that was open to the public and SHF staff, and turned over a database to Seven Hills that will allow the planning of future Expos to be more streamlined. This was made possible by working closely with Seven Hills' Development and Marketing teams, in order to make sure that the rollout of this Expo was in line with their standards. Our team researched past Expos and trade shows, and drew on those events and the experience of SHF staff who had been involved in creating or attending Expos in the past. Our methods hinged on engaging all parties involved, and constantly updating them. Though the Expo was an enjoyable event with high vendor and attendee turnout, especially given its timeline, the question of whether or not an Expo was the *best* solution given its costs still

remains. We will discuss these and other results in the following chapter.

4.0 Results & Analysis

Our project's goal was to provide the Seven Hills Foundation with a means to inform the general public, their clients, and their staff as to the latest happenings and offerings in Assistive Technology. To do so, our project team followed a course of methods detailed in the previous chapter and worked very closely with SHF staff. Though the execution of our methods did result in a timely event hosting attendees and vendors, there are actions we could have performed differently in retrospect *and* the success of this event is yet to be discussed.

In this chapter we will discuss the results of the Expo, the uses of the database, results of surveys from the vendors, staff, and attendees, and all Expo planning results. Afterward, we will offer our recommendations based on those from attendees, vendors, and the Expo Teams. Should Seven Hills decide to host another AT event, these results and our recommendations should make for an event that is even more well received.

4.1 Expo Planning Results

The planning process for this Expo was a constant decision-making process. Working with Seven Hills, we narrowed our options and were able to arrive at decisions on a range of the Expo's components. In this chapter, we will discuss the results of choices concerning advertisement, speakers and vendors, the Expo's layout, attendee registration, and volunteering. Each had many proposed options that changed over the course of our project before taking their final forms.

4.1.1 Contacting Potential Vendors

After compiling a large list of potential vendors, SHF staff informed us that the Expo should represent a wide variety of AT. We filtered the extensive list of vendors we had already identified based on two criteria. First, we decided that the most productive way to group vendors would be based on what assistive solutions they could provide-- such as home automation devices, solutions for the sight or hearing impaired, devices for motor impairments, etc. This left us with a batch of vendors whose attendance would appeal to a wide audience; whether it be a SHF staff member, someone seeking a new device, or a casual attendee. Second, we opted for vendors by choosing only those who already had an existing relationship with SHF. Together these criteria led to the creation of a shortlist of vendors to contact for the Expo. In the process of reaching out to potential vendors, we sent emails to the companies we had identified on our shortlist, beginning on January 25th.

Our decision to only reach out to companies that the Seven Hills Foundation already had a relationship with resulted in fast responses, with Perkins School for the Blind confirming their attendance on that same day. Within one week, all 11 vendors that we reached out sent us a firm response, with the last being Kurzweil on February 1st. With four weeks' notice, only one vendor (UMass Lowell) was unable to attend our Expo, but they were still interested in the event and decided to come as an attendee.

4.1.2 Speaker Decision

In the original planning process, we had planned for there to be a keynote speaker, Jared

Grier of the Grier Strong Foundation. We decided against it for two reasons. First, Jared is a full-time student at WPI and the date Expo created a conflict with his academic schedule. Secondly, we believed that introducing a speaker would create confusion and disturb the flow of attendees. In the extended survey we sent to attendees who were willing to answer more of our questions, when asked about the possibility of a future Expo, one respondent said “I like the drop in and and take your time approach.” The Expo also had one session that was high volume and one that was very low volume. Trying to rally attendees around a speaker could have proven difficult.

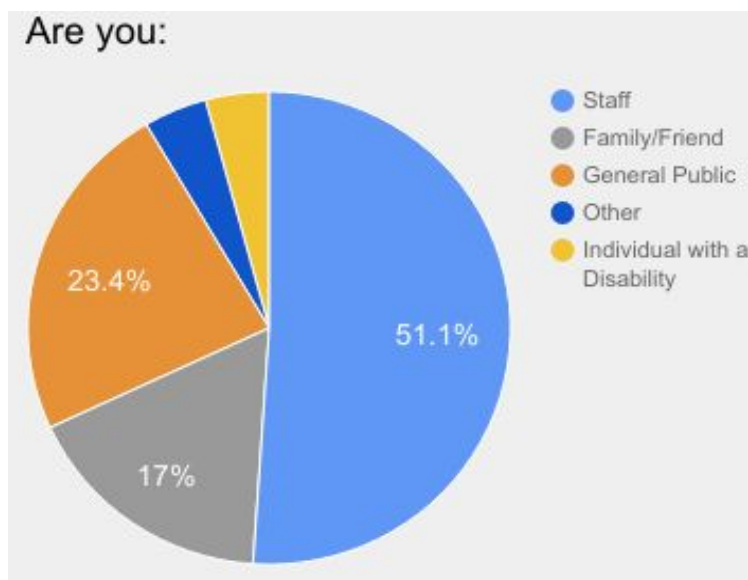
4.1.3 Expo Registration Page

After a meeting with Development, we discussed what information should be on their registration portal for attendees to RSVP for the Expo. We came to the conclusion that it would have first and last name, email address, how many guests they would be bringing, and which session they would be attending. This allowed us to calculate exactly how many people would be coming to each session of the Expo. Attendees could pre-register as many as 10 guests at a time, but only the person filling out the form had to include their information. As a result we were only able to capture that person’s information through this form. Sign in sheets were in place for at the Expo for both walk in attendees, and guests who had not registered themselves. Using the online portal there were 92 pre-registered attendees the night before the Expo.

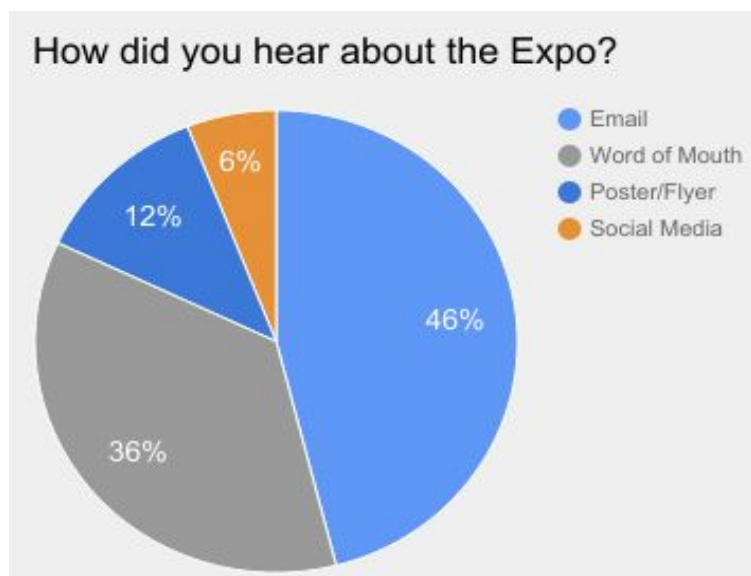
4.1.4 Attendee Demographics

After examining the results from the exit survey, we gathered various information

regarding the demographics of the attendees at the Expo. As per the graph below, we discovered that most attendees were Seven Hills staff, followed by the general public and family/friends.



This shows that most of the attendees were Seven Hills staff. We also discovered that between all methods that development used to advertise the Expo, most attendees heard about the Expo through email. The fewest attendees heard about the Expo from social media. This shows that email was the best way to communicate the Expo.



4.1.5 Gathering Seven Hills Superuser Volunteers

As we planned the Expo and what stations the SHF Superusers would have, we needed to find out which Superusers had more experience with certain devices so we could request them for those stations. To do so, we designed and hosted a portal on our Google Site for Seven Hills' Superusers to choose which booths at the Expo they would like to staff (see Appendix M). After collecting responses, we decided that the Superusers would staff stations for augmentative and alternative communication, assistive hearing, low-tech devices, the myGaze, smart home solutions, and a table dedicated to recruiting Superusers.

Superusers were able to work stations at the Expo after receiving coverage from their usual obligations, which was encouraged by upper level management. Even so, we did not have volunteers for 3 stations in the afternoon. At two of the stations, the resident Superusers stayed longer than they had planned in order to fill the vacancy. The VP of Seven Hills ASPIRE!, Joe Realbuto was also in attendance. He was excited about an annual AT Expo, so it may be that

those seeking coverage for future events have more support or incentives from management.

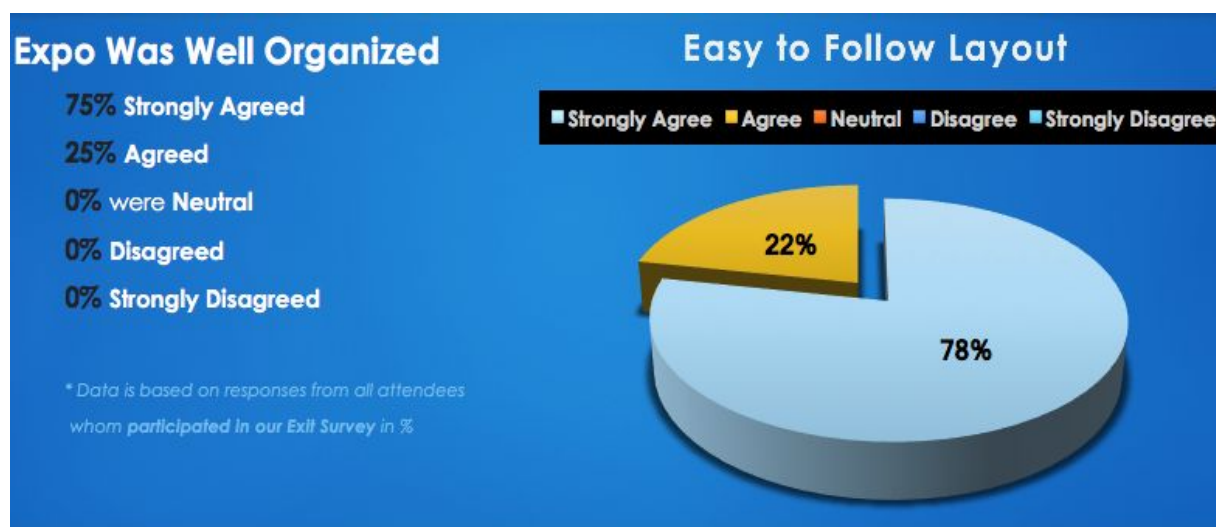
4.1.6 Gathering General Volunteers

Along with the Superuser volunteers, we needed gather more volunteers to run stations such as the battery interrupter workshop, registration/check-in tables, and to have individuals on standby for general help. We requested any Seven Hills staff available volunteer at the Expo, especially for the breakdown of the Bingo Hall. After several days, we only had a handful of SHF staff who were able to volunteer, so we decided to try to find volunteers from elsewhere. Chau told us that her organization, the Southeast Asian Coalition (SEAC), had many volunteers available that needed volunteer hours for various reasons and were willing to help. After contacting them, we received confirmation from 18 volunteers that were willing to come to the Expo for general help. They were placed at the registration/check-in station, the battery interrupter workshop, and also in the hallways to direct people into the Expo.

4.1.7 Expo Layout

After confirming how many vendors would be in attendance and how many needed to be connected to a power source (the only limiting factor in determining a layout) we began creating mock layouts for the Expo. As we gathered this information from vendors and began to have more pre-registered attendees, the proposed layout continuously changed. Once this was finalized, we sent our designs to SHF's Development Department so that they could incorporate it into a handout for attendees. This allowed attendees to find out what vendors were at the Expo and where they were located so that they could go to the stations they were most interested in. Upon entering the Expo, many attendees looked at the Expo map and planned their time based

on which vendors or products they were most interested in. One attendee was even able to find a product that her son used to use, but had broken, saying “They had a tool that my son used to use but that got broken--flexible rubber strap that wraps around hand and can assist him in holding marker or pens in place so he can manipulate them. I haven't been able to locate these to order more so I was able to get that info.”



All in all, all respondents to our exit surveys ‘agreed’ or ‘strongly agreed’ that the Expo was well organized, and its layout was easy to follow. We also placed the tables with wheelchair clearance in mind, and a notable amount of attendees were wheelchair bound.

During the Expo, we noticed an issue with the location of our exit survey table. We wanted the table to be placed such that all attendees would pass it on the way out. However, there was a gap between the snacks and beverages table where attendees could unknowingly bypass exit survey and leave. This meant that we missed many opportunities for feedback. We solved the problem temporarily by moving garbage cans there so attendees could not walk behind the exit survey, and began to see more responses. We also did not take those with special needs into full consideration when designing our exit surveys, and only received one response from a person who receives care from Seven Hills.

4.2 Expo Results

During the Expo, we informally spoke to vendors, attendees, and staff and asked them various questions about the Expo. We also asked attendees to complete exit surveys. A number of them were genuinely interested in submitting further feedback and were willing to follow up with us to answer even more questions about the Expo. We also sent a post-Expo survey to all participant vendors. Their responses will be explained in detail in the following sections.

4.2.1 Expo Attendee Outlook

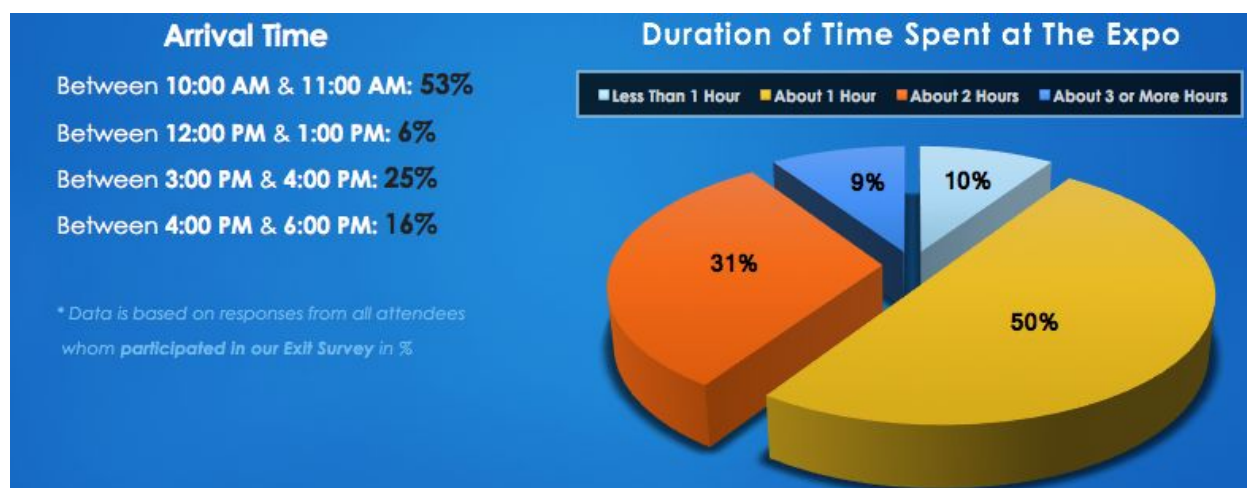
In addition to the exit survey we had at the Expo, we sent out more questions to individuals who said they would be interested in answering further questions. These individuals felt strongly about our Expo, and wanted their feedback to be taken into consideration for future events. Even so, we were able to draw many conclusions from our standard survey as well.

One notable attendee was Judy Fask, who is a transition rehab specialist for Worcester

Public Schools and a professor at the College of the Holy Cross. She came and extremely enjoyed the Expo as she works with individuals with disabilities and has been a exhibitor at previous events and Expos. After speaking with her, she offered us a range of feedback about our Expo. In addition she offered recommendations that will be discussed in Chapter 5.

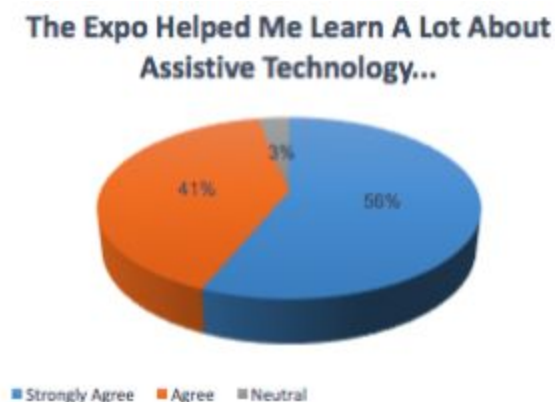
Another notable attendee was a mother whose son has severe cognitive disabilities and receives care at a Seven Hills facility in Groton, Massachusetts. She brought him with her to the afternoon session. She went to each station with her son and was thoroughly interested in learning about the latest offerings from each organization. We had a conversation with her while she was completing our Exit Survey. She felt that for *her* needs, being able to speak with vendors individually and at length was a better experience than the heavily active, full Expo that attendees experienced in the previous session. In the Post Expo Attendee survey (see Appendix E), she explained, “My son doesn’t understand instructions but they had everything set up so he could link up to [the myGaze] software and I could see that, with some help, it might work for him.” In addition to this case, there were a number of attendees who found themselves more attracted to the booths that were interactive.

Our exit surveys asked attendees how they felt about the Expo’s layout, how well it was organization, how much they felt they had learned, if they enjoyed themselves, the length of their stay, and if they would come to another Seven Hills Expo. Their options ranged from ‘Strongly Agree’ to ‘Strongly Disagree.’ When asking questions about the Expo’s execution, there were no negative responses. The next page contains all of the survey compiled between sessions.



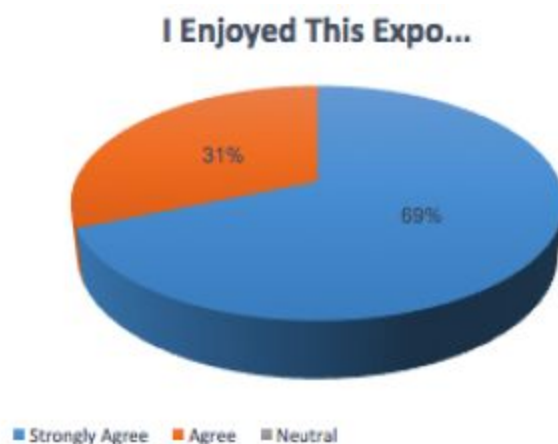
The first graph is in regards to what time the attendees arrived and how long their duration of stay was. The first Expo session went from 10 AM to 2 PM, and the second from 3PM to 7PM. We found that most attendees arrived within the first hour of the Expo and stayed for about an hour to two hours. Over 10 attendees arrived before the Expo had opened, and at its peak, there were well over 100 attendees on the Expo floor at one time. This foot traffic was sustained for about 90 minutes.

This next pie chart displays how much the attendees felt they had learned about AT from coming to the Expo.



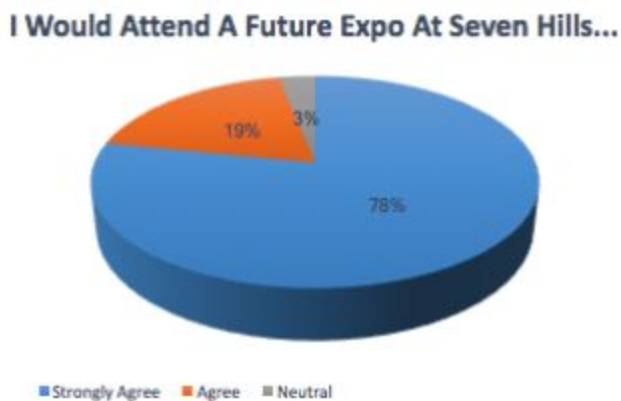
After reviewing the answers for this question, over half of the attendees strongly agreed that they learned a lot about Assistive Technology, and 97% answered that they had learned a lot about Assistive Technology from this Expo.

The following graph offers insight into how much the attendees enjoyed the Expo.



Looking back at the responses we received, every respondent felt that they enjoyed themselves at the Expo.

One of the more important questions we asked was if the respondent would be willing to attend future Expos hosted by the Seven Hills Foundation.



97% of the attendees who completed our Exit Survey would come to future Expo at Seven Hills. Since this was a pilot event, this is a direct indicator of the potential success rate for future Expos.

4.2.2 Expo Vendor Outlook

While we were talking to the attendees, we also spoke with vendors to better understand how they felt about the Expo throughout the day. Every vendor was excited to be at the Expo and enjoyed working with attendees who were genuinely in AT and what the vendors had to offer. Multiple vendors approached us asking to be registered for next year's Expo not knowing that the event was a pilot.

The vendor representing REquipment, Roxy Rocker, stated that while discussing the Expo with her organization's board and Massachusetts State Senator Harriette Chandler, her board was thrilled to be a part of the Expo. Senator Chandler was also very excited about the event and remarked that AT-oriented organizations should work more closely with WPI and its engineering programs. After the Expo, we sent a survey to all of the vendors. The results are below.

The graph below represents the vendors views for the expectations for the Expo.

Our Expo met or exceeded every vendor's expectations. This means that for a vendor who regularly participates in Expos, this event at least met their expectations for professionalism and execution. Interestingly enough, more vendors said that their expectations were met rather than exceeded. This shows Seven Hills that though the Expo is unanimously supported, it can be improved upon. We believe this is in part due to the long sessions with significant downtime. But as articulated by the representative for Perkins School for the Blind, Erin Fragola, oftentimes Expos are exclusively downtime and attendees are uninterested. With shorter sessions, vendors would have had to plan to obligate less of their time, and would have been able to enjoy constant high-energy foot traffic, which was the case for the first 90 minutes of the morning session. Even so, attendees and vendors enjoyed being able to spend more time with attendees to have more intimate conversations.

The next graph displays the responses from the vendors in regards to how well the Expo was executed on a scale of 1 to 10. A 10 means the Expo was perfect, a 1 means the Expo was extremely poor.



All vendors had responded with at least a 7. There were a few 10's, but most vendors felt the execution deserved an 8. This information is valuable as it was a pilot event and it shows that Seven Hills' Expo came together well.

The final question we asked was whether or not the vendors would come to another event at Seven Hills.



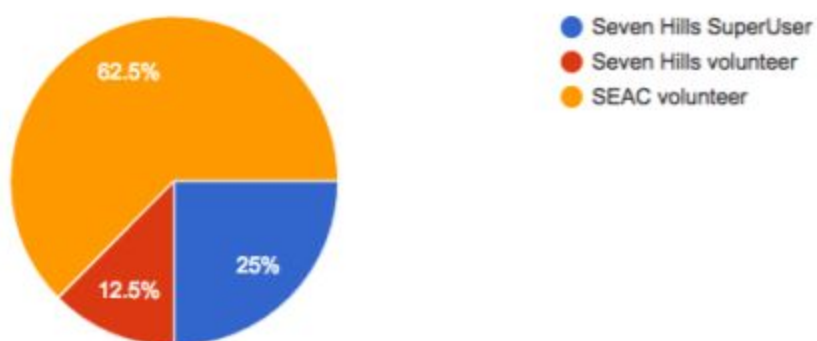
This shows that all of the vendors would be interested in coming to future events held by Seven Hills. In future events, these vendors will be the advocates who push for participation. For Seven Hills they can be seen reliable and immediate go-to contacts.

4.2.3 Expo Staff and Volunteer Views

We had three sources for volunteers: Seven Hills Superusers, Seven Hills staff, and volunteers from SEAC. As these individuals had different roles and perspectives; both among one another and compared to vendors or attendees, we considered their input valuable and one that should be surveyed independent of other groups. Volunteers from the Seven Hills Foundation mostly demoed devices, helped facilitate the Expo, and helped with the snacks and beverages. The SEAC volunteers helped register attendees, staffed the battery interrupter workshop, and guided the attendees through the Expo when necessary. After the Expo we sent a survey to the all volunteers to get their feedback. Below are their responses.

The first question asked what the respondent what they identified as.

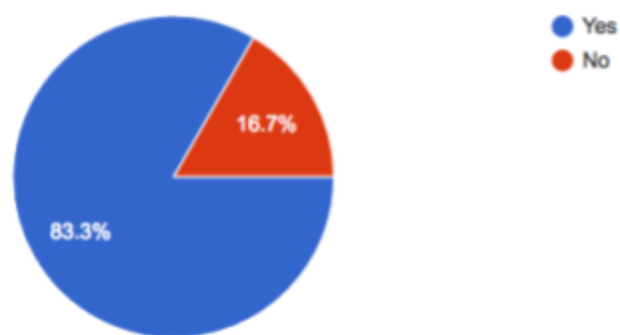
Are you a...



Knowing how many respondents came from each organization should be taken into consideration when interpreting the results to later survey questions.

Our next question asked respondents whether or not the Expo exceeded their expectations. The survey was programmed so that only SHF Superusers and SHF volunteers were able to answer this question.

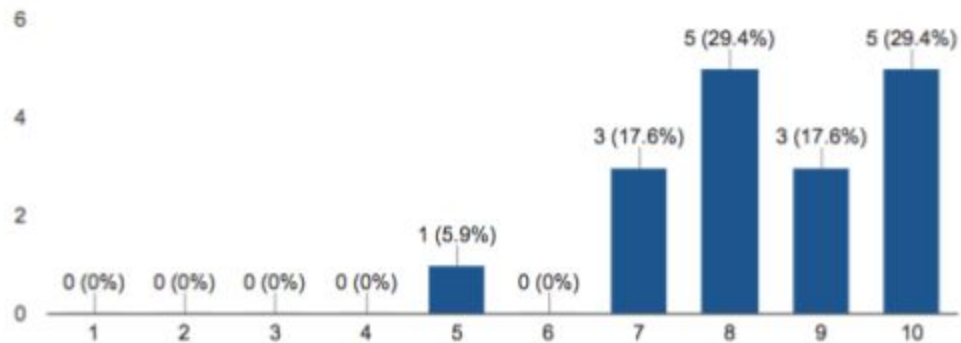
Did this Expo exceed your expectations?



More than $\frac{3}{4}$ of Seven Hills' own volunteers felt the Expo exceeded their expectations. Since this was a pilot event, it is important to quantify whether or not participants (especially SHF staff who might help host the event in the future) felt the event came off as a legitimate Expo that represents Seven Hills' potential.

The following graphic represents how well volunteers felt the Expo was executed on a scale of 1 to 10. This question was asked to all volunteers.

On a scale of 1 to 10, how well do you feel this Expo was executed?



As the data shows, there were responses ranged from 5 to 10. 94% of respondents rated the Expo's execution as a 7 or higher, so one might consider the score of 5 to be an outlier. Even so, it should be taken into consideration and is a reminder that there is room for improvement despite the Expo widely being well received.

Finally, we asked all of the volunteers if they would be interested in volunteering for a future event or Expo with Seven Hills.

Would you be interested in volunteering for another Expo with the Seven Hills Foundation?



Every volunteer said they would come back to another event or Expo held by Seven Hills. This shows Seven Hills that they have support for volunteering in the future.

After gathering all of this data, Seven Hills can see that they have support from every party involved in the Expo. Given that the response was largely positive across groups (attendees, vendors, and volunteers internal and external to SHF), Seven Hills may largely consider this event's participants to be reliable partners, as these groups consistently agreed that they wanted be a part of future events.

4.2.4 Expo Cost Analysis

There were a number of costs associated with hosting this Expo including food, beverages, giveaways, and signage. Additionally, Seven Hills absorbed the cost of electricity for stations that needed power during the Expo, and the cost to have SHF staff at the Expo rather than usual jobs. Besides the latter two costs, all others have been quantified in the following

spreadsheet (Appendix N):

Items	Total Quantity	Quantity Used	Total Cost	Cost of Items Used
Coffee	-	-	\$ 100.00	-
Vendor Lunch	-	-	\$ 370.00	-
Breakfast Trays (Pastries)	-	-	\$ 180.00	-
Cookie Trays	-	-	\$ 134.00	-
Total Food	-	-	\$ 784.00	-
Attendee Bags (Given to all attendees)	200	100	\$ 300.00	\$ 180.00
Giveaway Bags (x2)	2	2	\$ 120.00	\$ 120.00
Word Clouds (x2 banners)	2	2	\$ 20.00	\$ 20.00
Foam Core for Signage	8	8	\$ 24.00	\$ 24.00
Table Cloths (x10 packages)	10	2	\$ 10.00	\$ 2.00
Battery Interrupter Supplies	200 switches	100 switches	\$ 75.00	\$ 37.50
TOTAL EXPO COST	-	-	\$ 1,333.00	\$ 1,167.50

This spreadsheet shows the cost and quantity for everything purchased for the Expo, and how many were actually used. The sum in the first column represents the amount Seven Hills paid to host this Expo, \$1,333. The second column sums costs if we had purchased the exact amount of materials needed for this Expo. Seven Hills' budget for this event was \$2,000, so the event came \$667 under budget. Notably, we only used half of the sling bags (100) and we purchased enough materials to make nearly 200 *more* battery interrupters. There were also about 4 extra trays of pastries and cookies by the end of the event. However, incentivizing the exit survey with giveaway bags did draw attendees' attention and helped solicit responses. Considering this was a pilot event, anything that might help draw additional feedback is worthwhile.

4.3 Database Results

The database was created to house all information and assets that led to the execution of the Expo. Doing so means that Seven Hills will be able to conveniently reference, use, and edit any surveys, statistics, feedback, contact sheets, signage, or other materials that became a part of the Expo. Providing all of this in one package will make for a more streamlined execution of future events.

We created a manual for this database so that any present or future SHF staff member can operate or edit the site or any document/file within the database. So, for example, should Seven Hills decide to re-use one of our surveys they can readily find any questionnaire that we used, and if they would like to edit it, we have provided them with the administrator rights and a guide to do so.

We designed this database to be user friendly by creating it on Google. Meaning that should troubleshooting be necessary in the future and not explained in our manual, there will be ample resources available through Google's own guides to help Seven Hills. Further, any time the site's operators would like to create something new for the database, the Google Drive platform can sync files instantaneously across multiple platforms-- including the database.

After a brief meeting with two members of the SHF Expo Team, they agreed that the database was user friendly. At the end of our project we handed over administrator rights to any staff willing to take them, giving Seven Hills complete and total access to every single file we created, ranging from surveys to survey statistics to contact sheets and registration forms. Reusing the files we made for this event in the future will certainly reduce the time it takes to rollout future events.

5.0 Recommendations & Conclusions

5.1 Recommendations Concerning Attendees

After hosting this Expo, our team realized there were a number of perspectives that we did not take into consideration during our planning process. In this section, we will offer the Seven Hills Foundation additional insight into what those attendees sought from the Expo, and how to go about creating an event that best includes them.

5.1.1 Individuals with Disabilities

There were many individuals in attendance with with a range of disabilities. Even though this Expo was designed to showcase products that are specifically for those with disabilities, those individuals were not able to fully participate in the Expo. Partially because some stations offered literature instead of demoing devices, asking vendors to create stations that are accessible does pose a challenge. However, given that the Seven Hills Foundation attracts individuals with a wide range of disabilities, it would be fitting if they were able to either demo devices or more intimately interact with the devices that might assist them.

Additionally, our team did not design an exit survey that was fully accessible. Since this event drew so many individuals with disabilities, our team believes it would be important to capture as many of their feelings about this event as possible. To do this, we recommend continuing the use of iPad based exit surveys as practiced in the pilot Expo. But in addition, a staff member could have an iPad with several short answer questions that they ask an attendee. The volunteer could then record a person's responses, allowing anyone to be able to offer

feedback.

5.1.2 Caretakers Accompanying Individuals

Likewise in attendance were caretakers who would bring several individuals along with them for a day trip. These individuals receive care in the same facilities, often on a daily basis. It's easy to understand how a change of scenery might be exciting for them (say, a day at the park), but to attend an event that is designed *for* them is a rare occurrence. Keeping these individuals in mind, our team can only further emphasize how important it is to eventually design an event that offers points of engagement and interaction for these individuals specifically. Offering a means for them to participate in the Expo and demo devices that was also “fun” would make for an outing that they looked forward to. It certainly would not be easy to make every vendor's booth accessible for attendees; however, we believe that doing so would be a core differentiator for Expos hosted by Seven Hills. The caretakers are highly professional, but at times the individuals they were accompanying would roam or try to find something to do-- again, probably due to the limited points of engagement.

5.1.3 Those in the Market for an Assistive Device

There were a number of attendees who were parents seeking devices that could help their children. These attendees often scanned the list of vendors participating, and chose what tables they would visit based on what their child needed. Multiple vendors reported that attendees were interested in purchasing devices or enrolling in their organizations on the spot (notably the myGaze). We recommend that in the future, vendors be asked to be prepared to offer attendees

information on where they might purchase a device, whether or not they can expect to use their insurance, and if there are any organizations that commonly assist individuals in affording their device. Given the high volume of the morning Expo session, we recommend that vendors offer this information in the form of handouts so that they can quickly distribute the information without needing to take the time to explain it to each attendee.

We further recommend that Seven Hills looks into hosting organizations that offer funding for individuals with disabilities (federal or otherwise), or connects individuals with the AT that they need.

5.2 Recommendations Concerning Staff

Though the Expo did ultimately come together, table staffing namely occurred on a volunteer basis. The fact also remains that some tables did not have an SHF Superuser volunteer to staff them in the afternoon session. Further, we believe that there are roles SHF staff or management could assume during future Expos that would allow them to benefit more from these events.

5.2.1 Allocating Staff Members

Several tables at the Expo were worked by SHF staff and Superusers. However, to do so they first needed to receive coverage from another staff member, and the go ahead from upper level management. In order to facilitate this process the Seven Hills Expo Team made upper level management aware of the event, who, in turn, supported it and those who sought to staff it. Even so, there were still tables without SHF volunteers to staff them in the afternoon.

In attendance in the morning session was the Vice President of Seven Hills ASPIRE!, Joe Realbuto. He was ecstatic about the event and believed it to be a resounding success in terms of turnout and content. Given total attendance was approximately 200 people for an event that was planned and hosted in 5 weeks, and given that upper level management was in attendance and supported the event, we recommend that Seven Hills seeks firmer support from them for future events. With 90.5% of exit survey respondents saying they would attend another event, there is clear demand for future AT Expos. This means that there should at least be sufficient SHF staff members to attend to tables that had a volunteer in a previous session.

5.2.2 Networking and Relationships

This event was able to come together on such short notice in part due to leveraging relationships that already existed between SHF and other organizations. It would be in Seven Hills' interest to continue fostering these relationships (specifically with the Expo representatives), as they will most likely be the advocates for future attendance. For Seven Hills to make itself available to additional networking at these events would allow for a direct line of communication with other organizations. Having these personal contacts bypasses the nuance of sifting through layers of management whenever they might want to cooperate with another organization. Instead, they could simply go through the representative who attended the Expo. Creating a pool of such contacts (beginning with those that were in attendance at the 2017 AT Expo) would result in a large group of individuals who represented AT-oriented organizations, and would advocate for cooperation with Seven Hills and participation in future Expos.

There were also a number of individuals who attended the Expo seeking to collaborate with Seven Hills, or to help facilitate future events. Our team recommends that there is an SHF staff member available to freely network and exchange contact information with these people. Since there was already a table dedicated to recruiting SuperUsers, this could perhaps take the form of a table where attendees with special interests could speak with a representative from SHF. At this table, they could leave their contact information and a copy of what they had hoped to do with Seven Hills. We believe this table would help create new, strong relationships.

5.3 Recommendations Concerning the Expo & Costs

Though attendees unanimously agreed that the Expo was well organized and its layout easy to follow, there are structural changes that can be made. Through these changes, we believe the result will be a more succinct and efficient Expo. Further, the resulting Expo would optimize participants' time and also maximize the feedback Seven Hills receives.

5.3.1 Time and Sessions

Put simply, the Expo was too long. Two four hour sessions was excessive, and we learned that the vast majority of attendees came to the morning session. However, to suggest that two sessions was a bad idea would be shortsighted. For an event that took place on a weekday, it was only logical to assume that some people who might be interested would have work and other obligations by day. This turned out to be true: though significantly less in number, there were attendees in the evening who chose that session for the aforementioned or similar reasons.

To address this, we recommend that Seven Hills hosts future events on weekends, and

that sessions are limited to two hours or two and a half hours. The morning session's rush hour lasted for 1 hour and 26 minutes, with more attendees trickling in afterward. With a narrower window of time, foot traffic would be more constant. It is also worth taking into consideration that even though the morning session's large attendance made it very exciting, some later attendees noted that they appreciated being able to take their time with vendors and have intimate conversations. Even though you cannot predict when people will arrive with total accuracy, we do suggest attempting to strike a balance between these two ideals.

5.3.2 Capturing Feedback

Attendees unanimously agreed that the Expo's layout was easy to follow, and when surveyed, no vendors had complaints with their locations. However, when it comes to hosting a pilot event and its first successors, receiving feedback is of the utmost importance because it provides guidelines for changes that people *want*. Our approach for capturing this feedback was flawed in two ways. First, in the Expo's layout (see Appendix K), there was a passageway that allowed for attendees to exit the Expo without passing by the exit survey booth (specifically, there was space between Perkins' table and the tables dedicated to snacks and beverages). One should not expect to have 100% participation with an exit survey, nor should an exit survey be intrusive or impose upon the experience of attendees. However, in order to maximize respondents it would be helpful to place tables in such a way that attendees are guaranteed to pass it on their way out. Our solution was to place trash and recycling bins in that gap. Since the layout we used worked so well, we suggest Seven Hills considers using a similar fix. Secondly, some attendees entered the Expo using the doorway that led to the bathrooms. Until this was

addressed, several people came into the Expo without first signing in. Because of this, we lost the opportunity to capture their information on sign-in sheets and our headcounts are less accurate. To combat this, we suggest either signage or volunteers placed at that entrance directing people to sign in if they have not already pre-registered.

Finally, we must again mention that our team did not design our exit surveys to be accessible. Though only one response to our surveys came from an individual receiving care from Seven Hills, we believe that being able to capture feedback from these individuals is important since this Expo is devoted entirely to products that would increase their quality of life. To accomplish this, our team suggests having a volunteer with an iPad with several simple, pre-written questions. The volunteer could ask an individual these questions, and record their responses.

5.3.3 Costs

For the most part, this Expo was a relatively low cost event with minimal waste. Our team would simply like to note that relative to the number of attendees, on this occasion there was a surplus of food (nearly 4 unused trays of pastries and cookies). This could be an opportunity for saving money.

On the other hand, the incentivized exit survey was a big hit and grabbed the attention of many attendees who may not have otherwise been convinced to complete the exit survey. Oftentimes, people *did* complete the exit survey out of a genuine desire to see this event grow and progress. Even so, attendees did like having an incentive. Our team recommends the continued incentivisation of exit surveys, whether it is a giveaway or an item every respondent

receives in order to generate the most feedback possible.

5.4 Third Party Recommendations

Throughout the Expo we spoke with many attendees and vendors. Some of them had good ideas and recommendations for our Expo and future events. Two notable examples of these individuals were Judy Fask of Worcester Public Schools and Roxy Rocker of REquipment.

5.4.1 Judy Fask: Worcester Public Schools Transition Rehabilitation Specialist

Attendee Judy Fask, Transition Rehabilitation Specialist for Worcester Public Schools and Holy Cross, had a valuable recommendation for vendor stations at the Expo. She recommended that individuals with disabilities who use the devices that a vendor is showcasing be present at each station to show others how they use the device. She recommended this because she's had her own station at other Expos where this was the norm.

5.4.2 Roxy Rocker: REquipment Representative

The vendor representing REquipment at the AT Expo, Roxy Rocker, has suggested incorporating a drop off/donation program for those with AT that they no longer use. An attendee who could use one of these products could then freely check one out, and keep it. Decisions such as if there would be a cost and the implementation of this program would be up to Seven Hills and REquipment.

5.5 Conclusion

All of our results and recommendations have been added to the database we have provided to SHF so that they can reference them at any time in the future. This information will allow Seven Hills to make decisions based on our collective experiences when planning any future event. Moreover, it will help them create events that offer *more* of what their attendees and participating vendors would like to see.

The purpose of the Expo was to bridge a knowledge gap among the Seven Hills staff and some of their clients. With an organization of SHF's size (approximately 170 locations and 3,600 employees), keeping all staff up to date with constantly changing and improving AT devices creates challenges. The purpose of conducting this pilot Expo was to offer insights into whether or not an Expo was the best option to strengthen the knowledge base their staff already has, and improve upon it. We recommend that the Seven Hills Foundation moves forward with hosting future Assistive Technology Expos. Nearly all exit survey respondents agreed with the statement that they learned more about AT after attending the Expo. This means that our event *did* successfully teach people more about Assistive Technology. However, we also recommend that Seven Hills at least considers continuing to host smaller Expos. Previous Expo attempts were larger, never got off the ground, and took considerable time to plan. On the other hand, this event came together in five weeks, had a fraction of the costs, and actually came to fruition.

References

- Assistive Technology Program Department of Disabilities, A. I. L. (2016). What Is AT? Retrieved from <http://atp.vermont.gov/what-is-at>
- Attard, J. (2016). How to Identify Your Target Market. Retrieved from <http://www.businessknowhow.com/marketing/targetmarket.htm>
- Bingel, J., Cornwell, A., DiMilia, M., Meersman, N., Ngoc, N., (2016). *Increasing the Accessibility of Assistive Technology at Seven Hills Foundation*. Retrieved from https://web.wpi.edu/Pubs/E-project/Available/E-project-042916-160238/unrestricted/Final_Paper_Seven_Hills_Foundation.pdf
- Bureau of Labor Statistics, U. S. D. o. L. (2015, 12/17/15). Biomedical Engineers. Retrieved from <https://www.bls.gov/ooh/architecture-and-engineering/biomedical-engineers.htm>
- Clarkson University. (2016). Adirondack Assistive Technology Expo in Tupper Lake to be Hosted by Clarkson University, Oct. 24 & 25. Retrieved from News & Events website: http://www.clarkson.edu/news/2016/news-release_2016-09-15-5.html
- Department of Education, K. (2016). Assistive Technology. Retrieved from <http://education.ky.gov/specialed/excep/instresources/Pages/Assistive-Technology.aspx>
- Georgia's Assistive Tehnology Act Program, G. T. (2016). What is Assistive Technology. Retrieved from <http://www.gatfl.org/assistive.php>
- Georgia Project for Assistive Technology. (2004). Definition of Assistive Technology Devices and Services. Retrieved from <http://www.gpat.org/georgia-project-for-assistive-technology/pages/assistive-technology-definition.aspx>
- getATstuff. (2016). Assistive Technology Exchange in New England & New York. Retrieved from <http://getatstuff.com/>
- Hoogendoorn, I. (2016). Low Vision Faculty Host Conference at New England Eye Retrieved from <http://www.neco.edu/news/entry/low-vision-host-conference>
- Hourigan, M. (2016). What is a Keynote Speaker, really? Retrieved from <http://www.mikehourigan.com/keynote-speaker-really/>
- Hrin, E. (2016). Assistive Technology Fair at Penn State DuBois *The Courier Express*. Retrieved from http://www.thecourierexpress.com/news/assistive-technology-fair-at-penn-state-dubois/article_22a29e3c-c69c-583a-81eb-e7423d6be4eb.html
- Linden, G., & Creighton, P. (2008). Creating the Guest Experience. In J. Rubin (Ed.), *The Expo Book*. Retrieved from www.TheExpoBook.com.
- Loan Program, T. M. A. T. (2016). An Alternative Financing Project. Retrieved from <http://massatloan.org/>
- Masjedi, Y. (2013). Step-by-Step Guide: How to Choose the Right Vendor For Your Business. Retrieved from http://www.huffingtonpost.com/yaniv-masjedi/stepbystep-guide-how-to-c_b_3646684.html
- National Association of Special Education Teachers. (2007). Technology Related Assistance for Individuals with Disabilities Act Retrieved from <https://www.naset.org/techassist2.0.html>

- National Organization on Disability. (1998). Louis Harris & Associates Survey of Americans with Disabilities. Retrieved from <http://www.serviceandinclusion.org/index.php?page=basic>
- Planetizen. (2016). Retrieved from <https://www.planetizen.com/node/65765>
- Riviere, A. (2003). Adrienne Riviere. Retrieved from <http://www.rehabtool.com/forum/discussions/93.html>
- Seven Hills Foundation. (2016a). About. Retrieved from <http://www.sevenhills.org/about-us>
- Seven Hills Foundation. (2016b). Affiliates. Retrieved from <http://www.sevenhills.org/about-us/affiliates>
- Seven Hills Foundation. (2016c). Calendar. *Whats Happening?* Retrieved from <http://www.sevenhills.org/>
- Seven Hills Foundation. (2016d). Mission & Vision. Retrieved from <http://www.sevenhills.org/about-us/mission>
- Seven Hills Foundation. (2016e). Seven Hills Foundation Organizational Chart.
- Talent, E. (2015). Retrieved from <http://www.eaglestalent.com/resources/select-the-right-keynote-speaker-and-entertainer/8-types-of-professional-keynote-speakers-and-entertainers/>
- The Leadership Conference on Civil and Human Rights & The Leadership Conference Education Fund. (2010). Planning a Community Outreach Event. Retrieved from <http://www.civilrights.org/census/outreach/community-event.html?referrer=https://www.google.com/>
- The RERC on Communication Enhancement. (2016). What is Assistive Technology? Retrieved from <http://aac-rerc.psu.edu/index.php/pages/show/id/7>
- U.S. Department of Labor's Office of Disability Employment Policy. (2016). State Assistive Technology Financial Loan Programs. Retrieved from <https://www.disability.gov/resource/state-assistive-technology-telework-financial-loan-programs/>
- University of Massachusetts, Medical School Communications. (2016). Assistive Technology expo returns to UMass Medical School. Retrieved from <http://www.umassmed.edu/news/news-archives/2016/10/assistive-technology-expo-returns-to-umass-medical-school/>
- Woodward, M. (2017). Retrieved from <http://eventplanningblueprint.com/heres-how-to-find-event-vendors-that-make-up-your-a-team/>
- WorkWise. (2016). The Importance of Events in Marketing. Retrieved from <http://www.oncontact.com/the-importance-of-events-in-marketing/>

Appendix A: Seven Hills Foundation Organization

About Seven Hills Foundation

Seven Hills Foundation (2016a) is one of the most dynamic and comprehensive health and human service agencies in the country. They provide comprehensive supports for people with significant life challenges and assists both children and adults who need medically intensive interventions who are supported with clinical expertise and compassion in the least restrictive environments. Also Seven Hills (2016a) provides educational support and long-term future services to people with disabilities and other life challenges like poverty and trauma. Family members are trained to counsel, educate and empower their loved ones. Seven Hills (2016a) gives access to each person's community of choice so that they feel supported and encouraged to live meaningful lives. They do so through their individual locations and staff that is comprised of over 3,600 employees at over 170 locations in 43 different countries who offer services to over 45,000 individuals.



Figure 1: Seven Hills Foundation

Seven Hills Foundation (2016a) was established in 1951. Through the past sixty-five years the Seven Hills Foundation has grown a lot. They now report to have one hundred seventy locations in Massachusetts, Rhode Island, and abroad. In addition to that, Seven Hills has three thousand seven hundred professional employees who represent a proudly diverse forty-three different countries. Seven Hills provides support and services to over twenty-eight thousand

children and adults with disabilities and life challenges. Through eleven Affiliate organizations, Seven Hills Foundation is able to currently help seventeen thousand (not included in the twenty-eight thousand) women and children in developing countries . To continue this line of work and expand their services ever further beyond, Seven Hills performs closely to their Strategic Plan by remembering their Mission Statement that will help them carry on their vision (Background 2.2.1).

Seven Hills Foundation Mission Statement & Vision

The mission of Seven Hills Foundation (2016c) is to promote and encourage the empowerment of people with significant challenges so that each may pursue their highest possible degree of personal well-being and independence. This mission gives Seven Hills a meaning behind every program or service provided so that the organization can reach their vision, which is “to be a preeminent leader and resource in the identification of unmet community needs; in the promotion of professional and compassionate models of service; and as an advocate of emerging public policy which exemplifies the dignity of all persons regardless of physical, social, or emotional condition.” (para. 3)

Seven Hills Foundation Organization

As one of the largest and most comprehensive health and human service agencies in the Northeast, Seven Hills Foundation (2016c) and its eleven operating affiliates has a unique corporate structure that allows for seamless integration of supports and services. The

Organization is split into different sectors that allow an easier flow of information to and from the patients in the program and the president and directors of each program. Under the Board of Trustees and the President/CEO of Seven Hills Foundation comes the Executive Vice President/Chief Operations Officer and the Senior Vice President/Chief Program Officer. Both Vice Presidents have four sectors that they work closely with to ensure the successful operation of the whole Foundation.

The Executive Vice President/Chief Operations Officer controls the Business Finance Group, Human Resources Group, Information Technology Group and the Facilities/Engineering Group. For our project, the first 3 groups are vital to our completion. The Business and Finance group are in charge of all funding for the staff, programs, utilities and community outreach. This group determines the amount of funding going into an event like the Expo. The Human Resources Group and Information Technology Group would have data and statistics on what technologies and practices work best and most efficiently for the foundation.

The Senior Vice President/ Chief Program Manager controls the Child and Family services Cluster, Clinical and Behavioral Health Cluster, Community Supports Cluster and the Seven Hills Rhode Island Cluster. All of these clusters are very important to the nature of this project because each cluster provides assistance to people with Disabilities. These people that Seven Hills serve are one of the main target audiences that the Expo wants to focus on so that the Expo can allow these people to learn more about Assistive technology and the benefit of each. Seven Hills Foundation's Organizational Chart (2016d) is provided on the following page.

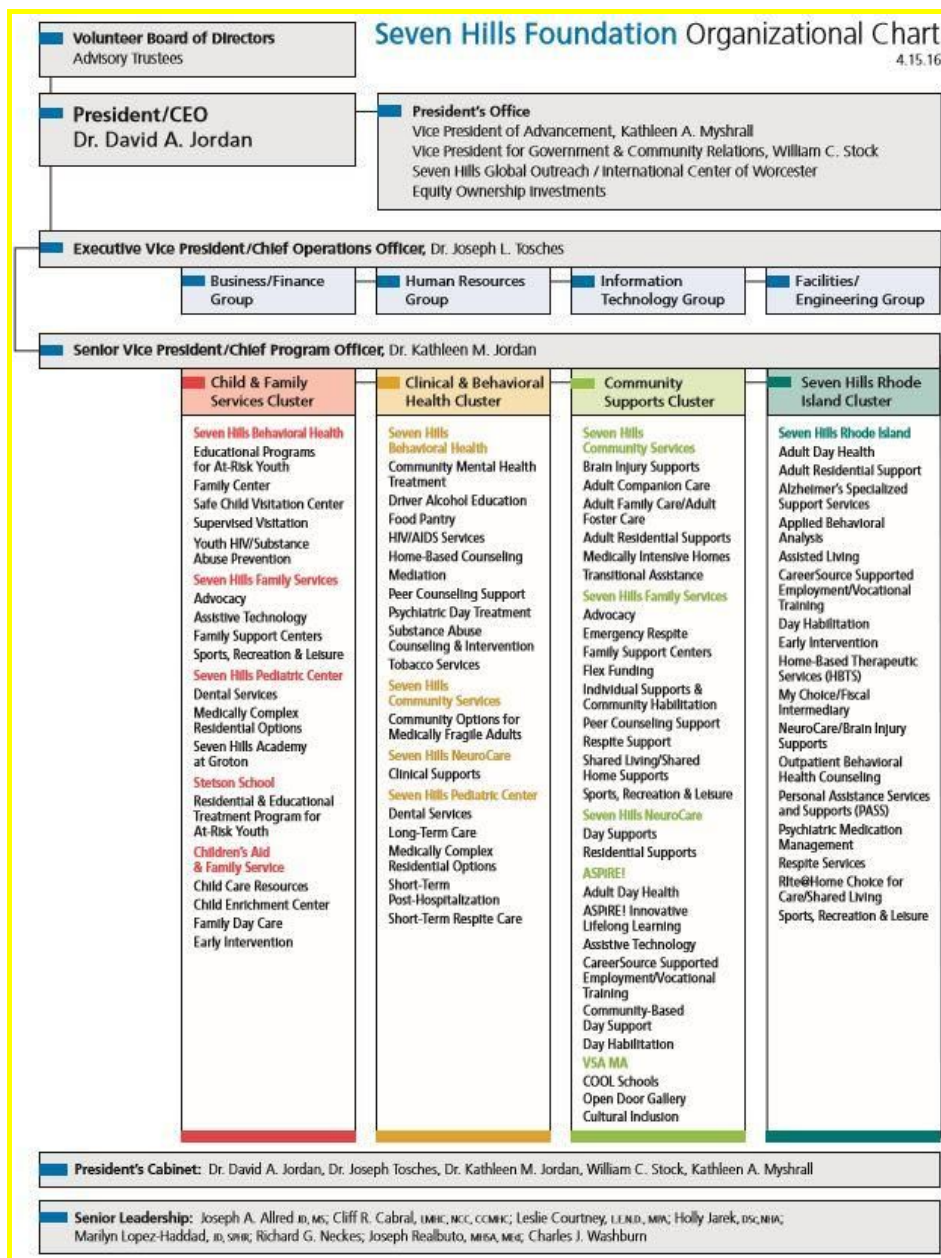


Figure 2: Seven Hills Foundation Organizational Chart

Seven Hills Foundation Disabilities

Based on data from the American Community Survey (ACS), 12.7% of the 314.8 million civilians living in the community in the United States in 2013 had a disability. There are numerous assistive technologies for all kinds of minor or major disabilities that Seven Hills

could not possibly only have a handful of different disabilities that they serve. Autism (Autism Spectrum Disorder), delays and behavior concerns, language skills, cognitive skills, audial impairment, mental disorders and vision loss are some of the many types of struggles that a person with disabilities have. These same people walk into Seven Hills Foundation looking for assistance to ease their everyday life tasks.

Appendix B: Seven Hills Foundation Affiliates

Seven Hills Foundation, Inc. is the parent non-profit organization that anchors eleven individual operating Affiliates. Seven Hills Foundation (2016b) provides the functions of business, human resources, facilities maintenance, information technology, construction, marketing, communications, fundraising, and the Office of the President. Each Affiliate organization is a separate 501 (c) 3 non-profit, which is led by a Vice President.

Children's Aid & Family Service (CAFS)

CAFS supports income-eligible families throughout Worcester County, MA, in their pursuit of successful life/work balance, providing day care, family child care, and Child Care Resources, which provides a single point of access for voucher child care in central MA. CAFS' Child Enrichment Center is a state-of-the-art facility located in Fitchburg, MA. CAFS' Family Day Care providers are located throughout central and north central MA. Both the Center and Family Day Care accept families through both voucher and private pay.



Figure 3: Children's Aid & Family Service

The International Center of Worcester (ICW)

ICW designs professional and cultural programs for international visitors sponsored by local and foreign governmental and non-governmental agencies, private companies, universities

and individuals. ICW is part of a nationwide network of centers for international visitors that are members of Global Ties U.S. in Washington, D.C.



Figure 4: International Center of Worcester

Seven Hills Behavioral Health (SHBH)

For more than 60 years, SHBH has been providing a path to a process of change through which people improve their overall sense of health and wellness. This is achieved by offering a wide array of mental health and substance abuse treatment, prevention, counseling, and educational services to support individuals, families, and communities. All of the SHBH programs are provided in English, Portuguese, and Spanish, and are customized to individuals' needs in a supportive, caring environment.



Figure 6: Seven Hills Behavior Health

Seven Hills Global Outreach (SHGO)

Seven Hills honors its employees who come to us from over 45 different countries, in part, by defining a culture of putting others first. Through the initiative of our diverse staff, **SHGO** was established to help people with significant life challenges across the globe. SHGO

leverages humanitarian efforts of partnering health, education, and human services organizations in developing nations and home communities of Seven Hills' staff.



Figure 9: Seven Hills Global Outreach

Seven Hills NeuroCare, Inc.

In 2014 Seven Hills launched its newest Affiliate, Seven Hills NeuroCare, Inc. to provide a significant focus in supporting individuals with brain injuries in both Massachusetts and Rhode Island. Seven Hills has supported the complex needs of individuals with brain injury for decades, both within our day supports as well as residentially.



Figure 10: Seven Hills NeuroCare

Seven Hills Pediatric Center (SHPC)

SHPC is a Pediatric Skilled Nursing Community that provides long-term, continuous nursing care to children and young adults below a cognitive age of 12 months, short-term respite care to children and young adults below a cognitive age of 24 months, and sub-acute care to children 18 years of age with no minimum/maximum cognitive age. SHPC also operates Seven Hills Academy at Groton, a private, on-site special needs school.



Figure 11: Seven Hills Pediatric Center

Stetson School

Stetson School is a nationally accredited, fully licensed, Chapter 766-approved Residential and Education Treatment Program for male youth and young adults, ages 9-22, with sexually problematic behaviors, complex developmental difficulties, chronic mental illness, and autism spectrum disorders, who have suffered from severe trauma. Recognized as a national leader in the treatment of sexually troubled behavior, Stetson School offers a continuum of supports and services to the high-risk population with a family-focused, individualized “culture of recovery.”



Figure 13: Stetson School

VSA Massachusetts

VSA Massachusetts promotes the involvement of people of all abilities in the cultural life of our communities and is part of an international network of VSA organizations serving 35 states and over 50 other countries. VSA is affiliated with The John F. Kennedy Center for the Performing Arts in Washington, D.C. The letters VSA reflect the Vision of an inclusive

community, Strength in shared resources and Artistic expression that unite us all.



Figure 14: VSA Massachusetts

Appendix C: Abbreviations

SHF: Seven Hills Foundation

AT: Assistive Technology

ATs: Assistive Technologies

WPI: Worcester Polytechnic Institute

ILC: Independent Living Center

IQP: Interactive Qualifying Project

DME: Durable Medical Equipment

ATRCs: Assistive Technology Resource Centers

PHP: Parents Helping Parents

UCP: United Cerebral Palsy

SHRI: Seven Hills Rhode Island

SHFS: Seven Hills Family Services

SHCS: Seven Hills Community Services

CEOD: Council on Equal Opportunity and Diversity

MC: Master of Ceremony

CLO: Chief Learning Officer

MRC: Vocational Rehabilitation Program

RSA: Rehabilitation Services Administration

VR: Vocational Rehabilitation

ILC: Independent Living Center

CIL: Centers for Independent Living

SILC: Statewide Independent Living Councils

CAFS: Children's Aid & Family Service

ICW: The International Center of Worcester

SHBH: Seven Hills Behavioral Health

SHCS: Seven Hills Community Services

SHFS: Seven Hills Family Services

SHGO: Seven Hills Global Outreach

SHPC: Seven Hills Pediatric Center

SHRI: Seven Hills Rhode Island

ACS: American Community Survey

MATLP: Massachusetts Assistive Technology Loan Program

SEAC: Southeast Asian Coalition

Appendix D: Seven Hills Expo Team Information

Seven Hills Expo Team Information (SHF Staff)				
Name	Job Title	Office Location	Email	Phone
Jean K. Des Roches <i>(Project Sponsor)</i>	Assistive Technology (AT) Program Director	Seven Hills Foundation <i>81 Hope Ave. Worcester, MA 01609</i>	JDesRoches@sevenhills.org	774-633-5887
Jonathan D'Amico	Home Based Supports Coordinator	Seven Hills RI <i>Child and Family Services (North)</i>	JDamico@sevenhills.org	401-309-9975
Elizabeth Vittum	Assistant Vice President of Development	Seven Hills Foundation <i>81 Hope Ave. Worcester, MA 01609</i>	evittum@sevenhills.org	508-983-1306
Kathleen A. Myshrall	Vice President of Advancement	Seven Hills Foundation <i>81 Hope Ave. Worcester, MA 01609</i>	KMyshrall@sevenhills.org	508-983-1302
Steven Kessler	Assistive Technology (AT) Specialist	Seven Hills Foundation <i>81 Hope Ave. Worcester, MA 01609</i>	SKessler@sevenhills.org	508-873-7816
Peter Demko	Multimedia Communications Associate	Seven Hills Foundation <i>81 Hope Ave. Worcester, MA 01609</i>	PDemko@sevenhills.org	508-983-1307

NOTE: *Seven Hills Foundation (SHF), Corporate Office: 81 Hope Ave, Worcester, MA, 01603*

Appendix E: Questionnaires, Surveys, & Interview Protocols

E(1): Exit Surveys

Afternoon Exit Survey

Thank you for attending the AT Expo! As with the other surveys, this survey is completely optional and anonymous. We appreciate your participation and hope that you enjoyed the AT Expo!

Enter Email: _____

Are you...*

Seven Hills Staff

Seven Hills Volunteer

Family/Friend

General Public Attendee

Other: _____

How did you hear about the Expo? *

Email

Social Media

Word of Mouth

Poster/Flyers

Other: _____

What time did you arrive at the Expo? *

3 PM – 4 PM

4 PM – 5 PM

5 PM – 6 PM

6 PM – 7 PM

How long did you stay at the Expo? *

About less than an hour

About 1 hour

About 2 hours

About 3 hours

About 4 hours

How much do you agree or disagree with the following questions? *

I enjoyed the Expo

Strongly Agree Agree

Neutral

Disagree

Strongly Disagree

The layout was easy to follow

Strongly Agree Agree

Neutral

Disagree

Strongly Disagree

The Expo was well organized

Strongly Agree Agree Neutral Disagree Strongly Disagree

The Expo helped me learn a lot about AT

Strongly Agree Agree Neutral Disagree Strongly Disagree

I would go to another Expo by Seven Hills

Strongly Agree Agree Neutral Disagree Strongly Disagree

Would you be interested in helping us by answering more questions about the Expo?

Yes No

Please provide your name and either phone number or email below. This information is completely private.

Morning Exit Survey

Thank you for attending the AT Expo! As with the other surveys, this survey is completely optional and anonymous. We appreciate your participation and hope that you enjoyed the AT Expo!

Enter Email: _____

Are you...*

Seven Hills Staff Seven Hills Volunteer Family/Friend

General Public Attendee Other: _____

How did you hear about the Expo? *

Email Social Media Word of Mouth

Poster/Flyers Other: _____

What time did you arrive at the Expo? *

10 AM - 11 AM 11 AM - 12 PM 12 PM - 1 PM 1 PM - 2 PM

How long did you stay at the Expo? *

About less than an hour About 1 hour About 2 hours

About 3 hours About 4 hours

How much do you agree or disagree with the following questions? *

I enjoyed the Expo

Strongly Agree Agree Neutral Disagree Strongly Disagree

The layout was easy to follow

Strongly Agree Agree Neutral Disagree Strongly Disagree

The Expo was well organized

Strongly Agree Agree Neutral Disagree Strongly Disagree

The Expo helped me learn a lot about AT

Strongly Agree Agree Neutral Disagree Strongly Disagree

I would go to another Expo by Seven Hills

Strongly Agree Agree Neutral Disagree Strongly Disagree

Would you be interested in helping us by answering more questions about the Expo?

Yes No

Please provide your name and either phone number or email below. This information is completely private.

E(2): Post-Expo Vendor Survey

We appreciate you being an exhibitor at the Expo and taking the time to answer the following questions so we can gather information for Seven Hills and our project.

On a scale of 1 to 10, how well do you feel this Expo was executed?

Poor 1 2 3 4 5 6 7 8 9 10 Excellent

Do you feel the space was large enough?

Yes No

How satisfied were you with your location on the Expo floor?

Not satisfied 1 2 3 4 5 Very satisfied

How accurate were your expectations for this event?

The expo fell below my expectations

The expo met my expectations

The expo exceeded my expectations

Would you come to another Expo hosted by Seven Hills?

Yes No Maybe

Do you have any suggestions or recommendations for future Expos? Was there anything you did not like and could be improved upon?

Was there anything you particularly liked about the Expo and would like to see again?

Was there any information we could have given you to better prepare you for the Expo?

E(3): Post-Expo Staff Survey

(Section 1)

We appreciate you attending the Expo and taking the time to answer the following questions so we can gather information for Seven Hills and our project.

General Questions**(Section 2)**

On a scale of 1 to 10, how well do you feel this Expo was executed?

Poor 1 2 3 4 5 6 7 8 9 10 Excellent

Do you feel the space was large enough?

Yes No

Would you be interested in volunteering for another Expo with the Seven Hills

Foundation?

Yes No

Are you a...

Seven Hills SuperUser (s3) Seven Hills volunteer (s4) SEAC volunteer (done)

Satisfaction**(Section 3)**

This question is only reference to if you worked station. For example, battery interrupter, myGaze, Smart Home, etc.

How satisfied were you with your location on the Expo floor?

Not satisfied 1 2 3 4 5 Very satisfied

Expectations

(Section 4)

Did this Expo exceed your expectations?

Yes No

Appendix F: Additional Interviews Conducted

Mrs. Kinne Interview

Thank you for taking the time to let me interview you for my school project. My project is helping a foundation that takes care of people with disabilities through the use of Assistive Technology such as hearing aids, motorized wheelchairs, book readers, and speech devices. My team and I are trying to put on an AT Expo for the foundation. At this Expo, there will be vendors to help teach the staff and public about how to better use the AT that they deal with. I chose you for the interview as you use AT to help teach your students with disabilities. Again, thank you for this opportunity, and I will start with my first question.

What types of disabilities did you deal with while teaching?

Some of the disabilities that I deal with are TBI-traumatic Brain Injury, Down Syndrome, ADHD, Multiple Disabilities, and CP-Cerebral Palsy.

Did any of them require some sort of Assistive Technology(AT) to learn?

Yes, almost every student I teach has or requires some sort of AT to be able to learn in school.

If so, what types of AT did you encounter while teaching?

Some of the AT that I use with the students are iPad's with apps such as Proloquo-2-GO, LAMP, cause and effect apps; sounding boards, Picture Exchange Communication System (PECS), and devices that enable students to have a "voice".

What some of the benefits were of said AT in the education process?

Allows students who are non-verbal to communicate with me and other students/teachers to enhance their learning experience.

What were some of the downfalls to the AT?

Pre-planning (programming the lesson onto the iPad's and other devices) and vocabulary is time consuming as most students I deal with have physical disabilities and require a speech device.

How do feel about the amount of funding that people who use assistive technology receive?

I feel as though there is not enough funding to receive the best quality AT available. The best description is there is enough quantity, but not of good enough quality. For example, one of my previous kindergarten students was applying through the district to receive a specific AT. They are now in 5th grade and have yet to receive the AT. It just got denied by the district and making the family pay for it under some sort of Medicare. As of now, it is on trial being scrutinized on whether or not the district or family should pay for it. However, the process to get much simpler technology such as iPads in which all students can use them.

How do you feel about the variety of AT available from vendors?

Again, I feel as though there is a great quantity, but not good quality.

Do you feel as though AT could be improved to better accommodate certain disabilities?

Yes, we would love an AT consultant to provide direct services in the classroom, currently we have a part-time AT consultant who is not always in the room.

Were you trained on how to use AT before you started working with it?

Not in all areas. We have to take our own time to research. We have a PT AT person in the district. We need a FT person.

If so, do you feel as though you were properly trained?

I feel as though there could definitely be a better and more thorough training process.

Would you be interested in going to an AT Expo to learn how to better use the AT?

Yes, depending on the vendors and what they have to offer. For me, the target would be speech, blind, and deaf devices. Also, devices for those who are severely physically disabled and have to communicate via eye movements.

Would you think an AT Expo would make the task of educating your students easier?

It depends on the types of vendors and apps provided.

Do you feel as though AT is useful in the classroom setting to the children for learning?

Yes, it helps them tremendously and makes my task of teaching them much easier.

Did you ever attend an AT Expo?

No.

Do you have any family or friends that have a disability and require AT for daily tasks?

No.

Do you know of any foundations that currently help people with disabilities through the use of AT?

Jake's Help from Heaven.

Do you know of any previous AT Expo's nearby?

No.

Would you allow me to quote you on anything you have said in this interview?

Of course.

Thank you again for taking this time to answer my questions, it really means a lot to our project and will help us further our research. Thank you and have a Happy Thanksgiving.

My pleasure, if you have any further questions about my answers or other, email me and I will be happy to answer them. Have a great holiday.

Appendix G: Assistive Technology Devices Categories

Academic and Learning Aids: Electronic and non-electronic aids such as calculators, spell checkers, portable word processors, and computer/tablet-based software solutions and apps that are used by students who has difficulty achieving in the educational curriculum

Aids for Daily Living: Self-help aids for use in activities such as eating, bathing, cooking, dressing, toileting, and home maintenance

Assistive Listening Devices and Environmental Aids: Electronic and non-electronic aids such as amplification devices, closed captioning systems, and environmental alert systems that assist students who are hard of hearing or deaf with accessing information that is typically presented through an auditory modality

Augmentative Communication: Electronic and non-electronic devices and software solutions that provide a means for expressive and receptive communication for students with limited speech and language

Computer Access and Instruction: Input and output devices, alternative access aids, modified or alternative keyboards, switches, special software, and other devices and apps or software solutions and that enable students with disabilities to use the classroom computer/tablet

Environmental Control: Electronic and non-electronic aids such as switches, environmental control units, and adapted appliances that are used by students with physical disabilities to increase their independence across all areas of the curriculum

Mobility Aids: Electronic and non-electronic aids such as wheelchairs (manual and electronic), walkers, scooters that are used to increase personal mobility

Pre-vocational and Vocational Aids: Electronic and non-electronic aids such as picture-based task analysis sheets, adapted knobs, and adapted timers and watches that are used to assist students in completing pre-vocational and vocational tasks

Recreation and Leisure Aids: Electronic and non-electronic aids such as adapted books, switch adapted toys, and leisure computer-based software applications that are used by students with disabilities to increase participation and independence in recreation and leisure activities

Seating and Positioning: Adaptive seating systems and positioning devices that provide students with optimal positioning to enhance participation and access to the curriculum

Visual Aids: Electronic and non-electronic aids such as magnifiers, talking calculators, Braille writers, adapted tape players, screen reading software applications for the computer, and Braille note-taking devices that assist students with visual impairments or blindness in accessing and producing information that is typically present in a visual (print) modality.

(Department of Education, 2016; Georgia Project for Assistive Technology, 2004; National Association of Special Education Teachers, 2007)

Appendix H: Assistive Technology Services Detail

- a. The evaluation of the needs of a child with a disability, including a functional evaluation of the child in the child's customary environment;
- b. Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities;
- c. Selecting, designing, fitting, customizing, adapting, applying, retaining, repairing, or replacing assistive technology devices;
- d. Coordinating and use other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;
- e. Training or technical assistance for a child with a disability or, if appropriate, that child's family; and f. Training or technical assistance for professionals (including individuals or rehabilitation services), employers, or other individuals who provide services to employ, or are otherwise substantially involved in the major life functions of children with disabilities.

(Georgia Project for Assistive Technology, 2004)

Appendix I: Funding Assistive Technology

Finding a way to pay for the assistive technology can be determined after finding the type of technology needed. Some AT devices are not expensive, while some may be priced at a premium. According to the U.S. Department of Labor's Office of Disability Employment ([2016](#)) several local and national sources and programs may help pay for AT. For example, school systems, government programs, employer/company programs and health insurance can all pay at least a substantial portion of the cost if a doctor has prescribed or recommended the assistive technology for a patient. School systems will pay for general education-based AT for all of their students. Financial assistance in the workplace is possible, as most employers pay a full or partial amount so that the employees can work effectively in the workplace.

A state resource is the Massachusetts Assistive Technology Loan Program ([2016](#)) and they are an alternative financing program that is funded primarily by state and federal resources. They offer low interest cash loans so that families may purchase the AT devices they need. In Some other options are the Assistive Technology Financial Loan Program or Alternative Finance Program, and Vocational Rehabilitation Agency, and MassMATCH. MassMATCH, or Massachusetts' Initiative to Maximize Assistive Technology in Consumers' Hands. This organization offers resources to connect families and those with disabilities to the technologies they need. They have two Assistive Technology Resource Centers (ATRCs), whose motto is "See, Touch, and Try".

According to the U.S. Department of Labor's Office of Disability Employment ([2016](#)) some local sources of funding include the Independent Living Center, Easter Seals or United

Cerebral Palsy, and the reusing and recycling of AT. Another such organization is REquipment and they offer free, gently used, and refurbished wheelchairs, shower chairs, scooters, and other durable medical equipment (DME) to children, adults, and the elderly in Massachusetts— even offering delivery within the greater Boston area. Given that cost is most often an issue for individuals with disabilities to receive their AT, often such organizations seek to manipulate the cost factor in a way that benefits the consumer. Another example of such an organization would be getATstuff ([2016](#)), which is an assistive technology exchange and offers an online hub for people to shop for AT or advertise AT that they don't use anymore.

These resources could prove invaluable to families and those with loved ones who desperately need AT, and resources like these could support Seven Hills' goal of providing resources to increase accessibility to technology that families may not know about.

Assistive Technology Financial Loan Program or Alternative Finance Program

The Assistive Technology Financial Loan Program or Alternative Finance Program ([2016](#)) are programs that help people with disabilities pay for assistive technology through low or no interest loans (<http://www.easterseals.com/ma/who-we-are/history/>). This allows people to financially afford an AT device that normally may be out of reach for that particular person.

If there is a problem with financial assistance for the AT device, the Special Needs Alliance ([2016](#)) is a nonprofit organization that has mostly Elder Law Attorneys in many areas that specialize in disability and public benefits law. Special Needs Alliance will at the very minimum provide financial planning for the family, but it also takes cases into court if deemed necessary to provide the financial assistance needed. The problem with this option is the small number of lawyers invited to join the organization. The lawyers are very experienced, with an

average legal experience of 18 years and a majority being certified as an Elder Law Attorney.

Despite this, there are not many lawyers available to help.

Vocational Rehabilitation Agency

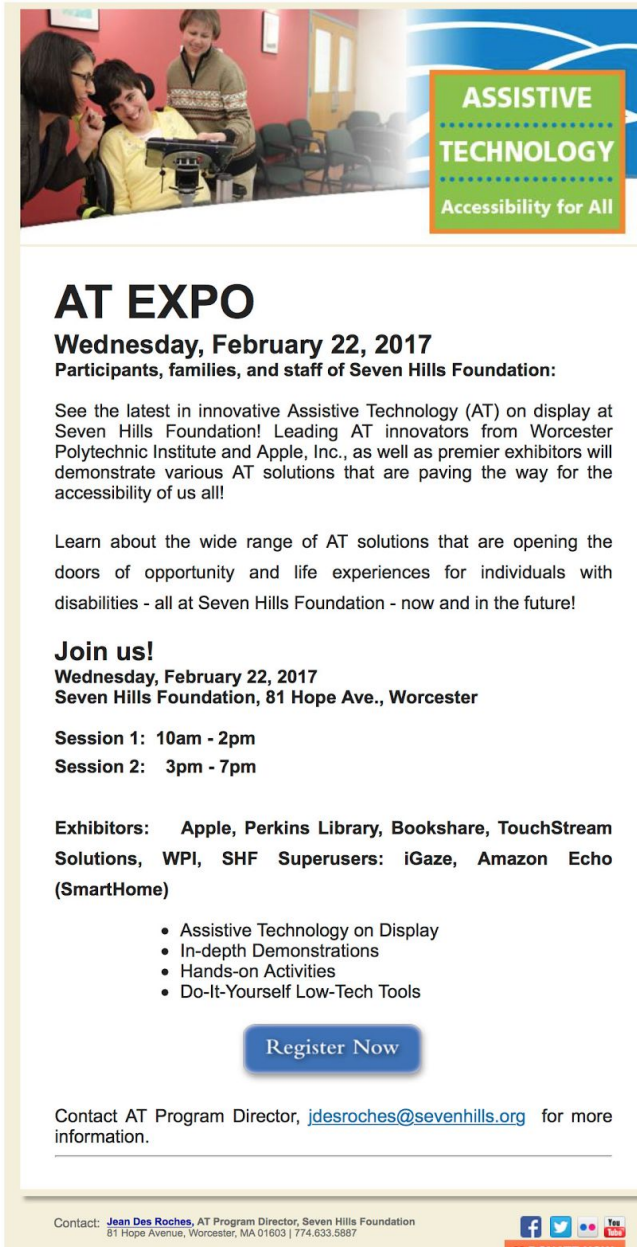
The Vocational Rehabilitation Agency ([2016](#)) can help pay for AT if it is needed for work-related or career training purposes. Vocational rehabilitation agencies assist individuals with disabilities to prepare for, obtain, maintain, or regain employment that they would have previously lost due to the disability. Massachusetts has a Vocational Rehabilitation program that assists individuals with disabilities to obtain and maintain employment.

Independent Living Centers

An Independent Living Center (ILC) ([2016](#)) may be able to help pay for AT devices or equipment, or refer someone to programs that can. An Independent Living Program includes community-based, cross-disability, non-profit organizations that are designed and operated by people with disabilities. An example of an Independent Living Program is Disabled Peoples' International, which is a network of organizations and assemblies of disabled individuals. It was created to promote their human rights through participation and equalization of development. These organizations are partially or completely run by disabled individuals. They have previously hosted programs, rallies and events where more disabled individuals are able to learn and demonstrate their abilities for the public to witness. The funding for independent living comes from various donations and government funding from grants and project proposals.

Appendix J: Advertisement

For the promotion process of the Expo. Our first step to developing the Expo event was to make our event known. So, we developed an attractive name for the Expo, calling it the AT Expo. After that, we developed the poster/flyer that is shown in the figure below which was sent out to the staff at Seven Hills Foundation to provide them with an invitation to the event that has visual aspects and attractions that attract the personnel receiving the email.



The flyer is titled "AT EXPO" and is for Wednesday, February 22, 2017. It features a header image of three people interacting with a device, with a logo that says "ASSISTIVE TECHNOLOGY Accessibility for All". The text describes the event as a display of innovative Assistive Technology (AT) at the Seven Hills Foundation, featuring exhibitors like Apple, Perkins Library, Bookshare, TouchStream Solutions, WPI, SHF, and Superusers like iGaze and Amazon Echo (SmartHome). It lists two sessions: 10am - 2pm and 3pm - 7pm. A "Register Now" button is prominently displayed. Contact information for Jean Des Roches is provided at the bottom, along with social media icons and a "DONATE NOW" button.

AT EXPO
Wednesday, February 22, 2017
Participants, families, and staff of Seven Hills Foundation:

See the latest in innovative Assistive Technology (AT) on display at Seven Hills Foundation! Leading AT innovators from Worcester Polytechnic Institute and Apple, Inc., as well as premier exhibitors will demonstrate various AT solutions that are paving the way for the accessibility of us all!

Learn about the wide range of AT solutions that are opening the doors of opportunity and life experiences for individuals with disabilities - all at Seven Hills Foundation - now and in the future!

Join us!
Wednesday, February 22, 2017
Seven Hills Foundation, 81 Hope Ave., Worcester

Session 1: 10am - 2pm
Session 2: 3pm - 7pm

Exhibitors: Apple, Perkins Library, Bookshare, TouchStream Solutions, WPI, SHF **Superusers:** iGaze, Amazon Echo (SmartHome)

- Assistive Technology on Display
- In-depth Demonstrations
- Hands-on Activities
- Do-It-Yourself Low-Tech Tools

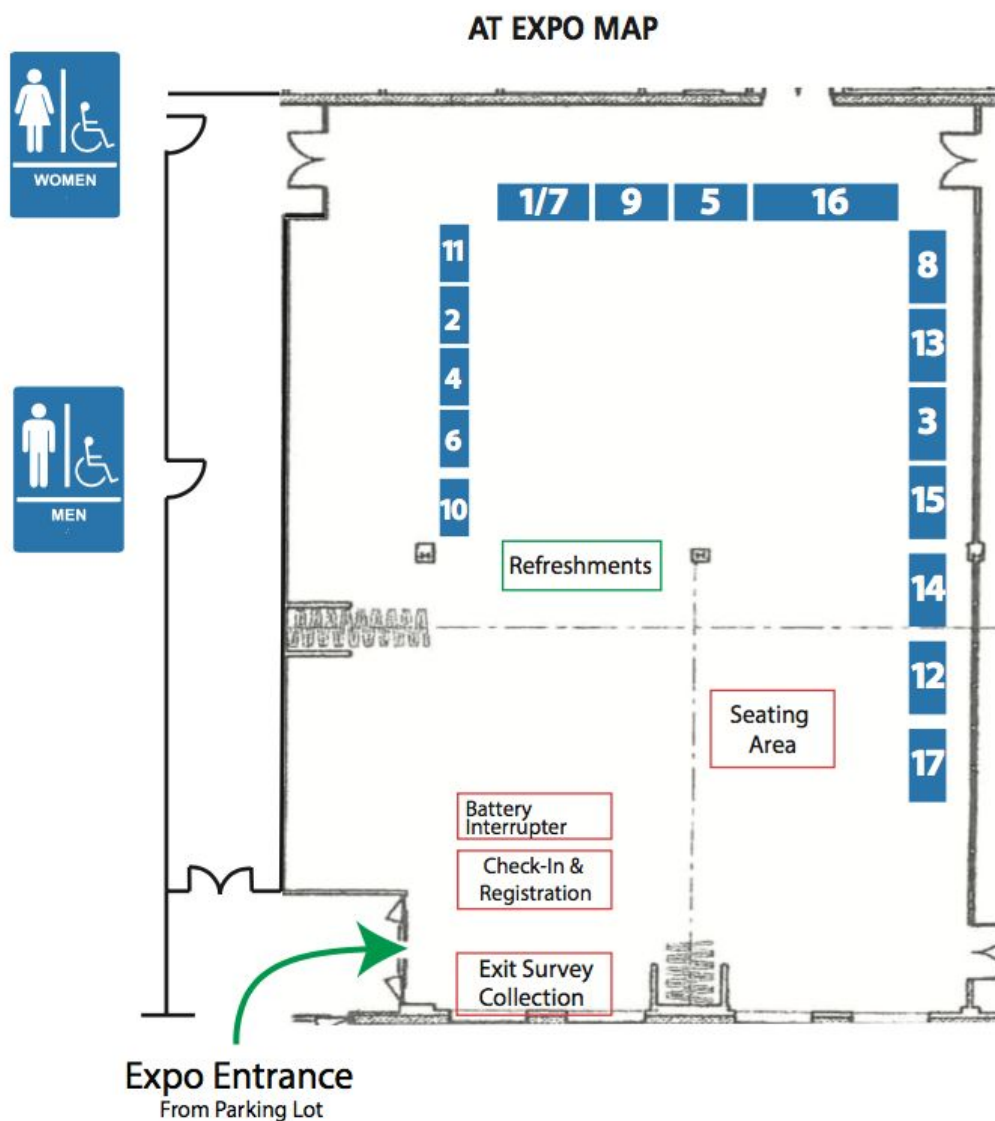
[Register Now](#)

Contact AT Program Director, jdesroches@sevenhills.org for more information.

Contact: **Jean Des Roches**, AT Program Director, Seven Hills Foundation
 81 Hope Avenue, Worcester, MA 01603 | 774.633.5687

[Facebook](#) [Twitter](#) [Instagram](#) [YouTube](#)
[DONATE NOW](#)

Appendix K: Expo Layout



- | | |
|---|--|
| 1. Seven Hills Foundation | 9. Kurzweil Education |
| 2. Clark University | 10. TouchStream Solutions |
| 3. myGaze | 11. Perkins School for the Blind |
| 4. Easter Seals | 12. REquipment |
| 5. Department of Developmental Services (DDS) | 13. Home Automation, Seven Hills SuperUsers |
| 6. Apple Store Volunteers Natick | 14. Assistive Hearing, Seven Hills SuperUsers |
| 7. Bookshare, A Benetech Initiative | 15. Low-Tech AT, Seven Hills SuperUsers |
| 8. Seven Hills Family Supports | 16. Massachusetts Rehabilitation Commission |
| | 17. Augmentative & Alternative Communication
Seven Hills SuperUsers |

Appendix L: Expo Pamphlet

Below is the Expo pamphlet that we had created and was finalized by Seven Hills Development to hand out to attendees at the Expo. This pamphlet contains the flyer, Expo layout, and a little information regarding each Expo vendor and their station.



Clark University

clarku.edu

Located in Worcester, Massachusetts, Clark is a university on the cutting edge of higher education. A liberal arts-based research university with a distinguished academic and research pedigree, Clark is redefining higher education for the 21st century. Clark University will display a Camera Mouse.

Easter Seals

easterseals.com

Easterseals has been helping individuals with disabilities and special needs, and their families, live better lives for nearly 100 years. From child development centers to physical rehabilitation and job training for people with disabilities, Easterseals offers a variety of services to help people with disabilities address life's challenges and achieve personal goals. Easterseals will display various hearing devices.

Department of Developmental Services

mass.gov/eohhs/gov/departments/dds/

The Department is dedicated to creating, in partnership with others, innovative and genuine opportunities for individuals with intellectual disabilities to participate fully and meaningfully in, and contribute to, their communities as valued members.

Apple Genius Bar Volunteers, Natick Mall

apple.com

Apple Genius Bar of Natick Mall has volunteered at Seven Hills Foundation for a few years now. They assist Seven Hills with many different tasks, such as troubleshooting, demonstrations, or taking the time out of their day, to showcase their technology at an event such as this Expo. Apple will display various assistive technology regarding their iPads.

Bookshare, A Benetech Initiative

bookshare.org

Bookshare® is the world's largest accessible online library for people with print disabilities. More than 425,000 people in 70 countries have access to Bookshare's collection of 518,167 titles. More than 820 U.S. and international publishers contribute to our social mission by donating their digital files, making it possible for Bookshare to serve users around the world and ensuring that content is available to people with print disabilities at the same time as their peers. Bookshare will provide flyers about their program.

Kurzweil Education

kurzweiledu.com

Kurzweil Education believes every learner deserves the opportunity to develop the literacy skills that lead to academic and personal success. They offer learners new multisensory approaches to read, comprehend, synthesize, apply, and demonstrate their knowledge. With our support, they become independent, confident learners who can achieve rigorous academic goals. Kurzweil will display their Assistive Technology using a computer and monitor.

Touchstream Solutions

touchstreamolutions.com

TouchStream Solutions was founded in 2010 with the simple goal: help seniors and people with disabilities achieve greater independence. Their founders each have over 20 years of experience in new product development. Additionally, they bring a highly experienced go to market team of healthcare technology and business development professionals. Touchstream Solutions will display tablet devices and medical devices.

Perkins School for the Blind

perkins.org

Perkins is a progressive, multi-faceted organization committed to improving the lives of people with audial and visual impairments all around the world. Perkins School for the Blind will display digital talking book machines, peripherals, and literature.

REquipment

dmerequipment.org

REquipment is a durable medical equipment (DME) re-use program offering free refurbished wheel-chairs, scooters, shower chairs and more to adults, children and elders living in Massachusetts. REquipment will display a Pediatric wheelchair.

Massachusetts Rehabilitation Commission

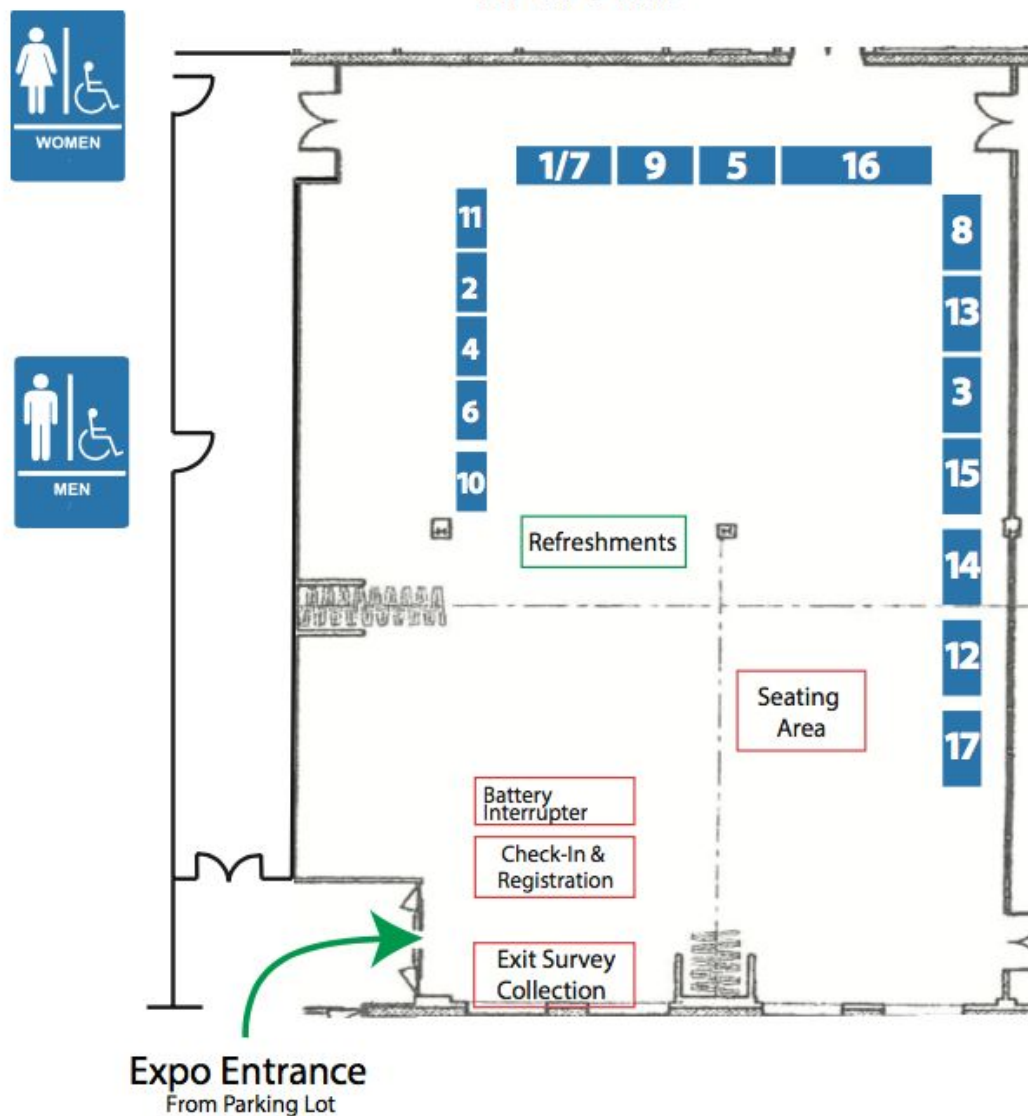
mass.gov/eohhs/gov/departments/mrc/

MRC is responsible for Vocational Rehabilitation Services, Community Living Services, and eligibility determination for the Social Security Disability Insurance (SSDI) and the Supplemental Security Income (SSI) federal benefits programs.

Seven Hills SuperUsers

Seven Hills Super Users, people who are considered to be an expert with certain Assistive Technology, are standing at different tables to demonstrate different technologies.

AT EXPO MAP



- | | |
|---|--|
| 1. Seven Hills Foundation | 9. Kurzweil Education |
| 2. Clark University | 10. TouchStream Solutions |
| 3. myGaze | 11. Perkins School for the Blind |
| 4. Easter Seals | 12. REquipment |
| 5. Department of Developmental Services (DDS) | 13. Home Automation, Seven Hills SuperUsers |
| 6. Apple Store Volunteers Natick | 14. Assistive Hearing, Seven Hills SuperUsers |
| 7. Bookshare, A Benetech Initiative | 15. Low-Tech AT, Seven Hills SuperUsers |
| 8. Seven Hills Family Supports | 16. Massachusetts Rehabilitation Commission |
| | 17. Augmentative & Alternative Communication
Seven Hills SuperUsers |

Appendix M: Superuser Volunteer Sign-Up Sheet

Below is the SHF volunteer sign-up sheet that they used to volunteer for the Superuser stations at the Expo. As there were shifts in the afternoon that were not filled, many of the morning session volunteers stayed into the afternoon.

Station Preference	Morning Shift (10am - 2pm)			
	Volunteer 1	Email	Volunteer 2	Email
AT Super User Table/Bookshare	cathi Joseph	cjoseph@sevenhills.org		
Augmentative and Alternative Communication	Jessica Venturo	jventuro@sevenhills.org		
Hearing	Chelsey Dickhaut	cdickhaut@sevenhills.org		
Low-Tech Devices	Taylor Johnson	tjohnson@sevenhills.org		
myGaze	Alissa Rivard	arivard@sevenhills.org	Lisa Sullivan	n/a
Smart Home (Amazon Echo)	WPI Team	sevenhillsgroup@wpi.edu		
Bookshare	Heather Reynolds			
unassigned	Lori Meek			
unassigned	Jon D'Amico	jdamico@sevenhills.org		
unassigned	Frank B.	sevenhillsgroup@wpi.edu		
unassigned	Chau Tran	sevenhillsgroup@wpi.edu		
unassigned	Nick M.	sevenhillsgroup@wpi.edu		
unassigned	Anthony V.	sevenhillsgroup@wpi.edu		

Station Preference	Afternoon Shift (3pm - 7pm)	
	Volunteer 1	Email
AT Super User Table/Bookshare	Sonya Bouchard	sbouchard@sevenhills.org
Augmentative and Alternative Communication	Jean	jdesroches@sevenhills.org
Hearing	Steve Kessler	skessler@wpi.edu
Low-Tech Devices		
myGaze	WPI Team	sevenhillsgroup@wpi.edu
Smart Home (Amazon Echo)		
Bookshare		
	Lori Meek	
unassigned	Jon D'Amico	jdamico@sevenhills.org
unassigned	Frank B.	sevenhillsgroup@wpi.edu
unassigned	Chau Tran	sevenhillsgroup@wpi.edu
unassigned	Nick M.	sevenhillsgroup@wpi.edu
unassigned	Anthony V.	sevenhillsgroup@wpi.edu
unassigned	Wendy Nemec-Olick	wnemecolick@sevenhills.org
unassigned	Anna Baretto	Abaretto@sevenhills.org

Appendix N: Expo Cost Breakdown

Below are all of the Expo costs broken down by section so Seven Hills can reference these costs at any time in the future. However, we could not account for power usage and staff coverage. Staff coverage entailed allowing Superusers to come demonstrate devices at the Expo and getting coverage for their typical day time obligations.