

Doctor of Business Administration (DBA)

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# Investigating workplace attitudes and perceptions of hard of hearing employees

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*George Fox University*

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Investigating Workplace Attitudes and Perceptions of Hard of Hearing Employees

Submitted to the School of Management

George Fox University

In partial fulfillment of the requirements

for the degree of

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Thomas Brent Davis

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Signature Page

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by

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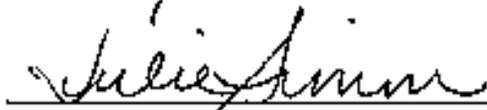
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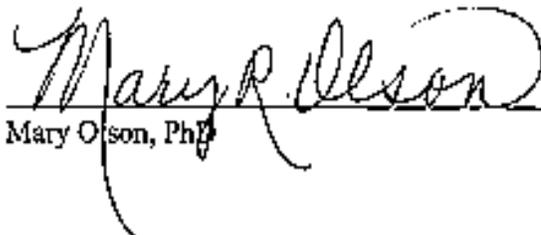
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Glenn Davis

Jane and Tony Fredricks

Debra Davis

Mindi Davis-Beaty

Gerald Weston

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## Abstract

In any economic climate, two topics often arise during business conversations. First, business leaders speak in recognition of their employees as key contributors to their companies' success. Second, business leaders recognize that engaged and satisfied employees are better performers in the workplace and that higher performance equates to increased profits for their companies. It is strange then to find that the needs and attitudes of a large segment of the workers contributing to the organizational bottom line are not understood and that these employees are often underutilized and underemployed. The group referred to is deaf and hard of hearing people. Hard of hearing individuals of working age (18 to 64 years-of-age) currently make up an estimated 20% (Harrington, 2004; Mitchell, 2005a) of the workforce in the United States and according to C. K. Johnson (2010) as many as one in five teenagers are hearing impaired.

Based on these factors and current literature concerning hard of hearing employees, there is a need to further investigate the attitudes of hard of hearing employees. Specifically, this dissertation investigates (a) the employment satisfaction level of hard of hearing employees, (b) the perception of hard of hearing employees toward their supervisors and co-workers, (c) the perception of hard of hearing employees concerning their current (and previous) employment position, and (d) the perception of hard of hearing employees toward their workplace accommodations. Following case study methodology and a criterion based sampling strategy, three separate and in-depth investigations occurred, resulting in case-based findings and theoretical implications

specific to (a) communication, (b) education, and (c) knowledge of the Americans with Disabilities Act (ADA). The details herein provide insight into the lives of each participant in the sample and their workplace perceptions.

## Operational Definitions

This dissertation centers around hard of hearing employees. It is important that critical definitions are understood so that the meaning of the study is not lost or misconstrued. Specifically, this dissertation uses the inclusive terms “deaf” and “hard of hearing” both singularly and in combination to describe persons with no hearing or who have impaired hearing.

“Deaf” means those in whom the sense of hearing is not functional for the ordinary purposes of life. “Deaf” includes several degrees of deafness: prelingually deaf, post lingually deaf and deafened, deaf after schooling is completed.

“Hard of hearing” means those persons whose hearing is impaired to an extent that makes hearing difficult but does not preclude the understanding of spoken communication through the ear alone, with or without a hearing aid.

“Hearing impaired” means those persons who are deaf or hard of hearing.

(Hearing, 1992, p. 1)

Reviewing the foundation of these definitions, the definition given for “deaf” and for “hard of hearing” is inclusive of the terminology defined in the Shorter Oxford English Dictionary (Stevenson, 2007) which similarly states for deaf, “Without hearing; defective in the sense of hearing. Insensitive to certain kinds of sound, musical rhythm, harmony, etc.” (p. 612) and for hard of hearing, “Not easily able or capable, having difficulty in doing something. [as in] hard of hearing” (p. 1206).

The term “Deaf” will be used with reference to the Deaf community. The Deaf community is made up of deaf and hard of hearing individuals who view themselves as a minority, choose to use American Sign Language as their primary form of communication, and who view being deaf as a cultural fact rather than a form of handicap (Luft, 2000).

The Fair Labor Standards Act of 1938 declared “working age” to be 18 years or older. This is set as the minimum age that workers are not subject to restrictions on jobs types or hours worked ("Fair Labor Standards Act of 1938, as Amended", 2004).

## Chapter 1

### Introduction

In any economic climate, two topics often arise during business conversations. First, business leaders speak in recognition of their employees as key contributors to their companies' success. Second, business leaders recognize that engaged and satisfied employees are better performers in the workplace and that higher performance equates to increased profits for their companies (Edersheim, 2007). It is strange then to find that the needs and attitudes of a segment of the workers contributing to the organizational bottom line are not understood and that these employees are often underutilized and underemployed. The group referred to is deaf and hard of hearing people (Pray, 2003; Winn, 2006; Woodcock, 1993). This dissertation was undertaken to explore the attitudes and perceptions of hard of hearing persons to discover their feelings toward their supervisors, co-workers, and to the accommodations provided them in the workplace. Additionally, consideration was given to the tension between those accommodations offered and those which might be wished for but not available with the intention of discovering methods to aid both hard of hearing individuals and their employers to create a work environment that is mutually more productive and profitable.

A majority of the published academic literature reviewed in conjunction with this study used the combined descriptor of "deaf and hard of hearing" when discussing topics pertaining to either. Because this study was focused on hard of hearing people,

articles discussing only deaf individuals were not included. While deaf persons and the Deaf community make up an interesting and important segment of the population, they are limited in number, perhaps less than 1.0% of the combined deaf and hard of hearing population according to the statistics provided by Harrington (2004). Therefore, this study focused on hard of hearing individuals in part to avoid credibility issues that might be raised by deaf people concerning the author's minimal contact with the Deaf community. However, because studies combine these segments of the population, the terminology deaf and hard of hearing was used throughout this research.

Harrington (2004) and Mitchell (2005a) estimate the number of deaf and hard of hearing persons of working age (18 to 64 years-of-age) to be approximately 20.95% of the workforce. Thus, the number of hard of hearing individuals of working age would be approximately 20%. Reviewing the number of deaf and hard of hearing individuals within the State of Idaho, Schow, Mercaldo, Smedley, Christensen, and Newman (1996) found that of 2,630 individuals surveyed, 22.4% responded that they were deaf or hard of hearing. The figures demonstrate that more than one-fifth of the workforce may be affected by challenges associated with hearing. In a later report, Tate and Adams (2006) stated that Holt, Hotto and Cole's (1994) work, which places the working age hard of hearing population at 35% of the total population, "is the statistic most widely used to estimating regional, state and local population statistics" (p. 13). Gupta (2010) reported that Snow, the Executive Director of the Idaho Council for the Deaf and Hard of Hearing, estimates that there are 136,000 deaf and hard of hearing people living in the State of Idaho. Applying the percentages of working age hard of hearing individuals stated above to the population estimate from Snow, the number of hard of hearing

working age individuals in Idaho is calculated to be between 28,600 and 47,600. With such a significant number of employees potentially affected, academic research should be undertaken to help employers understand the perceptions of hard of hearing people and how employers might best facilitate the skills of hard of hearing employees. Authors Luckner and Stewart (2003) and Stone and Colella (1996) share this view believing that too little research has been focused on this segment of the workforce and specifically those in this segment that are succeeding [who have attained meaningful employment] in the workplace. The focal point of each of these comments centers on the need for further investigation into attitudes of hard of hearing people.

Existing academic literature concerning hard of hearing individuals demonstrates the complexity that surrounds these individuals (Andrews & Jordan, 1993; Schroedel, 1979). The review also revealed that most academic research is focused in areas of interest defined by legislative measures (i.e., No Child Left Behind and the Americans with Disabilities Act). The passage of primary legislation involving handicapped individuals, inclusive of those who are deaf and hard of hearing, produced a noticeable increase in the volume of literature discussing and reporting ideas around the legislation. The result, for instance, is a rich body of literature discussing the demographic dispersion of deaf and hard of hearing individuals. The literature also discusses the educational needs of these people, particularly in the K-12 age range. There are, however, few papers focused on the perceptions of hard of hearing employees.

The scholars and practitioners addressing this call for research have typically done so from a human relations or upper management point of view and of a quantitative form, as is demonstrated in the papers referenced by this study. These

papers categorize familiar items such as deaf or hard of hearing employees' job placement (Easterbrooks, 1999; Geyer & Williams, 1999; Lussier, Say, & Corman, 2000; Pray, 2003), accommodations (Deihl, 2008; Geyer & Schroedel, 1999), satisfaction with current positions (Glass & Elliott, 1993; Hetu & Getty, 1993; Mowry & Anderson, 1993; Winn, 2006), amount of education (Bowe, 2003; Bullis, Bull, Johnson, & Peters, 1995; Bullis, Reiman, Davis, & Reid, 1997), and time in the workplace (Crammatte, 1987; Schroedel & Geyer, 2001). What is missing from existing literature is research attempting to discover how hard of hearing employees feel about their work situations, and to determine what accommodations they would prefer, how those accommodations would improve productivity, and what changes need to take place to facilitate hard of hearing employees to become more satisfied and productive in the workplace. It is this missing body of insight and information that this study intended to address.

Based on the paucity of qualitative academic studies reviewing the attitudes of hard of hearing employees and on the direction of study called for by leading authors (Luckner & Stewart, 2003; Stone & Colella, 1996) a qualitative method of research was used in this study. Additionally, Punch, Hyde, and Creed (2004) and Bullis, Davis, Bull, and Johnson (1997) agree that qualitative research offers broader opportunities when attempting to bring to the surface the attitudes and beliefs of individuals.

Within the forms of qualitative methodology, several authors (Creswell & Creswell, 2005; DeVaus, 2001; Yin, 2003) agree that three sets of criteria indicate the use of case studies. The criteria are described as (a) case study research is most appropriate when the researcher is interested in "how," "what," and "why" questions; (b)

control over behavioral events is not required and; (c) the focus is on contemporary events. The focus of this study met these criteria. Therefore, the investigative portion employed a case study design and used a multi-case format with interviews from three self-identified, hard of hearing, employed individuals to gather data.

The sample size was limited to three cases and focused on hard of hearing persons within the State of Idaho. Data collection was accomplished by semi-structured interviews. The data were analyzed using methodology described by Ruona (2005). Applying this methodology, the recorded interview data were transcribed and then divided into a series of coded sections each containing a specific portion of the participant's answer. The coding was an iterative process designed to identify the thoughts from each response and to show similar and differing responses to each of the interview questions.

Specific risks were prevalent in this study and were identified as researcher bias, ethical considerations, and confidentiality. Kirk and Miller (1986) noted that three errors can occur with qualitative research and, if not addressed, can adversely affect reliability and validity. Type I error occurs when a researcher sees relations that do not exist. Type II error occurs when a researcher rejects a relation that does exist. Type III error occurs when the wrong questions are asked. When apparent, these errors cause validity issues with the research and its findings. While these errors are of legitimate concern, specific techniques were used in part to mitigate these error concerns. To mitigate Type I and Type II errors the author and a second reader first checked the interview transcripts against the original recordings to be certain the participants' statements were correctly presented. Next, as has been previously discussed, the coding process was checked for

errors and omissions. Finally, the conclusions drawn from the participants' responses were checked to be certain the existing relations were correct and to verify that critical relations, which existed in the participants' statements, were not left out of the discussion. Each of the three steps were accomplished by the author and the second reader in an iterative process which was repeated each time the information contained in this dissertation was materially changed. Type III errors were mitigated by testing the questions in two separate pilot interviews. Following each of the pilot interviews the questions were, as needed, modified for clarity, corrected for discovered errors or omissions, and inappropriate questions were deleted. This was accomplished prior to conducting the actual interviews for this study.

Four research questions were formulated to guide the inquiries for this dissertation: (a) What is the satisfaction level of hard of hearing employees? (b) What is the perception of hard of hearing employees toward their supervisors and co-workers? (c) What is the perception of hard of hearing employees concerning their current (and previous) employment position? (d) What is the perception of hard of hearing employees toward their workplace accommodations and what other accommodations are needed? Topics concerning hard of hearing individuals on which more academic literature was available were also considered in the course of this dissertation. These topical areas included communication, education, and the ADA. Additional topics were identified based on the participants' responses to the interview questions. These topics include the limited perception of employees toward the availability of accommodations, and the indication of hesitancy to openly acknowledge hearing limitations.

*Rationale for Study*

“Hearing loss is called ‘the unseen disability’ because people often don’t realize they’re talking with a person who has a hearing loss” (Stiles, 2009, p. 2). If a person enters a room using a wheelchair, crutches, a guide dog, or walking stick, those in the room often recognize that extra help is needed and offer assistance without being asked. If a person comes into the same room and sits at the conference table, then repeatedly asks individuals to speak up or repeat themselves, those individuals may think the person is rude or not paying attention but probably do not consider that the person may be hard of hearing. Hetu and Getty (1993) and Glass and Elliott (1993) point out that one of the problems with being hard of hearing is that the affected individual cannot continually ask others to repeat what has been said. This lack of understanding concerning hard of hearing people, drives the general attitude and many of the common perceptions held by employers and co-workers who do not have a hearing impairment. Negative attitudes toward differing people ranks among the most harmful attributes in attaining work and in reaching and maintaining a high level of work and personal satisfaction (Morre & Levian, 2003). These examples serve to illustrate the workplace complexities often faced by hard of hearing individuals and underscore a need for understanding, from both sides.

This study was created and shared a significant amount of knowledge concerning the attitudes and perceptions of hard of hearing employees to discover their feelings toward their supervisors, co-workers, and the accommodations provided to them in the workplace.

Significance is also found in this study in that the work accomplished here begins to identify paths that might be followed to increase understanding among hard of hearing employees, their co-workers, and their employers concerning the needs of hard of hearing employees in the fields of education, communication, and work place accommodations. Following these paths and increasing the knowledge level of each group of individuals may lead to better communication, a more satisfying work experience, and closer teamwork among the various employees. These factors should equate to a more satisfied workforce, which has been shown by Malthouse, Oakley, Calder and Iacobucci (2004) to increase profitability for the employer.

#### *Introduction of Dissertation Chapters*

An introductory comment is in order concerning the information contained in the following pages. Each chapter in this dissertation was written to provide the reader a clear understanding of the material presented without the need to search former chapters for primary supportive information. With this in mind, some redundancy was planned and will be found in the reading of the following pages.

The following chapters will add detail to the ideas that have been presented in this introduction. Chapter two is a review of the literature pertaining to the topic of this dissertation. The chapter contains information concerning (a) the demographic dispersion of working age hard of hearing individuals, (b) the legislation guiding employers' interactions with deaf and hard of hearing employees, (c) the education and transition of hard of hearing individuals from school to work, and (d) the workplace attitudes of hard of hearing employees. Chapter three is a description of the methodology used for conducting the research portion of this dissertation and describes

topics relative to the sampling and sample size of the survey population and to the risks and limitations relative to this dissertation. Chapter four describes the results of the case studies that were used to gather data for this dissertation. Details are given concerning the methodology that was used to collect, sort, and analyze the data used in conjunction with this study. The chapter also presents the participant responses and perception to each of the topical interview questions, and the author's considerations to the interview sessions. Chapter five details the discussion, implications, and limitations of this dissertation. The chapter presents an analysis of the participants' responses to the research questions, the theoretical implications of these responses, recommendations for further research, a final discussion of the risks and limitations of this study, and remarks concerning the significance of the study.

## Chapter 2

### Literature Review

A discussion of the literature around the topic “Investigating Workplace Attitudes and Perceptions of Hard of Hearing Employees” logically divided into four distinct categories: (a) the demographic dispersion of working age hard of hearing; (b) legislation guiding employers’ interactions with their deaf and hard of hearing employees; (c) transition from school to work; and (d) workplace attitudes and perceptions of hard of hearing workers. In each of these sections, information pertinent to the subject of business accommodations and perceptions of hard of hearing employees were discussed and specific statistical representations, definitions, moderating and mediating factors, and guiding discussions were emphasized. In many cases, conflicting information or definitions and contradictory statistical data were presented. This was not done to confuse the reader, but rather to reflect the available academic research and to emphasize the complexity that surrounds the world of hard of hearing people. The summary portion of this chapter restates the key points from each of the categories and how they applied to this research.

#### *Demographic Dispersion of Working Age Hard of Hearing Individuals*

The inquiry began with consideration of both the total numbers and demographic dispersion of the affected population. However, several facets complicated such a

discussion. To address the complications of this discussion, data are presented from the several studies that have compiled and reported statistical information concerning deaf and hard of hearing individuals. In order, this section considered: (a) the problem with historical and currently available data concerning the number of deaf and hard of hearing individuals; (b) a discussion of the definitions used in gathering statistics concerning deaf and hard of hearing; (c) the age brackets commonly used as delimiters for working age individuals (including deaf and hard of hearing individuals); and (d) information concerning various instruments commonly used to describe the national and state population of deaf and hard of hearing individuals. Having brought these concerns to light, information was offered from several sources to demonstrate both historical and current population numbers for deaf and hard of hearing of working age.

*Concerns with Statistical Data Describing the Number of Deaf and Hard of Hearing Individuals*

Mitchell (2005b) refers to material from Best (1943) and Schein and Delk (1974) who report that from 1830 to 1930, the United States government, through the medium of the decennial census, was the only source for collecting data concerning deaf and hard of hearing people. Over time, it became obvious that the decennial census was not gathering reliable statistical information concerning deaf and hard of hearing individuals. As a result, the questions about deafness were dropped from the census until 1957 when the U. S. Bureau of the Census became a contract agent for the U.S. Public Health Service and once again collected data concerning deaf and hard of hearing persons (Harrington, 2004; Mitchell, 2005b). However, Mitchell (2005a) points out that the decennial census does not make a reliable source for statistics concerning deaf and

hard of hearing individuals because the census combines the deaf or hard of hearing individuals in the same category as blind or vision impaired. This new category is referred to as Sensory (Erickson & Lee, 2008b).

*Definitions Used in Gathering Statistics Concerning Deaf and Hard of Hearing*

*Individuals*

Academic literature and legislation offer several definitions of deaf and hard of hearing, each with its own particular nuance. Bowe, McMahon, Chang, and Louvi (2005) state:

Deafness is the inability to understand conversational speech through the ear alone. A lesser level of hearing impairment involves a significant loss on both ears that makes it difficult, but not impossible, to understand speech, especially with hearing aids; the term “hard of hearing” is used for this degree of hearing impairment (p. 20).

The Survey of Income and Program Participation (SIPP) (as cited in Mitchell, 2005b) “defines hearing loss and deafness in relation to an individual’s difficulty hearing normal conversation with the use of a hearing aid [if used]” (p. 114). Mitchell also points out that a delimiter for deafness is often noted socially in an individual’s preferential use of sign language instead of spoken words to communicate. Erickson and Lee (2008a) state:

The American Community Survey (ACS) combines deafness, hearing impairment (hard of hearing), blindness, and severe vision impairment into the category of Sensory Disability. Inclusion in this category is based on a response

to a question inquiring whether a person has any of these four items as long-lasting problems. (p. 47)

Relative to the definition of disability, there are three mutually compatible definitions being used in discussions concerning deaf or hard of hearing people. The first of these states:

A hearing impairment is a disability under the ADA if: (1) it substantially limits a major life activity; (2) it substantially limited a major life activity in the past; or (3) the employer regarded (or treated) the individual as if his or her hearing impairment was substantially limiting (Commission, 2006, p. 3).

A final set of definitions uses everyday language and operationalizes the terminology used in other definitions and language. These definitions come from the by-laws of the State of Idaho's Commission for the Deaf and Hard of Hearing and succinctly combine the meaning of each of the other definitions that have been discussed. They are used throughout this paper and define deaf, hard of hearing, and hearing impaired as:

"Deaf" means those in whom the sense of hearing is not functional for the ordinary purposes of life. "Deaf" includes several degrees of deafness: prelingually deaf, post lingually deaf and deafened, deaf after schooling is completed. "Hard of hearing" means those persons whose hearing is impaired to an extent that makes hearing difficult but does not preclude the understanding of spoken communication through the ear alone, with or without a hearing aid.

"Hearing impaired" means those persons who are deaf or hard of hearing (Hearing, 1992, p. 1).

Looking again at these definitions and their usage it was noticed that stripped to their basic meaning, the definitions given for “deaf” and for “hard of hearing” are inclusive of the terminology from the Shorter Oxford English Dictionary (Stevenson, 2007) which similarly states for deaf, “Without hearing; defective in the sense of hearing. Insensitive to certain kinds of sound, musical rhythm, harmony, etc.” (p. 612) and for hard of hearing, “Not easily able or capable, having difficulty in doing something. [as in] hard of hearing” (p. 1206).

Recognition must be made of the Deaf community, a culture described by Luft (2000), Sacks (2000), Padden and Humphries (1988), and, Hoffmeister, and Bahan (1996). Luft describes the Deaf community as:

. . . viewing deafness based on the use of American Sign Language rather than relying upon hearing aids, lip reading (speech reading), or the use of their own voice, and who prefer to socialize with others who use ASL rather than with normally hearing individuals and prefer to call themselves “Deaf.” The capital “D” refers to their identification of themselves as a cultural minority. Members of the Deaf Community do not identify themselves as part of the disability community . . . and are quite resentful of professionals who identify them as hearing impaired. They consider themselves to be a minority group with a unique language and set of cultural values (p. 52).

Differences in definitions, though seemingly minor, may result in variations in the return of statistical evidence concerning hard of hearing people. Because an interview question serves as a stimulus to response, Patton (2002) states, “How a question is worded and asked affects how the interviewee responds” (p. 353). Following

this train of thought, if the question “Are you handicapped or physically disabled?” were asked of a hard of hearing person who is associated with the Deaf community, the individual would likely respond “No.” The response is, as Luft (2000) points out, because the Deaf community does not view being deaf or hard of hearing as a handicap or disability. If the question were to be phrased “Do you use hearing aids?” false answers might again come from hard of hearing individuals. The reasoning behind this statement comes from several authors (Glass & Elliott, 1993; Hetu & Getty, 1993) who suggest that those using hearing aids find a social stigma placed on the use of the hearing device and thus the question might gather false responses to hide their use of hearing aids. In a third example, if either of the two questions were asked in a questionnaire relative to the Americans with Disabilities Act then an increase in false responses might be expected from hard of hearing individuals. Those individuals needing hearing aids might again feel the social stigma and not respond with a truthful answer. Finally, when questions concerning hard of hearing individuals become inclusive with questions concerning vision impairment, the resulting data is difficult to separate and provides no reliable statistics for either group of people.

#### *Age Bracket Delimiters for Working-age Individuals*

Confusion rises again in defining the age brackets used to determine working age individuals. Surveys such as the American Community Survey show the ages to be 21 to 64 (inclusive) (Erickson & Lee, 2008b) while the Survey of Income and Program Participation and the National Health Survey use age brackets from 18 to 44 and from 45 to 64, both brackets inclusive (Mitchell, 2005a).

This lack of conformity tends to confuse the use of statistics concerning deaf and hard of hearing populations by causing the variable inclusion or exclusion of the ages 18 through 20 and over 64 years of age in the workplace statistics. Such a variance may markedly change the number of deaf and hard of hearing persons included in a discussion. Thus for clarity, this paper's definition of working age was based on the description used in the Fair Labor Standards Act of 1938 which sets 18 years or older as the minimum age at which workers are not subject to restrictions on jobs or hours. ("Fair Labor Standards Act", 1938) ("Fair Labor Standards Act of 1938, as Amended", 2004) *Instruments Describing the National and State Population of Deaf and Hard of Hearing Individuals*

Mitchell (2005b) discusses several of the major instruments used to gather data concerning deaf and hard of hearing individuals including The Survey of Income and Program Participation (SIPP), The National Health Interview Survey (NHIS), National Health and Nutrition Examination (NHNES), U. S. Census, American Community Survey (ACS), and National Family Opinion Panel (NFO). He reports that the Survey of Income and Program Participation (SIPP) is an annual survey conducted by the U.S. Census Bureau. This survey effectively separates the categories of deaf and hard of hearing. Next, he describes the National Health Interview Survey as being conducted yearly by the National Center for Health Statistics. The survey does not clearly separate statistics into deaf and hard of hearing categories. The National Health and Nutrition Examination Survey focuses on individuals 20 to 69 years of age and has been periodically conducted. This survey tries to identify degrees of deafness based on questions about audiometric data. [Audiometric data is gathered using an instrument to

measure the sensitivity of the ear to sounds of different frequencies (Stevenson, 2007, p. 151).] The decennial U.S. Census is conducted by the U.S. Census Bureau. Information from this source combines data for deaf and hard of hearing people with blind and vision-impaired individuals. In this combination, it is difficult to determine statistical information for any one of the categories. Finally, the Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (IDEA Child Count) supplies information on hearing loss among individuals 6 to 21 years of age. Erickson and Lee (2008b) discuss the American Community Survey and note that since it is based on a U.S. Census Bureau survey, this survey combines deaf and hard of hearing individuals with individuals who are blind and vision impaired into a “Sensory” category. Reports from this survey typically look at working-age population and consider the gap between people with and without disabilities. Kochkin (2005) describes the National Family Opinion panel as being balanced to U.S. census information in terms of age of household and size of household.

While each of these instruments is valuable in its own right, perhaps the most useful survey identified was the SIPP. This statement is based on Mitchell’s (2005b) interpretation that this survey, conducted on a yearly basis, seems to effectively separate information reported in the categories of deaf and hard of hearing.

*Populations of Deaf and Hard of Hearing Individuals of Working Age: Inclusive U. S. Population*

A review of historical and current population estimates for deaf and hard of hearing individuals of working age gathered from a variety of surveys revealed the following estimations of the percentage of persons with hearing problems: (a) Gallaudet

Research Institute 35.4%, (b) National Health Interview Survey 35.4%, (c) National Center for Health Statistics 15.63%, (d) The Survey of Income and Program Participation 20.95% (d) U.S. Census 7.8%, and (e) National Family Opinion Panel 34.6%. The percentages represent the estimated working age population based on the total number of hearing impaired population. The total number of hearing impaired population is reported by Holt, Hotto, and Cole (1994) to be 8.6% of the total United States population. The sampling demonstrated the difficulty in determining a reliable number of working age deaf and hard of hearing individuals. Perhaps the best that can be said is that the number is typically under stated and that it may vary from as low as 7.8% (Reuters, 2008) to as much as 35.4% (Herrington, 2004) of the U.S. population. (This information is also presented in Table 1.)

Table 1

*Survey Estimates of the Percentage of Persons with Hearing Problems*

<b>Survey Date</b>	<b>Source Survey Age Range / Estimated Percent Affected</b>	<b>Citation</b>
1990 – 91	Gallaudet Research Institute 18 through 64 years of age / 35.4%	(Herrington, 2004)
1994 (NHIS)	National Center for Health Statistics 18 through 64 years of age / 35.4%	(Holt, Hotto, & Cole, 1994)
2001(NHIS)	18 through 64 years of age / 15.63%	(Herrington, 2004)
1997 – 2003	The Survey of Income and Program Participation 18 through 64 years of age / 20.95%	(Mitchell, 2005a)
2005	U.S. Census 15 and older / 7.8%	(Reuters, 2008)
2004	National Family Opinion Panel (Marke Trak) 18 through 64 years of age / 34.6%	(Kochkin, 2006)

The SIPP report estimates the number of deaf and hard of hearing persons of 18 to 64 years-of-age to be approximately 20.95% of the total hard of hearing population (Mitchell, 2005a). However, a later report from Tate and Adams (2006) states that research results from Holt et al., (1994), which placed the working age hard of hearing population at 35% of the total population, “is the statistic most widely used to estimating regional, state and local population statistics (p. 13).” Snow, Director of the Idaho

Commission for the Deaf and Hard of Hearing, estimated that there are 136,000 deaf and hard of hearing people living in the State of Idaho (Gupta, 2010). Applying the percentages of working age hard of hearing individuals stated above to the population estimate from Snow, the number of hard of hearing working age individuals in Idaho can be calculated to be between 28,600 and 47,600.

*Legislation Guiding Employers' Interactions with Deaf and Hard of Hearing Employees*

Attempts to change the way the United States views and reacts to the rights of minorities begins with some form of Federal legislation to serve as guidance and enforcement to uphold those rights. An epic battle in the 1950's and early 1960's ended in the passage of the 1964 Civil Rights Act which outlawed many forms of discrimination and led to the creation of the Equal Opportunity Employment Commission. The force of change fostering the civil rights movement came from the populace and was fueled by vocal civic leaders across the United States. Voices calling for enactment of the Americans with Disabilities Act echoed in far different halls.

*Background of the Americans with Disabilities Act*

Efforts leading to the passage of the 1990 Americans with Disabilities Act ("ADA", 1990) were aimed at marketing the legislation as a civil rights bill. Unlike the earlier Civil Rights Bill, the impetus came not from the public but from a limited number of disability lobbyists. There was no concentrated effort to raise public awareness for the need nor was the press asked to bring pressure and support. The champions of this legislation felt the press and public held too many stereotypes of handicapped people to be trusted with such a critical task. The efforts were aimed at the federal legislatures and administration and were eventually successful in quietly

bringing into being a bill meant to end bias and discrimination against the handicapped (M. Johnson, 2007).

Several authors (Basas, 2008; Rothstein, 2008; Winegar, 2006) describe the outcome of the methodology used to promote and pass this legislation. This legislation passed by a well-intentioned congress and president was written with broad interpretive definitions meant to pull a multitude of disabled folks under its umbrella. The unfortunate outcome of the inclusive, somewhat vague, and far-reaching definitions was, and is, that the courts of the land interpret not the inclusion envisioned by its authors, but a severely limiting interpretation and primarily rule in favor of protection for business and against the cost of accommodations for disabled workers. Additionally, provisions in the ADA bill limit action to cases where the injured party is willing to take court action, accommodations are held within a value that is “reasonable” to the company or companies involved, and valuation of the accommodations are typically limited to only the worth to the offended party with little or no regard for worth to others.

#### *General Definition of ADA Legislation*

The Americans with Disabilities Act is segmented into five sections or titles each covering a distinct area of interest. Of these, (a) ADA Title I covers areas of employment, (b) ADA Title II is concerned with public transportations, (c) ADA Title III is focused on public accommodations, (d) ADA Title IV focuses on telecommunication, and (e) ADA Title V describes miscellaneous provisions of importance but which do not fit into one of the other Title areas (WorkWorld, 2009). Of these sections, Title I regulates employers with 15 or more employees and applies

directly to the area of interest of this paper. Specifically, Title I relates to Equal Employment Opportunity for Individuals with Disabilities and, in part, states:

Employers cannot discriminate in their application or employment practices against a qualified individual with a disability. If necessary, the employer must provide a reasonable accommodation for the person to perform the essential functions of the job unless this accommodation would cause an undue hardship on the employer. (29 Code of Federal Regulations Part 1630), ("Title I Equal Employment Opportunity for Individuals with Disabilities", 1994, p. 12112)

Guidance from this portion of the ADA legislation defines the parameters by which employers interact with their deaf and hard of hearing employees and the types and expenses of accommodations that are offered to those workers.

*ADA Definitions Specific to Deaf and Hard of Hearing People*

The Americans with Disabilities Act of 1990 defines “disability” as (a) a physical impairment that substantially limits one or more of the major life activities of such individual, (b) a record of such impairment, or (c) being regarded as having such an impairment (Finch, 1985). These definitions were revised on September 25, 2008 with the signing of the Americans with Disabilities Act Amendments Act of 2008, which subsequently became law effective January 1, 2009. The changes called for a rejection of several Supreme Court decisions and portions of the U.S. Equal Employment Opportunity Commission’s ADA regulations. The basis of the changes are that the terminology “substantially limits,” “major life activities,” and “disability” should be interpreted broadly when being applied to ADA cases ("Notice Concerning The Americans With Disabilities Act (ADA) Amendments Act Of 2008").

*Reasonable Accommodations*

A generalized list of accommodations for deaf and hard of hearing employees was reported by Geyer and Schroedel (1999) who used the result of a 1994 survey of 232 employed college graduates to compile a list of their accommodations. Information was extracted from the list to compile the following common accommodations. Shown in order from most commonly to least commonly used the accommodations are: (a) hearing people answer the telephone, (b) TDD (telecommunications device for the deaf) or TTY (text telephone device), (c) use of ASL Interpreters, (d) rearranging items or furniture so people can be easily seen, (e) providing a written summary of meeting notes, (f) giving hearing loss information to co-workers, (g) using computer e-mail, (h) adding flashing lights for fire alarms, (i) having co-workers take meeting notes, (j) changing job training to facilitate learning, (k) using telephones with an amplified hand set, (l) modifying job duties to facilitate better work, (m) offering American Sign Language classes for co-workers, (n) using pager or beeper devices, (o) modifying methods used to test the workers' abilities, (p) using assistive listening devices at meetings, (q) using flashing lights on machines for safety, and (r) using computer assisted note taking. This list of accommodations shows continued agreement with the examples offered in discussions of ADA reasonable accommodations ("Title I Equal Employment Opportunity for Individuals with Disabilities", 1994).

From a more recent article, Deihl (2008) offered additional accommodations using more modern technology. Among these are (a) video remote interpreting, (b) video relay service, (c) computer assisted real-time translation, (d) assistive listening systems/devices, and (e) signal/hearing dogs. Basas (2008) adds that accommodations

may take the form of “job restructuring, part-time or modified work schedules, reassignment to a vacant position, . . . or modifications of examinations, training materials or policies” (p. 63).

*Resistance to Accommodations and Cost Considerations*

Much of the resistance generated toward the Americans with Disabilities Act comes from the idea that for each case, only one employee is satisfied and that the accommodation necessary to bring satisfaction is disproportionately expensive to the employer. According to Winegar (2006) much of the resistance is brought about because of the broad language in the act itself and because of the courts’ narrow interpretation of the act in their judgments. The thought is so prevalent that Emens (2008), states:

Courts and agencies interpreting the Americans with Disabilities Act generally assume that workplace accommodations benefit individual employees with disabilities and impose costs on employers and, at times, co-workers. This belief reflects a failure to recognize a key feature of ADA accommodations: their benefits to third parties. (p. 839)

Such feelings are echoed by Hernandez, et al. (2007) who see that the costs associated with accommodation far outweigh the benefits that might be derived from the employee. A commonality that this argument typically does not take into consideration is that of third party benefits. Sunstein (2008) and Minow (2008) argue that accommodations meant for a single person may, and often do, reap benefits for others in the area. Here it is emphasized that while costs are accrued in accommodating individuals in compliance with the ADA and court settlements from individual cases, there is often a number of

mitigating factors that spread the use of the accommodation to other parties beyond the immediately affected individual.

Partially to rebut arguments of cost, the Job Accommodation Network, a U.S. Department of Labor's Office of Disability Employment Policy work group, funded a study in conjunction with the University of Iowa's Law, Health Policy, and Disability Center (Hyer, 2006). The study began in January 2004 and was completed in December 2006. During the study, 1,182 employers who contacted Job Accommodation Network were interviewed. While this survey was limited in total number of subjects and covered any accommodation relating to the ADA, this author believed that it offered a basis for similar discoveries and warrants review when looking specifically at accommodations for the deaf or hard of hearing. The results of this survey are shown in Table 2.

Table 2

*Benefits to Employers Providing Accommodations in Accordance with ADA*

Direct Benefits	Percent of Employers
Company retained a valued employee	86
Increased the employee's productivity	71
Eliminated costs associated with training a new employee	56
Increased the employee's attendance	49
Increased diversity of the company	42
Saved worker's compensation or other insurance costs	39
Company hired a qualified person with a disability	18
Company promoted an employee	10
Indirect Benefits	Percent of Employers
Improved interactions with co-workers	67
Increased overall company moral	58
Increased overall company productivity	56
Improved interactions with customers	43
Increased workplace safety	41
Increased overall company attendance	34
Increased profitability	32
Increased customer base	16

N=1,182 (Network, 2006, p. 3)

*Transition from School to Work*

Regardless of when a deaf or hard of hearing person enters the labor force—out of high school, after technical training, or after higher educational pursuits—a common complaint is that deaf and hard of hearing employees are not treated fairly in the workplace. Several authors (Easterbrooks, 1999; Geyer & Williams, 1999; Lussier, Say, & Corman, 2000; Pray, 2003) agree with this statement and note that even those deaf and hard of hearing people with good education and communication skills are often underemployed and denied access to entry level work. A partial solution for such bias, suggested by Welsh (1993), is for deaf and hard of hearing persons to apply for work in areas where employers are competing for workers. In job markets where workers are in short supply, qualified deaf or hard of hearing candidates are more likely to be considered. Garay (2003) feels that among the common obstacles facing deaf and hard of hearing employees are those of expectations both from parents and from peers as well as the problem of a differing set of life skill tools. Garay is joined by Easterbrooks (1999) as well as Lussier et al. (2000) in the belief that many of these issues stem, at least in part, from a lack of awareness or education concerning deaf and hard of hearing people. While state and federal legislative attempts have been aimed at these problems, “it is estimated that 80% of the public schools serving deaf and hard of hearing students have three or fewer students while an astounding 53% have only one student” (Mitchell & Karchmer, 2006, p. 99). With such low numbers in the traditional or mainstream classroom, it is difficult to provide the specialized training and support that deaf and hard of hearing students deserve.

### *Communication*

Several authors (Biser, Rubel, & Toscano, 2007; Clark, 2007; Lussier, Say, & Corman, 2000; Punch, Hyde, & Creed, 2004; Welsh, 1993) feel that communication is a primary key to opening the doors of employment opportunity for deaf or hard of hearing persons. Today's economy creates a rapidly changing work environment. An environment in which the survivability of employment of every employee, and particularly a deaf or hard of hearing employee, depends on having good communication skill coupled with work flexibility and a drive to remain a lifelong learner (Punch, Hyde, & Creed, 2004).

A survey conducted by Bowe (2002) "underscored the fact that accessible communication at a distance continues to require strong reading and writing skills" (p. 10). Biser et al., (2007) found that employers placed a high enough expectation on this communication form that they were willing to provide support to improve the employees' writing skills. Clark (2007) suggests that communication must be viewed beyond verbal exchange. The term communication is inclusive of visual, written, and electronic exchanges. Indeed, "hearing people can share the same spoken language and can talk a great deal and still not communicate" (p. 18). In summary, effective communication can be seen as the shortest path to avoid misunderstanding between deaf and hard of hearing employees, their employers, and their co-workers. Effective communication is also vital in obtaining and holding a job in today's market.

### *Unemployment*

Deaf and hard of hearing persons make up a largely underemployed and poorly utilized segment of the workforce. Much has already been said about their abilities, yet

deaf and hard of hearing persons are not employed at the same level as their peers, they face discrimination denying them access to promotion, and they receive considerably less pay than their fellow employees (Lussier, Say, & Corman, 2000). Geyer and Williams (1999) agree with this discussion of the employment problems facing deaf persons and note that this is true even after the passage of the Americans with Disabilities Act. They conclude that one-step toward solving this problem is the education of employers who need to know how to accommodate and utilize deaf and hard of hearing individuals in their work environment.

### *Educational Transition*

The need for a tertiary educational experience has been emphasized for most deaf and hard of hearing individuals. However, to bring this transition into reality and to make the step from there into the workforce more than a dream calls for early help to formulate a workable plan for the future. "Every year in the United States, 36,000 deaf and hard of hearing students aged 12 to 18 inclusive participate in special education programs in American public schools" (Bowe, 2003, p. 485). As part of the offering in these programs, deaf and hard of hearing individuals are introduced to transition services. These important services offer an opportunity for deaf and hard of hearing students to understand the available options and perhaps explore work opportunities (Bradley, 2004). It is not possible to point to any one of the many variables that might create a successful transitional experience for a deaf and hard of hearing person. However, it is vital that in individual career planning there is a clear personal understanding of career and educational choices available to hard of hearing individuals

so they can formulate a vision of their future endeavors (Bullis, Davis, Bull, & Johnson, 1997).

To enable transitional programs and empower deaf and hard of hearing students who are involved, Garay (2003) reports that planning for transition should start in middle school and needs to be sensitive to cultural factors. Garay also states that transitional planning must be comprehensive and include student family participation as well as an awareness of the parents' feelings. Additionally, Clark (2007) calls for the transitional related materials to be available in formats that are friendly to deaf and hard of hearing audiences. From their involvement with transitional services, Danermark, Antonson, and Lundstrom (2001) found that the involved individuals “. . . certainly benefited from guidance and support when confronted with the important decision [planning their future educational and employment goals] at such an early age” (p. 127).

#### *Workplace Attitudes and Deaf and Hard of Hearing Employees*

##### *Perceptions of Employers and Co-workers*

Negative attitudes toward and among differing people ranks among the most harmful attributes in attaining work and in reaching and maintaining a high level of work and personal satisfaction (Morre & Levian, 2003). Payne (2008) puts forth the idea that individuals can be prejudiced, hold negative attitudes toward others, and never know that they are doing so. While researchers should be working toward understanding and the resolution of personal bias, Schroedel (1979) suggests that even the common use of a statistical null hypothesis may add to the problem. Since the null hypothesis cannot be proven, the emphasis in research is aimed at differences to the exclusion of commonalities. The outcome is that disadvantaged groups are done a disservice by

overlooking similarities that could serve to pull individuals together and focus instead on factors that keep them apart. Gilbride's (2000) discussion on the topic suggests that negative attitudes are held in place by myths. While these attitudes are not openly hostile, they emphasize the differences between the hearing and deaf and hard of hearing people. In summary, these authors call for research and action to break down personal prejudice by increasing understanding toward deaf or hard of hearing individuals.

When it comes to employment and employers, Crammatte (1987) finds there are four attitudes that prevail. These attitudes are (a) resistive, (b) permissive, (c) accommodative, and (d) facilitative. The resistive employer does not want to employ a hearing impaired person under any circumstances. This employer believes that hiring the hearing impaired will bring a problem employee who will cost the company much more than he/she is worth. To the employee, there is little or no opportunity for employment with this type of employer. A permissive employer feels that if a hearing impaired person applies, then the company will consider employment for that person. Hearing impaired candidates at a permissive workplace would need to show themselves more capable than other potential candidates and would probably need to demonstrate an ability to work without causing additional expense for training or accommodations to the company. An accommodative employer is one who, given a hearing impaired candidate, is willing to rework the job requirements and make accommodations for the needs of the person. The hearing impaired employee at this company should find an atmosphere conducive to continued employment and personal growth. Finally, the facilitative employer believes that hiring hearing impaired persons is not only the right thing to do

but is a good thing for the company. This employer will actively seek hearing impaired applicants and then structure the workplace setting to facilitate their work and growth.

*Perceptions toward Impaired, Handicapped, and Disabled Individuals*

Although deaf and hard of hearing people in general, and the Deaf community in particular, abhor being referred to as impaired, handicapped, or disabled, this is the terminology that is often used for description in the literature and research around the topic of deaf and hard of hearing persons. With this in mind, it would be remiss not to include a short discussion concerning perceptions toward the impaired, handicapped, and disabled as it relates to deaf and hard of hearing people.

A dichotomy is created between Schroedel's (1979) thought that:

The toughest item on the agenda of disability is that modern America has no need for most disabled persons. In the rehabilitation community, this conclusion is unthinkable, although such a conclusion is both plausible and real (p. 22)

and Silver (1994) who says:

. . . it is possible that if a hearing impaired person begins employment in an environment where an awareness and sensitivity are already established, then this person will have an equal opportunity . . . as would any other qualified employee (p. 48).

What is needed is to tip the scales back to a neutral point. The weight to do so is found in the comments of Schroedel who describes handicapped individuals who embrace disability and Mullich (2004) who simply says, "I think my disability is something I have not something I am" (p. 7). Mullich points out IBM as a facilitative company that considers the inclusion of handicapped workers as an asset to their company stating,

“We don’t hire people who are disabled just because it’s a nice thing to do. We do it because it’s the right thing to do from a business standpoint ...” (p. 2).

*Perceptions about Hard of Hearing Employees*

A problem for hard of hearing people is that they do not fit well into any camp. To members of the Deaf community, they can hear too well to find social inclusion within the Deaf community. To members of the hearing community, they cannot hear well and are marked with the stigma of their handicap. On the job, any indication of a hearing problem may be taken by others as an open door for discrediting jokes. This causes hard of hearing individuals to conceal their problems and live within a world of not understanding well to avoid the stigma of using a hearing aid (Glass & Elliott, 1993; Hetu & Getty, 1993).

Winn (2006) finds that adult use of a hearing aid makes little difference in being unemployed or in tertiary educational opportunities. However, Mowry and Anderson (1993) point out problems such as supervisors who believe hard of hearing employees do not have problems understanding spoken words when factually, they may hear the sound but not be able to understand the words in the way a hearing individual would. Hetu and Getty (1993), and Glass and Elliott (1993) agree with this statement and point out that one of the problems with being a hard of hearing person is that the affected individual cannot continually ask others to repeat what has been said. Hard of hearing employees must expend more time and concentration trying to discern what has been said and watching the actions of those around them to be certain they have captured the correct meaning of what they have heard.

Hard of hearing people live in a between world, a place where they carry the prejudice of being hearing impaired yet do not have full acceptance into the Deaf community. They live in a place where they would benefit from using devices available for the deaf yet they fear the stigma of being recognized as a hard of hearing individual.

*Communication in a Workplace Setting*

Lussier, Say, and Corman (1999) believe that the largest obstacles facing deaf and hard of hearing employees are found in two categories which share a great deal of similarity, communication and social need. Within the categories, communication plays the primary role and one in which Woodcock (1993) believes causes interaction problems between deaf employees and their hearing co-workers. The problems stem from the hearing workers who do not understand their deaf and hard of hearing co-workers and consequently feel threatened by them. The feeling of being threatened is believed by Woodcock to be one of the root causes of prejudicial beliefs and actions. It is this lack of understanding and the resulting prejudice that Foster (1992), Lussier et al., (2000), Schroedel and Geyer (2001), and Wheeler-Scruggs (2002) all believe to be a root cause for stressful communication and feelings of isolation in deaf and hard of hearing employees.

The focus of communication problems, according to Young, Ackerman, and Kyle (2000), is not in formal settings, but rather is found in the missed opportunities to talk and share during the course of chance day-to-day meetings and interactions. While deaf and hard of hearing individuals may get along in a one-on-one encounter, problems arise as the meeting grows and methods of accommodation are not present or used. In

these cases, the voice of a deaf or hard of hearing employee is forgotten among the clamor of the hearing. In more formal settings, a Sign Language Interpreter or other formal accommodations are often used to accommodate the needs of all who are present. When sharing ideas with deaf and hard of hearing individuals, Payne (2008) finds that they may use many methods of communication, each of which can carry its own cultural implications and protocols. It is easy for the hearing to shrug off the communication problems faced by deaf and hard of hearing people. However, attention must be focused on the warning of Foster (1992), Glass and Elliott (1993), and Hansen (1999) all of whom note that struggles with communication often end with a deaf or hard of hearing employee leaving the job.

#### *Education and the Workplace*

In current academic literature there is a common thread calling for deaf and hard of hearing persons to pursue higher education. Authors (Bowe, 2003; Bullis, Bull, Johnson, & Peters, 1995; Bullis, Reiman, Davis, & Reid, 1997; Punch, Hyde, & Creed, 2004) believe that the earlier deaf and hard of hearing persons leave school, the harder it becomes for them to obtain and maintain meaningful employment. Those without education beyond the high school level, whether college, vocational, or apprenticeship training, set themselves on a path toward marginalized jobs. Crammatte (1987), Geyer and Schroedel (1998), and Schroedel and Geyer (2001) agree with the need for continued education and state that for deaf and hard of hearing individuals seeking employment, advanced degrees are the pathway to more satisfying opportunities. Additionally, deaf and hard of hearing individuals with higher degrees tend to change jobs less frequently than their counterparts with lesser educational backgrounds.

When considering both the transitional period from school to the workplace and the difference advanced degrees can make for a deaf or hard of hearing individual in the workplace, it is unfortunate that more students do not continue on to college and to the attainment of advanced degrees (Crammatte, 1987). The failure to pursue higher education, according to Andrews and Jordan (1993), may not be based on a lack of knowledge and ability, but rather on problems caused by the college admissions standards. These standards were created to meet the needs of a hearing population and need to be modified to become more inclusive. In a more contemporary report, the United States Government Accountability Office (GAO) (Scott et al., 2009) states “the proportion of students who reported having a disability increased from 9% in 2000 to 11% in 2004 and remained close to that level in 2008. . . . this population has grown, which may result from the increased proportion of elementary and secondary students who have received special education services over the past 30 years” (p. 9). The same report also finds that of the percentage of disabled students enrolled in college, those reporting hearing impairment is about 6 percent (p. 38). Finally, the GAO report finds that colleges are accommodating students to enable them to reach their educational goals by: (a) allowing more time to complete a degree; (b) providing peer note takers for deaf or hard of hearing students; (c) sign language interpreters or captioning at campus events; and (d) using scribe pens which link class lectures and discussions to handwritten notes for later play back of the lecture at the point where the notes were written (p. 19). Such information indicates that while much is left to do, doors are being opened to enable the handicapped to reach their educational goals.

Deaf and hard of hearing students need an education that will prepare them to work side-by-side with their hearing counterparts, and mainstream education is one of the methods used to build this ability (Morre & Levian, 2003). Further advantage is added when people are offered opportunities to gain work experience in apprenticeship programs. Such programs help ready participants for the variety of standards and procedures required in the workplace (Crammatte, 1987).

### *Summary*

As the pertinent literature around the topic of the workplace accommodations and perceptions of hard of hearing employees was reviewed, several important facts surfaced. It was discovered that in every area of interest, the world of a hard of hearing employee is filled with complexity and conflicting views. Reviewing the demographic dispersion of working age deaf and hard of hearing individuals it became obvious that there is no common ground in methodology, definition, or conclusion concerning the number and dispersion of deaf and hard of hearing individuals. Instead of reproducible figures, demographic research offers estimations based on the recalculation of surveys that often include deaf and hard of hearing individuals with people from other categories. There was also difficulty in formulating solid definitions of the terminology and in selecting categorical dividers for use in this study. In the end, the following choices were made based on tendencies of use by other authors and authorities in the field. First, this proposal uses the inclusive terms “deaf” and ” hard of hearing” both singularly and in combination to describe people who have hearing loss or who have impaired hearing. Second, based on usage in federal legislation, a definition of working age was set as inclusive of individuals from 18 years and older. Third, from among the

results of several surveys described, (Harrington, 2004; Holt, Hotto, & Cole, 1994; Kochkin, 2006; Reuters, 2008), Holt, Hotto, and Cole's statistics were used. This use was based on a report from Tate and Adams (2006) which stated that research results from Holt et al., (1994), which placed the working age hard of hearing individuals at 35% of the total population, "is the statistic most widely used to estimating regional, state and local population statistics (p. 13)."

In the area of employers' interactions with deaf and hard of hearing employees, it was found that the general attitude is that the movement toward workers' rights and the inclusion of deaf and hard of hearing individuals has been driven by the passage of the ADA. While this legislation did not include proactive litigation, it did open the door for individuals to file suit and is defining the length and breadth of the rights of the disabled in the workplace, inclusive of deaf and hard of hearing individuals. The presence of this legislation has been largely responsible for the expanded use of workplace accommodations and has expanded opportunities for deaf and hard of hearing workers.

In education and the transition from school into the workplace, legislative acts aimed at providing equal access to handicapped individuals have acted as a catalyst. The literature reviewed emphasized the importance of the transition of hard of hearing people from education into the workforce. The literature suggested that early intervention and detailed planning lead to higher rates of success in the workplace. It was also suggested that the more education hard of hearing people complete, the better their chances become of success and satisfaction within the working world. Finally, for

hard of hearing individuals in the workplace, higher education often means better paying jobs, more workplace mobility, and higher rates of satisfaction in the workplace.

It was also noted that a lack of understanding concerning hard of hearing people drives the general attitude and many of the common perceptions held by employers and co-workers who do not have a hearing impairment. The complexities of workplace communication were touched on and the vital need for understanding, from both sides, was discovered.

It is interesting to note the general volume and flow of information concerning hard of hearing people. In broad terms, literature on this subject was found around legislative movement, which is inclusive of deaf and hard of hearing individuals. The passage or modification of this legislation stimulated the academic discussion around the topic and the volume of publication of related material diminished with time. A second point of interest was that literature and academic research concerning hard of hearing individuals occurs in a “V” shape. At the widest point are discussions of the population distributions of the handicapped, inclusive of deaf and hard of hearing people, and generally gleaned from one of many governmental surveys. More centrally located, and of a cyclic nature based on legislative or litigious activities, is research concerning legally mandated accommodation or handling of the needs of handicapped people (inclusive of deaf and hard of hearing individuals). This portion also includes legislation concerning educational needs. Near the bottom, the narrowest of area in the “V” is discussion concerning deaf and hard of hearing employees in workplace settings.

As this literature review moved through the maze of information concerning hard of hearing persons, two interesting trends of thought surfaced. First, the majority of the

academic research that was reviewed was gathered using a quantitative approach. Secondly, the academic research concerning hard of hearing persons in the workplace was typically from the perspective of upper management. The paucity of research concerning hard of hearing individuals in the workplace is stated by Luckner and Stewart (2003) as well as Stone and Colella (1996) who shared this view believing that too little research has been focused on deaf and hard of hearing employees who are succeeding in the workplace. [Succeeding is defined as “have the desired outcome” (Stevenson, 2007, p. 3091) or in this usage to be gainfully employed]. The focal point of each of these comments centered on the need for further investigation into attitudes of deaf and hard of hearing employees (Schroedel & Geyer, 2001; Weisel, 1998).

In reacting to the lack of research concerning deaf and hard of hearing employees, the research portion of this dissertation focused on gathering and understanding information on (a) the satisfaction level of hard of hearing employees, (b) the perception of hard of hearing employees toward their supervisors and co-workers, (c) the perception of hard of hearing employees concerning their current (and previous) employment position, (d) the perception of hard of hearing employees toward their workplace accommodations and what other accommodations are needed. The ensuing qualitative investigation focused on Idaho. However, the information gathered will be of interest to a wider population. Yin (2003) and Patton (2002) both note that although the results of properly planned multi-case qualitative studies differ in sample size from quantitative analysis, the information gathered from a properly designed case study can be applied on a broader basis.

## Chapter 3

### Methods

The purpose of this study was to explore the attitudes and perceptions of hard of hearing employees to discover their feelings toward their supervisors, co-workers, and the accommodations provided to them in the workplace. Additionally, the study considered the tension between a hard of hearing employee's status quo and what would be wished for with the intention of discovering methods to aid the employed hard of hearing individuals and their employers in creating a work environment that is mutually more productive and profitable.

Punch, et al., (2004) and Bullis, Davis, Bull, and Johnson (1997) agree that, in comparison to quantitative methods, qualitative research offers broader opportunities when attempting to bring to the surface the attitudes and beliefs of individuals. Additionally, Creswell (2009) lists ten characteristics of the qualitative research paradigm, each of which was supported by the literature and inquiry of this research. Within the forms of qualitative methodology, several authors (Creswell & Creswell, 2005; DeVaus, 2001; Yin, 2003) agree that three sets of criteria indicate the use of case studies. The criteria were described as (a) case study research is most appropriate when the researcher is interested in "how," "what," and "why" questions, (b) control over behavioral events is not required and (c) the focus is on contemporary events. The focus

of this study met these criteria. Therefore, to gather data the investigative portion of this study employed a case study design and used a multi case format with interviews from three employed, self-identified, hard of hearing individuals.

This chapter further describes the justification for the approach, sampling strategy, instrumentation, data collection, data coding and analysis, and reliability and validity. The chapter also describes the approach planned for risks and limitations, ethical considerations, confidentiality, informed consent, and other issues and their associated mitigation tactics.

### *Sampling and Sample Size*

Participants for the case studies were chosen using what Patton (2002) refers to as “purposeful criterion sampling” (p. 230). This approach “yields insights and in-depth understanding rather than empirical generalizations” (p. 230) due to the expertise of each member. Patterned after Patton’s criteria, the interview participants were workforce age (18 years and older), male and female and were currently employed, self-identified as being hard of hearing, did not use sign language as a primary mode of communication in the work place, and interviewed verbally. Only participants who identified as communicating primarily in spoken English were selected which avoided possible transcription errors or omissions that might have stemmed from the use of an interpreter. Additionally, only candidates who resided within the State of Idaho were considered. The primary source for participant contacts was by convenience selection and, based on the case study methodology being used, three hard of hearing individuals, who met the criteria discussed above, were interviewed.

*Instrumentation*

One-on-one semi-structured interviews were conducted using generalized questions to gather introductory information from each interviewed subject. The questions compiled for the interviews were written, to the extent feasible, in open-ended form and were designed to bring out each participant's attitude and perception toward the subject of the question.

The author compiled the original set of questions used in this study. The list of questions was discerned from the Literature Review in Chapter 2 of this dissertation. (See Appendix A.) The first six questions were intended to gather basic demographic information concerning the participant such as name, age, occupation, employment, and whether the person considered himself or herself to be a hard of hearing individual. These questions were used as control variables and confirmed that each participant met the selection criteria for this study. The remainder of the questions gathered information concerning (a) what is the satisfaction level of hard of hearing employees, (b) what is the perception of hard of hearing employees toward their supervisors and co-workers, (c) what is the perception of hard of hearing employees concerning their current (and previous) employment position, and (d) what is the perception of hard of hearing employees toward their workplace accommodations and what other accommodations were needed. Each of these areas of inquiry had been previously identified during the literature review portion of this study.

To better focus these questions and to be certain the questions being asked were relevant not only to the points described in the literature but also to the Idaho hard of hearing community in general, the author contacted, by email, an American Sign

Language Interpreter. This individual has been an active professional American Sign Language Interpreter for more than ten years, has an earned Master of Arts in Organizational Leadership degree, has worked as an adjunct professor teaching American Sign Language (ASL), founded a deaf and hard of hearing advocate group, and is a long-time member of a group working with classroom ASL interpreters. Based on the combination of education, long-time association with deaf and hard of hearing people both socially and professionally, and personal work experience, this reviewer is expertly qualified to provide feedback on the questions. In the email, the author explained the dissertation project, shared the information from the literature review, and a description of the methodology. After reviewing the original list of questions (Appendix A), the interpreter suggested additions to expand each of the questions and produce richer interview responses. These suggestions were emailed back to the author who combined the suggestions with the original questions to form a new question list. The revised list of questions was again emailed to the ASL interpreter who reviewed and returned them with only minor changes. The author then completed a final review of the questions and was satisfied that the list was ready for use in the pilot interviews.

The questions for use in the study were formatted using two styles. The questions that were intended to gather basic information concerning the participants used a closed format. This closed question format was designed to gather only the specific information being sought such as name or age. The questions intended for gathering information concerning each participant's attitudes and perceptions were written in an open-ended form with the intent of prompting longer responses containing more depth and breadth of information.

Two one-on-one pilot interviews were conducted to test the question set and to fine-tune the author's interview techniques. The pilot interview participants were hard of hearing individuals who met the selection criteria with the exception that they were retired. The pilot interviews allowed the researcher an opportunity to discuss and try interview techniques and to become familiar with the digital recorder that was later used during the actual interviews. The pilot interviews were also used as a final verification of the question list and, although none of the questions were changed, it offered an in-the-field opportunity for in-depth consideration and validation of the questions. Using this process, the list of questions was finalized for use in the interview segment of this research. (See Appendix B.) A comparison could be made between Appendix A, the original set of questions, and Appendix B, the interview questions used during each interview. Such a comparison would demonstrate that the original set of questions was retained, although some questions were repositioned to bring more detail to the inquiry. The primary additions and modifications made to the original set of questions are found in the subsets (i.e., 8, 8a) of questions falling under each of the main points. These were added to gather additional topical details and clarification.

Each interview included an expanded discussion guided by the subject's answer to each question. Thus a semi-structured interview approach was used and facilitated both the collection of specific information and the gathering of participant's individual perceptions.

#### *Data Collection*

Data was recorded by means of individual interviews. A copy of the Final Survey Questions, a Letter of Explanation to Interview Candidate, and two copies of the

Informed Consent Document were provided to each participant for consideration prior to the interview session. (See Appendix B, Appendix C, and Appendix D for details.)

Providing a pre-interview copy of the questions was in keeping with practices used by Clark (2007) who noted that this methodology allows the participant to consider the direction of the discussions and offers deaf people an opportunity to prepare for the meeting.

Face-to-face interviews were conducted with each participant. A complete digital voice recording of the conversation between the interviewer and the participant was made for later verbatim transcription by a professional transcriber. In turn, the transcription was used to review, code, and sort the data and to facilitate recognition of similarities and differences in answers to the interview questions relative to others in the sample and findings from the literature review.

#### *Data Analysis*

Data analysis applied a methodology described by Ruona (2005) which makes use of a word processing program for coding and analysis of the data collected during each interview. Coding can be thought of as a method used to identify and designate critical responses within the body of a transcribed interview. Ruona (2005) offers a guide to coding and suggests that coded information is, (a) the answer to the questions asked by the researcher, (b) exhaustive in that when the coding is finished, all the data gathered has been categorized, (c) categories should contain only one type of response or information, (d) to the extent that it is possible, category names should have meaning to the coder, and (e) each level of category should contain the same level of information.

The flow of the data gathering, analysis process, and reporting was to first

provide a copy of the interview questions to the participant before the interview occurred; then conduct the interview. Next, each interview was transcribed to produce typed, electronic documentation of the complete interview session. A unique identifier was assigned to each participant (to ensure confidentiality) and responses were coded to include the identifier. Each transcribed interview response document was saved with continuous line numbering. The line numbering became a code category to guide the researcher back to the original data. Each question was then given a unique reference number and any unnecessary wording was removed from the document leaving in place the participant reference, the appropriate line number references, and the responses. The transcript was next changed into a six column, multi-rowed table format with the first four columns for coding, the next column for participant response and a final column for researcher comments. Responses for each question were separated into unique thoughts or comments. Each unique response was moved, using cut and paste, to a new table row and was given a coding identifier based on its content. This process continued until each table row contained a unique or specific portion of the participant's answer. The process was repeated for the transcribed results from each interview. The tables created during the process were then appended together to form a single table which was sorted to allow comparison of answers for similarities and differences. The coding process was iterative and included the addition of codes to again divide responses into individual ideas, which were again sorted and reviewed. Results from the coding and sorting process were evaluated against the body of literature reviewed during this research and findings were described in the form of narrative explanation. Presentation in this form will allow for understanding among scholars, but more importantly, for ease of

application by practitioners. This methodology is shown as a graphical representation in Figure 1.

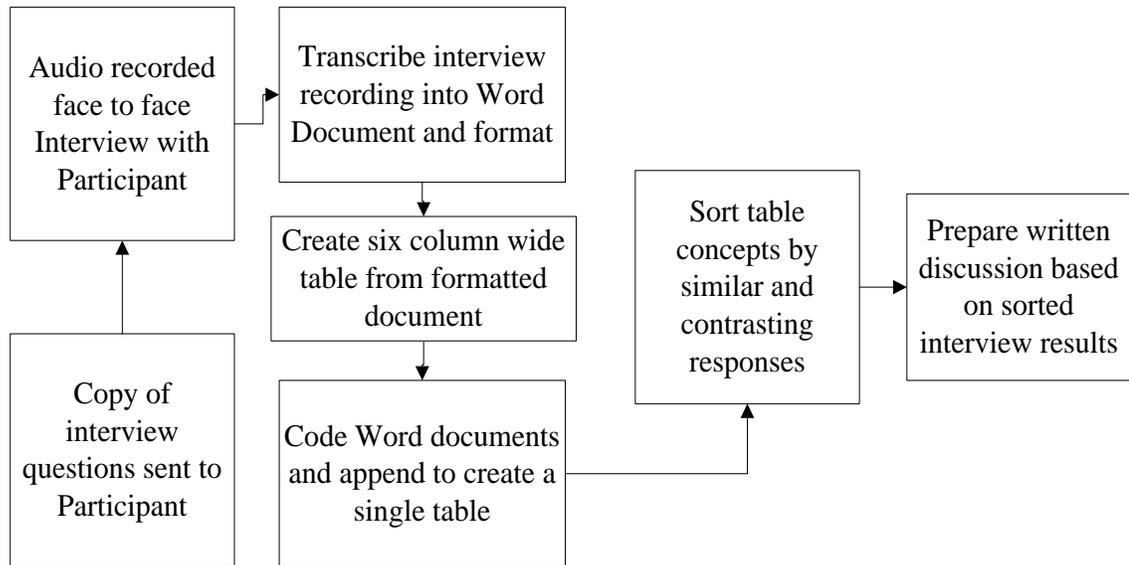


Figure 1: Data Analysis

While analyzing the data, it was of value to watch for evidence in the participants’ responses which pointed toward the presence of one of the four attitudes Crammatte (1987) believes prevail among employers. As discussed earlier in the perceptions of employers and co-workers section of Chapter 2, these attitudes are (a) resistive, (b) permissive, (c) accommodative, and (d) facilitative. Participant comments indicating the perceived presence or absence of one of these attitudes may help in understanding the employers’ acceptance of hard of hearing employees.

Today’s economy creates a rapidly changing work environment, one in which the ability of every employee, and particularly a hard of hearing employee, to remain employed mandates good communication skills coupled with work flexibility and a drive to remain a lifelong learner (Punch, Hyde, & Creed, 2004). Crammatte (1987),

Geyer and Schroedel (1998), and Schroedel and Geyer (2001) agree that for deaf and hard of hearing individuals seeking employment, advanced degrees are the pathway to more satisfying opportunities and educated individuals tend to change jobs less frequently than their counterparts with lesser educational backgrounds.

While analyzing the data gathered in this research, it was important to listen for the relationship between the interviewee's educational background, and his or her employment experiences. This relationship was identified as critical and agreement with the described effects may serve as an additional motivating force to guide hard of hearing students in their educational choices. It may also assist educators and others when counseling hard of hearing individuals. Attention was given to information collected concerning accommodative devices supplied by the employer, whether the interview participants believe alternative accommodations would be more effective, and how these devices affected on the job performance and satisfaction. Such indicators could be used to guide employers toward the consideration of more effective accommodations.

#### *Reliability and Validity*

Several authors, (Creswell, 2009; Patton, 2002; Yin, 2003), agree on how to build reliability and validity into qualitative studies. Reliability is defined by Creswell as “indicating that the researcher's approach is consistent across different researchers and different projects” (p. 190). Creswell's statement is clarified by Yin (2009) who says “reliability: demonstrates that the operations of a study—such as the data collection procedures—can be repeated” (p. 40) and that “external validity: defines the domain to which a study's finding can be generalized”. In harmony with these authors, this study

built reliability through consistency. First, descriptions were provided which allowed the reader to understand the interview setting and share the experience of the discussion that took place. Second, both the consensus response to an interview question and any contradiction or inconsistent statements were included in the discussion. Next, a determination was made regarding the extent to which the data from this study could be generalized as determined by this research and documented literature in the field. Finally, any researcher bias that might influence the interpretation of the interviews was revealed.

The idea of validity is nicely described by Shadish (as cited in Patton, 2002) as: Validity is a property of knowledge, not methods. No matter whether knowledge comes from ethnography or an experiment, we may still ask the same kind of questions about the ways in which that knowledge is valid. To use an overly simplistic example, if someone claims to have nailed together two boards, we do not ask if their hammer is valid, but rather whether the two boards are now nailed together, and whether the claimant was, in fact, responsible for that result. In fact, this particular claim may be valid whether the nail was set in place with a hammer, an air gun, or the butt of a screwdriver. A hammer does not guarantee successful nailing, successful nailing does not require a hammer, and the validity of the claim is in principle separate from which tool was used. The same is true of method in social behavioral sciences [case studies]. (pp. 587-588)

In other words, validity “means the researcher checks for the accuracy of the findings by employing certain procedures” (Creswell, 2009, p. 190). In this study, validity was strengthened using methods described by Creswell, Patton (2002), and Yin

(2003). First, the researcher checked transcripts against the original interview recording to verify accuracy. Next, code definitions were created and the coding process took place.

To mitigate researcher bias, a second reader was used for this study. That reader was made familiar with the original code definitions and intent and with this method of data analysis. The reader worked to verify consistent code application and make certain the coding was logical, repeatable, and correctly applied. Finally, as areas of discrepancy were found during the checks, discussions took place between the researcher and reader. In each instance, resolution was reached and the code(s) were corrected or expanded as needed.

#### *Risk and Limitations*

Kirk and Miller (1986) noted that three errors can occur with qualitative research and, if not addressed, can adversely affect reliability and validity. Type I error occurs when a researcher sees relations that do not exist. Type II error occurs when a researcher rejects a relation that does exist. Type III error occurs when the wrong questions are asked. When apparent, these errors cause validity issues with the research and its findings. While these errors are of legitimate concern, specific techniques were used in part to mitigate these error concerns. To mitigate Type I and Type II errors the author and a second reader first checked the interview transcripts against the original recordings to be certain the participants' statements were correctly presented. Next, as has been previously discussed, the coding process was checked for errors and omissions. Finally, the conclusions drawn from the participants' responses were checked to be certain the existing relations were correct and to verify that critical relations, which existed in the

participants' statements, were not left out of the discussion. Each of the three steps were accomplished by the author and the second reader in an iterative process which was repeated each time the information contained in this dissertation was materially changed. Type III errors were mitigated by testing the questions in two separate pilot interviews. Following each of the pilot interviews the questions were, as needed, modified for clarity, corrected for discovered errors or omissions, and inappropriate questions were deleted. This was accomplished prior to conducting the actual interviews for this study. The following are additional details used to reduce the risks and limitations of this study.

*Researcher and Second Reader Bias*

Some researcher biases have already been addressed, but because certain personal biases could affect the gathering, compilation, and reporting of information in this research, personal bias needs to be addressed here. These bias factors include the author's being a hard of hearing person, and the author's past and current relationships with deaf and hard of hearing individuals.

Second reader bias may also affect the compilation of the material presented in this dissertation. Such bias could result from the second reader's familiarity with the subject matter and with the research.

While the effects of these factors may be minor and should not influence the data collection or information reporting taking place in this investigation, they were expressed to give the reader full disclosure of their existence and potential to skew the described outcomes.

*Risk to Participants*

Minor risks associated with the interviews include psychological distress and perhaps discomfort or inconvenience. Psychological risk may result from recall of painful or stressful events associated with the participants' hearing condition.

Discomfort or inconvenience may be associated with the time and location of the interview. Interview locations were selected based on a mutual acceptance by the interviewer and the participant and interview questions were supplied before the actual interview occurred in part to mitigate these risks.

To help address undue risk to participants, confidentiality and informed consent forms were used in this study. Relative to confidentiality, interviews were conducted and recorded in a private setting with only the author and the participant present in the interview room. Original recordings were limited to a single copy of each interview session and are being held in confidential storage by the researcher/author. Each subject interviewed was assigned a coded identifier that has been used instead of his or her name when the recorded interviews were transcribed. Employers were referred to in generic terms.

Relative to informed consent, prior to each interview, the participant was given two copies of an informed consent document. (See Appendix D.) This document briefly described the intent and process of the interview, the confidentiality measures that were set in place before any information was released, and the intent of the final reporting of the information supplied. The researcher and the participant signed both copies of the document. One copy remained with the participant while the other copy has been

retained and filed by the researcher for future reference. An interview was not held until the informed consent and confidentiality documents were signed.

### *Limitations*

Based on a quantitative paradigm, the small sample size used with qualitative methodologies may prohibit the transfer of the qualitative study's findings to a larger population. However, Yin (2003) takes exception to this and describes the information gathered in a multi-case study as being similar to information gathered while conducting a laboratory experiment. Just as a laboratory experiment is run once then repeated several times to verify the results, case studies can be replicated and the more the information gathered replicates previously gathered comments, the more strength is given to the application of statements when applied to a broader population. Some care must be taken with this application; however, it is seen that the results of case studies can be of use in wider applications.

This study was limited to hard of hearing persons residing within the State of Idaho. If the available population had not contained enough willing candidates to fulfill the needs of the research sample, then the study would have been expanded to include the Pacific Northwest beginning with the area located east of the Blue Mountain range and expanding westward as needed. This limitation was due largely to the geographic location of the author, to travel and monetary limits recognized in accomplishing this research, and to the intention to create a study primarily focused within the State of Idaho.

These limitations, though noteworthy, do not diminish the usefulness of the investigation, which is meant to explore the attitudes and perceptions of hard of hearing

employees toward their supervisors, co-workers, and toward the accommodations that are provided. Additionally, information gathered concerning the supplied versus desired status of accommodations will open new ground. The study also looked for similarities or differences of the participants' attitudes relating to their employers hiring practices and toward the affect of education on the outcome of their employment. The findings from this study set paths for immediate application and further investigation.

## Chapter 4

### Results

This study was undertaken to explore the attitudes and perceptions of hard of hearing employees to discover their feelings toward their supervisors, co-workers, and the accommodations provided to them in the workplace. Additionally, the study considers the tension between a hard of hearing employee's status quo and what would be desired with the intention of discovering methods to aid hard of hearing employees and their employers in creating a work environment that is mutually more productive and profitable. In gathering data, the investigative portion employed a case study design using a multi-case format with interviews from three self-identified, hard of hearing, employed individuals.

This chapter introduces the participants and the attitudes and perceptions portrayed in their responses to a series of open-ended, semi-structured questions asked during one-on-one interview sessions. The Table in Appendix E is a complete reference for the questions and responses used and gathered during the research portion of this dissertation. The information found in Appendix E is referred to throughout this chapter as a reference for readers wishing to review the question responses in a graphical view. Comments on the participants' responses are also included. The chapter begins with an explanation of how the research methodology described in Chapter 3 was carried out. It

ends with a summary of the participants' responses relative to the four main questions identified from the Literature Review portion of this dissertation. The summary also describes how this material applies to hard of hearing individuals and their employers.

#### *Sampling and Sample Size*

Interview participants were workforce age (18 years and older), male and female, employed, and self-identified as being hard of hearing individuals. The participants used spoken English as a primary mode of communication in the work place, and were able to be interviewed verbally. The study was limited to hard of hearing individuals residing within the State of Idaho.

The language limitation mitigated possible transcription errors or omissions that might have stemmed from the use of an interpreter. The State of Idaho was chosen with the specific objective of creating a study focused specifically on hard of hearing employees within the State of Idaho. Delimiting the study within Idaho also created a convenience study based on the geographic location of the author, and on travel and monetary limitations. Additionally, Idaho is a viable area in which to conduct this study because recent survey estimates of the average number of deaf and hard of hearing individuals of working age in Idaho are comparable to those across the United States. A 1996 study, which is the most recent comprehensive work available for Idaho, indicates that deaf or hard of hearing individuals may make up as much as one-fifth of the working age population (Schow, Mercaldo, Smedley, Christensen, & Newman, 1996). This figure is comparable to Mitchell's (2005b) finding that the national average number of deaf and hard of hearing persons of working age (18 to 64 years-of-age) is

approximately 20.95% of the workforce and is corroborated in Mitchell's work which shows Idaho as being within 1% of the same national average.

The sample was conveniently and purposefully selected as described below. Convenience is defined by Swanson and Holton (2005) as "involving the selection of sample members based on easy availability or accessibility" (p. 50). Thus, the candidates were conveniently selected in that they resided within the State of Idaho, were easily identified, and were readily accessible to take part in the interview process. The convenience of the sampling was augmented by what Patton (2002) refers to as "purposeful criterion sampling" (p. 243). This approach "yields insights and in-depth understanding rather than empirical generalizations" (p. 238) due to the subject knowledge of each participant. Further, each participant selection was purposeful since only participants meeting the entire selection standards were used in the interviews. The selection process limited the final choice of participants to those individuals who brought with them a rich background of knowledge concerning their workplace experience and their individual workplace attitudes and perceptions.

Using the selection guidelines, four individuals were identified as potential participants to take part in the planned interviews. Two of the four were disqualified from the interview selection process because they were found to be retired. However, because they did meet the remainder of the selection criteria, they were used as participants for the pilot interviews. The remaining two individuals met the requirements and were selected to be interviewed. The research was designed for three case studies, and to address the shortage, the author contacted three individuals, each of whom was known by the author, and requested their assistance in identifying a suitable third

interview candidate. One of the individuals is a self-employed American Sign Language Interpreter. The other two individuals are employed by the State of Idaho. All three are involved professionally with deaf and hard of hearing people. The three were asked to provide names of individuals who met the research criteria and who would be willing to take part in an interview. Two of the individuals who were contacted did not respond with any names. The interpreter provided the names of two additional candidates. From the two provided names, one was qualified and selected. The other was disqualified because he used American Sign Language as a primary method of communicating.

To schedule an interview, each participant was contacted by telephone. The purpose of the study was briefly explained and the individual was asked if he or she was interested and willing to take part in a face-to-face interview. In each instance, the candidate voiced his or her willingness to be interviewed, and a time and place for the interview was discussed. The author suggested that the meeting could take place at any location where the candidate would be comfortable as long as the location was relatively quiet and a meeting of approximately one-hour duration could be held without any interruptions. If the interview candidate did not have a preference, the author suggested that his home was available providing the candidate had no objection to meeting there. Having established a meeting place, the author and participant selected a time and date that were mutually acceptable. In one case, the meeting was held at the author's home. The other two interviews were conducted in the candidates' homes. Each of the interviews lasted between 45 and 60 minutes. During the interviews, the sampling screening criteria were again confirmed in response to questions one through six of the Survey Questions. (See Appendix B.)

Before each interview took place, a Letter of Explanation to Interview Candidate, two copies of the Informed Consent Document, and a copy of the interview questions were mailed to the participant. (See Appendices B, C, and D, respectively.) Providing a pre-interview copy of the questions is in keeping with practices used by Clark (2007) who noted that this methodology allows the participant to consider the direction of the discussions and offers deaf people an opportunity to prepare for the meeting. Clark stated this methodology was intended as a preparatory step when interviewing and that it was particularly useful when interviewing deaf individuals (p. 23). Although the technique focuses on interviewing deaf people, the ASL interpreter who vetted interview questions for this study recommended following Clark's method for this sample comprised of hard of hearing people. Therefore, the method was used in the context of the interviews conducted to gather information for this dissertation specifically to allow each participant an opportunity to consider more deeply his or her response for each of the interview questions. Providing the informed consent document gave the participants an opportunity to read the document and to consider any questions they might have concerning its contents.

As each interview began, the participants were asked if they had read and understood the contents of the informed consent document. (See Appendix E, Question 1.) None of the participants had questions. Had there been questions, this step offered an opportunity to resolve the questions and was used as a time for both the participant and the author to sign the document, which each did willingly.

*Instrumentation*

The author compiled the original set of questions used in this study. The list of questions was discerned from the Literature Review in Chapter 2 of this dissertation. (See Appendix A.) The first six questions were intended to gather basic information concerning the participant such as name, age, occupation, employment, and whether the person considered himself or herself to be a hard of hearing individual. These questions were used as control variables and confirmed that each participant met the selection criteria for this study. The remainder of the questions gathered information concerning (a) the satisfaction level of hard of hearing employees, (b) the perception of hard of hearing employees toward their supervisors and co-workers, (c) the perception of hard of hearing employees concerning their current (and previous) employment position, and (d) the perception of hard of hearing employees toward their workplace accommodations and what other accommodations were needed. Each of these areas of inquiry had been previously identified during the literature review portion of this study.

To better focus these questions and to be certain the questions being asked were relevant not only to the points described in the literature but also to the Idaho hard of hearing community in general, the author contacted the American Sign Language Interpreter previously mentioned. This individual has been an active professional American Sign Language Interpreter since 1997, has an earned Master of Arts in Organizational Leadership degree, has worked as an adjunct professor teaching ASL, founded an advocacy group for deaf and hard of hearing children, and is a long-time member of an interagency group working with American Sign Language interpreters who are employed to assist in the classroom. Based on the combination of education,

long-time association with deaf and hard of hearing people both socially and professionally, and personal work experience, this reviewer is expertly qualified to provide feedback on the questions. In email correspondence with the ASL Interpreter, the author explained the dissertation project, shared the information from the literature review, and a description of the methodology. After reviewing the original list of questions (Appendix A), the interpreter suggested additions to expand each of the questions and produce richer interview responses. These suggestions were emailed back to the author who combined the suggestions with the original questions to form a new question list. The revised list of questions was again emailed to the ASL interpreter who reviewed and returned them with only minor changes. The author then completed a final review of the questions and was satisfied that the list was ready for use in the pilot interviews.

The questions for use in the study were formatted using two styles. The questions that were intended to gather basic information concerning the participants used a closed format. This closed-question format was designed to gather only the specific information being sought such as name or age. The questions intended for gathering information concerning each participant's attitudes and perceptions were written in an open-ended form with the intent of prompting longer responses containing more depth and breadth of information.

Two one-on-one pilot interviews were conducted to test the question set and to fine-tune the author's interview techniques. The pilot interview participants were hard of hearing individuals who met the selection criteria with the exception that they were retired. The pilot interviews allowed the researcher an opportunity to discuss and try

interview techniques and to become familiar with the digital recorder that was later used during the actual interviews. The pilot interviews were also used as a final verification of the question list and, although none of the questions were changed, they offered an in-the-field opportunity for in-depth consideration and validation of the questions. Using this process, the list of questions was finalized for use in the interview segment of this research. (See Appendix B.) A comparison could be made between Appendix A, the original set of questions, and Appendix B, the interview questions used during each interview. Such a comparison would demonstrate that the original set of questions was retained, although some questions were repositioned to bring more detail to the inquiry. The primary additions and modifications made to the original set of questions are found in the subsets (i.e., 8, 8a) of questions falling under each of the main points. These were added to gather additional topical details and clarification.

Although the question list was followed, each of the actual interviews allowed for an expanded discussion guided by the subject's answers. Thus, the semi-structured interview approach facilitated both the collection of specific information and the gathering of each participant's unique perceptions.

#### *Data Collection*

The participants were interviewed separately. Each participant took part in one face-to-face interview, which lasted between 45 and 60 minutes. By agreement between the participants and the author, two of the interviews were held in the individual participant's home and the third was completed in the author's home. During each interview, only the author, who personally conducted each interview, and the participant were present in the room where the interview was taking place. A complete digital audio

recording of the conversation between the interviewer and the participant was made for later transcription to a Microsoft Word<sup>®</sup> document. The recording and transcription process was discussed with each participant before the recorded interview began and was referenced in the introduction letter and the confidentiality documents provided to the participant prior to the interview session. (See Appendices B and C respectively.) In turn, the transcription was used to review, code, and sort the data. This process facilitated recognition of similarities and differences in answers to the interview questions relative to responses by other participants and to findings from the literature review.

A local medical transcriber was hired to transcribe each of the three interviews conducted. The transcriber, who typically works with audio-recorded medical records from physicians, uses a privacy protocol that includes not revealing the name of any company or individual that was voiced in the audio recording. Once the transcription was completed and returned to the researcher, no written or recorded record (with the exception of hours worked for billing purposes) of the work was retained by the transcription service.

### *Data Analysis*

Data analysis applied a methodology described by Ruona (2005) which makes use of a word processing program for coding and analysis of the data collected during each interview. For the purpose of this study, Microsoft Word 2007<sup>®</sup> was used as the word processing program. Coding can be thought of as a method used to identify and designate critical responses within the body of a transcribed interview.

In keeping with Ruona’s (2005) methodology, each transcribed interview response document was saved with continuous line numbering added. Each participant was referred to using a coded reference in place of his or her name. Using this method, the letter “A” was used to designate the first interview participant, “B” the second, and “C” the third. Continuing with Ruona’s methodology, the letter became a unique designator reference placed in a column labeled “Participant.” This designator as well as others described in this section are shown in Table 3.

Table 3

*Data Analysis Table Heading Example*

Participant	Ques#	Line#	Code	Response	Comments
C	8a	105	8a-1	better room with better acoustics . . .	
C	8a	105	8a-2	good visibility of everyone in the room . . .	

In agreement with the methodology being used, each question was then given a reference number that related to the numbering scheme used in the Survey Question document (Appendix B) and became a third code category located in the “Ques #” designator column. Continuing this coding scheme for illustrative purposes, and referring to, Participant C’s response to Question 8a, the table demonstrates that the response given to the question was phrased in two distinct thoughts. The thoughts are separated by making use of the “Code” designator and are referenced as 8a-1 and 8a-2. This practice is in keeping with Ruona’s (2005) methodology. The line numbering from

the transcribed interview becomes a code category and is seen in the “Line #” column. Line numbers are used to guide the researcher back to the original data in the transcribed interview. Unnecessary wording was removed from the document leaving in place the participant reference, the appropriate line number references, and the response. The transcript was then reformatted into a six column, multi-rowed table format with the first four columns for coding, the next column for participant response, and a final column, “Comments” for researcher notes.

The tables created for each interview were appended together to form a single table which was sorted to allow comparison of answers for similarities and differences. The coding facilitated sorting the joined tables and eased the task of bringing together the answers of each participant to each of the individual questions. Ruona’s (2005) suggested author’s notes category allowed a quick reminder when, for instance, a participant did not answer a particular question. The finished table, though lengthy, provides a quick method of finding responses needed to document the information in this chapter.

To help assure the soundness of coding and theoretical conclusions, a second reader, known to the author, was used during the data analysis portion of this work. The reader has earned master’s degrees in library science and communication and is knowledgeable of Ruona’s (2005) principles of coding and methodology.

#### *Participant Response and Perceptions to Topical Interview Questions*

The interview question numbers referred to in the following pages are the same used in the Survey Questions (see Appendix B) and in the “Ques #” code example shown earlier in Table 3. This segment of the chapter shares the responses of each

participant to the questions asked during the interview sessions. Where the author interjected an additional question during the interview, the question is preceded by the phrase, "Follow up question to Participant," and is written across all columns in the row. The responses are referenced by using, as described above, the "Ques #" code that was assigned in accordance with Ruona's (2005) methodology. For reference, the reader should remember that this portion of the code also reflects the actual question number. The participant responses presented below are identified using the respondents' coded designator, "A," "B," or "C." The responses to an individual question follow the same question numbering sequence as shown in Appendix B. However, the responses do not follow in a strictly sequential order since they are arranged to align with the research questions derived from the literature review portion of this dissertation.

For ease of reading and comparison this chapter refers to Appendix E which is a table containing each question and the responses of each participant. To maintain the participants' anonymity, responses giving specific details that might reveal the identity of a participant have been edited to remove the information, or were not included in the Appendix E table.

The first six questions asked during the interview identify the participants and create a record of their responses to demonstrate that they each met the selection criteria being used in this study. Select information from this series of responses was not included in this dissertation to maintain the participants' anonymity. The survey question and participant responses for this section are found in Appendix E Questions 1 through 6a.

*Introduction of Participants*

Participant A is a 26-year-old female who lives in Idaho. She indicated that she has been hard of hearing since birth and that she began using hearing aids in early childhood. She communicates using spoken English. She is currently employed as a project manager. Prior to her current employment, she was employed as a sales person and during her years in college worked as an intern in corporate communications.

Participant B is a 24-year-old male who lives in Idaho. He has been hard of hearing and has used hearing aids since the age of eight. His hearing impairment was the result of a childhood illness. He is currently employed as a sales clerk and worked for a short time as a janitor.

Participant C is a 53-year-old female who resides in Idaho. Her hearing problem was discovered at the age of eight. However, since hearing aids were not available for her form of hearing impairment, she did not begin using them until her first or second year of college. She relied instead on a combination of her residual hearing and lip reading [also known as speech reading] ability. In addition to her current job, she has worked for three other doctor's offices. In all three locations, she worked as a physician assistant. A portion of her work was associated with her classroom activities in becoming a licensed physician assistant.

All three participants supplied candid responses to the interview questions and could base the responses on personal current and past workplace experiences. The ability to draw on current work experience and to openly share those experiences made each candidate a valuable participant for the research portion of this study. Their willingness to reveal their attitudes and perceptions greatly enhanced the value of the

interview process and of the information collected. Finally, the responses demonstrated that each of the participants met the selection criteria for this study.

### *The Satisfaction Level of Hard of Hearing Employees*

Interview Questions 7 through 13 (see Appendix B) were written to gather information specific to the research questions that were identified during the literature review portion of this dissertation. These questions are (a) What is the satisfaction level of hard of hearing employees? (b) What is the perception of hard of hearing employees toward their supervisors and co-workers? (c) What is the perception of hard of hearing employees concerning their current (and previous) employment position? (d) What is the perception of hard of hearing employees toward their workplace accommodations and what other accommodations are needed? Based on the abundance of literature on the subject, questions concerning the participants' educational level and amount of transitional counseling from school to higher education and/or work were also asked.

The first subject to be considered is the satisfaction level of hard of hearing employees. Questions 10, 10e, 10ei, 10eii, 12, 12a, and 12b, address this topic. The questions along with the participants' responses are found in Appendix E.

#### *Workplace satisfaction.*

In responding to question 10, "Please describe your level of satisfaction at your current job," each of the participants stated that they were satisfied with their work. This is demonstrated in their use of statements such as "it's good," "My satisfaction level is very high," and "I love my work." While these statements describe a high level of workplace satisfaction, the following discussion of the participants' workplace

frustrations, and particularly their ability to hear and take part in conversations, casts some doubt on two of the participants overall level of workplace satisfaction.

*Workplace frustrations.*

Each participant was asked question 10e, “Please describe any frustrations you encounter in the workplace related to your hearing loss.” Participant A shared,

Where there’s an offhand comment or something that’s said, I don’t overhear things. I don’t hear the other person if I’m sitting right next to them. If something is shouted and I’m not looking at the person, I don’t necessarily overhear so I’ve got to get information in different ways, perhaps later in a conversation or asking, or researching, or taking a bit of what I’ve heard and working on it.

Participant B felt his major frustration was when his hearing aid batteries went dead at work, especially while he was working with a customer since it decreased his ability to hear and respond to the customer and ultimately affected his work. Participant C said her biggest frustrations were, “not hearing in staff meetings and trying to get the doctors to speak up.”

When specifically asked question 10ei, “What is the source of your frustration?” and question 10eii “How do you deal with these frustrations?” Participant A said,

I feel like the little things that you do as a person to gain rapport is not an easy thing to pick up or all the little under-the-breath things or little overhearing things, eavesdropping. I feel like I have to work harder to gain rapport, or build relationships.

In explaining how she deals with her frustrations she shared,

I just pretend, or smile. I just don't make a big deal of it. I think my personality is the way it is because I am adapting to a hearing loss. I think I'm a lot quieter than I might be if I wasn't struggling to hear. I try to blend my quietness from the hearing loss into my personality and reflect that personality to my co-workers. I think my hearing affects me a lot more than other people realize and a lot more than I realize too. As I get into my career I realize, wow, this hinders me more than I ever thought it would.

Participant B simply reflected back to his hearing aid batteries going dead at work. Participant C said, "I'm a pretty easy going person, so a lot of times things just roll off my back, but when I reach the saturation point, I usually blow up and get very cross or angry."

#### *Workplace Communications and Humor*

When asked question 12, "Are you able to enjoy workplace humor (i.e., be "in on" humorous things that happen) equally to your co-workers?" each of the three participants felt they were able to enjoy the humor that was taking place around them but at distinctly different levels. Participant A said: "If I'm part of it, so I overhear it, or like if it's happening over here and I'm just right here, I don't overhear the whole thing so I might not catch on." Participant B stated, "I am able to enjoy workplace humor equal to my co-workers." Participant C said

Not to the same level. I'm usually the instigator of a lot of the office humor, but if something else is going on, most of them are good enough to clue me in, you know, they'll catch me later and say this is what was happening or this is what we were talking about. But I do miss out on stuff.

The next questions asked, [question 12a],” “If yes, please describe” and [question 12b] “If no, do you learn about it later through a third party. To these questions, Participant A responded, “Sometimes. If they realized that I didn’t get it.” She also stated that “Just being in a room with bad acoustics,” or in a cubicle setting made it harder to communicate. This line of thought was in agreement with Participant C’s response, “Usually I learn about it through a third party” and that

If I was a little more self-confident in exerting myself and saying . . . what’s going on it would probably be a better situation but you know you don’t want to look like an idiot who doesn’t know what’s happening . . . you tend to kind of sit back sometimes and not get involved or fake it. I’m pretty good at faking it.

One of many measures of the satisfaction level of hard of hearing employees is demonstrated in the ability to communicate with others. In this portion of the discussion, communications is represented by the ability to take part in and share through workplace humor. According to Young et al., (2000), such communication is not found in formal settings, but rather is found in the missed opportunities to talk and share during the course of chance day-to-day meetings and interactions. While deaf and hard of hearing individuals may get along in a one-on-one encounter, problems arise as the meeting grows and methods of accommodation are not present or used. In these cases, the voice of a hard of hearing employee is forgotten among the clamor of the hearing. Participants A and C both support the literature review findings and describe their frustrations or problems with not being able to fully hear, even when the conversation is of a humorous nature. Also supporting this literature, Participant A noted, in response to the question, “What is the source of your frustration?” “I feel like I have to work harder to gain

rapport, or build relationships.” Participant B’s statements do not support these literature findings and indicate that he does not have a problem communicating and taking part in numerous workplace conversations.

Considering the responses shared, Participant A made a revealing statement as she discussed how she blended her hearing loss with her personality and the steps she goes through to mask not being able to hear as well as others. Her comment, “I think my hearing affects me a lot more than other people realize and a lot more than I realize too. As I get into my career I realize, wow, this hinders me more than I ever thought it would.” It will be important to gain understanding as to whether the modification of personality traits to mask the inability to hear well is widespread. The statement also calls for understanding on the part of employers and co-workers of how being hard of hearing affects an individual and how the effect might be reduced.

In the workplace, the satisfaction level of the employee can be directly related to the employee’s performance and ultimately to the company’s bottom line (Edersheim, 2007). One factor contributing to the satisfaction level of hard of hearing employees is the ability to communicate within the workplace. Lussier, Say, and Corman (1999) believe that the greatest obstacles facing deaf and hard of hearing employees are found in two categories which share a great deal of similarity, communication and social need. Focusing on this ability, Young et al., (2000) suggest that communication problems are not primarily found in formal settings, but rather are found in the missed opportunities to talk and share during the course of chance day-to-day meetings and interactions. Based on the work of Young, Ackerman, and Kyle, this dissertation judged satisfactory communication by the ability to take part in general workplace conversations, in

meetings and discussions, and in workplace humor. With the exception of Participant B who has no problem taking part in workplace meetings or humor, delimiters appear to be the participants' ability to hear intelligibly and the co-workers' level of understanding concerning the hearing problem.

The participants' remarks may indicate that there is further work to be done in the area of understanding workplace satisfaction of hard of hearing employees. It may also be an indicator of the need for both hard of hearing employees and their co-workers to develop more effective communication strategies.

*The Perception of Hard of Hearing Employees Toward Their Workplace*

*Accommodations and What Other Accommodations are Needed*

The questions and responses for the research question discussing the perception of hard of hearing employees toward their workplace accommodations and what other accommodations are needed are found Appendix E, questions 7, 7a, 7b,7c, 7d, 7e, 7f, 7fi, and 7fii.

*Accommodations*

Each participant was asked question 7, "Do you use any type of workplace accommodations?" All three stated that they used hearing aids, and Participants B and C noted that hearing aids were the only accommodation they used. Participant A also shared that she has access to a tape recorder if needed. She described its use saying, "I'm in a lot of situations where we take notes or take minutes at a meeting, like an advisory council meeting, and I can take a tape recorder to those." She went on to say that the tape recorder did a great job and provided a clear record of all that was said but that it was time consuming to transcribe the material into written notes or to listen again to the

discussions from the tape. Concluding she said, “I prefer not to use a tape recorder if I can get along in a meeting and am able to hear everything, but if I need it, it’s helpful. It just takes longer.”

The participants were asked question 7a, “Did your employer originally offer accommodations or did you request them?” In response, Participant A shared that “a co-worker had suggested it [the tape recorder].” Participant B said “I request the accommodation as needed,” and participant C said “no” indicating she used only the hearing aids she had personally purchased. When asked question 7b, “How would you describe the on-the-job accommodations you currently use?” All of the participants commented that they used hearing aids and that the hearing aids were an accommodation. Additionally, Participant A again noted that she uses a tape recorder. In response to the next questions, question 7c “Do these accommodations meet your needs?” and, question 7d, “What is your perspective of the use of accommodations relative to your productivity?” Participants A and B said they were generally happy with their hearing aids. Participant A added that she had just changed to a new hearing aid that automatically sensed when she was using the telephone. The hearing aid only takes a second or two to switch to its telephone mode and beeps to let the user know the change has been made. Unfortunately, the hearing aids will occasionally switch in the middle of a conversation and, although the notification beeping is not heard by the other person in the conversation, it does momentarily distract the participant from her conversation.

Participant B considered his accommodation to be an agreement with his supervisors that allowed him to seek permission to temporarily leave his assigned work

area and purchase replacement batteries for his hearing aids any time they were needed. He stated that he had asked for and was granted this accommodation. Participant C noted that she was “not pleased with her hearing aids and that they were in need of replacement.” The participants were asked question 7e, “How might these accommodations be beneficial to other employees?” Participant A noted that, when used, the tape recorder “ensures accuracy . . . and it’s a good reference if there’s any question.” Participant B stated, [in reference to his hearing aids as an accommodation] “I am able to hear what they are saying and I am able to respond to their needs.” Participant C [referring to her hearing aids as an accommodation] stated, “I can’t really function without them.” The hearing aid accommodation allows the participant to hear better, which facilitates richer two-way communication.

Two questions concerning the telephone use were asked. Question 7f asked, “Are mobile telephones or desk telephones used in conjunction with your work?” and question 7fi “How well are you able to use each type of telephone?” In response, each of the participants shared that they used both on a regular basis. Participant A said, “I’m able to use them [mobile and desk telephones] well.” She also shared that her place of employment has an excellent telephone system and that the telephones at each desk came equipped with a speakerphone option. She described the telephones as having both ringers and lights that indicate when someone is calling her telephone number. She referred to her new hearing aids and to the automatic sensing they provided for telephone use. This allows her to use the telephones without having to remove her hearing aids.

Participant B shared that he regularly uses both mobile and desk telephones and that he has no problem with either style. He did state that he could use the telephones better when he removed his hearing aid in the ear he was using to listen. He said that he “particularly enjoyed the use of cellular telephones which allowed him to remain mobile and still do the work that needed to be accomplished.”

Participant C shared her feelings stating, “The telephone system that they have in the office is horrible. It is a bad telephone system and they need something different.” She went on to say:

There are three of us crammed in a little office and there is a desk telephone on each of our desks, but with the telephone system I can’t tell which telephone is ringing. All the lights flash every time the telephone rings, and I cannot tell if it is somebody else’s telephone or if it is the hall telephone. It just does not work for me.

To gain insight into the participants’ perception of how much, or little, their co-workers benefited from the office telephones, the final portion of the question, 7fii, asked, “How much do your co-workers benefit from using their telephones?” In responding, each of the three participants stated that telephones play a very important role in their daily work routines. The participants believed their co-workers used the telephones as much, and as well, as they did. Participant C added that she thought her co-workers had nearly as much trouble with the company’s telephone system as she did and that the telephones played an important role in communicating with patients and receiving information.

As noted in the literature review portion of this dissertation, Sunstein (2008) and Minow (2008) put forward the idea that accommodations meant for a single person may, and often do, reap benefits for others in the area. Here it is emphasized that while costs are accrued in accommodating individuals in compliance with the ADA and court settlements from individual cases, there are often a number of mitigating factors that spread the use of the accommodation to other parties beyond the immediately affected individual. Among these factors are co-workers who find the accommodation, such as flashing lights when doors are opened, mirrors at desks facing away from doors that allow the individual to see who is entering, and phones with lights that flash to indicate the number being called are as useful to them as to the employee for whom the accommodation was installed.

In general, each participant in this study made use of the accommodations that were available in his or her workplace. All three wore hearing aids and recognized them as a major accommodation and one that they had brought with them into the workplace. Additionally, Participant A described the use of a recording device to capture conversations in meetings. All three used telephone systems to communicate with others.

Based on the experiences of these participants, and reflecting on the research of Sunstein (2008) and Minow (2008) which states that accommodations meant for a single person may, and often do, reap benefits for others in the area, it seems incumbent on the participants' employers to recognize, if they do not already do so, that hearing aids are an important accommodation for hard of hearing people. It may also be that providing a telephone system that is more user-friendly to hard of hearing employees (i.e., phones

that only ring at the desk of the person the call is directed to and flashing lights in addition to ringers) would also benefit hearing employees.

*What accommodations would you choose*

To gather information concerning what accommodations the participants would choose, Questions 8, 8a, 8b, and 8c were used. These questions and the responses are found in Appendix E.

The following questions were asked as a series. Question 8 asked, “If there were no limitations to your choice, what workplace accommodations would you choose?” Question 8a asked “How might these accommodations serve you better than what is currently available?” Question 8b asked “How might the accommodations allow you to be more productive?” Question 8c asked, “How might the accommodation be useful to others in your place of work?” Responding to this series of questions, Participant A shared that she would “probably use the speaker telephone all the time or think of some way to make the telephone a little bit easier which usually equates to using the speaker telephone.” She felt that using the speakerphone would “require less concentration on my part to follow a conversation.” Participant B said, “I have all the accommodations that I need to perform well.” [This statement refers to his use of hearing aids and to his agreement with his employer, which allows him to communicate his need for new batteries to his supervisor then leave his immediate work area long enough to purchase new batteries and put them in the hearing aids.] Participant C said, “I would choose a better phone system, for one.” She also said, “A conference room would be a better situation where everybody sat around a table.”

The questions in this section were concerned with the perception of hard of hearing employees toward their workplace accommodations and what other accommodations are needed. As discussed in the literature review, Title I of the Americans with Disabilities Act relates to Equal Employment Opportunity for Individuals with Disabilities and, in part, states: “. . . If necessary, the employer must provide a reasonable accommodation for the person to perform the essential functions of the job unless this accommodation would cause an undue hardship on the employer.” (“Title I Equal Employment Opportunity for Individuals with Disabilities”, 1994, p. 12112)

Each participant was asked question 8, “If there were no limitations to your choice, what workplace accommodations would you choose?” In response, all of the participants restated their wishes from earlier questions and added very little additional information specific to the question. Participant A stated, “I would probably use the speakerphone all the time,” and Participant C revealed that, “I would choose a better phone system,” and that, “A conference room would be a better situation.” Because of the brevity of the responses to this question, the author probed for additional thoughts but stopped short of suggesting ideas for alternative accommodations to avoid interjecting bias in the responses.

In the responses to the question asking “If there were no limitations to your choice, what workplace accommodations would you choose?,” it is noteworthy that of the three participants, only Participant C and her comment on using a conference room, considered investigating accommodations beyond those in place. It is also interesting that although requests were voiced to upgrade existing systems, no thought was given to

alternative solutions. This is true even though in later responses (to the question 9d asking “Does your company hold formal training sessions and/or staff meetings?”)

Participants A and C refer to additional methods.

Discussing what other accommodations might be of use, Participant A offered two suggestions. First, a transcription could be made of the entire meeting and second, a microphone could be placed at each table to amplify the sound. These accommodations would assist both the participant and her team members. The transcription would provide a referenceable document of the discussions for use following the meeting, and the microphones would allow everyone in the room to hear the comments made at each of the tables. Participant C stated that in the meetings and training sessions, she hears the discussions “poorly.” She added that, “If they had a better conference room for the meetings, it would help me tremendously.” Responding with further explanation, she stated that moving to a conference room would offer a setting with better acoustics and would allow her to see everyone in the meeting, including each speaker. It was the participant’s opinion that not only did she miss a great deal of what was being said, but that her co-workers were having the same problem. She concluded that the change to a conference room or a larger room with better acoustics would help everyone involved in the meetings.

For reference, a generalized list of accommodations for deaf and hard of hearing employees was reported by Geyer and Schroedel (1999). Shown in order from most commonly to least commonly used, the accommodations are: (a) hearing people answer the telephone, (b) TDD or TTY (text telephone device), (c) use of ASL Interpreters, (d) rearranging items or furniture so people can be easily seen, (e) providing a written

summary of meeting notes, (f) giving hearing loss information to co-workers, (g) using computer e-mail, (h) adding flashing lights for fire alarms, (i) having co-workers take meeting notes, (j) changing job training to facilitate learning, (k) using telephones with an amplified hand set, (l) modifying job duties to facilitate better work, (m) offering American Sign Language classes for co-workers, (n) using pager or beeper devices, (o) modifying methods used to test the workers' abilities, (p) using assistive listening devices at meetings, (q) using flashing lights on machines for safety, and (r) using computer assisted note taking. This list of accommodations shows continued agreement with the examples offered in discussions of ADA reasonable accommodations ("Title I Equal Employment Opportunity for Individuals with Disabilities", 1994). From a more recent article, Basas (2008) adds that accommodations may take the form of "job restructuring, part-time or modified work schedules, reassignment to a vacant position, . . . or modifications of examinations, training materials or policies" (p. 63).

In a general sense, Participant B was happy with his current accommodations. Participants A and C both described the possibility of accommodations that would serve them better. However, neither indicated any attempt to request the additional accommodations. It is also important to note that in an earlier response, Participant C shared that if she were a little more self-confident in expressing herself, things might be better. Consider the statements made by Participant A that she did not want her employer to know she was hard of hearing and Participant C's comment that she lacks the confidence to disclose her hearing impairment. These statements are perhaps an indication that discussing additional accommodations without actually seeking them is an indicator that the participants have made a conscious decision not to disclose his or

her hearing problem. It may also be that they do not understand the need to disclose that they are hard of hearing individuals and ask for additional accommodations. Also possible are additional factors, such as fear of loss of employment, that were not revealed by the participants during the interviews.

*The Perception of Hard of Hearing Employees Toward Their Employment Positions*

The questions and responses associated with the questions being considered in this section are found in Appendix E, questions 10a, 10ai, 10aiii, 10aiv, 10b, and 10bi.

*Perception Toward Employers' Hiring Practices*

Based on the results of his quantitative study, Crammatte (1987) found there are four attitudes that prevail among employers concerning hiring disabled employees, inclusive of deaf and hard of hearing employees. These attitudes are (a) resistive, (b) permissive, (c) accommodative, and (d) facilitative. The resistive employer does not want to employ a hearing impaired person under any circumstances. This employer believes that hiring the hearing impaired will bring a problem employee who will cost the company much more than he/she is worth. For the hearing impaired employee, there is little or no opportunity for employment with this type of employer. A permissive employer feels that if a hearing impaired person applies, then the company will consider employment for that person. Hearing impaired candidates at a permissive workplace would need to show themselves more capable than other potential candidates and would probably need to demonstrate an ability to work without causing additional expense for training or accommodations to the company. An accommodative employer is one who, given a hearing impaired candidate, is willing to rework the job requirements and make accommodations for the needs of the person. The hearing impaired employee at this

company should find an atmosphere conducive to continued employment and personal growth. Finally, the facilitative employer believes that hiring hearing impaired persons is not only the right thing to do, but is a good thing for the company. This employer will actively seek hearing impaired applicants and then structure the workplace setting to facilitate their work and growth.

To determine where the participants would place their employers in Crammatte's (1987) attitude scale, each participant was asked the question 10aiii, "How would you categorize your employer's attitude toward hiring hard of hearing employees?" and question 10aiv, "Describe the category you chose." In response to this question, Participant A answered, "I think if you asked my employer, she would say that hiring hard of hearing people is the right thing to do and is good for the company" [Response choice "d"]. However, she went on to say, "But, if you watch her in a busy day, she would be not exactly resistive but just, like, well, I'm considering them but they better be able to keep up" [Thus suggesting that her employer fit in category "b", permissive].

Participant B said he believed his employer was described most closely by response "d," facilitative. He went on to say that, "Being facilitative means opening the doors, so to speak, and working with individuals to create a working environment so that both the employee and employer benefit from the working relationship."

An unexpected response was given by Participant C who answered the question with, "I would say 'e,' oblivious." She went on to share,

. . . I'm not even sure if the doctors are aware of my hearing impairment. I don't hide it. Most of the nurses and office staff are aware of it, but I'm not sure if the doctors are aware of it. I don't think that it really matters to them. I think as long

as you do your job and do your job well, I think that's probably the more important thing.

Participant C's statement placed her employer in the permissive category. That, the employer will accept an employee as long as there are not problems and the work is being properly accomplished.

When asked question 10b, "Have you ever been turned down for a job or promotion because of your hearing loss?" Each of the three said they had not. Participant B specifically noted, "I have only applied for one promotion. I was turned down for the promotion due to another candidate being more qualified to do the job." Based on each response, the next question, question 10bi, asked the participant to describe the experience of being turned down for a job or promotion because of his or her hearing loss, was not asked during any of the interviews.

When asked the question regarding the perception of hard of hearing employees concerning their current (and previous) employment positions, all three participants described themselves as being happy with their current work. None of the participants believed that their hearing impairment had any effect on their being hired. Based on the participants' statements, each of the employers seemed willing to employ hard of hearing workers and seemed to base their continued employment on the employees' ability to successfully perform his or her work.

*The Perception of Hard of Hearing Employees Toward Their Supervisors and  
Co-workers*

To determine the perception of hard of hearing employees toward their supervisors and co-workers, Questions 10c through 10dii were asked. These questions,

along with their responses, can be seen in Appendix E, questions 10c, 10ci, 10cii, 10d, 10di, and 10dii.

### *Supervisors*

The series of questions beginning with 10c were designed to gather information concerning the participants' attitudes and perceptions toward their supervisors and co-workers. Each participant was asked question 10c, "How much and what kinds of interaction do you have with your supervisor?" In response to this question, Participant A indicated she communicated "Frequently and all the time . . . then there'll be times when we hardly see one another. There are a lot of meetings and a lot of out-of-town stuff." Participant B said, "My supervisor and I have a casual, comfortable, professional interaction. We interact in the work site when our paths cross on the floor, or when he is assigning tasks that need accomplished." Participant C thought it to be a difficult question to answer because, "It's always been a little unclear who supervisors are. I work in a group practice, so I've never really had one overall supervisor; I just work with all the doctors."

They were next asked question 10ci, "Does your supervisor's level of patience with you and your hearing loss affect the degree to which you get along?" Participant A said, "I don't think she realizes when I miss a beat because of being hard of hearing." Participant B stated that, "Neither his level of patience, nor my hearing loss affects the degree to which we get along." Participant C again said, "I'm not sure that they're aware that I'm hard of hearing."

The next question, 10cii, was concerned with how well each participant understood what is being said and asked, "If you understand well what is being said in

one setting (such as a one-on-one meeting), does your supervisor assume you'll be able to follow other conversations such as team meetings or conversations walking down the hall?" Responding to this question, Participant A shared:

I don't think she realizes it [that there is difference in ability to hear as surroundings change]. I haven't tried to educate her at all. Just because I think that she would be afraid. . . . Most of our frequent conversations are in situations where I have no problem hearing and the rest of the time, we are in hallways and doing stuff. I don't think she realizes that's a hard situation and I don't really want her to know. I don't want her to think about that. I don't think she would have the patience, really wanting to follow through on good intentions to help me out.

Partially echoing the feeling of Participant A, Participant C said that she "is sure they assume that anything they say is going to be heard."

Participant B felt

I have historically understood very well in a variety of situations. When in one-on-one settings I am facing the person I am talking to. In team meetings, I tend to sit in a corner facing everyone. Walking down the hall, I am usually on the right side since my left is the strongest [side for hearing] all around.

The statements by Participants A and C support the findings of Mowry and Anderson (1993) who point out problems such as supervisors who believe hard of hearing employees do not have problems understanding spoken words when factually, they may hear the sound but not be able to understand the words in the way a hearing individual would. Mowry and Anderson's writing is further supported by Participant A

who in response to the question asking “From your point of view, what might be done to improve your access at the meetings?” said:

I do PR for a lot of construction projects, so we’ll do a pre-construction meeting where there are a hundred people in the room and there is a conversation at each table and I can’t hear, you know. The purpose of the meeting is to take two hours and talk about the impact of the construction, and I can’t always hear all the information I need to hear during that training.

Participant C also supports the statement and shares, “We have Monday morning meetings which are very, very frustrating to me because it’s just in the middle of the hallway that we meet and the acoustics are horrible and I can’t tell where the sound is coming from.” Participant B did not directly answer the question but his responses to other questions do not support this finding.

Throughout this section, Participant B stated that he got along well with his supervisor and that their interactions were very open. This participant willingly shared information concerning his hearing impairment and had taken a proactive approach to informing his supervisor and asking for the accommodation that he felt he needed to be more productive. This direct approach contrasts with those of Participant C who, although she made no claim to actively hiding her being a hard of hearing person, commented that her supervisor was not aware of the situation. Participant A stated that she did not want her employer to become fully aware of her hearing impairment. Not wanting to share concerning a hearing impairment may be a result of many complex factors including a fear of losing employment. An indication of the fear of losing employment was evident in Participant A’s comment in question 10aiii as she stated, “if

you watch her in a busy day, she would be not exactly resistive, but just, like, well, I'm considering them but they better be able to keep up." It may also be an indication of the stigma that Glass and Elliott (1993) associated with hard of hearing employees who wear hearing aids.

### *Co-workers*

When asked question 10d, "How much and what kinds of interaction do you have with your co-workers?" and question 10di, "How well do you feel connected with your co-workers?" each of the three participants felt they had frequent interaction and that the type of interaction varied from face-to-face communications, to passing comments and suggestions to one another, to being able to seek help or give advice. Considering how connected they felt, Participant A stated, "Professionally I feel well connected. I'm not necessarily personally great friends with them." Participant B said he was well connected and that if he needed help he could ask any of his co-workers and they would lend a hand. Participant C offered a "yes and no" answer explaining:

Most of the other PA's in the practice are younger. I'm the old woman in the practice, so there are a lot of just social differences and interests and things. We all get along well, the nursing staff is all very young but they all come to me for advice and for help medically and that kind of thing, so I think I have a good working relationship with everyone.

She went on to say:

I feel closer to the people who are aware of it, because they kind of watch out for each other, you know, and they kind of try to include me in things, whereas there's always been a level of distance with this set of doctors that I'm working

with right now. The doctors I've worked with in the past I've not had that distance, I've been very close with them. My nurse watches out for me a lot. She'll say, you know, that's your patient that they're talking about, and afterwards she'll usually bring out key points that they were bringing out.

The participants were asked question 10dii, "How eager are your co-workers to have you work with them on projects?" Participants A and B both believe their co-workers are eager and that they feel they would be an addition or asset to the project. Participant C also indicated that her co-workers feel she would be an asset but explained,

...depending on what the need is, I have more experience in family practice than anyone including the doctors in the office, so they frequently come to me with family practice-type questions. Certain types of problems they usually refer to me because they know that I have more expertise and they might change some patient from seeing Dr. X and send them to see me because they know that I have more expertise in the area.

Responding to the question concerning the perception of hard of hearing employees toward their supervisors and co-workers, the answers offered by each of the participants reveals that they are generally satisfied with their employee-to-employer and co-worker relationships. While Participant B shared no reservations about his feelings, it is important to also consider the replies made by Participants A and C. Both suggest that they have satisfactory relationships within the workplace and yet both share descriptions of dissatisfactions, and perhaps nearly a fear, that their employers will discover the extent of their hearing problems. Although Participant C did not state why

she was not currently revealing her hearing loss, she shared that she feels much closer to her co-workers who know of her hearing problem than to the doctors in the office where she works who do not seem to know. She also feels that in previous places of employment, where the doctors did understand that she was a hard of hearing person, she felt closer to them.

#### *Formal Educational and Workplace Training*

In the following section, responses to questions concerning the type and amount of formal education and to workplace training and staff meetings are revealed. Appendix E, questions 9, 9a, 9b, 9bi, 9c, 9d, 9di, and 9dii are referred to in this section.

#### *Formal Education and Workplace Training*

The participants were asked in question 9, “How much formal education have you completed?” and in questions 9a “Describe the school setting you experienced.” Additionally, they were asked question 9b, “Were you hard of hearing when you entered college or did you experience your hearing loss during college?” Followed by questions asking, 9bi, “Were you given any particular guidance at your college’s student disability resource center?” and, 9bii, “What were your particular challenges in college?” Although varying in the level of education they had attained to date, all three participants described their educational experience as having taken place in standard classes within the public school system. College course work that was completed by Participants A and C also took place in standard classroom settings with no specific accommodations for the participants being hard of hearing students. In the language of today’s educational literature, it might be said that the participants took part in a

mainstream educational experience where they were placed “in classes designed for students without special needs” (Stevenson, 2007, p. 1679).

Participant B described his education by stating, “I went to school in the public school system. I guess that would be classified as mainstream.” Each of the three participants was hard of hearing during the majority of his or her educational experience. Participant A was hard of hearing throughout her education, Participant B became hard of hearing early in his schooling, at the age of eight, and Participant C was hard of hearing throughout her education but did not use hearing aids until her first or second year in college.

Based on earlier discussions concerning the value of education to hard of hearing individuals, the participants were asked to comment on question 9c, “Has your formal education been beneficial to you?” Participant A, who has a bachelor’s degree in communication and business replied, “I had professors who were mentors and helped me. I often reference the material I learned in class, and it was a good growing experience for me. [She is employed at a public relations firm.] Participant B attained a high school diploma and has taken advantage of no further formal training following high school. He did not credit his formal education with being either advantageous or disadvantageous to his current position and lifestyle. [He is employed in retail sales.] Participant C received an associate’s degree in science, a bachelor’s degree in psychology, and post-graduate training as a physician assistant. She stated that her education has absolutely been beneficial to her. She went on to say “I think I have a pretty decent job, pretty good career” [physician assistant]. “I make a pretty decent living, which I could not have done without formal education.”

In the next part of the interview each participant was asked question 9d, “Does your company hold formal training sessions and/or staff meetings?” This question was followed up with question 9di, “How well are you able to follow all the conversations at these meetings?” and question 9dii, “From your point of view, what might be done to improve your access at the meetings?” In their individual places of employment, all three participants take part in formal training sessions and/or staff meetings. In response, Participant A said, “I can hear conversations in staff meetings pretty well.” Participant B stated, “I sit toward the front of the meeting, which facilitates my following the conversations. With this seating arrangement, I am able to hear and understand all that is taking place in the meeting.” Participant C commented that she hears “poorly” in staff meetings.

#### *Transitional Programs*

In the literature review, it was found that to enable transitional programs and empower deaf and hard of hearing students who are involved in the programs, educational and transitional counseling should begin at an early stage. For example, Garay (2003) reports that planning for transition should start in middle school and needs to be sensitive to cultural factors including race and socio-economic status. Garay also states that transitional planning must be comprehensive and include student family participation as well as an awareness of the parents’ feelings. Additionally, Clark (2007) calls for the transitional related materials to be available in formats that are friendly to deaf and hard of hearing audiences. From their involvement with transitional services, Danermark, Antonson, and Lundstrom (2001) found that the involved individuals “. . . certainly benefited from guidance and support when confronted with the important

decision [planning their future educational and employment goals] at such an early age” (p. 127).

As part of the offering in these programs, deaf and hard of hearing individuals are introduced to transition services. These important services offer an opportunity for deaf and hard of hearing students to understand the available options and perhaps explore work opportunities (Bradley, 2004). It is not possible to point to any one of the many variables that might create a successful transitional experience for a deaf and hard of hearing person. However, it is vital that individual career planning and a clear personal path of possible career and educational choices are understood by hard of hearing individuals so they can formulate a vision of their future endeavors (Bullis, Davis, Bull, & Johnson, 1997).

In the participants’ responses concerning education and transition to the workplace, each indicated [in question 9a] that he or she came from a public school, “mainstream,” educational background. In response to the question concerning transition to the workplace, Participants A and C shared [question 9bi] that they were offered no career or educational guidance during their collegiate years. Participant B did not attend classes beyond his high school education and did not share a response to this question. In this instance, the participants’ responses did not speak to the findings from the literature review concerning academic guidance and transitional planning.

In current academic literature there is a common thread calling for deaf and hard of hearing persons to pursue higher education. Authors (Bowe, 2003; Bullis, Bull, Johnson, & Peters, 1995; Bullis, Reiman, Davis, & Reid, 1997; Punch, Hyde, & Creed, 2004) believe that the earlier deaf and hard of hearing persons leave school, the harder it

becomes for them to obtain and maintain meaningful employment. Those without education beyond the high school level, whether college, vocational, or apprenticeship training, set themselves on a path toward marginalized jobs. Crammatte (1987), Geyer and Schroedel (1998), and Schroedel and Geyer (2001) agree with the need for continued education and state that for deaf and hard of hearing individuals seeking employment, advanced degrees are the pathway to more satisfying opportunities. Additionally, deaf and hard of hearing individuals with higher degrees tend to change jobs less frequently than their counterparts with lesser educational backgrounds.

Literature review findings in this study emphasized the importance of transitional planning for hard of hearing people moving from an educational setting into the workforce. It was found that early intervention and detailed planning lead to higher rates of success in the workplace. It was also suggested that the more education hard of hearing people complete, the better their chances become of attaining successful and fulfilling employment. Finally, for hard of hearing individuals in the workplace, higher education often means better paying jobs, more workplace mobility, and higher rates of satisfaction in the workplace.

During their educational experience, many hard of hearing students take part in transitional planning to aid them in planning and envisioning their futures and in taking the actual step into the work place. These important services offer an opportunity for deaf and hard of hearing students to understand the available options and perhaps explore work opportunities (Bradley, 2004). It is not possible to point to any one of the many variables that might create a successful transitional experience for a deaf and hard of hearing person. However, it is vital that individual career planning and a clear

personal understanding of career and educational choices are understood by hard of hearing individuals so they can formulate a vision of their future endeavors (Bullis, Davis, Bull, & Johnson, 1997).

From the data gathered in conjunction with this dissertation, only Participant A indicated any intervention, planning, or additional guidance during her educational experiences. Her guidance came not from a counseling staff as suggested in the literature, but from professors who became her mentors. At the time of their interviews, all three participants were gainfully employed and seemed satisfied in their work. While the limited population size used in this study precludes generalization into a larger population, the answers given by the three participants may indicate an interesting path for additional research to determine if the responses were coincidental or if other factors played a part.

In their responses, Participants A and C supported the statements from the literature review which suggest that higher education plays an important role in the success of hard of hearing individuals (Crammatte, 1987; Geyer & Schroedel, 1998; Schroedel & Geyer, 2001). These two participants agreed that their education had been an important contributor to their employment. In his statement concerning education, Participant B did not believe his education played a contributing role in the work he is performing. Although direct conclusions cannot be drawn from this data set, reflecting on the participants' responses to this series of questions, it would be interesting to conduct further studies in an attempt to determine if, for hard of hearing individuals, any correlation exists between such factors as educational achievement, work satisfaction,

and skill level of employment. Such information could prove valuable to other hard of hearing individuals as they consider their education and future work.

*The Americans with Disabilities Act*

Appendix E contains Questions 11 and 11a referring to the Americans with Disabilities Act.

The participants were asked the question 11, “Do you believe the Americans with Disabilities Act has impacted your working life?” This question was followed up with question 11a, “Please describe” [the impact of the ADA]. In response to these two questions, Participant A stated that she felt the Americans with Disabilities Act had made a sizable difference in her life. In particular, the use of hearing aid-compatible phones allowed her to function in her job. She felt the phones were also of benefit to her co-workers.

Participant B said, “I don’t believe that the Americans with Disabilities Act has impacted my working life on an easily seen level.” It was the participant’s opinion that the legislation enabled him to ask for and receive the accommodation that he needed in his work.

Participant C said, “I don’t know anything about that.” She was then asked, “Are you aware of the Americans with Disabilities Act?” and answered, “No.”

Literature review findings state that in the area of employers’ interactions with deaf and hard of hearing employees, there is a general attitude that the movement toward workers’ rights and the inclusion of deaf and hard of hearing individuals has been driven by the passage of the ADA. While this legislation did not include proactive litigation, it did open the door for individuals to file suit and is defining the scope of the rights of the

disabled in the workplace, inclusive of deaf and hard of hearing individuals. The presence of this legislation has been largely responsible for the expanded use of workplace accommodations and has expanded opportunities for deaf and hard of hearing workers. In considering questions pertaining to these statements, both participants A and B stated they felt the Americans with Disabilities Act had affected their lives. They also indicated that the impact was beneficial to their lives. In her response, Participant C stated that she was not aware of the ADA legislation nor did she know what the legislation pertained to. Based on the participants' responses to this series of questions, it would be interesting to study this further to determine how widespread the knowledge of ADA is among both hard of hearing employees and among employers. Even this study's finding that one of three participants was not aware of the legislation may indicate a need for additional research to determine whether or not knowledge concerning the ADA is being properly disseminated.

The final question, question 12, asked each participant to "Please share anything else you feel pertains to the interview that I have not asked." Each of the three participants stated that they had nothing further that they felt would add to the discussion.

#### *Analysis of Participants' Responses to Research Questions*

From the literature review portion of this dissertation, four research questions were formulated concerning: (a) What is the satisfaction level of hard of hearing employees? (b) What is the perception of hard of hearing employees toward their supervisors and co-workers? (c) What is the perception of hard of hearing employees concerning their current (and previous) employment position? (d) What is the perception

of hard of hearing employees toward their workplace accommodations and what other accommodations are needed? In addition, topics concerning hard of hearing individuals on which more academic literature was available were considered in the course of this dissertation. These topical areas included communication, education, and the ADA. Two topics based on the participants' responses to the interview questions were also discussed. These topics include the limited perception of employees toward the availability of accommodations and the indication of hesitancy to openly acknowledge hearing limitations. In summarizing these responses, the following information was discovered. Responses specific to the questions are discussed in the "Participant Response and Perceptions to Topical Interview Questions" portion of this chapter.

#### *The Satisfaction Level of Hard of Hearing Employees*

One factor contributing to the satisfaction level of hard of hearing employees is the ability to communicate within the workplace. Lussier et al. (1999) believe that the greatest obstacles facing deaf and hard of hearing employees are found in two categories which share a great deal of similarity, communication and social need. Focusing on this ability, Young et al. (2000) suggests that communication problems are not primarily found in formal settings, but rather are found in the missed opportunities to talk and share during the course of chance day-to-day meetings and interactions. In this dissertation, satisfactory communications were judged by the ability to take part in general workplace conversations, in meetings and discussions, and to share in workplace humor. Two of the participants supported the literature review findings of Young, Ackerman, and Kyle and described their frustrations or problems with not being able to fully hear humorous conversations in smaller group settings.

Also supporting the literature, one participant felt that she needed to work harder to gain rapport or build relationships. Having to work harder to understand conversational discourse places an additional burden on a hard of hearing employee who must put more effort into making sure he or she has all the information needed to perform at an acceptable level and retain a job. On the other hand, Participants A and C offered information indicating that they also had problems hearing and understanding conversations in larger settings. This information contradicts the literature findings that most of the problems are found when communicating in small groups. The third participant's statements also do not support these literature findings in that he indicated that he does not have a problem communicating and taking part in workplace conversations regardless of the setting.

One participant made a revealing statement as she discussed how she blends her hearing loss with her personality and the steps she goes through to mask not being able to hear as well as others. She also commented that her hearing affects and hinders her more than even she realizes. It will be important to gain understanding as to whether the modification of personality traits to mask the inability to hear well is widespread and whether younger or early onset hard of hearing individuals are more likely to exhibit personality modifications. The statement also calls for understanding on the part of employers and co-workers of how being a hard of hearing person affects an individual and how the effect might be lessened. The problem of understanding by each of the parties may be exacerbated by an unwillingness on the part of a hard of hearing employee to inform others of the hearing problem or of the employer and/or employees to empathize with a hard of hearing employee.

Although the participants described themselves as being satisfied in their workplace, each participant also openly described his or her workplace frustrations and their decreased ability to enjoy workplace humor. In each case, the deciding factor appears to be the participant's situational ability to clearly hear conversations and the co-workers' level of understanding concerning the hearing problem. This may indicate that there is further work to be done in the area of understanding workplace satisfaction of hard of hearing employees. It may also be an indicator of the need to raise awareness on the part of hard of hearing employees and their non-hearing impaired co-workers about how best to communicate with one another and to increase their level of interaction.

*The Perception of Hard of Hearing Employees Toward Their Supervisors and Co-workers*

Considering the question relating to the perception of hard of hearing employees toward their supervisors and co-workers, the responses offered by each of the participants reveal that they are generally satisfied with their employee-to-employer and co-worker relationships. While one participant seemed to have no reservations about sharing his feelings, it is important to note the contradiction in the replies made by the other two participants. Both suggest that they have satisfactory relationships within the workplace and yet both share descriptions of dissatisfactions, and perhaps nearly a fear, that their employers will discover the extent of their hearing problems. One participant shared that she feels much closer to her co-workers who know of her hearing problem than to the doctors who do not seem to know. She also shared that in previous places of

employment, where the doctors did understand that she was a hard of hearing person, she felt closer to them.

Two of the participants clearly revealed doubts that their employers realize they are hard of hearing individuals or at least that they do not realize the extent of the problem. Additionally, the two stated that they did not want the employer to be fully aware, and one shared comments suggesting her employment might be jeopardized by such knowledge. Perhaps a portion of the angst shared by two of the participants could be reduced if they disclosed their hearing problem to their employers. Disclosure on the part of the employee combined with training and/or information concerning the employment of hard of hearing individuals for the employers would help employers understand how to assist hard of hearing workers to better fit into their workplace. Even when hard of hearing employees are not immediately present in the workplace, sensitivity training to educate both employees and employers in the basics of how to work with hard of hearing people could create a more facilitative work environment.

Based on two of the participants' doubts that their employers know about their hearing problems, it would seem to be of value to determine how wide spread this perception might be among hard of hearing workers. It should also be determined how common it is for hard of hearing employees to fear that if their employers knew the extent of their hearing problems, that their employment might be jeopardized. Finally, there would be value in looking more broadly into feelings such as those shared by one participant who felt closer to previous employers who knew of her problems than to her current employers who did not. Information such as this could be used to assist employers in understanding the difficulties faced by hard of hearing employees and how

to work with them. The same type of information might guide hard of hearing employees in realizing the need for self-disclosure and its value as a step toward becoming more effective in their vocations.

*The Perception of Hard of Hearing Employees Concerning Their Current (and previous) Employment Position*

Considering the question regarding the perception of hard of hearing employees concerning their current (and previous) employment position, all three participants described themselves as being satisfied with their current employment. None of the participants believed that their hearing impairment had any effect on their being hired. [It is noteworthy that two of the participants had not disclosed their being hard of hearing to their employers.] The writings of Silver (1994) and Winn (2006) agreed with the participants' beliefs and suggested that by itself, being hearing impaired and/or the use of hearing devices may not be the primary factor in the employment of hard of hearing individuals.

The responses by two of the participants indicating that their employers may not be entirely aware that they are hard of hearing employees are suggestive of the need for educational awareness for both parties. There is a need for the employers to be made aware of the ADA and how it affects their business relationship with their employees. There is a need for the employees to understand their rights regarding employment and obtain a broadened view of what can be done to improve their work conditions.

*The Perception of Hard of Hearing Employees Toward Their Workplace  
Accommodations and What Other Accommodations are Needed*

In response to the question concerning their workplace accommodations, two of the participants revealed that they used accommodations such as the telephone while one participant stated that the only accommodation he used was an agreement with his employer allowing him to leave the work area in the store to purchase new batteries for his hearing aids whenever needed.

It is noteworthy that none of the participants mentioned any previous accommodations that were no longer being used nor considered using accommodations beyond those they had mentioned. It is also interesting that although during the interviews requests were voiced to upgrade existing systems, these requests were apparently never shared with the employers. This may be explained by the participant comments that they did not want their employers to know about their hearing loss. In addition, no thought was given to alternative solutions including the use of additional accommodations.

The limited field of consideration given to alternative accommodations calls for a better understanding on the part of the participants concerning how broad the scope of accommodations really is. It also calls upon the participants to realize that unless they voice their ideas to their employers, the employers may never realize a need exists. In general, it may also call for educational efforts for both the employees and employers. Such efforts would make these individuals aware of the many low cost accommodations that could be considered. Incorporating alternative accommodations into the workplace

would, potentially, increase productivity and have a positive effect on the companies' bottom lines.

*Author's Considerations from Interview Sessions*

Several times during the course of the interviews, the participants offered information that, although not directly related to the question under discussion at the time, was nonetheless of value for reflection. Although included as part of the participants' comments from the first portion of this chapter, they are repeated here to retain their value for consideration in the following chapter. The discussion points are not listed in order of importance.

The first item for discussion is the implication on the part of Participant A and the direct statement on the part of Participant C that their current employers may not completely realize or may not have any awareness at all that the participants are hard of hearing individuals. A second point is the wish on the part of both of the participants that their employers be kept from knowing about their hearing. These comments are in direct contradiction to Participant B's approach of directly informing his employer of his hearing difficulties. It would be interesting to discover if the difference relative to informing employers about hearing difficulties is coincidental or if it might be related to gender, age, or other factors.

Participant C stated, "On Monday mornings they have a meeting which is very frustrating because it's held in the middle of a hallway where the acoustics are horrible and I can't tell where the sound is coming from. The physicians don't speak clearly." It should be noted that the participant does not describe any attempt to discuss this problem with the doctors or with her co-workers. From a practical viewpoint, the actions

on the part of the participant, her co-workers, and her employers call for changes in the workplace culture. A first step in rectifying this problem would be to open lines of communication and understanding so that the hard of hearing employee feels comfortable discussing her hearing problem with the doctors. A second change would be to move the meeting into a quiet room giving everyone involved an opportunity to hear and be heard. Moving the meeting should improve the productivity of the meeting and efficiency in the office by ensuring that information is correctly distributed and understood.

In previous comments, Participants A and C indicated that the employers are probably not aware, or at least not fully aware, of the extent of the participants' hearing problems. Participant A also commented that she might be more affected by her hearing deficit than even she realizes, or is willing to admit. The combined effect of the statements leads the author to believe there is an element of fear, or apprehension, present in the responses. The fear could come from not knowing whether or not the employers would be willing to accept the hearing loss or if they would seek to terminate the employment.

The author wonders about the participants' passive reaction to accommodations. Although there was mention of alternatives that would improve their workplace productivity, there is no indication from the interview responses that any action was taken to gain additional accommodations. The author also wonders about Participant C's statement that she knows nothing at all about ADA or about its implications in her working world. In light of the previous discussion concerning the presence of fear or apprehension, the question arises of whether the problem is one of not knowing, a matter

of not wanting to take any action that would jeopardize the status quo, or if the response was based on additional factors that were not disclosed by the participant.

Although not directly associated with the focus of this dissertation, it is of topical interest that Participant C commented on her need for new hearing aids and how, as a single parent, she is not able to afford them. This comment points directly to the insurance industry and to the need for the legislative bills currently being considered by states calling for the inclusion of coverage for hearing aids and cochlear implants in health benefit policies (Forster, 2009). Very few insurance policies currently include coverage for hearing aids of any type (Grimes & Casey, 2001). With new legislation being proposed at the state level and with the passage of health reform at the national level, it will be of interest to watch the insurance companies' response to these calls for the provision of hearing devices.

In the following chapter, both the material from the participants' responses and the points for consideration that this author has noted will be considered in suggestions for further research. Consideration will also be given to how the awareness and knowledge level of hard of hearing workers and their employers might be increased so that each might more fully empathize with the other.

## Chapter 5

### Discussion, Implications, and Limitations

“Hearing loss is called ‘the unseen disability’ because people often don’t realize they’re talking with a person who has a hearing loss” (Stiles, 2009, p. 2). If a person enters a room using a wheelchair, crutches, a guide dog, or walking stick, those in the room often recognize that extra help is needed and offer assistance without being asked. If a person comes into the same room and sits at the conference table, then repeatedly asks individuals to speak up or repeat themselves, the individuals may think the person is rude or not paying attention, but may not consider that the person could be a hard of hearing individual.

Hetu and Getty (1993), and Glass and Elliott (1993) point out that one of the problems with being a hard of hearing person is that the effected individual cannot continually ask others to repeat what has been said. This lack of understanding concerning hard of hearing people influences the general attitude and many of the common perceptions held by employers and co-workers who do not have a hearing impairment. Negative attitudes toward differing people ranks among the most harmful attributes in attaining work and in reaching and maintaining a high level of work and personal satisfaction (Morre & Levian, 2003). These examples serve to illustrate the

workplace complexities often faced by hard of hearing individuals and underscore a need for understanding from both sides.

This dissertation explored the attitudes and perceptions of hard of hearing employees to discover their feelings toward their supervisors, co-workers, and the accommodations provided to them in the workplace. It also addressed four research questions: (a) What is the satisfaction level of hard of hearing employees? (b) What is the perception of hard of hearing employees toward their supervisors and co-workers? (c) What is the perception of hard of hearing employees concerning their current (and previous) employment position? (d) What is the perception of hard of hearing employees toward their workplace accommodations and what other accommodations are needed? Each of these areas of inquiry had been previously identified during the literature review portion of this study.

Topics concerning hard of hearing individuals on which additional academic literature was available were also considered in the course of this dissertation. These topical areas included communication, education, and the ADA. Two additional topics were identified based on the participants' responses to the interview questions. These topics include the limited perception of employees toward the availability of accommodations, and a fear of sharing knowledge of hearing limitations. In gathering data, the investigative portion of this dissertation employed a case study design and used a multi-case format with interviews from three employed, self-identified, hard of hearing individuals.

*Analysis of Participants' Responses to Research Questions*

In answer to the four research questions that had been identified during the literature review portion of this study, it was found that in response to their satisfaction level all of the participants indicated they were satisfied in their workplace. However, two of the three participants' responses also described workplace frustrations and his or her decreased ability to clearly communicate and to enjoy workplace humor. In each case, a contributing factor of their contentment appeared to be the participants' situational ability to clearly hear conversations and the co-workers' level of understanding concerning the hearing problem. Because a portion of workplace satisfaction is linked to the workers' ability to clearly communicate (Lussier, Say, & Corman, 1999), continued research and application of findings in this field, such as how best to facilitate the communication between hard of hearing employees and their co-workers, would be of value. It may also be an indicator of the need to raise awareness on the part of hard of hearing employees and their non-hard of hearing co-workers about how best to communicate with one another and increase their level of mutual understanding.

The second question investigated the perception hard of hearing employees had toward their supervisors and co-workers. Two of the informants clearly revealed doubts that their employers realized they were hard of hearing individuals or at least that employers had not realized the extent of the problem. Additionally, the two stated that they did not want the employers to be fully aware, and one shared comments suggesting her employment might be jeopardized if her employer had such knowledge. Perhaps early disclosure of their hearing problem would have avoided a portion of the angst

shared by two of the participants. Geyer and Schroedel (1999) included the sharing of hearing loss information in their list of accommodations for hard of hearing employees. Gilbride (2000) goes further, suggesting that negative attitudes are held in place by myths and that these attitudes, while not openly hostile, emphasize the differences between hearing and hard of hearing individuals. Disclosure on the part of hard of hearing employees combined with training and/or discussion for the employers and employees concerning hard of hearing co-workers would help each group understand how to assist hard of hearing workers to better function in their workplace. For employees, there is a need to understand the value of self-identification as hard of hearing individuals and a broadened view of what can be done to improve their work conditions. For the employers there is a need for increased awareness concerning the ADA and how it may affect their business relationships with their employees.

The third question inquired into each hard of hearing employee's perception of his or her current (and previous) employment. Although all three of the participants stated that they were satisfied in their current employment, one suggested that she had felt closer to her employers and coworkers in her previous work where her employers were more aware of her hearing impairment.

The final question asked about the perception of the participants toward their current workplace accommodations and if other accommodations were desired. One participant stated that he had asked for and received the accommodation he needed. The other two participants discussed both the accommodations they currently used and their need for additional accommodations to aid them in their work.

A partial list of the accommodations to facilitate communication includes items such as room arrangement, written summaries of meeting notes, and assistive listening devices (Deihl, 2008; Geyer & Schroedel, 1999). Directly and indirectly, the participants mentioned the use of some of these accommodations such as room arrangement and tape recorders. A consideration for use of other items from the accommodations list, such as additional assistive listening devices at meetings, telephones with amplified handsets, and having co-workers take notes at meetings could be of value.

The limited consideration given by the participants to alternative accommodations may have indicated a lack of awareness on their part of the broad variety of available accommodations. When considering accommodations, participants also needed to recognize that unless they voiced their ideas to their employers, their employers would not realize that a need existed. Finally, for both the employees and employers, the participants' limited consideration of alternative or additional accommodations may have revealed a need for additional education concerning accommodations. Such education would make these individuals aware of the many low-cost accommodations that are available for use. Johnson (1993) stated that the use of proper accommodations is needed if hearing impaired workers are to accomplish increasingly complex work assignments. Therefore, incorporating accommodations into the workplace would, potentially, increase productivity and have a positive effect on the companies' bottom lines.

#### *Theoretical Implications*

Topics concerning hard of hearing individuals on which additional academic literature was available were also considered in the course of this dissertation. These

topical areas included: (a) communication, (b) education, and (c) knowledge of the ADA. Two additional topics were identified based on the participants' responses to the interview questions. These topics include: (d) the limited perception of employees toward the availability of accommodations, and (e) the uncertainty of informing others of hearing limitations. Each of these areas is discussed in this section.

### *Communication*

Research by Mowry and Anderson (1993) found that supervisors often believe hard of hearing employees do not have problems understanding spoken words when factually, the hearing impaired employee may hear the sound but not be able to understand the words in the way a hearing individual would. Hetu and Getty (1993), and Glass and Elliott (1993) agreed and pointed out that hard of hearing employees must expend more time and concentration trying to discern what has been said and watching the actions of those around them to be certain they have captured the correct meaning of what they have heard. Contrary to the literature findings, one participant stated that he had no problem with workplace communication. The other two participants described examples which supported the literature to the extent that their employers believed they had no problem hearing and understanding what was being said in meetings and during passing conversations when, in fact, they did.

Confirming the employer beliefs described by Mowry and Anderson (1993), the participants stated there is difficulty hearing and understanding in these situations and that changes need to be made to improve their abilities to take part in the conversations. One of the three participants stated that it took a great deal of her time and energy to understand and react to conversations and that she wished she could channel this time

and energy into more productive areas. Business leaders generally share the wish for a more productive workplace. They also recognize their employees as key contributors to their companies' success, that engaged and satisfied employees are better performers in the workplace, and that higher performance equates to increased profits for their companies (Edersheim, 2007). The combination of an interview participant wishing for solutions to help increase his or her productivity and literature indicating that employers want to foster increased productivity indicates that dialog on the subject would serve a mutual benefit.

Adler and Elmhurst (1999), Jaffe (2007), and Schramm (1954) describe a basic model of communication that includes the need for a sender, an absence of static, and a receptive recipient. They expand on these basics and add the need for feedback to flow from the receiver to the sender then further illustrate the basic communication model by depicting a message being sent through noise to a listener. This model illustrates that the weaker the message and/or the stronger the interference [inclusive of being a hard of hearing individual], the less opportunity a receiver will have to gather and understand the information. Fitting the model just described, two of the three participants described their hearing ability as difficult in noisy situations. The participants stated that the higher the level of background noise, the more problems they had hearing and understanding the conversation(s) around them.

As the topic of workplace communication is considered, attention must be given to whether a hard of hearing individual has made known his or her hearing problem. Unless the problem is revealed, employers and/or co-workers may not realize a need for any form of accommodation. In the case of this study, one of the participants had clearly

self-identified himself to his employer while the other two participants had not. Because co-workers and employers may not know that there is a hard of hearing individual present, it is easy to envision the rapid breakdown in understanding during a conversation and the resultant problems that might occur. Not being able to completely hear or understand the spoken message frustrates hard of hearing individuals. For the employer and co-worker there may be misunderstanding concerning the source of the problem. For the company there is a loss of efficiency in the work being accomplished.

When steps are taken to understand communication needs and to facilitate those needs, all parties gain. Hard of hearing individuals gain from clearly hearing what is being said and by knowing that their reply is also being understood. Co-workers and employers gain from improved communication and perhaps residually from an increased level of satisfaction in completed work, teamwork, and from better understanding with one another. In short, what is needed is an environment in which employees benefit from having good communication outcomes, work flexibility, and a drive to remain lifelong learners (Punch, Hyde, & Creed, 2004).

### *Education*

While undoubtedly applicable and available for a generalized student population, in academic literature written specifically about deaf and hard of hearing students, there is a common thread calling for these individuals to pursue higher education. Many authors (Bowe, 2003; Bullis, Bull, Johnson, & Peters, 1995; Bullis, Reiman, Davis, & Reid, 1997; Punch, Hyde, & Creed, 2004) believe that the earlier deaf and hard of hearing persons leave school, the harder it becomes for them to obtain and maintain meaningful employment. Those without education beyond the high school level,

whether college, vocational, or apprenticeship training, set themselves on a path toward marginalized jobs. Crammatte (1987), Geyer and Schroedel (1998), and Schroedel and Geyer (2001) agree with the need for continued education and state that for deaf and hard of hearing individuals seeking employment, advanced degrees are the pathway to more satisfying opportunities. Additionally, deaf and hard of hearing individuals with higher degrees tend to change jobs less frequently than their counterparts with lesser educational backgrounds. “Every year in the United States, 36,000 deaf and hard of hearing students aged 12 to 18 inclusive participate in special education programs in American public schools” (Bowe, 2003, p. 485). As part of the offering in these programs, deaf and hard of hearing individuals are introduced to transitional services. These important services provide an opportunity for deaf and hard of hearing students to understand the options available to them (Bradley, 2004).

This study’s data found that one participant had completed a high school education and the remaining two had completed a college education. Even though educational and career guidance is typically available for high school and college students, none of the three participants reported having received such guidance. The degree to which the participants’ classmates may have participated in educational or career transitional guidance is also not known. One of the three participants stated that in college she had professors who mentored her. At the time the information was gathered, all three were gainfully employed and, although two shared specific points of dissatisfaction concerning areas of their workplace environment, all three stated that they were satisfied in their work.

Conclusions cannot be drawn from the limited sample size of this dissertation. However, when statements from the literature review concerning transitional services and higher education were contrasted against those from the participants interviewed for this dissertation, it was found that one participant's statement concerning work contradicted the literature to the extent that the participant with a high school education was employed, productive, and happy in his situation. A second disagreement with the literature was found concerning transitional guidance. Here all three participants stated that they had received no transitional guidance; although, one participant did state that she had professors who were mentors during college. As participants' statements about their education and transitional guidance were considered, it became clear that these areas should be revisited in more depth and that the results of those inquiries should be used to better understand the application of topical research from authors such as Easterbrooks (1999), Geyer and Williams (1999), Lussier et al., (2000), Pray (2003), Bove (2003), and Bullis, et al., (1997). These authors believe that transitional guidance and higher education are critical to the hearing impaired worker's longevity and success in the workplace.

Additional research concerning levels of education and transitional guidance and their effect on hard of hearing employees would be of mutual value to students, educational institutions, and to managers and their employees. In the growing complexity of today's world, managers seek increased levels of education and competencies in their workforce. Heeding the call for increased abilities, hard of hearing workers should be striving for the optimal educational advantage to leverage when seeking employment. Authors such as Bove (2003), Bullis, et al., (1995), Bullis et al.,

(1997), and Punch et al., (2004) encourage hard of hearing students to seek transitional guidance to assist them in moving from educational settings into the workplace.

### *Knowledge of the ADA*

A dichotomy was discovered concerning the information gathered regarding the ADA. Two of the participants agreed that the ADA played a direct part in their gaining of accommodations and in the current working conditions of those interviewed. The third participant, however, stated that she had no knowledge of the ADA.

Federal legislation predating the Americans with Disabilities Act, the Civil Rights Act, was written to bring clear legal definition to specific civil rights and to define specific legal consequences for violation of those rights. Although the ADA was written to provide similar relief for the disabled that had been brought about by the Civil Rights Act, the ADA was written using more generalized language and with no direct definition of rights and/or obligations nor of civil penalties for violation of those rights or obligations. Instead of being directly enforceable, it fell to the injured party, as defined by the ADA, to file a lawsuit in order to gain accommodation under the bill. One consequence of the ADA's generalized language is that in its interpretation, the courts have weakened the intended effects of the legislation (Basas, 2008; Rothstein, 2008; Winegar, 2006). In the midst of a continuing struggle to define the extent of ADA's legislative reach and power, it is possible that by design, by default, or by coincidence a portion of the very populace the legislation was designed to help have not been fully informed of its existence or purpose. A hard of hearing employee who lacks knowledge of the ADA will be unable to utilize this legislative resource when seeking accommodations to aid in his or her work. To a hard of hearing employee, this lack of

knowledge would decrease the ability to seek and obtain reasonable accommodations which could subsequently marginalize the employee's usefulness to the company. In sum, a marginalized employee is not working to full potential and, by default, has a reduced ability to produce at his or her maximum.

*Perception of Hard of Hearing Employees Toward the Availability of Accommodations*

One participant stated that he had specifically asked for and received the accommodation he used in the workplace. Responses from the other two participants demonstrated that while they thought about other possibilities, they made use of only those accommodations that were immediately available. This may have been a conscious choice, the results of their reluctance to self identify, the results of the participants' lack of knowledge concerning available accommodations, or they may simply not have given thought to other alternatives. Had they searched, lists compiled by Geyer and Schroedel (1999) and by Deihl (2008) suggest a variety of available accommodations. A few of the possible options are the use of real time projected recording of meeting proceedings, amplified speech with only one speaker allowed at a time, recorded proceedings to allow later verification of comments and discussions, and seating arrangements that allow hard of hearing individuals to sit where they can best hear the discussions.

Employers sometimes argue that the cost of an accommodation cannot be recouped in the benefit it yields. Responding to this logic, Sunstein (2008) and Minow (2008) argue that accommodations meant for a single person may, and often do, reap benefits for others in the area. It is emphasized that while costs are accrued in accommodating individuals in compliance with the ADA and court settlements from individual cases, there are often a number of mitigating factors that spread the use of the

accommodation to additional parties beyond the immediately affected individual. For instance, Participant C mentioned the need for a better telephone system at her place of work and that a new system would be of benefit to herself and to her fellow workers.

The paybacks to the employee and to the employer are described in a study in conjunction with the University of Iowa's Law, Health Policy, and Disability Center (Hyer, 2006). The paybacks included the company having hired a qualified person with a disability, facilitating increased employee attendance, improved interaction with co-workers, increased company morale, and increased profitability.

It was Drucker's (2003) belief that employees are a company's most valuable asset. If employers follow Drucker's guidance, they would do well to hire qualified individuals and do everything in their power to facilitate the employees' ability to perform their work. Reflective of Drucker's statement, Mullich (2004) identified IBM as a facilitative company that considers the inclusion of handicapped workers as an asset to the company stating, "We don't hire people who are disabled just because it's a nice thing to do. We do it because it's the right thing to do from a business standpoint . . . ." (p. 2).

#### *A Fear of Sharing Knowledge of Hearing Limitations*

Disparity is found between Schroedel's (1979) thought that:

The toughest item on the agenda of disability is that modern America has no need for most disabled persons. In the rehabilitation community, this conclusion is unthinkable, although such a conclusion is both plausible and real (p. 22)

and Silver (1994) who says:

. . . it is possible that if a hearing impaired person begins employment in an environment where an awareness and sensitivity are already established, then this person will have an equal opportunity . . . as would any other qualified employee. (p. 48)

What is needed is to swing the scales back to a neutral balance point. The impetus to do so is found in the comments of Schroedel (1979) who describes handicapped individuals who embrace disability and Mullich (2004) who simply says, “I think my disability is something I have not something I am” (p. 7). A problem for hard of hearing people is that they do not fit well into any group. To members of the Deaf community, they can hear too well to find social inclusion within the Deaf community. To members of the hearing community, they cannot hear well and are marked with the stigma of their handicap. Authors Glass and Elliott (1993) and Hetu and Getty (1993) believe that on the job, any indication of a hearing problem may be taken by others as an open door for discrediting jokes. This causes hard of hearing individuals to conceal their problems and live within a world of not understanding well to avoid the stigma of using a hearing aid.

Within the research data of this dissertation, a glimpse of the dichotomy and of the stigma attached to being hard of hearing was indicated (Glass & Elliott, 1993; Hetu & Getty, 1993). One participant was very open about his hearing impairment. The other two participants not only indicated that they did not believe their employers knew the extent of their problems but, in the case of one, that she did not want the employer to know because of the possibility of her employer thinking she could not handle her job. The statement indicates a problem based on the fear that in discovering the extent of the

hearing impairment, the employer will become less assured of the employee's ability to perform and that the employee may ultimately lose her job. The fear or concern for the safety or security of employment and with it the loss of ability to support one's self and family, is ranked second, in the safety category of the basic needs described in Maslow's (1943) need hierarchy. Realization of this need in the workplace should trigger a response on the part of the employer and the affected hard of hearing employee to come to a mutual understanding and resolution of the cause of the fear. When this response is affirmed, the fear held by the employee will be replaced with a sense of security, and the employee will become more satisfied and productive in his or her work environment.

#### *Recommendations for Further Research*

The data collected during the research portion of this dissertation was gathered from hard of hearing individuals who were affected from birth or who had become a hard of hearing person early in life and was based on the case study method. This dissertation was also undertaken in light of the paucity of research concerning hard of hearing individuals in the workplace as stated by Luckner and Stewart (2003) as well as Stone and Colella (1996) who stated that too little research has been focused on deaf and hard of hearing employees who are succeeding in the workplace. [Succeeding is defined as "have the desired outcome" (Stevenson, 2007, p. 3091) or in this usage to be gainfully employed]. Yin (2003) cautions that case studies can be generalized only to theory but not to population and that the use of multiple case studies strengthens the use of data from the studies. The recommendations suggested in conjunction with this dissertation are meant to reflect hypotheses or theoretical proposals for future research. These recommendations are discussed below in five distinct areas.

First, it would be valuable for comparative data to be gathered from a broad enough population to allow the gender balanced inclusion of early, mid, and late onset hard of hearing employees. The population would generate a more representative data set and would begin to: (a) determine the similarities and differences that may exist in their workplace perceptions and attitudes, (b) discover whether the participants use similar or dissimilar methods to cope with their hearing problems, and (c) determine the similarities or differences existing in their methods of communication. Gaining this data would expand the body of information begun in this study and would further define the path of education for hard of hearing individuals, their educators, and their employers in how best to communicate with one another and to create a more facilitative work environment. The need for this information takes on an increased urgency in light of Johnson's (2010) report that nearly one in five teens in the United States has some degree of hearing loss.

Second, the extent to which a hard of hearing individual may share his or her hearing disability with employers and with others and the reason for sharing or not sharing this information should be investigated. Valuable information for employers and for hard of hearing employees would be gained from an understanding of whether differences in sharing levels relative to informing employers and others about hearing difficulties are coincidental; gender related; related to early or late onset of hearing difficulties; or related to other, unidentified, factors. Insight would also be gained which might mitigate the hard of hearing individual's reasons for not sharing and allow him or her to feel more secure and able to divulging this information.

Third, it would be worthwhile to determine the extent of educational, career, and transitional guidance offered to a broad sample of hard of hearing individuals. A portion of this research could include discovering the educational and vocational outcomes of individuals who receive such guidance and those who do not. Such data is essential in formulating effective programs to assist hard of hearing individuals in their transition from education to work.

Fourth, research should be undertaken to: (a) determine how widespread the knowledge of the ADA is among hard of hearing individuals and their employers, (b) to determine how successful hard of hearing employees are in receiving the accommodations they seek, and (c) to determine the extent to which the legislative intent of the ADA is being carried into both large and small businesses. Immediate application would be gained from an understanding of the willingness of employers to make such simple accommodations as changing meeting room setups to accommodate hard of hearing employees. It would also be of value to know how open employers would be to training for themselves and their employees concerning changes in communication styles. These changes could be of benefit to both hard of hearing employees and their co-workers.

Finally, valuable information would be gained from a three-legged study that compared the attitudes and perceptions of hard of hearing employees, their employers, and their hearing co-workers. Such information would expand on that gathered during the research portion of this dissertation and could lead to a better understanding of the interaction between these three segments of the workforce.

For each of the suggested areas of research, information would be gathered that would be of immediate use to both a hard of hearing employee and his or her employer. The dissemination of such information and its implementation in the workplace holds a potential for better working conditions and higher levels of satisfaction among hard of hearing employees. Implementing the information gathered from such research could potentially aid all employees and result in positive returns for companies. The research portion of this dissertation has shown this to be plausible in that even though all three participants stated they were satisfied in their employment, two of the three later suggested a variety of areas in which change would be beneficial.

#### *Risks and Limitations*

In compiling the information contained in this dissertation and in its theoretical implications, several risks and limitations were identified and each subsequently dealt with to strengthen the validity of this work. These risks and limitations are reviewed in the following pages along with the measures taken to mitigate the damaging effects of each one.

#### *Researcher and Second Reader Bias*

Some researcher biases have already been addressed, but because certain personal biases could have affected the gathering, compilation, and reporting of information in this research, personal bias needs to be addressed here. The bias factors include the author's being a hard of hearing person and the author's past and current relationships with other deaf and hard of hearing individuals. Because the effects of these factors may have influenced the data collection or information reporting from this

investigation, they have been freely disclosed to make the reader fully aware of their existence and potential to have skewed the described outcomes.

Second reader bias may also affect the compilation of the material presented in this dissertation. Such bias could result from the second reader's familiarity with the subject matter and with the research.

### *Reliability and Validity*

Several authors (Creswell, 2009; Patton, 2002; Yin, 2003), agree on how to build reliability and validity into qualitative studies. Reliability is defined by Creswell as "indicating that the researcher's approach is consistent across different researchers and different projects" (p. 190). Creswell's statement is clarified by Yin (2009) who says "reliability: demonstrating that the operations of a study—such as the data collection procedures—can be repeated" (p. 40) and that "external validity: defines the domain to which a study's findings can be generalized." In harmony with these authors, this study built reliability through consistency. First, descriptions have been provided which allow the reader to understand the interview setting and read the participant's response to each of the questions. Second, both the consensus response to an interview question and any contradicting or inconsistent statements have been included in the discussion. Next, a determination was made regarding the extent to which the data from this study could be generalized as determined by the methodology of this research and documented by literature in the field. Finally, any researcher bias that might influence the interpretation of the interviews has been revealed.

*Mitigation of Qualitative Research Error*

Kirk and Miller (1986) noted that three errors can occur with qualitative research and, if not addressed, can adversely affect reliability and validity. Type I error occurs when a researcher sees relations that do not exist. Type II error occurs when a researcher rejects a relation that does exist. Type III error occurs when the wrong questions are asked. When apparent, these errors cause validity issues with the research and its findings. While these errors are of legitimate concern, specific techniques were used in part to mitigate these error concerns. To mitigate Type I and Type II errors the author and a second reader first checked the interview transcripts against the original recordings to be certain the participants' statements were correctly presented. Next, as has been previously discussed, the coding process was checked for errors and omissions. Finally, the conclusions drawn from the participants' responses were checked to be certain the existing relations were correct and to verify that critical relations, which existed in the participants' statements, were not left out of the discussion. Each of the three steps were accomplished by the author and the second reader in an iterative process which was repeated each time the information contained in this dissertation was materially changed. Type III errors were mitigated by testing the questions in two separate pilot interviews. Following each of the pilot interviews the questions were, as needed, modified for clarity, corrected for discovered errors or omissions, and inappropriate questions were deleted. This was accomplished prior to conducting the actual interviews for this study.

*Limitations for Broader Application*

Yin (2003) cautions that case studies can be generalized only to theory but not to population and that the use of multiple case studies strengthens the use of data from the

studies. Based on Yin's comments, discussions within this dissertation are meant to imply not direct application, but a hypotheses or theoretical path of research that might be followed.

This study was also limited to hard of hearing persons residing within the State of Idaho. This was due largely to the geographic location of the author, to the author's desire to limit travel, to monetary limitations recognized in accomplishing this research, and to the purposeful intent to create a study focused on the State of Idaho.

The primary source for participant contacts was by convenience selection and, based on the case study methodology being used, three hard of hearing individuals were interviewed. Interview participants were workforce age (18 years and older), were male and female, were employed, were self-identified as being hard of hearing persons, did not use sign language as a primary mode of communication in the workplace, and could be interviewed verbally. Participants for the case studies were chosen using what Patton (2002) refers to as "purposeful criterion sampling" (p. 230). This approach "yields insights and in-depth understanding rather than empirical generalizations" (p. 230) due to the expertise of each member. There is, however, no way of judging the extent to which the responses given by the participants may or may not reflect the attitudes and perceptions of other hard of hearing workers. Additionally, because co-workers or employers were not interviewed, there is a lack of corroborative information from which to judge the participants' responses.

These limitations, though noteworthy, do not diminish the usefulness of the investigation, which is meant to explore the attitudes and perceptions of hard of hearing employees toward their supervisors, co-workers, and toward the accommodations that

are provided. The study also looked for similarities and differences of the participants' attitudes relating to their employers' hiring practices and toward the effect of education on the outcome of their employment. The findings from this study set direction for theoretical application and further investigation.

### *Significance of the Study*

Leading up to this study, an extensive literature review was completed concerning the workplace attitudes and perceptions of hard of hearing individuals. One outcome was the discovery of the paucity of academic information concerning hard of hearing workers at the level of the individual employee. Based on that finding, this study was undertaken and was further modeled to explore these areas with an emphasis on the attitudes and perceptions of hard of hearing employees to discover their feelings toward their supervisors, co-workers, and the accommodations provided to them in the workplace. The study addressed four research questions which include: (a) What is the satisfaction level of hard of hearing employees? (b) What is the perception of hard of hearing employees toward their supervisors and co-workers? (c) What is the perception of hard of hearing employees concerning their current (and previous) employment position? (d) What is the perception of hard of hearing employees toward their workplace accommodations and what other accommodations are needed?

Topics concerning hard of hearing individuals on which additional academic literature was available were also considered in the course of this dissertation. These topical areas included: (a) communication, (b) education, and (c) knowledge of the ADA. Two additional topics were identified based on the participants' responses to the interview questions. These topics include: (d) the limited perception of employees

toward the availability of accommodations, and (e) a fear of sharing knowledge of hearing limitations.

This dissertation has examined and shared a significant amount of knowledge in each of the identified fields of interest. The dissertation has also identified areas for future academic research that will add to the knowledge base concerning the perceptions of hard of hearing employees.

Significance is also found in this study in that the work accomplished here brings clarity to the theoretical paths that might be followed to increase understanding among hard of hearing employees and their hearing co-workers and employers concerning the needs of hard of hearing individuals in the fields of education, communication, and workplace accommodations. Following these paths and increasing the knowledge level of each group of individuals would lead to better communication, a more satisfying work experience, and closer teamwork among the various employees. These factors should equate to a more satisfied workforce, which has been shown by Malthouse, Oakley, Calder and Iacobucci (2004) to increase profitability for the employer.

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Appendix A

**Proposed Survey Questions**

1. Name
2. Age
3. Gender
4. Occupation
5. Job function or title
6. Length of employment
7. Level of hearing ability

*Please answer the following questions as they pertain to your workplace perceptions and/or beliefs.*

8. Describe the on-the-job accommodations you currently use
9. How well the accommodations work
10. Are the accommodations of use to non-affected employees?
11. What work place accommodations would you like to have?
12. How would these accommodations serve you better than what is currently offered?
13. What is your perception of your work place experiences?
14. Describe the education you have completed
15. Has your education been of help to you?
16. Describe the problems you encounter in the workplace
17. Describe the level of satisfaction gained from current position
18. Describe your interactions with your supervisor and other employees

19. Describe your interactions with your co-workers
20. To what extent do you believe the ADA has impacted your working life?
21. What other workplace accommodations would be useful to you?

## Appendix B

### Final Survey Questions

1. Have you read the informed consent document and do you have any questions concerning what it says? Have you signed the document?
2. Would you describe yourself as hard of hearing?
  - a. How long have you been hard of hearing?
3. Please tell me your name, age, and gender.
4. What company do you work for and what is your job title?
5. How long have you been employed by the company where you are currently employed?
6. Have you held other jobs?
  - a. Who did you work for and how long were you employed there?

*Please answer the following questions as they pertain to your workplace perceptions and/or beliefs.*

7. Do you use any type of workplace accommodations?
  - a. Did your employer originally offer accommodations or did you request them?
  - b. How would you describe the on-the-job accommodations you currently use?
  - c. Do these accommodations meet your needs?

- d. What is your perspective of the use of accommodations relative to your productivity?
  - e. How might these accommodations be beneficial to other employees?
  - f. Are mobile telephones or desk telephones used in conjunction with your work?
  - g. How well are you able to use each type of telephone? Describe?
  - h. How much do your co-workers benefit from using their telephones? Describe?
8. If there were no limitations to your choice, what workplace accommodations would you choose?
- a. How might these accommodations serve you better than what is currently available?
  - b. How might the accommodations allow you to be more productive?
  - c. How might the accommodation be useful to others in your place of work?
9. How much formal education have you completed? (Formal education or “college” means any college-based training or schooling after high school.)
- a. Describe the school setting you experienced (i.e., private, specialized school for deaf and hard of hearing, mainstream, other - describe)
  - b. Were you hard of hearing when you entered college or did you experience your hearing loss during college?
    - i. Were you given any particular guidance at your college’s student disability resource center?
    - ii. What were your particular challenges in college?

- c. Has your formal education been beneficial to you? How and why?
- d. Does your company hold formal training sessions and/or staff meetings?

- i. How well are you able to follow all of the conversations at these meetings?

- ii. From your point of view, what might be done to improve your access at the meetings?

10. Please describe your level of satisfaction at your current job.

- a. Thinking back to when you were hired, what role do you believe your hearing loss had on your current employer's willingness to hire you?

- i. To your knowledge has there ever been other hard of hearing employees at your company?

- ii. What job positions do/did they hold?

- iii. How would you categorize your employer's attitude toward hiring hard of hearing employees?

- Resistive – does not want to hire under any circumstance

- Permissive – will consider applicants

- Accommodative – willing to work with candidate to meet needs

- Facilitative – hiring is right thing to do and is good for the company

- iv. Describe the category you chose.

- b. Have you ever been turned down for a job or promotion because of your hearing loss?

- i. To the best of your recollection, describe that experience.

- c. How much and what kinds of interaction do you have with your supervisor?
- i. Does your supervisor's level of patience with you and your hearing loss affect the degree to which you get along?
  - ii. If you understand well what is being said in one setting (such as a one-on-one meeting), does your supervisor assume you will be able to follow other conversations (such as team meetings or conversations walking down the hall?) Please describe.
- d. How much and what kinds of interaction do you have with your co-workers?
- i. How well do you feel connected with your co-workers? Please describe.
  - ii. How eager are your co-workers to have you work with them on projects? Please describe.
- e. Please describe any frustrations you encounter in the workplace related to your hearing loss.
- i. What is the source of your frustration?
  - ii. How do you deal with these frustrations?

11. Do you believe the Americans with Disabilities Act (Tate & Adams) has impacted your working life?

- a. Please describe.

12. Are you able to enjoy workplace humor (i.e., be "in on" humorous things that happen) equal to your co-workers?

- a. If yes, please describe.

b. If no, do you learn about it later through a third party and find the event to not be very humorous?

c. If no, what barriers exist that make it difficult to be part of the workplace humor?

13. Please share anything else you feel pertains to the interview that I have not asked.

## Appendix C

### Letter of Explanation to Interview Candidate

Dear: \_\_\_\_\_

During our recent email contact, you indicated that you are willing to take part in a research interview that I am conducting. The research is in conjunction with my Doctor of Management dissertation written for George Fox University in Newberg, Oregon.

You will recall that the interview will be recorded using voice recording methods, and that a certified ASL interpreter will be present as needed. These recordings will be used to create a transcription for analysis and comparison. In the transcription, your name and any other name used will be coded to maintain confidentiality.

To speed our interview process, I have enclosed two copies of an Informed Consent Document. Please sign both copies of this document and bring them with you to the interview session. I have also enclosed a second document titled Survey Questions. Please consider these questions in light of your current, and past, employment experiences. Then, consider how you might respond in answer to these questions during our coming interview.

Thank you for your interest in participating in this research. Our time together is scheduled for *insert date at insert time*. We will meet at *insert place and address*. If you

have questions concerning our meeting or if you find that you must reschedule our time together, please contact me immediately by emailing [tbrentdavis@clearwire.net](mailto:tbrentdavis@clearwire.net).

Sincerely,

Thomas B. Davis

## **Appendix D**

### **Informed Consent Document**

#### *Investigating Workplace Attitudes and Perceptions of Hard of Hearing Employees*

We ask that you read this document and ask any questions you may have before agreeing to participate in the study.

#### **Background Information:**

The purpose of this study is to explore the attitudes and perceptions hard of hearing employees to discover their feelings toward their supervisors, co-workers, and to the accommodations provided them in the workplace. Additionally, the study will look at the tension between their status quo and what would be wished for with the intention of discovering methods to aid both deaf and hard of hearing employees and their employers in creating a work environment that is mutually more productive and profitable.

#### **Procedure:**

Individual one-on-one interviews will be used to gather information from each subject. The interviews will be conducted in a private setting. Each interview will be recorded for later transcription and study.

#### **Risks and Benefits of Being in the Study:**

Minor risks associated with the interviews include psychological and/or personal discomfort/inconvenience. Psychological risk may result from recall of painful or

stressful events associated with their hearing condition. Discomfort or inconvenience may be associated with the time and/or location of the interview.

This study will increase the level of understanding and means of interaction between the employer, the non-deaf or hard of hearing employees, and the deaf or hard of hearing employee. Such an increase in understanding could raise employee satisfaction, increase productivity, reduce turnover in the labor force, add a body of capable workers available to the labor pool, and/or mediate the cost of accommodations for deaf or hard of hearing

**Confidentiality:**

Subjects and places of employment will be referred to in the transcripts using coded names. An ASL interpreter or other aid to communication will be provided as necessary.

**Voluntary Nature of the Study:**

If you decide to participate, you are free to withdraw at any time without affecting those relationships.

**Contacts and Questions:**

Dr. Tim Rahschulte, Dissertation Committee Chair, Doctor of Management program, George Fox University, 414 N Meridian Street, Newberg, OR 97132. (503) 554-2855.

Thomas B. Davis, Doctoral candidate, Doctor of Management program, George Fox University, 825 W. Melrose Ln. Boise, ID 83706, (208) 890-9454. E-mail:

tbrentdavis@clearwire.net

You may ask any questions you have now.

You will be given a copy of this form to keep for your records.

**Statement of Consent:**

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature

Date

Signature of Investigator or Person Obtaining Consent

Date

**Appendix E****Response Table with Questions**

Table A

Participant	Ques#	Line#	Code	Response	Comments
1. Have you read the informed consent document and do you have any questions concerning what it says? Have you signed the document?					
A	1	9		I have read the informed consent document and I don't have any questions.	
B	1	4		Yes I have read the informed consent document. I do not have any questions. I have signed the document in question.	
C	1	6		I have read it and I have no questions.	
2. Would you describe yourself as hard of hearing?					
A	2	17		Yes.	
B	2	9		Yes I would classify myself as hard of hearing.	
C	2	14		Yes.	
2a How long have you been hard of hearing?					
A	2a	21		I have been hard of hearing since birth.	
B	2a	13	2a-1	I became hard of hearing in early	

				childhood.	
B	2a	13	2a-2	Because I had meningitis.	
C	2a	18		It was discovered when I was 8 years old.	
3. Please tell me your name, age, and gender.					
A	3	25		I'm 26, female.	
B	3	17		My name is "B". I am at the time of the interview, 24 years old. I am a male.	
C	3	22		I'm 53 years old, female.	
4. What company do you work for and what is your job title?					
A	4	29		I work for a public relations firm in Idaho and I'm a project manager.	
B	4	21		I work for a retail chain store in Idaho. My job is that of a Sales Clerk on the Selling Team.	
C	4	26		An X clinic in Idaho. I'm a physician assistant.	
5. How long have you been employed by the company where you are currently employed?					
A	5	33		A little more than three years.	
B	5	25		I have been employed since [3+ years].	
C	5	30		I've been with them for 3½ years.	
6. Have you held other jobs?					

A	6	41		Yes.	
B	6	29		I have held one other job.	
C	6	34		Yes.	
6a. Who did you work for and how long were you employed there?					
A	6a	45	6a-1	The last place I worked was a store and I was a buyer, customer service representative, and traveling sales person. I worked there for a year.	
A	6a	45	6a-2	Before that I worked for a utility company. I worked there over a period of about three years in college as an intern in corporate communications.	
A	6a	45	6a-3	I also held other jobs as a part time employee.	
B	6a	33		I worked for a Janitorial Contractor I was employed for six months.	
C	6a	38	6a-1	I've been a physician assistant for 29 years.	
C	6a	38	6a-2	I worked for a medical group in another state before coming here.	
C	6a	38	6a-3	Prior to that I operated a satellite clinic outside of Idaho.	
C	6a	38	6a-4	The job before that was where I did my	

				actual training, and that was a family practice clinic in the east.	
7. Do you use any type of workplace accommodations?					
A	7	53		I wear hearing aids.	
A	7	55		I have access to a tape recorder if I need one. I'm in a lot of situations where we'll take notes or take minutes at a meeting, like an advisory council meeting, and I can take a tape recorder to those.	
B	7	38		Yes, I do use one accommodation in the work place.	
C	7	49		Hearing aids.	
7a. Did your employer originally offer accommodations or did you request them?					
A	7a	62	7a-1	No.	
				Did you supply your own?	
A	7a	66	7a-2	Somebody else suggested it.	
				Who suggested the accommodation?	
A	7a	70	7a-3	Co-worker.	
B	7a	42		I request the accommodation on an as needed basis.	
C	7a			No.	No other accommod

					ation used
7b. How would you describe the on-the-job accommodations you currently use?					
A	7b	78		The accommodation that I currently use is a tape recorder.	
B	7b	45		I would describe the accommodation simply, as being able to go to any of my supervisors, as being able to ask if I can go purchase hearing aid batteries, so that I can complete my job in a satisfactory manner.	
C	7b				No other accommodation used
7c. Do these accommodations meet your needs?					
A	7c	86		Yes. And we have very good phones at the office.	
B	7c	51		Yes, the accommodation meets my needs, so that I am able to hear my customers.	
C	7c	53		No.	
7d. What is your perspective of the use of accommodations relative to your productivity?					
A	7d	95		I think the tape recorder does a great	

				<p>job. It captures everything. However, it takes a long time to transcribe notes from a tape recorder. So, it's obviously, I prefer not to use a tape recorder if I could get along in a meeting and be able to hear everything, but if I need it, it's helpful. It just takes longer.</p>	
B	7d	55		<p>My perspective of the utilization of my accommodation is relative to my productivity, due to being aware, on an audible level of all surrounding customers and their needs.</p>	
C	7d	57		<p>It's time for new hearing aids, I'm a single mom, I don't have the resources to get new hearing aids, so I'm just kinda plugging along for right now.</p>	
<p>7e. How might these accommodations be beneficial to other employees?</p>					
A	7e	108		<p>I think it ensures accuracy when you're taking minutes and it's a good reference if there's any question.</p>	
B	7e	60	7e-1	<p>The accommodation is beneficial to other employees.</p>	
B	7e	60	7e-2	<p>I am able to hear what they are saying</p>	

				and I am able to respond to their needs as it pertains to the work place.	
C	7e	62 &64		Yeah, I can't really function without them.  But, they're inadequate at this point.	
7f. Are mobile phones or desk telephones used in conjunction with your work?					
A	7f	114		Yes.	
B	7f	65		Yes mobile and desk telephones are used in conjunction with my work.	
C	7f	68		Desktop phones.	
7fi. How well are you able to use each type of phone? Describe?					
A	7fi	118	7fi-1	I'm able to use them well.	
A	7fi	118	7fi-2	What I thought of with that question was I just switched to a new type of hearing aid that will, it knows when you pick up the phone, so it'll switch to the key coil, but it does this beeping thing, and so there's always a delay when I pick up the phone, I have to wait a second or two before I can hear the other person, so, and when I use a mobile phone, sometimes the hearing aid will just decide to do that, and so in	

				<p>the middle of the conversation I'll just hear this beeping and so I don't think anybody on the other end of the phone notices me, but it's irritating and I think it makes me miss a beat.</p>	
B	7fi	69	7fi-1	<p>I am able to use the mobile phones very well at work. They enable me to obtain information, and to convey information to my fellow associates and the customers that call into, seeking out information. I also have called the other stores in the region to see if they had items in stock that we sold out of and if so, to have items put on hold for customers in their name or transferred to the store.</p>	
B	7fi	69	7fi-2	<p>I can use the desk phones with relative ease provided I take my hearing aid out.</p>	
C	7fi	72	7fi-1	<p>The phone system that they have in their office is horrible. It is a bad phone system. They need to do something different.</p>	
C	7fi	72	7fi-2	<p>Well, first of all there's three of us</p>	

				<p>crammed in a little tiny office and there's a desk phone on each one of our desks, but their phone system, I can't tell whose phone is ringing. In my prior work place they had a phone system where a light would come in if my phone was ringing, but all the lights flash every time the phone rings, and I can't tell if it's somebody's else's desk phone or if it's the hall phone. So, it's an antique phone system that they've got in there, and it doesn't work very well for me.</p>	
<p>7fii. How much do your co-workers benefit from using their phones? Describe?</p>					
A	7fii	134		<p>Yes. It's the mainstay of our work, everyone uses them about the same.</p>	
B	7fii	81		<p>My co-workers benefit from using their phones as well as I do. My co-workers as it is with myself, use them to obtain and convey information between stores, fellow associates, the management team and the customers.</p>	
C	7fii	87		<p>Well, it's a necessary part of our day.</p>	

				We have to make phone calls to patients to go over test results, answer questions, and so forth.	
8. If there were no limitations to your choice, what workplace accommodations would you choose?					
A	8	140		I would, I'd probably use the speaker phone all the time. You know, if I could... Or I would, I don't know, I would think of some way to make the telephone a little bit easier, and usually that's the speaker phone.	
B	8	87		I have all the accommodations that I need to perform very well.	
C	8	95	8-1	I would choose a better phone system, for one.	
C	8	95	8-2	We have Monday morning meetings which are very, very frustrating to me because it's just in the middle of the hallway that we meet and the acoustics are horrible and I can't tell where the sound is coming from. The physicians don't speak very clearly and they don't make very good effort to make sure that	

				<p>their lips are visible for me to read lips.</p> <p>A conference room would be a better situation where everybody sat around a table so that I could tell who was speaking better.</p>	
C	8	95	8-3	<p>A conference room would be a better situation where everybody sat around a table so that I could tell who was speaking better.</p>	
8a. How might these accommodations serve you better than what is currently available?					
A	8a	148		<p>I just think it would require less concentration on my part to follow a conversation on the phone.</p>	
B	8a			<p>[Question was not asked based on previous response]</p>	
C	8a	105	8a-1	<p>If there was a better room with better acoustics, I'd have a better time telling where the sound is coming from.</p>	
C	8a	105	8a-2	<p>And also good visibility of everyone in the room, so I can tell whose lips I need to read.</p>	
8b. How might the accommodations allow you to be more productive?					
A	8b	153		<p>Just not spending so much energy on the</p>	

				phone and spending energy on other things, if that makes sense.	
B	8b			Allows me to hear what is going on.	
C	8b	111		I miss a lot of what is going on at those Monday morning meetings. We go over difficult cases and most of the time I catch a fraction of what might be going on. So, it would be better all the way around for my information to know what was happening.	
8c. How might the accommodation be useful to others in your place of work?					
A	8c	158		Just being able to multitask by having the speaker phone. Everybody uses their speaker phone all the time.	
B	8c				Did not respond to the question
C	8c	118		I can't imagine that everybody is picking up everything, because some of the other co-workers have told me that some of the doctors are very difficult to hear and understand, they mutter, so if I'm having difficulty and other people	

				are having difficulty, I think some changes in the way the thing was set up would be helpful to everybody.	
9. How much formal education have you completed? (Formal education or “college” means any college-based training or schooling after high school.)					
A	9	164		I have a four-year degree from college, a bachelor’s degree in communications and business.	
B	9	95		I have had no formal education since I graduated High School.	
C	9	127		I have an associate’s degree in science, a bachelor’s degree in psychology, and post-graduate training as a physician assistant.	
9a. Describe the school setting you experienced (i.e., private, specialized school for deaf and hard of hearing, mainstream, other - describe)					
A	9a	170		I attended the regular X schools and classes.	
B	9a	100		I went to school in the public school system. I guess that would be classified as mainstream.	
C	9a	134		I was in a mainstream public school situation through elementary and high	

				school. I went to a small college to begin with. I did not have hearing aids until, I don't remember if it was the first or second year of college, when I had the first set of hearing aids. They did not have the technology available for my type of loss until about that time.	
9b. Were you hard of hearing when you entered college or did you experience your hearing loss during college?					
A	9b	172		Yes.	
B	9b				Did not attend college.
C	9b	143		Before I entered college.	
9bi. Were you given any particular guidance at your college's student disability resource center?					
A	9bi	179		I don't think we had one.	
B	9bi				No college.
C	9bi	148		No.	
9bii. What were your particular challenges in college?					
A	9bii	187		Um, we had pretty small classes. I had a few lecture classes where I just had to think really hard about where I sat.	

B	9bii				No college.
C	9bii	152		Probably hearing the lectures.	
9c. Has your formal education been beneficial to you? How and why?					
A	9c	196		Yes! I had professors who were mentors and helped me and I referenced my class material, and it was a good growing experience for me.	
B	9c				No college
C	9c	156		Absolutely. I think I have a pretty decent job, pretty good career. I make a pretty decent living, which I could not have done without formal education.	
9d. Does your company hold formal training sessions and/or staff meetings?					
A	9d	2A		We have staff meetings weekly.	
B	9d	1B		My Job site holds formal training sessions/staff meetings.	
C	9d	163		Staff meetings. We have staff meetings weekly.	
9di. How well are you able to follow all of the conversations at these meetings?					
A	9di	205		I can hear conversations in staff meetings pretty well. We also have, because I work for a consulting firm, we have weekly meetings with our clients	

				and so those can vary in how well I can follow the conversation.	
B	9di	108		I am able to follow all of the conversations at these meetings very well. If I have any questions, I ask the questions at the end of the meetings.	
C	9di	167		Poorly.	
9dii From your point of view, what might be done to improve your access at the meetings?					
A	9dii	212		Well, this isn't exactly a staff meeting, but at my job, I do PR for a lot of construction projects, so we'll do a pre-construction meeting where there are a hundred people in the room and there is a conversation at each table and I can't hear, you know, the purpose of the meeting is to take two hours and talk about the impact of the construction, and I can't always hear all the information I need to hear during that training or, you know, the information, so I think that, you know, a transcription of the meeting would be helpful or	

				having maybe a microphone at each area to amplify sounds would be helpful.	
B	9dii	114		Nothing needs to be done at the meetings since I tend to sit towards the very front to facilitate my following the conversations.	
C	9dii	171		I think, number 1, I need new hearing aids [but I'm a single parent and they are too expensive to buy number 2, if they had a better conference room for those meetings it would help me tremendously.  Yeah, get the doctors to speak up and get their hands off their mouths so I could read their lips.	
10. Please describe your level of satisfaction at your current job.					
A	10	224		It's good.	
B	10	119		My level of satisfaction is very high, as I enjoy thoroughly doing my job. I enjoy working with my fellow associates and helping customers get what they came in for.	
C	10	179		I love my work.	

10a. Thinking back to when you were hired, what role do you believe your hearing loss had on your current employer's willingness to hire you?					
A	10a	229		I think it had no role. I'm not sure if she was aware.	
B	10a	125		I don't believe that my hearing loss played any role in my being hired.	
C	10a	184		None.	
10ai. To your knowledge has there ever been other hard of hearing employees at your company ?					
A	10ai	236		No.	
B	10ai	131		To the best of my knowledge, there hasn't been any other hard of hearing employees at the location I work for at my company.	
C	10ai	189		Not that I'm aware of.	
10aii. What job positions do/did they hold?					
A	10aii				No other HoH employees.
B	10aii	136		I do not know of any positions they may have or do hold.	
C	10aii				No other HoH.
10aiii. How would you categorize your employer's attitude toward hiring hard of					

hearing employees?					
<ol style="list-style-type: none"> <li>1. Resistive – does not want to hire under any circumstance</li> <li>2. Permissive – will consider applicants</li> <li>3. Accommodative – willing to work with candidate to meet needs</li> <li>4. Facilitative – hiring is right thing to do and is good for the company</li> </ol>					
A	10aiii	248		I think if you asked my employer, she would say that hiring hard of hearing people is the right thing to do and is good for the company. But, if you watch her in a busy day, she would be not exactly resistive, but just, like, well, I'm considering them but they better be able to keep up.	
B	10aiii	141		I would categorize my employer's attitude as being facilitative.	
C	10aiii			I would say #5, oblivious.	
10aiv. Describe the category you chose.					
A	10aiv	256		Yeah. I think it just, she wants to do the right thing, and she believes in the right thing, but, and if a problem can be solved with money, then that's doable, no problem, but if it requires extra time or delay or energy, it's just not worth it.	

				That's my perception. I haven't heard that from her.	
B	10aiv	145		Being facilitative, means, opening the doors, so to speak and working with any individuals to create a working environment so that both employee and employer both benefit from the working relationship.	
C	10aiv	198		I would say #5, oblivious. I don't think, well, I've never announced that I was hearing impaired prior to any job that I've ever taken, and I'm not hiding anything, it's just, it's just not something I've ever heard shared with anybody. I'm not even sure if the doctors are aware of my hearing impairment. I, like I say, I don't hide it, most of the nurses and office staff are aware of it, but I'm not sure if the doctors are aware of it. I don't think that that really matters to them. I think as long as you do your job and do your job well, I think that's probably the more	

				important thing.	
10b. Have you ever been turned down for a job or promotion because of your hearing loss?					
A	10b	268		Not that I'm aware of.	
B	10b	152		I have never been turned down for a job or a promotion due to my hearing loss.	
C	10b	214		No, not that I'm aware of.	
10bi. To the best of your recollection, describe that experience.					
A	10bi				No response
B	10bi	156		I have only applied for one promotion. I was turned down for the promotion, due to another candidate being more qualified to do the job satisfactorily.	
C	10bi				
10c. How much and what kinds of interaction do you have with your supervisor?					
A	10c	278		Frequent and all the time... And then there'll be times when you hardly see one another. it's a lot of traveling and a lot of meetings and that kind of thing. A lot of out-of-town stuff too.	
B	10c	162		My supervisor and I have a casual, comfortable, professional interaction.	

				We interact in the work site when our paths cross on the floor, or when he is assigning tasks that are needed to be completed.	
C	10c	218		That's always been a hard question to answer because it's always been a little unclear who supervisors are. I work in a group practice, so I've never really had one overall supervisor. Just work with all the doctors.	
10ci. Does your supervisor's level of patience with you and your hearing loss affect the degree to which you get along?					
A	10ci	292		She, I don't think she realizes when I miss a beat because of being hard of hearing. Like, I don't think she says, oh, that's because "A" was, I don't think she stops to think about it. So, no.	
B	10ci	169		Neither his level of patience, nor my hearing loss affects the degree to which we get along. He and I have always gotten along very well.	
C	10ci	225		I'm not sure that they're aware that I'm hearing impaired.	

<p>10cii. If you understand well what is being said in one setting (such as a one-on-one meeting), does your supervisor assume you'll be able to follow other conversations (such as team meetings or conversations walking down the hall?) Please describe.</p>					
A	10cii	3A		<p>Absolutely. I think, I don't think she realizes it, and I haven't done, I haven't tried to educate her at all. Just because I think that she would be afraid. I'm in a lot of situations where I have to be able to hear well, and if I can't hear well, I've gotta figure out how to make up for that, and if I, it's kinda like, if you fall behind, you just, you lose. And so, she, most of our frequent conversation is in a situation where I have no problem hearing, and the rest of the time will be in hallways and, you know, doing stuff, and yeah, I don't think she realizes that's a hard situation. And I don't really want her to know, I don't want her to think about that. I just, I, when I started at that job, a lot of what I did was, we do a lot of facilitation with community advisory councils of whatever continent</p>	

				<p>I go and take notes at the meetings, and if I couldn't perform that function in my job, I didn't think she would have the patience, really wanting to follow through on good intentions to help me out. And so I, and I just think that she just doesn't have patience with anything, it's not necessarily a character flaw, but we're just all under so much pressure, and you know, if you fail as a consultant, you're kinda out.</p> <p>I just, I hesitate to say I have a difficult time in this situation, because I know if I got her on a good day, she'd say what can we do to make that better, but if I kept saying that to her, she would be like, uh, well, you know, this isn't the job for you. Where, this isn't, I can't do this, you know.</p>	
B	10cii	177	10cii-1	<p>I have historically understood very well in any variety of situations whether it is a one on one basis, in team meetings or conversations walking down the hall.</p>	

B	10cii	177	10cii-2	When in a one on one setting I am facing the person with whom I am conversing. In a team meeting I tend to sit in a corner facing everyone. While walking down the hall, I am usually on the right side since my left is the strongest all around.	
C	10cii	231		I'm sure, I'm sure they assume that anything they say is going to be heard.	
10d. How much and what kinds of interaction do you have with your co-workers?					
A	10d	334		Frequent. I have a central office and two people report to me and then, and then another girl that I work with, we're at the same level, and then there's our boss, and then there's other people in other divisions that I don't work with as much, but we're just all going back and forth, did you get this, how do you want this, how do you, you know, can you do this, have you called this person, that type of thing. Call them back and tell them such and such.	
B	10d	186		I have varied interactions with my	

				<p>fellow associates. They are quite numerous in frequency. They range anywhere's from calling each other on the work phones to seek assistance with load outs, to having one on one encounters and the occasional team meetings.</p>	
C	10d	240		I think good interaction	
10di. How well do you feel connected with your co-workers? Please describe.					
A	10di	348		<p>Yeah, professionally I feel well connected. I'm not necessarily personally great friends with them, but yes.</p>	
B	10di	193		<p>I feel very connected with my co-workers. I feel that if I need any help I can ask any of my co-workers and they are willing to lend a hand.</p>	
C	10di	244	10di-1	<p>Yes and no, but I don't think that has anything to do with my hearing impairment. Most of the other PAs in the practice are younger, I'm the old woman in the practice, so there's a lot of, you know, just social differences and</p>	

				<p>interests and things. We all get along well, the nursing staff is all very young, but they all come to me for advice and for help medically and that kind of thing, so I think I have a good working relationship with everyone.</p>	
<p>Follow up question BD: So, what I think I've heard you say, and I'm thinking along the lines of how you interact and communicate with both your supervisors, i.e., the other doctors and your co-workers, and you clearly stated that the doctors probably just plain don't know that you're hard of hearing, is that right?</p>					
C	10di	244	10di-2	Yeah, I think so.	
<p>Follow up question BD: How about your co-workers?</p>					
C	10di	244	10di-3	<p>I think most of them know.</p> <p>Most of them know?</p> <p>Um-hum. The people that I work most intimately with do know.</p>	
<p>Follow up question BD: Okay. What kind of difference do you think that makes?</p>					
C	10di	244	10di-4	<p>Well, I feel closer to the people who are aware of it, because they kind of watch out for each other, you know, and they kind of try to include me in things, whereas there's always been a level of distance with this set of doctors that I'm</p>	

				working with right now. The doctors I've worked with in the past I've not had that distance, I've been very close with them.	
Follow up question BD: Do you think that your co-workers are inclined to bring you piece of information that they think you may have missed in a meeting.					
C	10dii	244	10di-5	I think so, yeah. My nurse watches out for me a lot. She'll say, you know, that's your patient that they're talking about, and afterwards she'll usually bring out key points that they were bringing out.	
10dii. How eager are your co-workers to have you work with them on projects? Please describe.					
A	10dii	360		I think so. They would feel I was an addition or an asset.	
B	10dii	199		My co-workers are eager to have me working on projects with them. The reason being is that I am a hard worker and that I am willing to do what it takes to get the work done in a reasonable timely fashion.	
C	10dii	253		We don't really do projects. It's just day-to-day patient care. But, I think,	

				<p>depending on what it is, I have more experience in family practice than anyone including the doctors in the office, so they frequently come to me with family practice-type questions. Certain types of problems they usually refer to me because they know that I have more expertise and they're willing, you know, they might change some patient from seeing Dr. X and send them to see me because they know that I have more expertise in that area, so I think they're very accepting and receptive and that type of thing.</p>	
<p>10e. Please describe any frustrations you encounter in the workplace related to your hearing loss.</p>					
A	10e	369	10e-1	<p>When I worked at a local utility company in college, it was a cube farm, and a lot of conversations were just very quiet, whispered conversations, and I just couldn't operate at all. You know, I had to be looking at the person and I had to ask them to repeat themselves all the</p>	

				<p>time, so I just felt like I couldn't, I couldn't compete in a sense, and I wasn't competing against anybody, that's just, I just couldn't, I just had so much to overcome.</p>	
A	10e	369	10e-2	<p>Another situation is just hallways or situations where there's an offhand comment or something that's said, like I don't overhear things, you know, if somebody's on the phone with another person, I don't hear the other person if I'm sitting right next to them, you know, and I think a lot of times people do, and so I just. Or, if, something is shouted and I'm not looking at the person, I don't necessarily overhear. So, I just have to get information in different ways.</p> <p>I think just waiting for later in the conversation, for asking someone later, or just sometimes researching something or taking a bit of what I heard and working on it a little bit.</p>	

B	10e	207		The only frustration I really have within the work place is when my batteries die on me.	
C	10e	265		Well, my biggest frustration is not hearing in the staff meetings, the phone situation is a frustration, and trying to get the doctors to speak up is a frustration.	
10ei. What is the source of your frustration?					
A	10ei	395		Well, I think it's the little things that you do, I'm in a business where relationships are just everything. So, for instance, I go to these weekly meetings with all these workers and I've gotta gain a rapport with them. If they say, oh, I'm gonna tell "A" that we're going to rip up the road, or I'm gonna give "A" a little tap and tell her something, not just what they have to do but what they can do, to give me information, and I feel like, the little things that you do as a person to just gain rapport like talking about their hunting trip, talking about,	

				<p>you know, their basketball tournament, or, all that stuff that is not an easy thing to pick up or all the little under the breath things or little overhearing things, eavesdropping, I feel like I have to work harder to gain rapport, or build relationships.</p>	
B	10ei	211		<p>The source of my frustration is having my hearing aids die on me while I am assisting a customer.</p>	
C	10ei	270		<p>Oh, probably my lack of communication. I probably need to grab them by the shirt collar and say, “listen, I’m hearing impaired, you have to look at me, I read lips,” and I think that’s always been difficult for me to do, I think that’s always been difficult for a lot of hearing impaired people to do.</p>	
<p>10eii. How do you deal with these frustrations?</p>					
A	10eii	411		<p>Well, I think I, a lot of times I just pretend, or I just smile or, you know, just don’t make a big deal out of it. I think, I think my personality is the way</p>	

				<p>it is because I just am adapting to a hearing loss, like I think I'm a lot quieter than I might be if I wasn't struggling to hear, and I think I use that as a ruse, or like as a way, well, I'm just quiet and serious. And so, I don't joke around, or, you know, that's why I do it. And I don't say that, but I think that's how I get around it. I try to blend the quietness from my hearing loss into my personality and reflect that personality to my co-workers. Or to those you're trying to build rapport with, so that they don't.</p>	
<p>Follow up question BD: Is that so they don't see it as something odd, but just see it as part of you?</p>					
A	10eii			<p>I think it works okay. But, I think my hearing affects me a lot more than other people realize, and a lot more than I realize too, as I get further into a career, I realize, wow, this is bad or this is, hinders me more than I ever thought it would. Does that make sense?</p>	

B	10eii	216		I deal with this frustration by asking my management team if I can go buy more hearing aid batteries.	
C	10eii	277		I'm a pretty easygoing person, so a lot of times a lot of things just roll off my back, like water off a duck, but when I reach the saturation point, I usually blow up. I usually get cross and have angry words with somebody or another.	
11. Do you believe the Americans with Disabilities Act (Tate & Adams) has impacted your working life?					
A	11			Yes.	
B	11	222		I don't believe that the Americans with Disabilities Act (Tate & Adams) has impacted my working life on an easily seen level.	
C	11	284		I don't know anything about that.	
11a. Please describe.					
A	11a	438		With hearing aid compatible phones, I think has made a huge difference. I wouldn't be able to operate it if I didn't have a hearing aid-compatible phone, and if my employer wasn't required to	

				have one. I assume that a hearing aid-compatible phone tends to be a higher grade of phone, and that helps my co-workers too.	
B	11a	227	11a-1	While It may not have impacted my working life in an obvious manner, it has impacted my working life by enabling me to ask for the accommodation of buying hearing aid batteries as needed so that I can function and do my job to the satisfaction of my supervisors.	
Follow up question BD: Are you aware of the Americans with Disabilities Act?					
C	11a	288	11a-2	No.	
12. Are you able to enjoy workplace humor (i.e., be “in on” humorous things that happen) equal to your co-workers?					
A	12	454		if I’m part of it, so I overhear it, or like if it’s happening over here and I’m just right here, I don’t overhear the whole thing so I might not...catch on.	
B	12	235		I am able to enjoy work-place humor equal to my co-workers	
C	12	294		Not to the same level. I’m usually the	

				instigator of a lot of the office humor, but if something else is going on, most of them are good enough to clue me in, you know, they'll catch me later and say, blah, blah, blah, this is what was happening or this is what we were talking about. But I do miss out on stuff.	
12a. If yes, please describe.					
A	12a	464		Sometimes. Yeah. If they realized that I didn't get it.	
B	12a	239		I am able to crack jokes based off of what others are talking about. Usually when we are joking, we are in the break room or off the floor in the stockroom. Sometimes the jokes are of a nature to poke fun at politicians and politics in general.	
C	12a	3B		Usually I learn about it through a third party.	
12b. If no, do you learn about it later through a third party and find the event to not be very humorous?					
A	12b	469		Just being in a room with bad acoustics, and that kind of thing. I think cubicles	

				<p>are bad for the hearing impaired.</p> <p>Because it requires talking in a low voice, which is just impossible for somebody that's gotta rely on a machine to catch all the little nuances. My environment is good, because I'm right now, in my office, I have an office with a door, and there's three of them, and then everybody else, or there's four of them, everybody else is in a cube. But, if I were in a cube, I'd have a difficult time. Just because of the lower conversations that have to happen.</p>	
B	12b				Did not comment
C	12b	307		<p>I'm not sure how to answer that one. I think if I was a little more self-confident in exerting myself and saying, you know, what's going on, it would probably be a better situation, but, you know, you don't ever wanna look like the idiot who doesn't know what's happening, and you tend to just kinda sit</p>	

				back sometimes and not get involved, or fake it, I'm pretty good at faking it. You know, people might say something and I am just taking a stab at what they're saying.	
13. Please share anything else you feel pertains to the interview that I have not asked.					
A	13	493		No, I am facing the door though. But a mirror would be a good idea. I can hear the ringer thing.	
B	13	245		I am working with my disability and the company to serve the customers to their satisfaction.	
C	13	343		I don't think so.	