

MEMBERS OF FACULTY WITH HEARING IMPAIRMENTS IN ACADEMIA:
WHAT ARE THEIR NEEDS?

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Abstract

Seventeen percent of adults in the United States suffer from some degree of hearing loss, and this impairment can pose considerable personal, professional, social, and psychological challenges, often, to people reluctant to seek help (Hearing Loss Association, 2011). Post-secondary faculty members with hearing loss are among us, and most of them navigate their professional lives silently. Support for hearing loss is easily accessible for students on our campuses, but there is an apparent gap in knowledge about and utilization of support and services for faculty members with hearing loss.

This study examines the barriers to full participation in the academy for faculty members with hearing impairments. This exploratory, descriptive study, framed in the minority model and the social model of disability, investigates the marginalization, isolation, coping mechanisms, and needs of faculty members with hearing loss at a public research university.

An email invitation to participate in the study was sent to 3,104 faculty members with teaching responsibilities, employed sixty-six percent time, or more. The invitation asked the participants to think about their hearing and how it affects teaching in the classroom, participation in departmental discussions, interactions with students and colleagues, and interactions at professional and social events. The invitation included the following questions:

Do you have to concentrate more intensely to follow conversations?

Do telephone conversations become more problematic because of your hearing?

Do background noises interfere with your hearing?

Do you find yourself asking “Pardon me?” in and out of the classroom more frequently?

Is it becoming more difficult to hear in the classroom or at departmental meetings and social gatherings?

If the recipients answered “yes” to any of the questions, they were encouraged to continue with the inquiry; a link was provided to the web-based survey.

The survey consisted of 39 questions about hearing loss, relationships with colleagues and administrators, knowledge of accommodations and services, budgets from which accommodations are paid, and if, how, and when that knowledge is communicated. Of the 144 faculty members who began, 84 completed the survey. The results are based on the 84 completed surveys.

The respondents were mature professionally and chronologically. Sixty-seven percent of the respondents who disclosed their ages were 46 years of age or older and 74 percent of those who disclosed their ranks were either associate, full, endowed, or Regents professors. Seventy-five percent of the respondents said their hearing losses were either mild or moderate (on a four point scale: minimal, mild, moderate, or profound). Two percent of the respondents identified with Disability Services. Ninety-eight percent of the respondents said that resources for faculty members with hearing loss were not discussed at any departmental orientations or meetings.

The quantitative and qualitative comments of faculty members suggest that acoustics in classrooms and meeting rooms are problematic for many. Other results, based on the responses of faculty members with hearing impairments, identify some of the system wide changes that would benefit faculty members with hearing loss – including more frequent discussions about hearing loss at college and department levels, more knowledge about support and resources to accommodate hearing loss, class and

meeting rooms with better acoustics, and more choices in telephone systems. The results suggest that administrators need to be coached about how to discuss hearing loss, support, accommodations, and budgets. The study also found that hearing colleagues need to better understand the experiences and the challenges of their peers who have hearing impairments. The study concludes with recommendations that will help all faculty members, especially those with hearing loss, maximize their engagement in the academy.

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Chapter One

Introduction to the Study

The gap in the literature and an absence of data about academics with hearing loss in higher education is problematic because there are currently hundreds of hearing impaired people with doctoral degrees (Lang, personal communication, March 29, 2009), but according to the deafacademics.org website (2008), only about 60 of those are in academic disciplines nationwide (Academics, 2009). The numbers are consistent with the American Association for the Advancement of Science, according to Virginia Stern, Director of the Project on Science, Technology and Disability: of the 78 self-disclosed deaf people with advanced degrees in science and technology, 19 are in academic disciplines, and the others are mostly in industry and government jobs (AAAS, 2009).

In a 2008 Centers for Disease Control (CDC) report, 9,950 respondents between the ages of 25 and 74 years, 77 percent of the survey participants, responded to the statement that best described their hearing without a hearing aid: good, a little trouble, a lot of trouble, or deaf. More than 13 percent of those Americans between the ages of 18 and 64 self-identified as being hearing impaired, that is, having at least “a lot” of trouble hearing (National Center for Health Statistics, 2008). In their article, “Equitable Representation of Deaf People in Mainstream Academia: Why Not?”, Woodcock, Rohan, and Campbell (2007) argue that people who are deaf, deafened, or hearing impaired form a very important minority, but their representation in academia is minimal at best.

Dan Heffron, statistician for the National Center for Education Statistics, stated that the most recent data, the 2003-2004 National Study of Postsecondary Faculty, does

not identify specific disabilities. The 1998-1999 survey was the last to identify specific disabilities, and, about the number of faculty who identified as hearing impaired, Heffron wrote that the subset was too small to report statistics. The data indicate that those reporting hearing impairments were .10 percent of the population (Heffron, personal communication, August 17, 2009). In addition, 65 percent of people with hearing loss are below retirement age, and 60 percent of people with hearing loss are males (Better Hearing Institute, 2010; National Institute on Deafness and Other Communication Disorders, 2010). Anecdotal evidence from listservs such as Deaf Academics, personal communication, and personal testimonies (Raphael, 2006; Tidwell, 2004; Woodcock, Rohan, & Campbell, 2007) argue that the deaf academics are “out there” struggling with hearing loss in a hearing-centered profession. If a conservative estimate is that 17 percent of adults have hearing impairments (Adams, Lucas, & Barnes, 2008), where is their representation in higher education?

In addition to the adults, more young people are at risk of getting, or are already developing, hearing problems, probably due to voluntary exposure to excessive noise from MP3 players, Playstations, discos and concerts, and many other sources (Youth hear-it, 2011). Some of the younger generation may want to earn Ph.D.s and teach at a postsecondary institution; they will be a future generation of faculty members with hearing impairments.

An inquiry into the experiences of deaf and hearing impaired academics in higher education is timely. What reasonable steps should institutions of higher education take to ensure the inclusion of faculty members with hearing loss in all facets of academic life?

Personal Comments from Deaf Faculty Members

Informal conversations and emails from faculty members with hearing impairments at many stages in their lives are compelling testimonials to their feelings, fears, and experiences; they are from faculty members who were born with hearing loss, deafened at an early age, or are suffering from trauma or age-induced hearing loss. The personal comments from hearing impaired faculty members provide evidence that more support and attention are needed to build a more inclusive academic environment.

A deaf Ph.D. sociologist¹ in academia believes the problems for academics with hearing loss start in graduate school. About his application to graduate school at a major midwestern university, he wrote:

While the accommodations at [University X] were just super for me during my graduate years, I did make sure that the admissions committee was unaware of my deafness. It turned out to be a good move. After defending my dissertation, some faculty members approached me and could then tell me that there were faculty members absolutely annoyed that a deaf person was admitted at all. (personal communication, March 29, 2009)

Another deaf faculty member stated,

. . . There has not been much research on this topic [faculty with hearing loss in post secondary institutions], mainly because there have not been many deaf people getting far enough into academic life. It is my impression that most universities and colleges have the pattern you describe—disability services for

¹ Name and institution of the individual are not disclosed at the request of the contributor.

students, but not faculty—yet the ADA requires accommodations for faculty and staff. (Raphael, personal communication, July 13, 2008)

Kathryn Woodcock, author of “Deafened People” (2000), and a deaf faculty member in engineering at Ryerson University, Toronto, agrees that there is a lack of support for disabled faculty members, “At every single accessibility committee meeting, I have to assert that accommodating disability is not just about ‘student’ accommodations” (Woodcock, personal communication, August 11, 2008).

A former University of California system faculty member with a hearing impairment wrote:

I now know for certain something that I also can see others denying—discrimination against the deaf in the universities is well-tolerated. It was also an eye opener for me when I was job hunting and learned that ‘We value a diverse campus and encourage diversity in our faculty’ did not include the disabled at all. I take this very personally and it has changed my entire outlook. (DeGaia, personal communication, August 11, 2008)

A recently deafened colleague emailed a respected Deaf Studies department at a well-known midwestern university. He asked for guidance so that he could continue teaching in his discipline. The respondent stated that they did not really know about support for deaf faculty members, only students, and were, essentially, “of no help whatsoever in giving any guidance or support to help me continue teaching” (Roufs, personal communication, June 6, 2008).

A “baby boomer professor”² in music at a major midwestern four-year public institution is slowly losing her hearing due to the normal aging process. In a personal conversation, she said she does not “hear anything anymore. I just nod, agree, and smile in the classrooms and in committee meetings.” She feels there are many aging “boomers in academics” who talk privately, but “certainly” not publicly, about their hearing losses. She believes that when “hearing aids are sold along with reading glasses at Walgreens,” academics who are losing their hearing will begin to talk about their hearing losses publicly. Her inability to hear in the classroom is beginning to show up in the comment sections of her course evaluations (personal communication, March 5, 2008). She noted that her institution has seminars for senior faculty on finances, retirement, and Medicare, but not on health issues, including age related hearing loss, associated with an aging professoriate.

A former professor of German Language and Literature admitted that for the last ten years of her career she could not hear the difference between “*der, die, and das*” in the classroom. She said she would simply reply, “*Ja, Ja, das is gut*” and go on. She believed that if she admitted to an age-induced hearing loss, she would have been “strongly encouraged” to retire (Viksna, personal communication, August 12, 2008).

Finally, a Ph.D.³ gave up the classroom in her early forties because of premature, age-induced hearing loss. She said that simple acoustical modifications would have kept her in the classroom (personal communication, November 9, 2008).

² Name and institution of the individual are not disclosed at the request of the contributor.

³ Name and institution of the individual are not disclosed at the request of the contributor.

The testimonials from deaf and hearing impaired faculty members express their fears and concerns that could ultimately exclude them from social, intellectual, and personal engagement. The social isolation that comes from missing conversations, the fear of being thought of as not fully competent in one's discipline if one admits to a hearing impairment, the reluctance to ask for accommodations because of the perceptions of others, and the fear of being encouraged to retire are examples of feelings that create an uncomfortable environment for faculty members with hearing impairments.

Statements about marginalization of faculty members with disabilities have profound implications for higher education because postsecondary institutions need to recruit and retain the outstanding faculty needed to teach, mentor, and guide the next generations of students, including deaf and hearing impaired students, who will live and work in the new economy. More hearing impaired role models for all students will benefit not only the increasing number of hearing impaired students, but will validate the contributions of all people with hearing loss (Woodcock, Rohan, & Campbell, 2007). If colleges and universities in the United States are to survive the challenges of the next decades, they must embrace transformation and explore new ways of recruiting and retaining high quality, diverse, faculty members, including those with hearing loss.

The challenges that deaf faculty members face are both similar to and more complicated than those faced by women, members of minority groups, and persons with other disabilities: similar because of the social isolation, exclusion, and the perceived lack of willingness to be understood or accommodated by colleagues, and more complicated because of the role hearing plays in academic life (Raphael, 2006; Tidwell, 2004). The barriers to engagement among faculty members with hearing impairments

are becoming more prevalent with an aging professoriate, and they need to be acknowledged by the academy. Based on her personal experience, Raphael (2006) believes that faculty members with hearing loss are judged more by their aural limitations than by their intellectual achievements.

Purpose and Organization of the Study

The purpose of this research is to examine the experiences of postsecondary faculty members with hearing impairments and to inquire about their comfort levels, attitudes about disclosing their impairments, and feelings of inclusion, exclusion, and support within their departments, so that the academy can be more sensitive and responsive to the needs of such faculty in order to maximize their engagement in the academy.

Chapter One provides an introduction to the study. Chapter Two, a historical overview of the efforts made by minority groups to gain equal rights, culminating in the American with Disabilities Act (ADA), provides a foundation on which to examine the experiences of deaf and hearing impaired postsecondary faculty members. The application of critical disability theory to their experiences in the academy provides a framework to examine different models of disability and frame the research questions. Chapter Three discusses the rationale for the research instrument design and the methodology used for data analysis. Chapter Four presents the analysis of the survey results, and Chapter Five concludes with comments about the results, limitations, and suggestions for future research.

Definitions of Terms

“Disabled,” “people with disabilities,” and “disabled community” are terms used to define a person or group possessing physical, cognitive, or developmental impairments. Faculty members with disabilities in higher education are defined as those for whom the disabilities are limited to physical impairments in general and hearing impairments in particular. Consideration and respect are used in all references; the principle of "Person-First Language" is generally used and people are referred to as persons with disabilities or hearing losses. There are occasions when person-first language is not used; it is a practical decision, and, as previously stated, all phrases or descriptions of people with disabilities, including hearing loss, are used with respect and consideration for the individuals or groups.

This study uses the Americans with Disabilities Act Amendments Act of 2008 definitions of “disability” and “impairment.” The ADA does not distinguish between type, severity, or duration of a disability. “Disability” means, with respect to an individual, a physical or mental impairment which substantially limits one or more major life activities (such as communicating, walking, or self-care), or an individual who has a record of an impairment that limits life activities (Council for Disability Rights, 2008). The ADA broadly defines the term "impairment" as any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the body's multiple systems (Council for Disability Rights, 2008). The terms “disabled,” “disabled community,” “faculty with disabilities,” and “people with disabilities” refer to people

with impairments. The author of this paper assumes that an impairment is not, in itself, a disability; this distinction will be discussed at length under the social model of disability.

The term "diverse" is generally used to describe an environment that welcomes people of different races, ethnicities, genders, sexual orientations, creeds, and/or social class. When defining, discussing, or referring to issues about and benefits of diversity, the term includes individuals with disabilities; diversity refers to the inclusion of the entire spectrum of humanity.

“Citizen” and “citizenship” are not used in the sense of belonging to a city, nation or state, but the belonging that stems from accessibility to a community, its benefits and protections, and the opportunity to comply with the concomitant responsibilities, which means, for example, to be fully engaged as a faculty member with a hearing impairment in a variety of academic departmental or collegiate activities.

The terms “minority” and “minority group” are used in reference to underrepresented populations. A discussion of people with disabilities as a minority is included in a subsequent section of this document.

“Deaf” (lower case “d”), “deafened,” “hearing impaired (HI),” and “hard of hearing (HOH),” all describe people with hearing loss and are referred to as deaf, hearing impaired, and/or having hearing loss or hearing impairments. Although not the focus of this paper, it is important to understand that “Deaf” (upper case D) describes a cultural identity (users of American Sign Language) whereas “deaf” (lower case d) describes the audiological experience of not being able to hear varying levels of sound (Ladd, 2006; Padden & Humphries, 2005; Woodcock & Aguayo, 2000). Likewise, "deafhood" refers to the set of norms, traditions, practices, and customs that make up Deaf culture, whereas

"deafness" is a more clinical term that describes the "condition" of not being able to hear or distinguish all or some sounds (Ladd, 2006). Enormous variation exists among the people these words describe. People who are deaf and/or hearing impaired, and experience varying degrees of deafness, are diverse in multiple ways, just as hearing people are diverse. This research focuses on the experiences of postsecondary faculty with hearing impairments (deaf).

“Mainstream” disciplines refer to those academic disciplines outside of departments such as Deaf and/or Disability Studies and institutions such as Gallaudet University.

“Power” is used with the idea of one group having “power over” another group: a group claiming superiority and thereby, control, over another group deemed subordinate by the superior group (Mintz, 1985). This definition builds on the classic definition that power is the ability to produce intended effects in an individual or group (Russell, 1938) and supports Rocco and West’s (1998) discussion of power, which includes privilege and the control, use, and defense of economic, political, and social capital and the conscious or unconscious use of that capital against others.

Chapter Two

Review of the Literature

Much of the professional and scholarly literature on the experiences of postsecondary faculty focuses on faculty satisfaction. From that research, we know that many faculty members in higher education enjoy satisfaction in their professional lives, and, for most, the quality of their academic life is good (Blackburn & Lawrence, 2003; Spencer, White, Peterson, & Cameron, 1989). Despite the importance of research on faculty satisfaction, the professional and scholarly literature on experiences of faculty members has neglected a significant population: faculty members with hearing impairments. Because of scant research on the topic, we know little about a group of faculty members who do not share equally in “the good life,” feel adequately included, or have the opportunities for full engagement when the expectations are to be a fully contributing faculty member (Deaf Academics.org, 2008; Raphael, 2006; Tidwell, 2004; Woodcock, Rohan *et al.*, 2007). Faculty members with disabilities, including hearing impairments, face marginalization and professional, personal, and social exclusion (Devlin & Pothier, 2006; Raphael, 2006; Tidwell, 2004; Woodcock, Rohan *et al.*, 2007).

An overview of current postsecondary institutional mission statements, policies, and practices in hiring faculty members with disabilities provides a background to the literature review. This overview demonstrates that institutions of higher education, although well-intentioned, need to examine the systems that perpetuate the structural, social, political, educational, and cultural inequalities that faculty members with disabilities, including hearing impairments, experience.

A brief history of the struggle for civil rights, which culminated in the American Disabilities Act, provides a foundation to help understand and support the current situation and experiences of faculty members with disabilities.

Following the historical perspective, a concise discussion of critical race theory and critical disability theory frames the medical, minority, and social models of disability. These models provide a foundation for examining the experiences of faculty members with hearing impairments and also provide a path for intellectual inquiry about the seemingly obvious solutions to the challenges facing said faculty.

Background of the Study

An informal review of college and university mission statements suggests some institutions articulate a commitment to diversity and equity, which should include people with disabilities, but further examination of institutional websites suggests that the specific strengths of the commitments are open to debate. The University of Michigan-Dearborn, stated, in the final sentence of its four-paragraph mission statement, “We strive to be the institution of choice in southeastern Michigan for individuals and organizations that value accessibility, flexibility, affordability, diversity, and preeminence in education” (Michigan, 2008). Neither the University of California system nor the University of Minnesota Duluth mission statements made any reference to diversity (California, 2008; Minnesota, 2008). Pennsylvania State University’s “Mission and Public Character” statement made reference to scholarship, collaboration, and development, but no explicit reference to diversity (Pennsylvania, 2008).

There were many more references to diversity in faculty position postings in the online Careers (2008) section of *The Chronicle of Higher Education* or in college and university employment web pages. Many institutions included the term “diversity” in their position descriptions, and invited people with disabilities to apply. Other statements encouraged a more diverse applicant field, with statements such as, “The University of Cincinnati is an affirmative action/equal opportunity employer. Women, minorities, disabled persons, and Vietnam era and disabled veterans are encouraged to apply” (Careers, 2008), and “Troy University is an Equal Employment Opportunity/Affirmative Action Employer and encourages applications from individuals with disabilities, women, African-Americans, and other minorities” (Careers, 2008). On its own web page, Fresno Pacific University clearly stated, “Fresno Pacific University does not discriminate on the basis of race, ethnic or social background, sex, age, or physical handicap in its hiring practices. Committed to excellence and actively supportive of cultural diversity, FPU invites individuals who contribute to such diversity to apply” (Fresno Pacific University, 2010).

A dominant theme in current literature supports the mission statements and position postings: the academic, pedagogic, and human benefit diversity brings to the academy (Hurtado, Milem, Clayton-Pederson, & Allen, 1998; Trower & Chait, 2002). In the context of deaf academics, any discussion on diversity in the academy should include people with disabilities. Many institutions of higher education recognize the positive effects of diversity on student-learning outcomes (Antonio, 2003; Astin, 1993; Gurin, 1999). The American Council on Education (ACE) lists four reasons why diversity (again, which should include people with disabilities) benefits colleges and universities:

It enriches the education experience: We learn from those whose experiences, beliefs, and perspectives are different from our own, and these lessons can be taught best in a richly diverse intellectual and social environment.

It promotes personal growth and a healthy society: Diversity challenges stereotyped perspectives, encourages critical thinking, and helps students learn to communicate effectively with people of varied backgrounds.

It strengthens communities and the workplace: Education within a diverse setting prepares students to become good citizens in an increasingly complex, pluralistic society; fosters mutual respect and teamwork; and helps build communities whose members are judged by the quality of their character and their contributions.

It enhances America's economic competitiveness: Sustaining the nation's prosperity in the twenty-first century will require us to make effective use of the talents and abilities of all our citizens in work settings that bring together individuals from diverse backgrounds and cultures. (ACE, 1998)

Hearing impaired faculty members expect to be held to the same standards as hearing colleagues, and benefit the academy by challenging norms, assumptions, and teaching styles, and by modeling standards of excellence for all colleagues and students, including deaf students (Deaf Academics.org, 2008; Raphael, 2006; Tidwell, 2004; Woodcock, Rohan *et al.*, 2007). To support and maintain a diverse faculty, institutions need, in addition to a diverse student body, a supportive professional and social environment for all faculty members (Antonio, 2003; Hurtado, Milem *et al.*, 1998), including faculty members with hearing impairments.

To strengthen the case to include disabled people in diversity initiatives, consider that twenty-first century academic discussions presuppose a diverse faculty whose membership includes representation from different races, ethnicities, genders, and sexual orientations. Higher education tends to overlook faculty members belonging to the nation's largest minority group: people with disabilities. Leonard Davis (1997), in the *Disability Studies Reader*, makes a compelling statement that people with disabilities, including deaf people, and others with physical or developmental impairments (who might not even consider themselves as having a disability) have been marginalized by the very people who have championed diversity, multiculturalism, class consciousness, feminism, and queer studies.

Institutions of higher education should seek to raise the awareness of issues that affect faculty members with disabilities with the intention of maximizing their contributions to the academy, because who teaches matters (Trower & Chait, 2002). Deaf and hearing impaired students need to know they can earn Ph.D.s and perform scholarly work in disciplines outside of programs such as Deaf Studies or institutions such as Gallaudet University. Faculty members with hearing impairments need to know that their intellectual contributions to the academy are valued despite having a hearing loss. About 54 million American adults, nearly 20 percent, are disabled. The disabled community is the largest minority group in the U.S. (Disability, 2006), and the only one that anyone can “join” at any time in their lives. The academy should include disabled faculty as an underrepresented group in all diversity initiatives. Similar to the Civil Rights Act of 1964, which prohibits discrimination because of race or ethnicity in employment practices, the Americans with Disabilities Act of 1990 prohibits

discrimination in employment against a qualified individual with a disability (Council for Disability Rights, 2008).

There is a plethora of services and support for deaf students. A literature search for “deaf higher education” finds that nearly all the results are about deaf students, services for deaf students, research on deaf students, and/or about Deaf Studies departments. In the Winter, 2009, edition of *American Annals of the Deaf* (Moore, 2009), each of the seven articles is about deaf students, deaf education, or deaf children, and include such titles as “Roles and Responsibilities of Itinerant Specialist Teachers of Deaf and Hard of Hearing Students” (Foster & Cue, 2009), “Facilitating Access: What Information Do Texas Postsecondary Institutions Provide on Accommodating and Services for Students Who Are Deaf or Hard of Hearing?” (Cawthon, Nichols, & Collier, 2009) and “Mental Health and Self-Image Among Deaf and Hard of Hearing Children” (Mejstad, Heiling, & Svedin, 2009). The articles all focus on education, but there is a conspicuous absence of research about deaf faculty members in higher education, as well as deaf teachers in K-12 education.

Since Congress passed section 504 of the Rehabilitation Act in 1973, a law that protects people with disabilities from discrimination, the interest in deaf students in higher education has resulted in or stimulated significant changes in course offerings, curriculum structure, and support services, and has helped to increase the presence of deaf students on college and university campuses (Michalko, 2002; Nichols, Ferguson, & Fisher, 2005; Woodcock, Rohan *et al.*, 2007). Deaf Studies majors and minors are now available in institutions from Gallaudet University to the University of Minnesota Duluth,

courses in American Sign Language often fulfill language requirements, and interpreters and assistive technology are readily available to students.

The academy understands that deaf students are entitled to, and contribute to, a positive campus climate. Their presence helps create a more comfortable environment for all students, and, in the process, conveys to the deaf students that their institutions recognize their academic abilities and care about accommodating individuals with disabilities. But, outside of faculty in departments like Deaf Studies, there appear to be few role models for the deaf students, the very students institutions are recruiting and admitting into mainstream programs. A deaf professor at the Rochester Institute of Technology National Institute for the Deaf, wrote that in 2002 there were over 25,000 deaf or hard of hearing students in higher education, and currently there are over 32,000 students who self-identify as deaf or hard of hearing in postsecondary education, so the pipeline to faculty positions in higher education does not appear to be the problem (Lang, personal communication, March 29, 2009).

If the pipeline of deaf students for potential faculty positions is not the problem, what is the problem? Why are there not more deaf academics in mainstream disciplines? In contrast to the breadth of literature about the social, physical, and academic support for deaf students in higher education, there is a paucity of literature about the social, physical, and academic support for deaf and hearing impaired faculty members.

The Case for Inclusion of Faculty Members with Hearing Loss in Diversity

Initiatives

The case to include and support deaf faculty members in diversity initiatives fits with institutional goals of sustaining a diverse faculty: institutions of higher education should recruit and retain faculty members with hearing loss in mainstream disciplines. The recruitment and retention of faculty members with hearing impairments should be a significant part of college and university measurements of success relative to their goals of recruiting and maintaining diversity in the student body and professoriate.

The evidence demonstrates the benefits of a diverse faculty, but the numbers of hearing impaired faculty members remain low, or nearly nonexistent, in institutions of higher education (Raphael, 2006; Woodcock, Rohan *et al.*, 2007). Minimal data are available as to the approximate numbers of faculty members with hearing impairments in higher education, perhaps due to their reluctance to self-identify as having hearing loss. Raphael (2006), as mentioned earlier, suggests that there has not been much research on this topic because there have not been many deaf people getting far enough into academic life. She states that most universities and colleges promote disability services for students, but not faculty—yet the ADA requires accommodations for faculty and staff. The low numbers of deaf academics in mainstream disciplines require asking the question, “What are the barriers in higher education for faculty members with hearing impairments?” And, as Raphael expressed in her article “Academe is Silent to the Deaf Professor” (2006), deaf faculty members tend to be judged not by professional achievements, but by their hearing limitations. How do hard of hearing faculty members perceive their experiences to be different from their hearing colleagues?

If institutions of higher education recruit faculty members with hearing loss, or have faculty members who become hard of hearing, often the campus climate may not be conducive to supporting that faculty member (Tidwell, 2004). Literature on a diverse faculty is consistently clear about the issues and barriers that faculty of color often face, including low to nonexistent social and emotional support and heightened feelings of loneliness and isolation at a level much higher than that experienced by their white counterparts (Antonio, 2003; Weems, 2003). Similar statements apply to deaf faculty members who experience social and collegial isolation in their professional lives (Woodcock & Aguayo, 2000; Woodcock, Rohan *et al.*, 2007). If colleges and universities devote time, effort, and finances to support deaf students, surely deaf faculty members should receive a comparable level of support and resources.

Raphael (2006), compellingly states the case for examination of the experience of deafened faculty members in “Academe is Silent about Deaf Professors”:

The ultimate goal is to change the way people think about deafness so that they judge academic merit independent of hearing. . . . For that to happen, more deaf scholars have to be present in academe. Few mainstream universities today have even one deaf assistant professor, let alone a deaf dean or deaf president. The deaf scholars are out there, and our numbers are growing. The laws exist to protect us from discrimination. The services exist to let us navigate a hearing world. What does not exist—yet—is the will to include us. (2006)

Institutions of higher education should examine their commitment to support deaf faculty members. Faculty members who are deaf or who are facing hearing loss confront challenges within the academy that appear to isolate them from colleagues and, thereby,

diminish their contributions to the academy (Raphael, 2006; Tidwell, 2004; Woodcock, Rohan *et al.*, 2007).

Faculty Members with Hearing Impairments in Higher Education

Institutional goals of recruiting and retaining a diverse faculty do not always translate into actions. Peter W. Wood, Professor of Anthropology at Boston University, wrote in his article “Proven Commitment to Diversity” in *National Review Online*, “We hear a lot from college presidents who have a ‘proven commitment to diversity’ but not much of anything to say beyond the clichés they have been reciting for years” (Wood, 2003, ¶ 13). Attempts to find literature about “disabled faculty,” “deaf faculty in higher education,” “deaf faculty,” or “faculty with hearing impairments or hearing loss,” result in minimal, if any, information. The literature, as previously noted, is nearly all about the deaf student: services for the deaf student, teaching the deaf student, technology for the deaf student, and Disability Studies, Deaf Studies, or Gallaudet University.

Scholars and members of the academy recognize and value the mandate for diversity in postsecondary institutions, and many institutions are examining and changing their hiring and promotion policies to foster more diverse representation in academia (Antonio, 2003; Astin, 1993; Chang, 2005; Hurtado, Milem *et al.*, 1998). In their article “Equitable Representation of Deaf People in Mainstream Academia: Why not?,” Woodcock, *et al.* (2007) draw attention to the fact that deaf faculty members are severely underrepresented in mainstream disciplines and are generally not included in the discussions on diversity and equity.

Woodcock (2007) also considers the increasing number of deaf students and the lack of role models for deaf students within the faculty ranks:

Funding mandates to provide access services may reassure deaf students that their application for university admission now will be judged on academic merit. Their inclusion and acceptance notwithstanding, successful deaf students will notice the conspicuous absence of relevant role models. (p. 360)

The move toward equitable inclusion of deaf colleagues within faculty ranks recognizes that the barriers to academic success can be understood in the context of ignorance, prejudice, and ableism (Woodcock, Rohan *et al.*, 2007). Woodcock (2007) argues that for deaf academics:

Continuing access difficulties mean that only a few deaf graduates now consider doctoral study; cost and the perception of cost, as well as negative attitudes and lack of knowledge may mean that the few successful graduates have difficulties gaining employment; successful tenure and promotion prospects may also be hindered (p. 359)

Romeria Tidwell (2007) wrote, in “The ‘Invisible’ Faculty Member: The University Professor with a Hearing Disability,” that age-induced hearing loss often occurs in faculty during the time that they have the highest professorial rank, and are frequently requested to (and expected to) engage in teaching, committee work, and administrative initiatives that rely heavily on the quality of their hearing; it is the time in their professional lives when they have the most experience and wisdom to share and the least to lose in terms of academic rank and risk. She chronicles the impact of her hearing loss on students, colleagues, and the university, and her experiences and feelings about

being an “invisible” faculty member at a time when her years of experience and wisdom should be shared with her younger colleagues.

Learning about the experiences of hearing impaired faculty members will begin to identify the barriers they face in higher education, the barriers that prevent full engagement in mainstream disciplines. A faculty member in a Communication Science Disorders Department believes the academy must become more inclusive of faculty members with hearing impairments. She observed that the population of deaf academics will become highly visible for several reasons: there is an increase in the numbers of deaf students applying to and being accepted in institutions of higher education at the undergraduate and graduate levels, there is an aging faculty suffering from age-related hearing loss, and there is a surge of youth and young adults suffering from noise-induced hearing loss who may pursue advanced degrees and, eventually, may need and expect accommodations (Spillers, personal communication, November 13, 2008).

While institutions of higher education claim to embrace diversity, deaf faculty members walk the line between the ideals found in the mission statements, institutional policies, academic postings, and the realities of institutional practices. Race and gender-conscious inequities still continue in many areas of American life, and some progress is being made in achieving equity and equal access for racial and ethnic minorities in higher education (Hale, 2004). Now is the time to take our notion of institutional diversity to the next level by encouraging and including faculty members with disabilities in its ranks. Now is the time to recognize the value of deaf and hearing impaired faculty members in mainstream disciplines, to understand their experiences, to create a welcoming and supportive environment, and to value their personal, professional, and

scholarly contributions to the academy and, as Rebecca Raphael (2006) suggests, to stop judging them by their aural limitations.

Historical Perspective

A review of the literature about the struggle for civil rights among underrepresented populations, including people with disabilities, provides a foundation to understand the fight for inclusion of people with disabilities as engaged citizens. This foundation sets the stage for the current experience of deaf academics in higher education by deconstructing the privilege of the able-bodied and discussing the determinants of exclusion. The literature also demonstrates the exclusion of the disabled community in the civil rights and gender equity movements, the absence of their voices, and the need for the disabled community's own fight for their rights, resulting in the Americans with Disabilities Act.

Activities leading to the passage of the Civil Rights Act, Title IX, and the American with Disabilities Act created awareness among citizens about access to and equal rights for people of color, women, and people with disabilities. The results of these activities were consciousness-raising discussions that gained momentum in higher education teaching and research circles and, ultimately, caused changes in policies, practices, and initiatives in recruitment of a more diverse student body and faculty. The discussions about the value of diversity continue to have ethical and practical implications about why diversity in student bodies and in the faculty is both desirable and inevitable, and are a result of the struggle for civil rights for all underrepresented populations, including faculty members with hearing impairments.

The Civil Rights Act of 1964. In 1964, Lyndon B. Johnson signed into law the Civil Rights Act, which made it unlawful for an employer to "fail or refuse to hire or to discharge any individual, or otherwise to discriminate against any individual with respect to his compensation, terms, conditions or privileges or employment, because of such individual's race, color, religion, sex, or national origin" (U.S. Government, 1964).

The Civil Rights Act of 1964 included desegregation of public education, which mandated that higher education institutions provide equal access to historically underrepresented populations and forced higher education to include diversity initiatives in recruitment of students and faculty of color in its institutions (Gurin, 1999; Weems, 2003). It not only opened the admissions opportunities for students of color (Smith & Wolf-Wendel, 2005), but also provided employment opportunities at white institutions for faculty of color (Weems, 2003).

The 1978 U.S. Supreme Court's landmark decision in *Regents of University of California v. Bakke* sought to remedy past discriminatory practices by including race as one of many factors considered in university admissions decisions (Nichols et al., 2005). Colleges and universities began to institute admissions practices that gave consideration, and sometimes preferential treatment, to diverse racial and ethnic minorities; no court decision had a more widespread influence on higher education admissions policies and practices than the *Bakke* case (Chang, 2005).

The 1996 U.S. Court of Appeals decision in the case of *Hopwood v. Texas* barred the University of Texas School of Law from engaging in race-based admissions practices and decisions (Chang, 2005). In 2003, two U.S. Supreme Court cases, *Gratz v. Bollinger* and *Grutter v. Bollinger*, affirmed that diversity justifies the consideration of race in

admissions decisions. The Supreme Court's decisions in *Grutter* and *Gratz* were based, in part, on a growing body of empirical research that positively correlated the impact of diverse learning environments with student learning outcomes (Chang, 2005; Milem, Chang, & Antonio, 2005; Terenzini & Pascarella, 1998).

Thus, the Civil Rights Act of 1964 and the subsequent Supreme Court decisions protected the rights of all citizens in employment practices and in opportunities in higher education. Neither the Civil Rights Act nor the Supreme Court decisions affecting underrepresented people in higher education protected the rights of people with disabilities.

Gender equity. While the struggle for equal rights with regard to race and employment was happening, there was a companion fight for gender equity. Title IX of the Educational Amendments of 1972 was another landmark legislation that forbade discrimination based on gender in all school activities: academics, athletics, extracurricular and after school programs. It stated "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance" (Curtis & Grant, 2008, ¶ 1).

The outcomes of Title IX are most obvious in athletics, but they are also in academics. In 1994, 63 percent of female high school graduates aged 16-24 were enrolled in college, up from 20 percent in 1973. In 1994, 27 percent of both males and females graduated with a Bachelor's degree, but in 1971, only 18 percent of the females and 26 percent of the males had completed a Bachelor's degree (Riley, 1997). In 1994 women received 38 percent of all medical degrees, compared to 9 percent in 1972, 43

percent of all law degrees, compared to 7 percent in 1972, and 44 percent of all doctoral degrees to U.S. citizens went to women, up from 25 percent in 1977 (Curtis & Grant, 2008; Riley, 1997). Clearly, Title IX helped women participate in academics and athletics in far greater numbers than they had in the past.

There is a statement, however, in Title IX that invites discussion about inclusion of people with disabilities. Section 1684, states:

No person in the United States shall, on the ground of blindness or severely impaired vision, be denied admission in any course of study by a recipient of federal financial assistance for any education program or activity; but nothing herein shall be construed to require any such institution to provide any special services to such person because of his blindness or visual impairment. (U.S. Dept of Labor, 2009, ¶ 2)

In Title IX, there is no mandate to accommodate the blind or visually impaired person, nor is there a reference to people with other disabilities. Nevertheless, this section of Title IX affects both men and women: visually impaired individuals are not only limited by their vision, but also by the stigma that society places on them. Title IX removes some of this stigma by prohibiting discrimination against visually impaired persons (Lee, 2004), but does not support individuals by mandating accommodations or removing barriers. Title IX brought about social progress by removing stereotypes and discrimination based on gender in schools. It brought about social awareness of the different forms of discrimination in existence in the United States and changed the dynamics between men and women, but, except for questionable inclusion of the blind, excluded men and women with other disabilities.

Americans with Disabilities Act. The foci of the Civil Rights Act of 1964 and Title IX were race, gender, ethnicity, and sexual orientation; these foci provided the foundation for the fight for the rights of people with disabilities (Acemoglu & Angrist, 2001; Baird, Rosebaum, & Tooms, 2008). The Americans with Disabilities Act of 1990 (ADA) owes its origins to the thousands of citizens who struggled against the barriers that prohibited them from being seen and heard as citizens, the barriers that prevented them from being fully engaged in society (Lathrop, 2003; Mayerson, 1993).

Civil rights legislation raised consciousness about the conditions and needs of people with disabilities. The Architectural Barriers Act of 1968 mandated that most buildings designed, constructed, or reconstructed with federal funds had to be accessible to all people, regardless of ability (Lathrop, 2003; Mayerson, 1993). The Urban Mass Transit Amendments Act in 1970 required certain jurisdictions (primarily large, urban areas) to provide accessible public transportation to elderly and disabled citizens, which included a program of grants and loans to help agencies develop accessible transportation (Lathrop, 2003; Mayerson, 1993).

Nine years after the Civil Rights Act, and one year after Title IX, passage of the 1973 Rehabilitation Act was a huge victory for the disabled community (Council for Disability Rights, 2008; Mayerson, 1993). The Rehabilitation Act made it illegal to discriminate on the basis of disability in any program or activity receiving federal financial assistance. Discrimination against people with disabilities was also addressed for the first time in employment, especially in Section 504: qualified persons seeking employment could not be discriminated against based on their disability. Section 504 was designed to “level the playing field,” not just to employ, but to ensure full

participation by qualified individuals who might be disabled. It was modeled after previous antidiscrimination laws based on race, ethnicity, gender and sexual orientation (Council for Disability Rights, 2008).

Section 504 also provided funding for access to and within public arenas: colleges, universities, and community colleges became accessible in the late 1970s and early to mid 1980s. Federal funds flowed to over 3,000 higher education institutions in the form of grants and joint contracts between the institutions and government agencies, and also through financial aid for disabled students who attended institutions that could meet their accessibility needs (Richards, 2003).

In the meantime, during the 1970s and 1980s, the government was beginning to acknowledge discrimination against people with disabilities (Michalko, 2002). Previously, the perception was that the barriers people with disabilities experienced, such as unemployment, lack of education, and lack of physical access, were simply unavoidable consequences of their physical or developmental disability (Siebers, 2008). The perception changed to the reality that barriers for people with disabilities were constructed by society (Michalko, 2002). This was a significant shift in thinking about disability and leads to the question, “What barriers might be constructed by higher education institutions that prevent full engagement of deaf and hearing impaired faculty members?”

Section 504 confirmed that the inferior social and economic status of people with disabilities was not a consequence of the disability itself, but, indeed, was a result of societal barriers and prejudices. For the first time, public policy defined people with disabilities as a class: a minority group (Council for Disability Rights, 2008; Mayerson,

1993). Section 504 recognized that, similar to questions of race, ethnicity, gender, and sexual orientation, while there were major variations among people with disabilities, their experiences as a minority group were similar to other underrepresented populations: they had no power, and for many, no rights.

Arlene Mayerson (1993) wrote on the operational implications of applying legislation for the protection of the civil rights of the disabled community in “The History of the ADA: A Movement Perspective.” Was discrimination based on disability different from discrimination based on race, ethnicity, or gender, which, for example, did not need structural accommodations? The regulations to accommodate physical disabilities would need to mandate affirmative, positive, operational, tangible actions to remove architectural, communication, and social barriers and to provide reasonable accommodations (1993).

In 1988, the Civil Rights Restoration Act (CRRA) expanded the reach of non-discrimination laws to private institutions receiving federal funds; it specified that all recipients of federal funds must comply with civil rights laws in all areas (L. Davis, 1997; Mayerson, 1993). The same year, disability activists forced an amendment to the Fair Housing Act (FHA) to include accommodations for people with physical disabilities. For the first time, disability anti-discrimination provisions were alongside those of race and ethnicity (Council for Disability Rights, 2008; Mayerson, 1993).

The disabled community recognized that for a change in culture, attitude, and laws, it must play an active and very important role in Supreme Court activities, particularly, litigation under Section 504, which meant that a disabled person must be qualified to perform the designated functions of the job and provided with reasonable

accommodations as determined in conversation with the employee (Gross, 2008; Mayerson, 1993).

In 1979, Section 504 was tested in the case of *Southeastern Community College v. Davis*. A Southwest Community College (SCC) applicant, Davis, suffered from a serious hearing disability. SCC, a state institution that received federal funds, denied Davis admission to the nursing program, a decision based on her hearing impairment (Rose, 2009).

Brian Rose (2009), a lawyer and author of *From Davis to Sutton: Ten Cases That Have Shaped Disability Services in Higher Education*, wrote that SCC alleged that, because of her hearing impairment, Davis was not capable of meeting the clinical standards of the program. SCC would not provide the accommodations which would enable Davis to complete the clinical components of the program.

Rose wrote that the Supreme Court's unanimous decision declared that, according to Section 504, SCC was not required to grant Davis admission. The Court reasoned that 504 did not prevent academic institutions from establishing physical qualifications for admission to a clinical program and that accommodations requested by a student amounted to affirmative action and were not required under 504 (2009). The decision cast doubt on whether the articles covered by Section 504 would require Southeastern Community College, or other institutions, for that matter, to make any effort at all to accommodate the needs of persons with disabilities.

According to Rose (2009), what was, and will continue to be challenged, is what constitutes "reasonable accommodation" for the person with a disability and what constitutes "undue hardship" for an employer. (There is little doubt that the workplaces

and courts will continue to clarify and redefine these terms as workplace accommodations will continue to be challenged.)

In July, 1990, President George H. W. Bush signed the Americans with Disabilities Act into law (Council for Disability Rights, 2008). Accommodating a person with a disability became not a matter of charity but a basic issue of civil rights (Lathrop, 2003). The Declaration of Independence was for all U.S. citizens: “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness” (Jefferson, 1776). There are no exceptions in the document: equality for people with disabilities is a constitutional right.

By 2003, sentiments about the ADA changed (Lathrop, 2003). Doug Lathrop questioned what happened to the ADA, with the exception of Title III, the accessibility to public accommodations section. The powerful introduction to his article, “Who Lost the ADA?” cannot be dismissed:

Welcome to Post-ADA America. We hope you’ve enjoyed your flight.

Before leaving, please be sure to check the area around your seat for any civil rights or scraps of human dignity you may have managed to keep us from stealing. Thank you for flying with us—and remember, if you feel your rights have been violated, you’re required by law to wait ninety days before suing us. Have a nice day. (Lathrop, 2003, p. 195)

Other studies support Lathrop’s point of view. They demonstrate that the ADA may not be as effective as anticipated. The ADA requires employers to accommodate disabled workers and forbids discrimination against people with disabilities in all aspects

of employment. The ADA was intended to increase the employment of people with disabilities, but for men of all working ages and women under 40, data show a decline in the employment of disabled workers after the ADA went into effect. In fact, two-thirds of all working-age disabled people are still unemployed (Acemoglu & Angrist, 2001; Baldrige, 2001; Smolowe, 1995). A serious situation of diminished accommodations that sets up barriers to full employment and engagement still persists (Braddock & Bachelder, 1994). (Accommodations, as defined by the ADA, may include personal assistance, interpreters, modification of facilities, job restructuring, schedule changes, and new or modified equipment [ADA, 1990]).

In 1990, when Bush signed the ADA, the unemployment rate for people with disabilities was 66 percent. Fourteen years later, in 2004, it was still 66 percent (Acemoglu & Angrist, 2001; Braddock & Bachelder, 1994; Smith & Bienvenu, 2007). This compelling statistic confirms that people with disabilities are a minority group that must be included in all discussions on diversity and equal rights. The abled majority must take responsibility in identifying and removing the barriers that prevent opportunities for full engagement of people with disabilities in their communities, places of work, and, for faculty members with hearing loss, in higher education.

Theoretical Framework

Framing the research on faculty members with disabilities, specifically hearing impairments, in a theoretical context, provides the framework with which to understand the experiences and attitudes of people with disabilities, the dynamics of behaviors that lead to change, and the processes that facilitate solutions. Theory also provides the

ability to understand the historical and cultural constructs and provides instruments of analysis. The questions that theory and supporting models raise about defining disability, the place of experience, and the social and political constructs are critical to our understanding of the experiences of people with disabilities (Oliver, 1996; Siebers, 2008). The risk of not understanding theory and models is that we will “reach intellectual, socio-cultural, ethical, political, and policy conclusions about disabled people without examining the ignorance, fear, and prejudice that deeply influence our thinking” (Longmore, 2003, p. 3).

Existing theories that frame this topic include critical race theory, which works to advance a social justice framework; it examines power and privilege, and aims to redress socially constructed racism and discrimination (Tate, 1997), and critical disability theory, which states that disability is not, in and of itself, a medical or health issue, but rather, is socially constructed; it is fundamentally a question of power, politics, and marginalization (Devlin & Pothier, 2006). Critical disability theory also states that impairments are part of the human experience. Critical disability theory examines the socially constructed barriers that disable people with impairments (Devlin & Pothier, 2006; Hahn, 1988; Oliver, 1996), in this case, faculty members with hearing loss. From these theories, two models emerge: the minority model, which grew out of social justice concerns, and the social model, which holds that barriers that disable people, and therefore prevent maximum engagement, are socially constructed.

Critical race theory. Critical race theory is a movement that originated in the legal field, and seeks to study race relations and racism in a broader framework than the granting of civil rights. Critical race theory examines how certain groups are isolated and

marginalized. It considers how being white can manifest as white superiority and white privilege. White privilege, according to Peggy McIntosh (1990), in her article “White Privilege: Unpacking the Invisible Knapsack,” is the social, political and cultural advantage accorded to whites in American society, and, for the most part, the privileged do not examine the effects of this privilege in their lives and the lives of others. Just as others are oppressed because of their race or ethnicity, whites are elevated and empowered because of their whiteness.

Critical race theory also critically examines racism, the use and abuse of power and positions of power and the institutionalized oppression of groups; it analyzes the construction of racism by those with power and by cultural and government institutions. Critical race theory continues to study the racist assumptions and the concomitant discriminatory behaviors that are encoded in our everyday landscape (Delgado, 1995; Tate, 1997). Critical race theory philosophically intersects with critical disability theory.

Critical disability theory. Critical disability theory states that disability, like racism, is socially constructed; the barriers in the external environment disable people with impairments (Oliver, 1996; Siebers, 2008). In addition to the external and environmental barriers, critical disability theory maintains that discrimination against people with disabilities is so ordinary, so pervasive, and, similar to white privilege, invisible. Leonard Davis, in *Enforcing Normalcy*, expanded on the idea of privilege when he wrote, “the ‘problem’ is not the person with disabilities; the problem is the way that normalcy is constructed to create the ‘problem’ of the disabled person” (1995, p. 24).

The concept of privilege can also be applied to the able-bodied, and is referred to as “able privileged” or “ableism.” Ableism is a form of discrimination in which able-

bodied people show preference toward others who appear to be able-bodied. Like white privilege, ableism pervades the whole being of the able-bodied. Like other “-isms,” ableism is insidious, and so thoroughly permeates society that people without disabling physical, cognitive, or mental impairments do not reflect on their ableist attitudes and the ableist structure of their lives, buildings, communities, and society (Castaneda & Peters, 2000; Davis, 1995). For example, able-bodied people may not consider how difficult social situations, with several people talking at the same time, are for someone with a hearing impairment, or how difficult restrooms are to navigate in wheelchairs, in spite of a stall that meets the technical limits of code. Ableism also penetrates language and society; terms and phrases like “lame,” “retarded,” “Are you blind or what?” “You’re blind as a bat,” and “Are you deaf or something?” are all ableist, and widely used, even by people who are sensitive to other forms of discriminatory and pejorative language (Castaneda & Peters, 2000).

Abled people must consciously strive to include people with disabilities. Inclusion, in the context of hearing impaired faculty members, means that support, services, opportunities, and resources are fully accessible to all faculty members, and are welcoming, functional, and usable for as many different types of abilities as reasonably possible. The department that practices inclusion moves toward changing its hiring and interviewing practices and support for social, personal, and professional development of all colleagues, whether abled or disabled (Baird, Rosebaum *et al.*, 2008; Braddock & Bachelder, 1994; Castaneda & Peters, 2000).

Critical disability theory questions the reduction of disability to quantifiable conditions, and unfavorably views using dichotomous categories such as normal or

pathological, abled or disabled, black or white, deaf or hearing, or normal or abnormal. The reality is that most people are somewhere on the continuum between two extremes (Oliver, 1996; Siebers, 2008). Critical disability theory is an approach that recognizes the breadth of the human experience, an approach suggesting that instead of maintaining the dichotomy—disabled or not disabled—environments should be modified as much as possible so that they are not disabling to anyone. People with disabilities have a voice emerging from their unique individual and group experiences. While disability scholars have “fought hard to get disability included in the race-class-gender triad” which defines diversity (Davis, 2001, p. 535), many discussions on diversity do not include people with disabilities (McKee, 1993; Rocco & West, 1998; Smith & Bienvenu, 2007).

To theorize about disability as a public issue, disability should expand the race-class-gender triad, and be included in discussions about the value of diversity and the need for civil rights. The absence of people with disabilities in discussions about diversity is a compelling argument that their unequal status poses a critical and necessary challenge about citizenship and justice (Davis, 1995).

Critical disability theory challenges our capitalist notions of efficiency and productivity because there are times when accommodating a person with a disability must be examined through a lens that allows maximum engagement, divorced from the bottom line (Castaneda & Peters, 2000; Oliver, 1996; Swain, French, & Cameron, 2003). Critical disability theory also postulates that disability is not fundamentally a question of medicine or health, nor is it exclusively an issue of sensitivity and compassion; rather, it is a question of politics and power (lessness), power over, and power to (Devlin & Pothier, 2006).

Michael Schwartz, one of two deaf law professors in the country, supports this point of view, "Disability isn't my deafness, disability is how society is set up so that I'm at a disadvantage" (Restuccia, 2006, ¶4). The medical model of disability is a popular model in western culture, and the model to which Professor Schwartz refers. Professor Schwarz' comments are better understood in the context of the two models of disability supported by critical disability theory: the American minority model and the British social model, both of which empower people.

Models of disability. Different models of disability embody different explanations, goals, and solutions. The medical model of disability does not address the social, intellectual, and educational aspects of the lives of people with impairments.

The minority and social models shift the focus from individual pathologies to institutions and ideologies. Paul Longmore (2003), a disabilities activist, Ph.D. historian, and author of *Why I Burned My Book and Other Essays on Disability*, wrote in the introduction to his book that the minority and social models of disability grew out of "efforts of activists to address the problems and obstacles faced by people with disabilities. Those advocates have recognized that for most people with most kinds of disabilities most of the time the greatest limitations are not somatic but social: prejudice and discrimination, inaccessibility and lack of accommodations" (p. 2).

Medical model of disability. The traditional medical model of disability focuses on physical and/or developmental limitations, seeks to "fix the problems" by attempting to correct the impairments as much as possible through medication, rehabilitation, special education and by encouraging disabled individuals to attempt to meet the standards set by

the abled majority (Oliver, 1996). The intention of the medical model is to label, manage, and/or cure the disability.

Longmore (2003) believes the medical model places the source of the problem within the impaired person: the disability is a problem to be cured (even when there is no cure). Solutions are found by focusing on the individual, and usually involve medical intervention. By extension, then, a just society invests resources in health care and related social services in an attempt to cure disabilities medically in order to expand the individual's ability to function in society.

The medical model perpetuates medical intervention and social services, but frequently fails because people with disabilities are not necessarily sick, or their situations may not improve with remedial medical treatment. The only remaining solution is to accept the "abnormality" and provide the necessary care to support the "incurable" impaired person, which perpetuates dependency on the medical and social service organizations (Swain, French *et al.*, 2003). Swain *et al.* (2003) summarize the medical model, "To put it simply, a disabled person is seen as faulty and in need of fixing or curing" (p. 23) or, as Paul Longmore (2003) suggests, the medical model assumes that the personal pathology of a disabled person is the primary barrier to integration. The medical model has a negative impact on the way people with disabilities see themselves by placing the responsibility for engagement on the individual rather than examining the external barriers that exist within society (Swain, French *et al.*, 2003).

The medical model provides a perspective from which to examine the minority and social models of disability.

Minority model of disability. The minority model recognizes the power differential between abled people and disabled people, and advocates that the acquisition of civil rights begins a resolution to the challenges people with disabilities face.

“Minority” is usually regarded as the smaller in number of two or more groups, as well as that part of a population different from others in selected characteristics and often subjected to differential treatment (Minority, 2008). Louis Wirth, of the Chicago School of Sociology, provided a definition of “minority” that is in the sociological study of race and ethnicity (McKee, 1993). Wirth (1945) held that "minority" refers to any group of people who, due to physical or cultural characteristics, are singled out from others in the society in which they live, for differential and unequal treatment. They come to regard themselves as recipients of prejudicial treatment. People with disabilities, including people with hearing impairments, fit Wirth’s definition: they are singled out because of their physical characteristics.

Wirth moved the discussion of “minority” from quantitative to qualitative, from one of demographics to one of social and economic power. The shift forced the relationship between disability and the law to undergo significant transformation, much of which is a result of legislative initiatives such as Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (McKee, 1993). In addition to the legislative movements, social and political research caused a fundamental shift in perspective: the study of people with disabilities went from a medical model of functional limitations to a minority model, whose struggle for equality parallels other minority groups: similar discrimination in employment, education, and access (Baird, Rosebaum *et al.*, 2008; McKee, 1993).

Social scientists A. Gary and Rosalind Dworkin (1976) built on Wirth's view of minority in their research in race/ethnic relations. They found that minority identity has characteristics that span the continuum of oppressed people, and that a minority group possesses four characteristics: identifiability, differential power, differential and pejorative treatment, and group awareness. Although some disabilities are not immediately identifiable to the naked eye in the same way that race, ethnicity, and sexual orientation are not always visible, under scrutiny, the characteristics cause limitations or identities that result in oppression and support the minority model of disability.

People with disabilities are a legitimate minority, subject to discrimination and deserving of basic civil rights protections (Michalko, 2002). The minority model builds on Rocco and West's (1998) definitions of power and privilege: power is the control, use, and protection of economic, political, and social resources and the conscious or unconscious use of these resources against others. Privilege is an "unearned asset or benefit received by virtue of being born with a particular characteristic or into a particular class" (Rocco & West, 1998, p. 173).

For equal protection, the community of people with disabilities must be recognized as a minority group worthy of all civil rights, instead of individuals with aberrations that prevent engagement. The minority model is a socio-political framework with a focus on civil rights. Disability activists have sought a political voice, and have become politically active against the same social injustices experienced by other minority groups. Disability activists have adopted the strategies used by other minority groups in their fights for human and civil rights and against phenomena such as sexism and racism (Longmore, 2003).

Social model of disability. Closely linked to the minority model is the social model of disability. In the social model, critical theorists postulate that society, rather than physical, cognitive, or developmental variations, creates barriers that disable people (Hahn, 1988). The social model views disability as a consequence of environmental, social, and attitudinal barriers which prevent people with impairments from maximum participation in society (Longmore, 2003; Oliver, 1996; Siebers, 2008).

Attitudes and physical space are environmental elements for all people. The social model supports the examination of societal and institutional attitudes and the physical spaces which stand in the way of the maximum engagement, employment and participation of people with disabilities in the mainstream of life. Michael Oliver (1996), in *Understanding Disability: from Theory to Practice*, supports the idea that for people with impairments, being disabled by external barriers is a form of social oppression:

In our view, it is society which disables physically impaired people. Disability is something imposed on top of our impairments by the way we are unnecessarily isolated and excluded from full participation in society. People with disabilities are therefore an oppressed group in society. To understand this it is necessary to grasp the distinction between the physical impairment and the social situation, called 'disability,' of people with such impairment. Thus we define impairment as lacking all or part of a limb, or having a defective limb, organism or mechanism of the body and disability as the disadvantage or restriction of activity caused by a contemporary social organization which takes little or no account of people who have physical impairments and thus excludes them. (p. 22)

Redefining disability by framing it in the social model means that the barriers, restrictions and/or oppressions people with physical impairments experience disable them, and, in addition, “professional interventions are seen as adding to the problems rather than seeking to deal with them” (Oliver, 1996, p. 10). In the social model, having an impairment is often part of the human experience, but being disabled is not. A simple example of the social model is to consider a severely near-sighted person in the United States who gets corrective lenses. The visual impairment is not disabling. A different, severely near-sighted person who does not have access to corrective lenses, however, could be severely disabled because s/he is potentially unable to learn to read and write, participate in life’s activities, and engage in society, or, a hard of hearing teacher might be disabled without assistive technology, but be able to continue teaching with hearing devices. A deaf lawyer and President of the Park Nicollet Institute in Minneapolis is an advocate for the opportunity for full engagement of all people in their society, including people with disabilities. She supports the social model: she believes that it is society’s obligation to remove those barriers that prevent people with disabilities from being fully engaged as citizens (Cordano, personal communication, October 7, 2008).

One way of framing the relationship of individuals to society, including people with disabilities, is through citizenship and engagement. Citizenship, by its very nature, has a multitude of meanings and references, but the rights of citizenship are essentially concerned with the nature of participation of persons within the community as fully recognized legal, and engaged, members (Turner, 2008). The point is that the economic, social, and educational barriers that people with impairments face continue to be so pervasive at all levels that they are prevented from constructing a reasonable quality of

life, even by their own efforts. This belief supports the social model of disability by examining the restrictive environments and barriers that prevent engagement and inclusion of impaired citizens (Michalko, 2002; Oliver, 1996; Turner, 2008).

Disability is a socially constructed role. In addition to external physical barriers, for most people with physical impairments, however, prejudicial behavior and discrimination may be the greatest obstacles to engagement. Again, the literature demonstrates that a long, deep, pervasive, and powerful institutionalized neglect of the needs of people with disabilities, even in higher education, exists (Longmore, 1995; Oliver, 1996; Siebers, 2008).

Beyond Disability Models

The discussion of critical disability theory and models of disability necessitates an understanding of the difference between impairment and disability. Many people have impairments; people who wear glasses, hearing aids, who need a cane, or who are missing a limb are impaired but may not be disabled, depending on whether or not there are barriers that prevent maximum engagement. In addition, anyone can become temporarily or permanently impaired at any time, but, hopefully, not disabled. The definition used by Michael Oliver (1996), in *Understanding Disability*, provides a clearer understanding of the relationship between impairment and disability. Oliver's (1996) definition of disability contains three characteristics: there must be the presence of a physical or developmental impairment, there must be an experience by the person of externally imposed barriers, and the person must self-identify as disabled because of the impairment. Oliver (1996) states that an impairment does not necessarily make one

disabled; if the barriers for the impaired person are minimized, s/he can be more fully engaged. In the social model of disability, as previously discussed, the impaired person becomes disabled when external barriers are created (Michalko, 2002; Oliver, 1996; Turner, 2008).

Some barriers have been removed as a result of the ADA. People in wheelchairs can now access many buildings and move with relative ease in some buildings and on some streets. They cannot, however, freely use public transportation or turn a wheelchair around in many lavatory stalls. For the most part, buildings are designed for the able-bodied. Tobin Siebers (2008), in *Disability Theory*, claims that the whole idea of ability as normal and disability as abnormal is so ingrained in our psyches that when spaces are designed, for example, they are designed for able-bodied people. Rarely, he writes, when thinking of and executing design, do architects include design for impaired bodies. In the view of many, either we are disabled or we are not. As indicated earlier, the reality is that most of us are on a continuum between the two polarities— dealing with our impairments, but not being disabled by physical and prejudicial barriers.

This research is framed in the minority model of disability (i.e., that people with disabilities are entitled to the rights and privileges of all citizens) and the social model (i.e., that people have impairments, but society disables them by the existence of externally imposed, or socially produced, barriers). Adults with impairments, at nearly 20 percent, are the largest minority group in the United States (Disability, 2006). Only 15 percent of all people with impairments are born with them, suggesting that the other 85 percent acquire their impairments during their lifetimes (Siebers, 2008). As the U.S. population ages, the number of people with impairments continues to grow: people live

longer, age, have accidents, or become ill. Also, as the younger members of the U.S. population age, their hearing impairments will likely grow disproportionately due to noise and/or age induced hearing loss.

There are also impairments that are not accounted for in any statistics; the statistics may not include people who have age-related hearing loss, wear eyeglasses or contact lenses, people who are learning disabled, temporarily disabled, or the elderly, many of whom are unable to do such activities as navigate stairs and certain doorways. These numbers are increased by war, natural disasters, epidemics, or accidents. The reality is that impairments take on so many forms that the impact on individuals and, therefore, their significance in society, intensifies with time, increasing longevity, and population growth. Society must become aware of and remove the barriers (that go beyond steps, doors, and bathroom stalls) that disable people with impairments.

Identity in the Academy

There are parallels in the struggle of deaf and hearing impaired people with the struggle of other minority groups. Padden and Humphries (2005) wrote that deaf people, also, identify with the needs of other minority groups. They want to be the architects of their own lives, they want to be empowered, included, and treated with dignity and respect in an accommodating society.

According to Jamie Berke (2008), in her article, “Deaf Culture: Deaf? Disabled? Both?,” there are some demographic statistics available about the number of deaf people in the United States, but they are either outdated or unreliable because many deaf people

do not choose to identify themselves as having a disability, a hearing loss, or the questions may not directly ask if a person has a hearing loss.

The estimated demographic figure ranges from 22 million deaf and hard of hearing persons to as high as 36 million deaf and hard of hearing persons in the United States. According to the National Health Interview Survey, of the nearly 54 million disabled adults, 37 million (17 percent of all U. S. adults) have hearing impairments. The 17 percent of deaf adults include those who were born deaf, were deafened through natural causes, accidents, medical conditions, or suffer from noise-induced hearing loss (Adams, Lucas *et al.*, 2008).

Further muddying statistics is the fact that some individuals themselves are uncertain about how to define their deafness. "Deaf" people may actually be hard of hearing, and some "hard of hearing" people may actually be deaf. Or, consider the comments of someone who self-reported that he "can hear people talk," but that he "cannot understand what they are saying" (Jamison, personal communication, April 12, 2009). This is not a case of denial, but of uncertainty as to where they "fit." In addition, there are those who do not self-identify as deaf and those who deny their hearing losses (Berke, 2008).

The discussion about impairments and resulting disabilities appears to invite an intense debate about the question of whether deaf people view themselves as only deaf (but not disabled), or as disabled. According to Berke (2008), some deaf people consider themselves impaired because of their inability to hear, and it appears that more often than not, late deafened people claim deafness as more of a disability. Others feel disabled because of experiences with discrimination and employment difficulties, as well as the

inability to hear. Some may claim disability in order to qualify for legal protections and government benefits, such as Social Security. Other deaf people feel that they are not disabled because they can function effectively when barriers have been removed by having access to support, accommodations, or technological devices including hearing aids and cochlear implants (Berke, 2008).

Whether or not deaf people see themselves as a minority, disabled, or both, or neither, is irrelevant to the discussion. The discrimination against the disabled community applies to the deaf community in general, and to hearing impaired faculty members in higher education in particular. The importance of diversity within the academy has been established; many universities have examined their hiring and promotion policies to enable more equitable representation in their academic ranks. Women and visible minorities have been included in the equity initiatives, but people with disabilities, including faculty with hearing impairments, appear to have been overlooked.

According to Woodcock, Rohan, *et al.* (2007), the fundamental reason behind the drive towards equitable representation of deaf people in the academy is the recognition that the barriers to success in academia can be understood in terms of prejudice or ignorance. Equitable representation in the academy satisfies the principle of equality that is a signature of good hiring and retention practices, in addition to improving the quality of the academic experience with diverse world views, cultural interpretations, and role modeling for students.

Institutional Support for Faculty Members with Hearing Loss

Services for faculty members with hearing loss are on our campuses, but the will to embed the support into the culture appears to be missing to the point that there is reluctance on the part of many deaf and hearing impaired faculty members to express their social, professional, and intellectual needs and to ask for accommodations for a variety of reasons including stigma, false perceptions of professional competence, cost, and degree of accommodations (Baldrige, 2001).

A hearing impaired faculty member from the Engineering Research Center on Workplace Accommodations at Georgia Technological University wrote:

The ADA Title I (Employment) is not the same as the ADA Accessibility Guidelines. Title I says that accommodations will meet the needs of the individual employee. One size does not fit all. The guidelines are about basic public access, mostly for people with mobility issues. They are two separate requirements, but many employers don't understand that. (Anderson, personal communication, June 14, 2009)

The testimonials from deaf faculty members reveal that support is lacking in the areas of awareness, training of supervisors, visibility, campus culture, and accommodations. When asked what procedures were in place to notify faculty members with hearing loss of the available services and support at a major midwestern university, the Affirmative Action Officer replied, "Unfortunately, none" (Perlman, personal communication, 2009). The Disability Services Coordinator had been at the same institution for three years, and when three faculty members were asked if they were aware of her services, none of them were (Harris, personal communication, May, 2009).

The coordinator stated that it was difficult to “get the word out” about her services because of the Health Insurance Privacy and Portability Act (HIPPA) and Federal Education Rights to Privacy Act (FERPA) regulations. Because of the regulations, she believes, faculty members who need support must initiate the request. This becomes a chicken and egg question—how can they initiate a request if they do not know about the services? This person was a hard working, dedicated, employee who would like to have done more to help faculty members with disabilities, but her services were not embedded in the campus culture. A recently deafened faculty member at the same institution, for example, went to Disability Resources to inquire about assistance. He was told there was nothing they could do because their services were for students only, and was he not directed to the ADA Coordinator (Roufs, personal communication, March, 2009).

Many institutions have a web page with contact numbers for faculty and staff with disabilities, frequently buried within Human Resources or Equal Opportunity sites, but others are lacking even minimally articulated support. An inquiry to the Disabled Faculty listserv, a discussion list for disabled postsecondary faculty, asked questions about how faculty members learn about accommodation requests and services: Are they told at orientation? Are there brochures distributed? Are the resources on the web readily available? Is it part of the campus culture to know that support for faculty with disabilities is available? There were 23 respondents to the inquiry. Not one respondent wrote that their institution told faculty about accommodations, there were no brochures or web pages that any of the respondents knew about, and supporting faculty with disabilities was not part of the culture.

One faculty member wrote in response to the questions:

Faculty members with disabilities are on their own. Our new faculty orientation does not deal with issues of access or accommodation. Supervisors and department heads have no training and no clue about how to be helpful. . . .

There are no brochures and nothing on the web. We are out here on our own being squeaky wheels when the situation calls for it. (Chaska, personal communication, June 9, 2009)

The evidence is strong that faculty members with disabilities are not supported in deed by their institutions. Another faculty member summed up what appears to be a common situation, “I teach full-time for an online ‘for-profit’ university. I have never seen any mention of accommodations for faculty. This was not addressed in my training five years ago. No brochures were distributed. Our faculty handbook only addresses students” (Taylor, personal communication, June 10, 2009).

Another comment expresses the sentiments of many of the respondents, “. . . this is a big issue relating to all of us who work in this field, and for some of us, who would like to see the term ‘Equal Employment Opportunity’ live up to its name; or as you put it, see those who talk the talk also walk the walk . . .” (Zarrehparvar, personal communication, June 10, 2009).

A brief examination of British Universities suggests vastly different institutional cultures that fully support the participation of faculty members with impairments. Why the difference between American and British Universities? Peter Quinn, Senior Disability Officer at the University of Oxford, stated that there are institutional efforts to create an awareness of support for people with disabilities, from

orientation to brochures, surveys, and questionnaires (Quinn, personal communication, April 14, 2009).

Quinn supports the efforts of the English National Institute of Adult Continuing Education publication *From Compliance to Culture Change: Disabled Staff Working in Lifelong Learning* (2008) and believes this document provides a model for all higher education. In England, staff includes faculty members; the compelling key messages in the executive summary are the stances that institutions of higher education in the United States should consider:

There has been a systemic failure in public policy to address the needs and requirements of disabled staff throughout the lifelong learning sector to the extent that there is widespread institutional discrimination, despite some beacons of good practice. Many organizations and individuals are culpable in this, but there is nothing inevitable about it. If our recommendations are adopted then there will be immense gains for disabled staff.

Effective, visible and proactive leadership and management are vital in the process towards disability equality, which is not a matter for leaders to delegate to others. Leaders should take direct responsibility. For managers, it is not a ‘bolt-on’ activity: ‘disability awareness’ is not enough. They must understand the issues and the drive towards disability equality and play their full part. For everyone in the sector, confidence about ‘saying and doing the right thing’ is crucial in making progress to disability equality.

The concept of providing ‘reasonable adjustments’ to meet the diverse needs of individual members of disabled staff remains very important; however,

lifelong learning organizations now need to take the next transformational step towards meeting their ‘anticipatory duty’ to ensure that inclusion is automatic for disabled (and indeed all) staff, learners and students.

. . . The principal beneficiaries of our report will be disabled staff and potential disabled staff in the sector. But implementing its recommendations will benefit everyone in the lifelong learning sector, whether or not they are disabled, and goes beyond disability to the heart of ethical and effective organizational functioning. A culture that promotes disability equality will inevitably bring improvements and dignity at work for all. (p. 17)

This publication sets out the major challenges all institutions, including U.S. higher education, face if they are serious about inclusion for faculty with disabilities. At the very least, there is a huge loss of intellectual potential. It is also an indication that, almost 20 years after the ADA, the legislation designed to reduce discrimination against all people with disabilities in the workplace does not have a sufficient impact on employment practices for hearing impaired faculty members in higher education (Tidwell, 2004; Woodcock, Rohan *et al.*, 2007). This is in marked contrast to the very evident and positive changes that have taken place for students over the same period.

There appears to be systemic breakdown of addressing the issues of full compliance with the letter and the spirit of the ADA in institutions of higher education, which has led to widespread institutional inequitable treatment of faculty members with disabilities, including those with hearing loss. This research seeks to explore what the main issues are that need to be addressed to include faculty members with hearing impairments as full, contributing, citizens of the academy.

Research Questions

Collecting data about faculty members who are hearing impaired presents a complicated research design challenge because there is no clear threshold of hearing loss that defines hearing impairment, because of the apparent resistance of faculty members to disclose or discuss their hearing losses, and because many hearing impaired faculty do not self-identify as being disabled (Baldrige, 2001; Berke, 2008; Tidwell, 2004).

The limited literature and the experiences of deaf faculty members provide emerging themes that define possible research questions. The Director of the Center for Teaching and Learning at a major Midwestern university believes that research on this topic is much needed in relation to the limited current literature (Langley, personal communication, August 10, 2010). Institutions of higher education need to ask questions about deaf faculty members: Who are they? Where are they? What are their experiences?

The professoriate remains largely abled, and the literature and experiences of faculty members with hearing impairments may confront current policies and practices in the academy. Administrators and faculty may identify a need to embed better support for hearing impaired faculty members in the campus culture, and thereby, improve the climate for all faculty members in higher education. This descriptive, exploratory research will answer the following questions:

Do faculty members who are hearing impaired say that they are well-informed about university resources, accommodations, and support for their deafness or hearing impairments, that available support has been discussed at orientations, their department

chair/head has indicated knowledge about services, and the resources are easily accessible on the web?

Do faculty members who are hearing impaired say that their hearing loss affects professional activities such as classroom teaching and telephone communication?

Do faculty members who are hearing impaired say that they are comfortable in disclosing and discussing their hearing losses with their students, department chairs, and/or colleagues?

Do faculty members who are hearing impaired say that their hearing losses affect their professional and social interactions with students and colleagues?

Chapter Three

Methodology

The purpose of this chapter is to describe the methodology used in this descriptive, exploratory research. First, the background and rationale for the research is recapped from Chapter One and Chapter Two on why it is important to examine the elements at the study institution that hinder or help engagement of hearing impaired faculty members. Following the background and rationale are descriptions of the research design and data collection instrument. The chapter finishes with a discussion of the data analysis methods, the limitations of the study, and the ethics applied to the research.

Rationale for the Research

There is minimal research examining the experiences of faculty members with hearing loss in higher education. This research focuses on the experiences of hearing impaired faculty in their instructional roles as members of the academy: how hearing impairments affect teaching, collegiality, and engagement.

This research is shaped by the minority model, which is framed in critical race theory. The minority model provides a framework for applying feelings of isolation, marginalization, and lack of empowerment (Trower & Chait, 2002; Wood, 2003) to the experiences of hearing impaired faculty. It also raises questions about the exclusion of people with impairments in discussions about diversity.

Additionally, this research asks questions supported by the British social model of disability which states that oppression, exclusion, and discrimination of people with disabilities are socially constructed; it views disability as a consequence of environmental, social, and attitudinal barriers that prevent people with impairments from maximum participation in society (Oliver, 1996; Siebers, 2008), in this case, faculty with hearing impairments in the academy.

The most appropriate method to measure quantitative descriptions of opinions, experiences, and demographics of a select sample, in order to explore relationships between variables, was to use a survey (Creswell, 2003). Fraenkel and Wallen (2003) described three criteria of sound survey research, all of which this study aimed to fulfill.

First, the purpose of the survey was to describe the attitudes, experiences, and demographics of a predetermined population: faculty with hearing impairments. Second, this study asked structured questions as the primary means of getting information. Third, the responses were analyzed with the intention of developing more awareness about the experiences of faculty with hearing impairments at a particular institution. These criteria were the foundation to the structure of the survey questions, answers, and methods of analysis.

The qualitative components of the survey gave the faculty members the opportunity to relate their own experiences, thoughts, and best practices, and to make suggestions for removal of barriers that prevent maximum professional engagement.

The survey gathered information about how faculty members with hearing impairments cope with and interact in their social and academic environments.

Survey Design and Content

The simply written questions and statements further defined the second element of Fraenkel and Wallen's (2003) criteria of sound survey research: structured questions are the primary means of getting information. Several of the questions were framed in the minority and social models used in this study.

The web-based survey (Appendix A) was constructed using SurveyMonkey, an online instrument for developing and implementing surveys. The instrument offered features which included an unlimited number of survey questions, the ability to export, print, and share reports, reporting tools, and the capability to export data for statistical analysis. The program also provided security and data protection. By using a survey, all subjects were presented with identical, standardized questions which were intended to obtain high reliability and diminish researcher bias. It was assumed that the information provided by the respondents was accurate and truthful; survey results were not distorted. The information obtained through the survey instrument, completed by the respondents, provided all the data used in the analysis of this study.

The survey contained 39 questions in three overlapping categories: sections one, two, three, and four contained questions about behavior (which related to the minority and social models by addressing inclusion, accommodations, and coping mechanisms); sections three, four, five, six, seven, and eight contained questions about beliefs, perceptions, and attitudes (primarily based on experience, which related to the minority and social models), and how the respondents felt about inclusion, exclusion, and marginalization; and section nine contained questions about demographic characteristics and other general information. The questions, statements, and answer options were clear,

direct, and used language that survey participants would understand. Question and answer types ranged from open-ended (comments) to closed-ended (dichotomous, multiple choice, rating scale, etc).

Degree of hearing loss. The first section of the instrument asked two questions which assessed the respondents' hearing impairments. These questions were important because Raphael (2003), Woodcock (2007), Ekhart (personal communication, 2009), and the data from the 1999 National Survey of Post Secondary Faculty suggest that many faculty members were reluctant to disclose or discuss their hearing impairments for a variety of reasons, including fear of discrimination, marginalization, exclusion, and isolation.

The survey questions which introduced the study were:

1. Hearing loss can be gradual or sudden. Some individuals are born with a hearing impairment, others acquire it through age, trauma, or disease. An individual with a mild to moderate hearing impairment may be able to hear sound, but may have difficulty hearing speech in a conversation, meeting, classroom, or social environment. Individuals with a profound hearing impairment may not be able to hear sounds at all. Based on these descriptions, as you think about your interactions with others, how do you identify as a faculty member with a hearing impairment? The choices of answers were: No impairment, Mild, Moderate, Profound.

2. Do you wear hearing aid(s) or have you had cochlear implant(s)? The choices of answers were: I do not need a hearing device, I probably should wear a

hearing device but I do not, I wear a hearing device(s), I have a cochlear implant(s), I have a hearing device(s) but do not wear it (them).

Time of hearing loss. The second section of the survey related to time of hearing loss relative to employment at the University. The questions in this section asked about disclosure during the hiring process and relevant offers of accommodations. The questions were:

3. Did you acquire your hearing impairment before or after your employment at the University? The choices of answers were: Do not recall, It was a gradual process, Before, After.

4. Did you disclose your hearing impairment to the search committee during the interviewing process for your initial University position? The choices of answers were: Yes, No, with a text box included for optional comments.

5. If you did disclose your hearing impairment prior to or during the interviewing and hiring process, were accommodations such as a quiet room, interpreters, or transcription services provided or offered to you? The choices of answers were: Yes, No, Did not disclose, Do not recall.

Disclosure of hearing loss. Section three asks questions about experiences after employment at the University. There were six questions which should determine if faculty members learn about support for teaching with a hearing loss at a department, college, or university orientation, whether the respondent has disclosed his/her hearing impairment to Disability Services, whether departmental colleagues were aware of the respondents hearing impairment, what coping mechanisms the respondent used, and whether the assigned classrooms for teaching were suitable for faculty members with a

hearing loss. These questions help determine the degree of openness, inclusion, and comfort faculty members with hearing impairments experience within their departments.

The questions were:

6. Resources for deaf or hearing impaired faculty were discussed at my departmental, college, and University orientation (in matrix format); the choices of answers were: Yes, No, I did not participate, There was no orientation offered at this level, Do not recall.

7. Have you self-identified as being hearing impaired to Disability Services? The choices of answers were: Yes, No, Do not recall.

8. Are your departmental faculty colleagues aware of your hearing impairment? The choice of answers were: Yes, I believe that most of them are aware of my hearing impairment; Yes, some of them are aware of my hearing impairment; No, as far as I know, none of them are aware of my hearing impairment; Only my department chair/head is aware of my hearing impairment.

9. Being hearing impaired can be challenging because of the energy it takes to focus on a conversation or on what is being said. What coping mechanisms do you use to navigate your life as a hearing impaired faculty member? A choice of 11 coping mechanisms, including I ask others to speak more slowly, I ask others to speak more loudly, I use email rather than a phone, I avoid conversations in areas where it is difficult to hear, other, and a text box, were included as possible responses. The respondent was encouraged to check all that apply.

10. For some faculty with hearing impairments, teaching in a large lecture hall or a noisy room is problematic. Think about your own situation. In your opinion, how often does your hearing impairment affect your ability to interact at your job as it is currently structured? The choices of answers were: Very rarely, Rarely, Occasionally, Frequently, Very frequently.

11. For some faculty with hearing impairments, communicating through phone calls is problematic. Think about your own situation. In your opinion, how often does your hearing impairment affect your ability to communicate using the phone? The choices of answers were: Very rarely, Rarely, Occasionally, Frequently, Very frequently.

Academic environment. Section four asks five questions which explore the academic environment and comfort level of the respondent. The answers to these questions were designed to disclose the willingness of faculty to talk about their hearing impairments with others. The questions were:

12. How often do you discuss your hearing impairment with (in matrix format) students, colleagues, department head, dean, or next higher administrator? The choices of answers for each option were: Never, Rarely, Occasionally, Fairly often, Very often.

13. There are faculty members who are reluctant to discuss their hearing impairment because of concerns about being marginalized or encouraged to retire. Please indicate how comfortable you are in discussing your hearing impairment with each of the following (in matrix format): students, colleagues, department head, promotion and tenure committee, dean or next higher administrator. The

choices of answers for each option were: Does not apply, Extremely uncomfortable, Somewhat uncomfortable, Rarely uncomfortable, Comfortable, Extremely comfortable.

14. Please discuss how and when you explain your hearing impairment to your students, if you do choose to tell them about your hearing loss. A text box was provided for an optional response.

15. Have colleagues approached you to discuss their hearing impairments? The choices of answers were: Yes, No. If the respondent answers yes, he/she was encouraged to comment in the text box associated with the question.

16. Have students approached you to discuss their hearing impairments? The choices for answers were: Yes, No. If the respondent answers yes, he/she was encouraged to discuss the nature of those conversations in the text box associated with the question.

Awareness of accommodations. Section five contained five questions about accommodations, general awareness of accommodations, awareness of looped classrooms (“looping” refers to an induction loop system that transmits directly to hearing aids and cochlear implants with telecoils [T-coils]), and a question about what accommodations would be helpful. The Oxford University survey (the model for this survey), which asked about information on accommodations at orientations for new faculty, prompted the following questions:

17. Has your department chair or next higher level administrator ever discussed what accommodations might be helpful to faculty members who have

difficulty hearing? The choices for answers were: Yes, No, Do Not Recall. A text box was provided for optional comments.

18. Do you know if a looped classroom is available to you? The choices for answers were: Yes, there is a looped classroom available to me and I use it; Yes, there is a looped classroom available to me, but I do not use it; No, I am not aware of any looped classrooms.

19. How would you rate the acoustics, in terms of supporting better hearing by muffling noises, diminishing the sounds of fans, echoes, etc. in the following settings: office, lab, classrooms, meeting rooms? In matrix format, the choices for answers were: Not applicable, Very poor, Poor, Fair, Good, Very good.

20. Are you aware of any classrooms available to you that are more conducive to, or have been adapted to, teaching with a hearing impairment, for example, the rooms are carpeted or have other sound absorbing qualities? The choices of answers were: Yes, I have such rooms available for my use, but I do not use them; Yes, I am aware of such rooms, and I use them; No, I am not aware of any rooms with sound absorbing qualities. A text box was included and the respondent was encouraged to clarify the response.

21. Which of the following modifications or accommodations might help you maximize your professional contributions at the University? (Check all that apply.) The choices for answers were: Captioning telephone for my use, Smaller classes, More rooms with sound absorbing qualities such as carpet, Looped rooms, Changing my courses to an online format, Phone amplifier for my use,

Note taker at meetings, Light signaler (light flashes when someone enters your office, etc.), Oval conference tables (which allow for better eye contact and easier lip reading), and Other, with a text box included for optional clarification.

ADA compliance and budget. Section six contained two questions which asked about ADA compliance and budgets. One multiple choice question focused on whether the alarm systems in the faculty member's work environment were ADA compliant. The second question asked whether the respondent had knowledge about which budget covered the costs of accommodations. These were important because there should be visible flashing lights in the respondents' work areas which would indicate an emergency, whether they were in classrooms, restrooms, or other work areas. In addition, anecdotal evidence suggested that faculty members with hearing impairments were reluctant to ask for accommodations because they assumed the costs came out of the departmental budgets (Harris, personal communication, July, 2009). The questions were:

22. Are alarm systems in the areas where you work ADA compliant, for example, do they have flashing lights? (Check all that apply.) The areas (in matrix format) were: Office, Lab, Classroom, Restrooms, Hallways, Meeting rooms. The choices for answers for each option were: Not Applicable, Yes, No, Do not know.

23. Some faculty members are reluctant to ask for accommodations because of departmental budget issues. Which budget covers the cost of accommodations? The choices for answers were: Department, HR/Disability Services, Other, Do not know.

Feelings of institutional support, inclusion, exclusion, and marginalization.

Section seven contained three questions about institutional support: whether the department chair had indicated knowledge about procedures for requesting accommodations and the ease with which faculty members could find the web page(s) for resources. Two questions had text boxes for additional comments. Typically, as discussed on the Deaf Academics listserv, accommodations for faculty were rarely, if ever, discussed or included in faculty resources, and the web pages for faculty with disabilities were buried “somewhere under Human Resources” (Anderson, personal communication, July, 2009). The final question asked about feelings of marginalization, exclusion, or isolation at different levels. This question grew from the application of critical disability theory and the minority model. The following questions were important because they supported the theoretical foundations of the survey:

24. Has your department chair/head indicated that s/he has knowledge about ADA compliant procedures for accommodating and improving the teaching environment for deaf and hearing impaired faculty? The choices for answers were: Yes, No, Not applicable. If yes, please comment on how the information was communicated in the text box provided.

25. Can you easily find your institutional web pages with resources for deaf or hearing impaired faculty? The choices for answers were: Yes, they are easily found; No, it is difficult, but possible, to find them; No, it is nearly impossible to find them. A text box was provided for optional comments.

26. Being hearing impaired can lead to feelings of marginalization or isolation. For each of the following, please indicate how frequently, if at all, your

hearing loss affects your sense of being excluded or isolated in (in matrix format):
Departmental professional activities such as conferences and lectures, Formal
group settings such as meetings and seminars, Classroom discussions, Informal
events such as departmental or collegiate social gatherings/parties. The choices
for answers were: Almost never, Rarely, Sometimes, Usually, Almost always.

Needs of hearing impaired faculty. Section eight asked eight questions which
prioritized the needs of hard of hearing faculty members. The first rating question listed
eight variables which might relate to the respondent as a faculty member. These included
items such as, “isolation from my colleagues,” “ability to interact with students in my
office,” ability to fully engage at social events connected to my University work,” etc.
The six possible rating responses range from “not applicable” and “almost never a
problem” to “almost always a problem.”

The second question, also a rating question, asked the respondent to what extent,
if at all, did s/he think their hearing impairment affected course evaluations, performance
evaluations, promotion and tenure, and thoughts on retirement. The remaining questions
prompted open ended responses asking the respondents to discuss policies and
procedures which were barriers to maximizing their contributions to the academy, to
share best practices in accommodating hearing impaired faculty at the University, best
practices from other institutions, and final thoughts and comments. The questions were:

27. After thinking about the survey questions, consider how the following
items associated with hearing impairments are true for you as a faculty member
(in matrix format): Isolation from my colleagues; Judged by my aural limitations,
not my intellectual achievements; Ability to interact with students in the

classroom; Ability to interact with students in my office; Ability to interact with students in my lab; Ability to fully engage at professional events; Ability to fully engage at social events connected to my University work; Lack of departmental support for accommodations. The choices for answers to each option were: Not applicable, Almost never a problem, Rarely a problem, Sometimes a problem, Frequently a problem, Almost always a problem.

28. To what extent, if at all, do you think your hearing impairment has affected your (in matrix format) Course evaluations? Performance evaluations? Promotion and tenure? Thoughts on retirement? The options for answers were: Not applicable; Minimally, if at all; Slightly; Moderately; Quite a bit;

Greatly. A text box was provided for further comment.

29. Based on your experiences, please discuss policies, procedures, or practices, or the lack of, within the University that you believe are barriers to maximizing the engagement of faculty members with hearing impairments. A text box was provided for a reply to this open ended question.

30. Please share any experiences of best practices for accommodating faculty with hearing impairments that you have experienced or witnessed at the University. A text box was provided for a reply to this open ended question.

31. From your experiences and/or communication with colleagues at other institutions, can you share best practices for accommodating deaf or hearing impaired teaching faculty, practices that keep the faculty with hearing impairments engaged in order to maximize their contributions to the academy? A text box was provided for a reply to this open ended question.

32. Please add any additional comments based on your experiences as a deaf or hearing impaired faculty member at the University. A text box was provided for this open ended question.

Demographic questions. The final seven questions solicited demographic information: percentage of time spent in each of the areas of teaching, research, service, and administration, gender, college, age, ethnicity, age of onset or awareness of hearing loss, years of employment, and faculty rank.

Pilot Study

Eleven volunteer faculty members from three campuses volunteered to pretest the survey because self-administered tests require more pretesting than interviewer-administered surveys (Fowler, 2009). At the end of the pilot there were a few additional questions about the instrument, including:

Were the instructions clear?

Were the questions clear?

Was the content valid? Did the questions validate the intention of the survey?

How long did the survey take?

Were there any problems understanding what kinds of answers were expected or in providing answers to the questions as posed?

As expected, the feedback was thoughtful, thorough, and incorporated into the final version of the survey. Some of the suggestions were to add a third category, “not applicable,” to dichotomous and rating scale questions, one comment pointed out a “double barreled” question, and the other comments were about clarification of the

wording or rating scales, adding or deleting text boxes, or suggesting an additional variable to include in the questions with matrices of choices for answers. None of the comments changed the fundamental nature of the questions or the survey.

Participants

A key question concerned how the researcher would select the survey population. The broadest population to reach, of course, was all teaching faculty at the study institution (teaching faculty, in the context of this research, includes Professional and Administrative staff with teaching responsibilities). The challenge was to reach the members of this population with a hearing impairment. The Office of Human Resources (HR) gave permission to survey all faculty and staff with teaching responsibilities, employed 67% or more time, a total of 3,104 employees, after the proposal passed the Internal Review Board criteria. The introductory email (Appendix B) was sent to HR staff, and they sent the survey out one week before spring semester began. One week later, there were no responses. There had been a technological problem, and the survey was resent on the first day of spring semester class. There were 44 responses. Due to the poor timing, the survey was sent out again a week later. In the end, 145 respondents began the survey, and the results and analysis were based on the 84 respondents who completed the survey.

A decision was made to limit the research to faculty with hearing impairments for practical reasons; the needs and experiences of the Deaf (culturally Deaf, users of ASL) were beyond the scope of this project. The invitation was constructed with the intention that those who responded would have the information needed by the researcher, that is,

they were experiencing a hearing impairment. The participant names were not identifiable, traceable, or accessible. It was anticipated that the sample would be large enough to demonstrate the experiences of faculty members who were hearing impaired. The participants were not compensated for their time.

The survey prompted faculty members to disclose and discuss their hearing impairments so that the academic institution could be more responsive to their needs. There was an unannounced three-week period in which to respond to the survey.

The research intends to contribute to the small body of knowledge about the experiences of hearing impaired faculty members and to relate their experiences to the minority and social models, but, hopefully, it will also be used in decision making about support for faculty coping with hearing loss.

Quantitative Data Analysis

The quantitative components of this survey guided the descriptive, exploratory study of the environment and experiences of faculty members with hearing impairments. Descriptive studies, “use only descriptive statistics, such as averages, percentages, histograms, and frequency distributions, that are not tested for statistical significance with inferential statistics” (Gliner & Morgan, 2000, p. 74). Fowler’s (2009) suggestion to tabulate the first set responses and to construct a draft code from those answers was implemented. There was also a separate code for “other” responses, those that simply did not fit into the predetermined categories.

When the data were collected, they were transferred to a data file appropriate for SPSS applications for further analysis, based on the 84 respondents who completed the

survey. All variables and responses were given numeric values, which resulted in cleaner SPSS analysis. Each variable for each participant occupied the same column in the SPSS data editor. These codes not only preserved the order of the data, but were also critical for checking for completeness (Fowler, 2009). Codes for each variable were mutually exclusive unless multiple responses were an option.

Certain questions allowed for multiple responses, and asked the respondent to check all that apply. In these cases, the items were divided into separate variables for each possible response choice, with one value of each variable corresponding to yes (checked) and the other to no (not checked). The data were coded and entered on the SPSS file. For each respondent, there was a numerical code for each variable.

For the Likert-scale answers, numeric codes were used to assign values to all possible responses, the more positive responses “frequently, very good, etc.” had higher values, and low values were used for the “rarely, almost never, etc.” responses. “Not applicable” received a numerical code at either end, as appropriate. The data were coded in the order that they appeared in the survey instrument. When necessary, for consistency, the data were recoded.

After the data were transferred to SPSS, they were cleaned and checked, and a codebook was created to ensure the file was complete and organized. Every field was rechecked to ensure that the codes were properly assigned. Errors were corrected according to sound practice (Creswell, 2003; Fowler, 2009).

Utts and Heckard (2006) recommended using frequency distributions, correlations, and cross tabulations to determine relationships between variables and to observe potential problems in the data, which might include outliers, non-normal

distributions, coding problems, missing values, or input errors. Analysis of the ordinal data resulted in rank order correlations and further calculations of medians and modes. As appropriate, non responses were recorded as missing, based on N = 84.

Qualitative Data Analysis

Analysis of the qualitative data followed a modification of Creswell's (1998) recommendations for phenomenological analysis. Because the volume of data was considered manageable, each statement was treated as having equal worth and recorded.

The qualitative data were organized manually in a way that made sense and allowed the retrieval of specific information from the data set. After organizing the qualitative data, it was read several times. Through the process of reading and rereading, similarities and patterns emerged (Creswell, 1998; Fowler, 2009; Fraenkel & Wallin, 2003; Gliner & Morgan, 1999). The responses were aggregated, compared, contrasted, sorted, and ordered. The data were examined for patterns, links, and relationships. The analysis ceased when few or no new categories of data were found. The examination of the qualitative data was dynamic, that is, as the study progressed, comments were collapsed, or refined. Typographical errors were corrected, and, clarifications were judiciously inserted, when necessary, without changing the intent or tone of the response.

After identifying themes or patterns in the results, the recurring themes were linked to concerns or issues and interpreted within the framework of the minority and social models in order to develop interpretations of the aggregated data and what meanings the participants attributed to their experiences (Creswell, 1998; Fowler, 2009; Fraenkel & Wallin, 2003; Gliner & Morgan, 1999).

Limitations

This research was limited to faculty members at a single institution. A key concern in this survey implementation, however, was the extent to which faculty who did not respond related to the information the survey was designed to retrieve; the survey was sent to a group of faculty, many, probably, with discernable hearing impairments.

Groves, Presser, and Dipko (2004) stated that people who have a vested interest in the topic of the survey are more likely to respond. They also found that the number of those with a vested interest was often small, and therefore, might not have a measureable effect on the survey outcomes. It seemed reasonable, then, to devote considerable effort to encouraging hearing impaired faculty to respond in order to increase the response rate.

Another limitation was the variety of operational definitions of "deaf," "hard of hearing," and "hearing impaired." Moreover, the definitions were likely to be arbitrary, change with time and populations, and vary from location to location (Ekhart, personal communication, March, 2009). In all but the obviously deaf and hearing impaired (those, for example, who wear visible hearing devices), the acknowledgement and realization of being deaf or hearing impaired may or may not be "public."

Doing the research on one campus was a limitation. Many deaf and hearing impaired faculty members on other campuses volunteered to be part of this research. Currently, their stories will not be told. However, the decision to survey faculty members at a single institution was a very practical one.

Research Ethics

Since this research involves the use of human subjects, questions of risk, intrusion, and privacy had to be considered. The survey was submitted to Institutional Review Board (IRB) for review and approval. Without assurance that anonymity and confidentiality were maintained, participants may not have felt comfortable about revealing personal information about their hearing losses. In response to the sensitivity of the participants and to ensure confidentiality, this researcher used the following protocol:

1. Participants were advised that all information was confidential, and the surveys were returned anonymously.
2. The information was analyzed using code identification that could not be tied to any individual.
3. This research had the approval of the IRB before any data were gathered.
4. The research data would focus on aggregate data rather than individual data.

Chapter 4

Results

This chapter contains the results of the current study which examined the experiences, feelings, and opinions of faculty members at a public research university who have hearing loss. The fundamental research questions guiding the study were:

Do faculty members who are hearing impaired say that they are well informed about University resources, accommodations, and support for their hearing impairments, that available support has been discussed at orientations, their department chair/head has indicated knowledge about services, and the resources are easily accessible on the web?

Do faculty members who are hearing impaired say that their hearing loss affects professional activities such as classroom teaching and telephone communication?

Do faculty members who are hearing impaired say that they are comfortable in disclosing and discussing their hearing losses with their students, department chairs, and/or colleagues?

Do faculty members who are hearing impaired say that their hearing losses affect their professional and social interactions with students and colleagues?

This chapter is divided into five sections: the first section describes the demographics of the sample, and the remaining four sections explore the answers to the research questions. The presentation of the data is primarily in tables of frequencies or descriptive statistics, as the study is a descriptive, exploratory study. Each section begins with the quantitative data from the respondents, followed with an overview of the

qualitative responses gathered from participants' answers to open-ended questions or requests for comments.

Characteristics of the Sample

Table 1 provides an overview of the population sample, including the demographics of gender, age, rank, race, ethnicity, and years in current position. Table 2 shows when the hearing losses occurred, the degrees of hearing loss, and whether the respondents use a hearing device.

The results show that the sample was relatively mature: 78.6 percent were 46 years of age or older. Of the 84 respondents, 74 identified gender, and of those, 52.5 percent were male. Sixty (74.6 percent) of the respondents were associate, full, endowed, or Regents professors. Table 2 shows that 43 percent of the participants were 46 years of age or older when their hearing loss occurred, or, if it occurred gradually, when they became aware of it. While 75 percent of the respondents said they have a mild to moderate hearing loss, 48.8 percent of the respondents said they do not need a hearing device.

Pearson product-moment correlations were computed to examine the intercorrelations among age, age of onset of hearing loss, years in current position, and faculty rank, as shown in Table 3. One would expect to find significant correlations between age and age of onset of hearing loss, years in current position, and rank. In fact, the results of the sample show this, thus, suggesting the validity and reliability of the sample. Table 3 indicates that five of the six pairs of variables were significantly correlated.

Table I

Gender, Age, Degree of Hearing Loss, Use of Hearing Device, Age of Onset of Hearing Loss, Race/Ethnicity, Years of Service in Current Capacity, and Current Rank (N=84)

	Total	
	N	%
Gender		
Male	44	52.4
Female	30	35.7
Missing	10	11.9
Total	84	100
Current age		
25-35	1	1.2
36-45	5	6
46-55	22	26.2
56-65	31	36.9
≥66	13	15.5
Missing	12	14.3
Total	84	100
Race or ethnicity		
Asian	1	1.2
Hispanic or Latino	2	2.4
Native Hawaiian/Pacific Islander	1	1.2
White	65	77.4
Other	3	3.6
Missing	12	14.3
Total	84	100
Years at University in current position		
<5	10	11.9
5-10	12	14.3
11-15	8	9.5
16-20	10	11.9
21-25	9	10.7
26-35	15	17.9
≥36	6	7.1
Missing	14	16.7
Total	84	100
Current rank		
Other/ P and A staff	6	7.2
Instructor	1	1.2
Assistant Professor	6	7.1
Associate Professor	21	25
Professor/Regents /Endowed	39	46.4
Missing	11	13.1
Total	84	100.

Table 2

Degree of Hearing Loss, Age of Onset of Hearing Loss, and Use of Hearing Device
(N=84)

Question	Responses	
	N	%
Degree of hearing loss		
Minimal	19	22.6
Mild	47	56.0
Moderate	16	19.0
Profound	2	2.4
Total	84	100.0
Age of onset of hearing loss		
< 25	6	7.1
25 - 35	7	8.3
36 - 45	11	13.1
46 - 55	18	21.4
56 - 65	17	20.2
≥ 66	2	2.4
It came on gradually, I do not know when it happened	11	13.1
Missing	12	14.3
Total	84	100.0
Wear hearing device?		
Do not need hearing device	41	48.8
Probably should have, but do not	22	26.2
Wear device	14	16.7
Have device but do not use it	6	7.1
Total	83	98.8
Missing	1	1.2
Total	84	100.0

Respondents rated their degrees of hearing loss on a Likert four-point scale: minimal, mild, moderate, or profound, as shown in Table 2. Hearing loss at any level, for a faculty member, may affect teaching, participation in meetings, professional social events, and communication with students, colleagues, and administrators. The

Table 3

Significance Among Age, Age of Onset of Hearing Loss, Years of Employment, and Rank

	Age of onset of hearing loss	Years of employment in current position	Current faculty rank
Age	.000**	.000**	.001**
Age of onset of hearing loss		.010**	.217
Years of employment in current position			.000**

**p ≤ .01

respondents also indicated whether they utilized a hearing device; this is important because the information relates to what coping mechanisms faculty members with hearing impairments use to maximize their engagement.

Table 4 results show that 49 percent of those with minimal, mild, or moderate hearing loss do not believe they need a hearing device, and 26.5 percent of the respondents said they do not have a hearing device, but “probably should.”

The questions, “Did you disclose your hearing impairment to the search committee before or during the interview process for your initial position?” and “Were accommodations offered to you?” were intended to ascertain how comfortable applicants were in disclosing their hearing losses before employment and to determine how responsive the University was to the disclosures. Two respondents (2.4 percent) said they did disclose their hearing impairments before the interview process.

Table 4

			Wear hearing device?				Total
			Do not need hearing <u>device</u>	Probably should have, but <u>do not</u>	Wear <u>device</u>	Have device but do not use <u>it</u>	
Degree of hearing loss	minimal	N	15	4	0	0	19
		%	78.9	21.1	.0	.0	100.0
	mild	N	25	13	5	3	46
		%	54.3	28.3	10.9	6.5	100.0
	moderate	N	1	5	8	2	16
		%	6.3	31.3	50.0	12.5	100.0
	profound	N	0	0	1	1	2
		%	.0	.0	50.0	50.0	100.0
Total		N	41	22	14	6	83
		%	49.4	26.5	16.9	7.2	100.0

Table 5 shows the findings of a cross tabulation between time of disclosure of a hearing impairment and offer of accommodations for the interviewing process. A Chi-Square test resulted in a statistically significant association at the $p \leq .001$ level between disclosure of hearing loss and offer of accommodations. The results show that 44 percent of the respondents who had a hearing impairment before their employment chose not to disclose their hearing loss, in which case, offers for accommodations were “not applicable,” as it was for those whose hearing loss occurred after university employment. The data also indicate that for the two respondents who did disclose their hearing impairments, accommodations were not offered or the question was deemed “Not applicable.”

Table 5

		Accommodations offered during interviews?				<u>Total</u>
		<u>Not applicable</u>	<u>No</u>	<u>Did not disclose</u>		
Disclose hearing loss before employment?	Yes	N	1	1	0	2
		%	50.0	50.0	.0	100.0
	No	N	28	2	7	37
		%	75.7	5.4	18.9	100.0
	Hearing loss occurred after employment	N	42	0	1	43
		%	97.7	.0	2.3	100.0
Total		N	71	3	8	82
		%	86.6	3.7	9.8	100.0

Disability Services' mission is to "advance access for everyone" (Disability Services, 2011), which includes faculty members with hearing impairments. To examine the awareness among faculty members with hearing losses of Disability Services and/or a willingness to "work with them," a cross tabulation analysis between degree of hearing loss among faculty members and self-identification with Disability Services was conducted. Table 6 shows that 96.4 percent of the respondents have not self-identified with Disability Services.

Qualitative comments in response to the question "Have you self-identified as being deaf or hearing impaired to Disability Services?" are divided into three broad, interrelated, thematic groups.

Table 6

Cross Tabulation: Degree of Hearing Loss and Self Identify to Disability Services
(N=84)

Degree of hearing loss		Self identify to DS			Total
		<u>Yes</u>	<u>No</u>	<u>Do not recall</u>	
minimal	N	0	19	0	19
	%	.0	100.0	.0	100.0
mild	N	0	47	0	47
	%	.0	100.0	.0	100.0
moderate	N	0	15	1	16
	%	.0	93.8	6.3	100.0
profound	N	2	0	0	2
		100.0	.0	.0	100.0
Total	N	2	81	1	84
	%	2.4	96.4	1.2	100.0

The following selected comments describe, very broadly, how people define their degree of hearing loss at a level appropriate for asking or not asking for support:

“I was diagnosed with tinnitus 8-10 years ago. It is now to the point that I have to listen more carefully to hear certain things and certain frequencies are now constant in my ears, but I have not felt a need to declare myself as hearing impaired. If I concentrate, I am fine.”

“I view my hearing loss as normal presbycusis, which has not progressed to the point that I need any special accommodations.”

“I cannot see the point. My hearing aids are adequate.”

Other respondents' comments describe their situations about the history of their hearing losses, and/or current thoughts:

"I don't consider myself to be hearing impaired. I do notice that my hearing in the classroom is sometimes not as good as I would like it to be. . . . I work regularly with students who do not speak English as a Second Language, so it is difficult for me to know precisely if the occasional problems I have with understanding have to do with the volume of the speech or the lack of clarity due to language ability of the speakers."

"The loss has been gradual and I have been able to deal with it to date. It is mostly an issue when there is background noise."

"After about 30 years as . . . I lost enough hearing that I needed initially one hearing aid and then about 2 years later another. I find with hearing aids I can hear well enough in all but big meeting rooms and conventions. When I was initially hired 38 years ago, I did not have hearing loss. It has come about because of my profession."

"So far, impairment is very mild and does not affect my work."

"Hearing loss is a recent event (last couple of years)."

"Any hearing difficulties I have arise only in situations where multiple people speak at once."

The third group of comments demonstrates an attitude among faculty members about asking for accommodations, identifying with Disability Services, and suggests that some faculty members are not aware of available support:

“I don't know why or what good it would do.”

“It never occurred to me.”

“Disability Services is accustomed to accommodating deaf persons, NOT hard of hearing. The accommodations are very different.”

“I didn't think anyone would care.”

“I have been generally unaware of the resources available for hearing impaired.”

“It had not occurred to me. I think of Disability Services as student, not faculty, services.”

“It has simply not occurred to me to do so. I am not aware that this would provide any benefits to me.”

“I wasn't aware there was an option to do this.”

“I never felt that I was impaired sufficiently to require special attention. However, I have requested a better teaching room (one that has better acoustics and less noisy projector). Essentially, I get what room is available, so there has not been an accommodation that I can see.”

Faculty Introduction To and Ease of Finding University Resources

Typically, faculty members are introduced to resources available to them at departmental, collegiate, and university orientations, as well as institutional web pages. This section discusses the results of responses to questions about orientations, web pages, and administrative knowledge about accommodations and ADA compliance.

The results in Table 7 demonstrate that only one respondent attended orientations that discussed resources for faculty members with hearing impairments. The results also show that discussion of resources for faculty members with hearing impairments were discussed at one department and one college orientation (both for one profoundly deaf respondent). “Do not recall” and “Did not participate” were optional responses because many of the respondents have been at the University for several years. Others may have worked their way up through the system, and chose not to participate or did not recall if resources for hearing impaired faculty were discussed at any University orientation.

“Has your department chair or next higher level administrator ever discussed what accommodations might be helpful to faculty members who have difficulty hearing?” inquires about the comfort level of administrators in discussing accommodations. “Has your department chair/head indicated that s/he has knowledge about ADA compliant procedures for accommodating and improving the teaching environment for deaf and hearing impaired faculty?” assumes knowledge of ADA compliant procedures and a willingness to discuss them. Zero respondents answered “Yes” to either question, as indicated in Table 8, indicating a lack of discussion about support and accommodations at the department level.

Comments written in the survey suggest that discussions about support and resources for faculty with hearing impairments were absent at most orientations. Selected remarks from faculty members suggest there is articulated support for students, but not for faculty:

“The topic has never come up except for students with hearing impairments.”

“Providing services for students [but not faculty] has always been smooth and easy in my experience. I attended a meeting last year with a Deaf student member, and the captioning was unbelievably awesome. I sat next to him, and it was great to ‘hear’ every word at the meeting.”

“We have made accommodations for a deaf graduate student.”

Additional remarks offer insight into faculty perspectives on discussing accommodations with administrators:

“Important, since I am the department chair.”

“If I thought I needed some accommodation I would ask for it. My department is very helpful in areas of accommodation.”

Table 7

Discussion of Resources for Hearing Impaired Faculty (HI) at Department, College, and University Orientations by Degree of Hearing Loss

	Degree of Hearing Loss									
	<u>Minimal</u>		<u>Mild</u>		<u>Moderate</u>		<u>Profound</u>		<u>Total</u>	
	N	%	N	%	N	%	N	%	N	%
Resources for HI discussed department orientation										
Yes	0		0		0		1	1.2	1	1.2
No	10	12	28	33.7	4	4.8	1	1.2	43	51.8
I did not participate	1	1.2	2	2.4	0		0		3	3.6
No orientation at this level offered to me	4	4.8	11	13.3	10	12	0		25	30.1
Do not recall	3	3.6	6	7.2	2	2.4	0		11	13.3
Total	18		47		16		2		83	100
Resources for HI discussed at college orientation										
Yes	0		0		0		0		0	
No	10	12.2	26	31.7	3	3.7	1	1.2	40	38.8
I did not participate	2	2.4	2	2.4	1	1.2	0		5	6.1
No orientation at this level offered	3	3.7	12	14.6	10	12.2	0		25	30.5
Do not recall	3	3.7	6	7.3	2	2.4	1	1.2	12	14.6
Total	18	22	46	56.1	16	19.5	2	2.4	82	100

-Table 7 continued on page 88-

Table 7 (continued)

Discussion of Resources for Hearing Impaired Faculty (HI) at Department, College, and University Orientations by Degree of Hearing Loss

	Deg of Hearing Loss									
	<u>Minimal</u>		<u>Mild</u>		<u>Moderate</u>		<u>Profound</u>		<u>Total</u>	
	N	%	N	%	N	%	N	%	N	%
Resources for HI discussed at University orientation										
Yes	0		0		0		1	1.2	1	1.2
No	7	8.5	27	32.9	3	3.7	1	1.2	38	46.3
I did not participate	3	3.7	2	2.4	1	1.2	0		6	7.3
No orientation at this level offered	5	6.1	10	12.2	10	12.2	0		25	30.5
Do not recall	3	3.7	7	8.5	2	2.4	0		12	14.6
Total	18		46		16		82		82	100

Note: Percentages may not add up to 100 due to rounding and missing values.

Table 8

Administrative Discussions or Offers of Support and Indications of Knowledge of ADA Compliant Accommodations (N=84)

Questions	Responses							
	Yes		No		NA/Do <u>not recall</u>		Total	
	N	%	N	%	N	%	N	%
Administrator/dept head discussed/offered support	0		68	81	9	10.7	73	91.7
Administrator/dept head indicated knowledge of ADA compliant accommodations	0		55	65.5	21	25	76	90.5

Note: Percentages may not add up to 100 due to rounding and missing values

“... And even after I mentioned my hearing impairment she (the department chair) did not say anything--did not offer any solutions.”

“It is my sense that the university is not aware of the impact of a mild to moderate hearing loss on faculty. Accommodations are made for people with profound hearing losses, often by hiring interpreters etc.; however, interpreters do not help those of us who have lost our hearing gradually and do not sign. When I started I asked for a special phone, and received nothing.”

Table 9 displays the responses to ease of finding resources on the University web pages: 72 percent of the respondents said resources are difficult or impossible to find on University web pages. One faculty member wrote, “If Disability Services can be of help, I was not aware of this, and I see nothing on their website about hearing disabilities. If there are rooms or classroom devices that would be helpful, I know nothing about them.”

Table 9

Ease of Finding Resources for Faculty Members with Hearing Impairments on University Web Pages

Responses	N	%
Yes, they are easily found	13	27.7
No, it is difficult, but possible to find them	19	40.4
It is nearly impossible to find them	15	31.9
Total	47	100.0

Faculty members need to know from which budget accommodations come; the qualitative responses suggest a reluctance to ask for accommodations when there is a perception that accommodations affect the departmental budget. Table 10 shows that 64 percent of the respondents did not know from which budget accommodations are provided.

In addition to the quantitative information, faculty members also made qualitative remarks about budgets, concern for resources, and requests for accommodations:

“Remove the cost barrier. One should not feel at risk of resentment by one's colleagues.”

“Again - it boils down to resources. If I bring this up, is the department then obligated to spend money on resources for me? If resources are spent to assist me

with hearing loss, then will others feel resentment towards me? I've been told that I can hear fine (thank you to those colleagues for informing me that my hearing is fine - sarcasm intended). So I feel like I fake it perhaps too well to ever be able to request services, if that makes any sense.”

“I am hard of hearing, but requesting an interpreter or captioning costs the department money. I can concentrate carefully and say pardon me for free. I do miss things But I usually manage to get the main ideas from colleagues after meetings etc. Seminars can be challenging, but they are so technical that having an interpreter is nearly impossible and my scientific ASL is not up to par with my needs, so I'd have to improve my own ASL prior to requesting such. In the classroom, I don't know how the money part works. But I am extremely hesitant to cost my department extra money by requesting a captionist or interpreter - especially during this time, when many departments are facing cut-backs etc. For me - this only applies to when I have a large classroom. Even then, I didn't really appreciate how helpful it could be until I actually had a Deaf student in my 300+ person lecture. It was WONDERFUL to have an interpreter as it was often very difficult for me to lip read / hear students from the mid-to-back portion of the class. At any rate, it really boils down to resources. I'm not really ‘deaf enough’ to justify the departmental resources.”

Classrooms with sound absorbing qualities (which improve acoustics) and/or with looping are available to faculty members at the University. Table 11 describes the

awareness and use of such rooms by the respondents: 89.3 percent of the faculty members with hearing impairments were not aware of such rooms available for their use.

Table 10

Faculty responses: From which budget do accommodations come? (N=84)

Responses	N	%
Department	2	2.4
HR/Disability Services	8	9.5
Other/Do not Know	64	76.2
Missing	10	11.9
Total	84	100

Table 11

Awareness of Rooms with Looped Classrooms or Rooms with Good Acoustics (N=84)

Level of Awareness	Responses							
	Yes, I am aware of and use such rooms.		I am aware of such rooms, but do not use them		I am not aware of such rooms		Total	
	N	%	N	%	N	%	N	%
Looped classrooms	0	0	1	1.2	75	89.3	76	90.5
Rooms with good acoustics	7	8.3	2	2.4	63	75	72	85.7

Note: Percentages may not add up to 100 due to rounding and missing values

The Effect of Hearing Loss on Professional Activities

Hearing loss affects verbal and aural interactions at many levels. Table 12 shows that 31 percent of the respondents said that their hearing loss occasionally affects their jobs as they are currently structured, but they have developed coping mechanisms to help them maneuver in a profession where hearing is usually critical. Table 13 displays the frequency with which coping mechanisms are used, sorted by faculty rank. The three most common responses were “I ask others to speak more loudly/slowly,” “I am careful where I sit in a meeting,” and “I use the phrase “pardon me” multiple times a day.”

Table 12

Degree to Which Hearing Impairment (HI) Affects Job (as it is currently structured) and Telephone Usage (N=84^a)

	Responses									
	Very Rarely/ Rarely ^b		Occasionally		Frequently		Very Frequently		Total	
	N	%	N	%	N	%	N	%	N	%
HI affects job	47	56	26	31	6	7.1	2	2.4	81	96.4
HI affects telephone usage	64	76.2	10	11.9	5	6	2	2.4	81	96.4

^a Percentages may not add up to 100 due to rounding and missing values.

^b Responses “very rarely” and “rarely” were recoded into one response for descriptive purposes.

Many of the qualitative remarks suggest that some faculty members are comfortable commenting on their hearing impairments and asking students to “speak up” in the classroom. Typical responses on how those faculty members deal with their hearing losses in the classroom include:

“I sometimes ask students to speak up.”

“In class, I apologize for my hearing loss and ask a T.A. or students to repeat for me what someone (usually a female with a soft, high-pitched voice) has said.”

“Lip reading when possible. (On the next question - question number nine - I want to mark something between occasionally and frequently - like sometimes . . . I'd say a few times per lecture in a large lecture hall - not too much).”

“When I teach, I tell my students that I have had some hearing loss and ask them to speak more loudly or more clearly.

Faculty members with hearing loss demonstrate a variety of coping mechanisms outside of the classroom, including meetings, professional events, and other group functions. Some of their comments about coping outside the classroom include:

“I usually am able to position myself so that I can hear, or ask for accommodation, without issue, but again, my hearing loss is minimal.”

“I'm pretty good at lip reading and faking it Many of my colleagues have no idea that I am hard of hearing.”

“I avoid meetings or places where crowd noises are dominant--hard to hear against crowd backgrounds.”

“In a group, I ask any person I can't understand to speak directly to me.”

“Hearing loss is equal in both ears so I do not favor a side, but I do try to set close to major speakers.”

Comments were also made about telephone captioning and usage:

“Captioning at meetings phone amplifier - I had one, but it was quite less than satisfactory. My current phone has volume control, but the volume increases background noise as well. So it, too, is less than satisfactory. VOICE MAIL CAPTIONING would be AMAZING! Many times I am not able to return a voicemail because I couldn't figure out the numbers spoken”

“Phone communication is one of the most important deficiencies at the U. I had to learn over the internet what was good and the phone I paid for has very poor capabilities for a hearing impaired person. I am not sure that a high quality unit is available.”

“I use a listening device in meetings with more than 2 other persons. For telephone conversations, I use my cell phone, with my hearing aid compatible blue tooth device. The university telephone, although listed as 'hearing aid compatible', has very poor sound quality. If I need to use my office phone, I have no choice but to use the speaker phone, which is not optimal.”

“I think more awareness of looping and phone amplification techniques and available support would be very helpful. When I purchased a phone amplification system, I got no help from anyone at the university.”

Comfort in Disclosing and Discussing Hearing Losses with Students, Department Chairs, and Colleagues

There is minimal research available on the willingness of people with hearing impairments to discuss their impairments with hearing friends and colleagues. However, when asked about the comfort level in discussing their hearing impairments with students, colleagues, department chairs, and administrators, 37.2 percent of the respondents indicated that they were comfortable or very comfortable in discussing their hearing impairment with students, although 67.9 percent indicated they never or rarely did, as Tables 14 and 15 demonstrate. Similarly, 45.9 percent of the respondents said they were comfortable or very comfortable talking about their hearing loss with colleagues, but 69% never or rarely did, and 35.8 percent of the respondents said they were comfortable or very comfortable talking with their department chairs, but 81 percent said they never or rarely discussed their hearing loss with their department chairs.

Although the results show that most faculty members say they are comfortable discussing their hearing impairments with colleagues, the results also indicate that 63.1 percent of the respondents believed that their colleagues were not aware of their hearing impairments. The results in Table 16 suggest that although faculty members with hearing impairments say they are comfortable discussing their hearing with colleagues, the data suggest they do not discuss their hearing losses with colleagues.

Personal comments from faculty members about comfort levels and frequency of discussing their hearing losses are divided into two broad thematic categories, the first category includes general comments from faculty members about dealing with hearing

Table 13

Frequencies of Coping Mechanisms by Faculty Rank (N = 84)

Coping Mechanism	Rank											
	P and A / Other		Instructor		Assistant Professor		Associate Professor		Full Professor		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
I ask others to speak more loudly/slowly ^a	4	5.6			2	2.8	9	12.5	18	25	33	45.8
I ask others to look at me	2	2.8			2	2.8	3	4.2	3	4.2	10	13.9
I use email rather than phone	1	1.4			1	1.4	4	5.6	10	13.9	16	22.2
I am careful where I sit in a meeting	3	4.2	1	1.4	3	4.2	8	11.1	20	27.8	35	48.6
I use the phrase “pardon me” multiple times a day	3	4.2	1	1.4	1	1.4	9	12.5	18	25	32	44.4
I avoid conversations in certain areas	3	4.2			1	1.4	10	13.9	14	19.4	28	38.9
I position myself when talking to an individual	2	2.8	1	1.4	2	2.8	9	12.5	15	20.8	29	40.3
Other	2	2.8	0	0	0	0	5	7	5	7	12	16.9

Note: Percentages, based on N=84, may not add up to 100 due to rounding and missing values

^a For descriptive purposes, “I ask others to speak more loudly” and “I ask others to speak more slowly” were combined into one variable.

loss, and the second category tells more about attitudes and willingness of faculty members to discuss their hearing losses. The remarks about dealing with hearing loss suggest that faculty members are coping as best they can, but they admit to some frustrations. Some remarks also suggest that faculty members are not certain about when to ask for support or assistance:

“Because it seems to be a mild, normal age-related loss, I'm quite comfortable with things like asking to move to a quieter venue for a conversation, and simply saying that I don't hear quite as well as I did when I was 20.”

“It is a minor frustration, mostly in large groups or telephone conversations.”

“I have some hearing loss (undiagnosed) in left ear, but I use right ear.”

Comments worthy of notice that reflect reluctance to discuss hearing losses or ask for accommodations include:

“I don't see why I would discuss my hearing loss with my colleagues.”

“I teach in . . . and my ears are my profession. There is no reason to share my tinnitus issue with anyone and I would never want this to be known. Thus far it has not interfered with my work at all.”

“I do not think this type of discussion would be well received by higher ups/administrators.”

“I have not brought up this issue with my colleagues or students but maybe I should. I did bring it up to the Chair once. The reason is that I have not thought that maybe I should--I guess it is the stigma around it since I am young.”

“There is a total lack of sensitivity to this issue among faculty and administrators that I deal with.”

“As far as I can see, there is very little effort or interest to try to accommodate faculty requests on this situation.”

“I have been entirely on my own adjusting to my hearing impairment. If there is any assistance available through the University, I am unaware of it.”

“I haven't been aware of any accommodation for faculty with hearing impairments.”

Some remarks reflect that tenure and rank are important to an individual when discussing hearing loss:

“I am a department head and have tenure, so I am now free to discuss my hearing loss.”

“I am tenured so it is much easier to talk about these issues now.”

“I have not had to talk to colleagues about this issue, but if it were to become necessary, I would feel completely comfortable doing so. I also have tenure.”

“I do not feel reluctant in general because my academic stature is too high to worry about what others think. By that I mean, my productivity speaks for itself in terms of publications and grants so I don't care what others think. I rarely speak with the dean or higher administrators.”

Several comments remarked on the difficulty in hearing in certain halls and buildings. The following comment summarizes the expressions of several faculty members experiencing hearing loss:

“I am very open about my hearing impairment Once individuals know about an impairment, they are very accommodating. Unfortunately, it is often the environment that makes hearing difficult. Large lecture halls with poor acoustics; outside noise; overhead fans and ambient noises (these are amplified with listening devices; long conference tables instead of round tables; the . . . Center - totally useless space for hearing impaired. Sounds bounce around the high ceilings and copper, even in conference rooms. I will not attend meetings there anymore because even with my listening device, the sound quality is very poor.”

As indicated earlier, many faculty members seem to be comfortable mentioning their hearing loss in classrooms, if necessary, and have developed ways to inform their classes about their hearing losses:

“My problem arises only in classes, and I just tell students that they need to speak more loudly”

“I also make a point of my hearing impairment in the introduction of each lecture so that students should know not to mumble and to speak loudly.”

“I ask them to speak up. I do believe that many of the students I work with, because they are non-native English speakers, often speak more softly and with greater hesitation, so it's difficult for me to know if I really do have what could be considered hearing loss.”

“In classroom discussion, when it comes up that I cannot hear a comment that a student is making, I sort of make light of it by asking them to "use their gym voice," as that is appropriate to my academic field of study. Also, at some point, I often have to tell them, again, that it is hard for me to hear, so please speak more loudly and clearly.”

“I have a section in every course syllabus, under the heading of Disabilities, where I mention my hearing difficulty and ask them to sit near the front of the class. I go over this the first day of class. I am usually obliged to remind them of this request, and frequently have to remind them to speak up more loudly and clearly during class”

“If I feel the need to explain why I need them to speak up, or how the room's ventilation sounds overwhelm their voices, I do.”

“I tell the students I'm getting old, so please speak up.”

Table 14

Comfort Level in Discussing Hearing Impairment with Others (N=84)

	Comfort level in discussions													
	<u>Not applicable</u>		<u>Extremely uncomfortable</u>		<u>Somewhat uncomfortable</u>		<u>Rarely uncomfortable</u>		<u>Comfortable</u>		<u>Extremely comfortable</u>		<u>Total</u>	
Others	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Students	18	21.4	9	10.7	13	15.5	5	6	27	32.1	6	7.1	78	92.9
Colleagues	14	16.7	6	7.1	17	20.2	5	6.1	31	36.9	5	6	78	92.9
Department Chair	17	20.2	9	10.7	15	17.9	5	6.0	26	31.0	4	4.8	76	90.5
P & T committee	37	44	11	13.1	7	8.3	2	2.4	15	17.9	4	4.8	76	90.5
Next Level Administrator	26	31.0	13	15.5	11	13.1	3	3.6	18	21.4	4	4.8	75	89.3

Note: Percentages may not add up to 100 due to rounding and missing values.

Table 15

Frequency of Discussion of Hearing Impairment (HI) with Students, Colleagues, Department Chair, and Administrators (N=84)

Groups	Responses											
	<u>Never</u>		<u>Rarely</u>		<u>Occasionally</u>		<u>Fairly Often</u>		<u>Very Often</u>		<u>Total</u>	
	N	%	N	%	N	%	N	%	N	%	N	%
Discussion of HI with students	44	52.4	13	15.5	14	16.7	4	4.8			76	89.3
Discussion of HI with colleagues	41	48.8	17	20.2	15	17.9			1	1.2	74	88.1
Discussion of HI with department chair	56	66.7	12	14.3	4	4.8			2	2.4	74	88.1
Discussion of HI with next level administrator	66	78.6	6	7.1	1	1.2			1	1.2	74	88.1

Note: Percentages may not add up to 100 due rounding and missing values.

Table 16

Response to the Question: Are Colleagues Aware of Your Hearing Impairment?		
Colleagues aware of hearing impairment	N	%
Most are aware	9	10.7
Some are aware	22	26.2
None are aware	53	63.1
Total	84	100.0

“At the start of any lecture/class, I lift my hair and show my hearing aids. I state that if a question is asked and I don't respond, it is because I did not hear it and to ask again, louder and slower. I tell students that I need to be near them to hear them and do a lot of walking during class. Obviously, this is difficult in a lecture hall. Since I have poor word discrimination, I tell students that if they have any other than a 'mid-western' accent, I will have difficulty understanding them. If I don't understand after two tries, I ask someone to 'interpret' for me. I rephrase ALL student questions to be sure I understand the words properly. Not surprisingly, students appreciate this very much.”

“I usually say it's age related and please speak up so I can hear them over the noise of the projector/computer, etc. It also helps to keep them from mumbling.”

“. . . In the first lecture period I tell them how I lost my hearing and it is up to them to speak loudly enough for me to hear them. I also tell them I will have the TA translate their question if they do not speak clearly and sufficiently loud that I can hear them. I also have this as a PowerPoint slide that is embedded in the first lecture on their moodle site for my courses.”

“I use an amplifying device, so on first day of class I usually refer to it; let them know I'm not recording them; it's just a device to help me hear better.”

Some faculty members insert a lesson on hearing loss prevention into their comments:

“I do not have any problem in discussing my hearing loss. Since one of the areas I teach in is . . . , I use myself as an example of taking (or not) care of your hearing and the importance of that sense in this particular field.”

“. . . if the subject arises . . . I say that it is not precisely known, however my tinnitus is most likely a product of damage from loud sounds and lack of protection. ”

“When I work in the clinic, I indicate to them the need to use ear plugs to minimize their own hearing loss.”

Other comments demonstrate faculty members' reluctance to discuss their hearing losses with students:

“I have not talked to students about it. Maybe I should as I have a hard time hearing students who sit in the back. I end up walking up to them in class.

Another issue that complicates this is that I am not a native English speaker and this makes it harder to understand what is being said sometimes.”

“I do not generally tell them unless the situation is appropriate and they need to know.”

Students almost NEVER heed this request (to speak loudly). In fact, I sometimes get vile criticism on course evaluations that I cannot hear well! In general, I rank my overall course evaluations as excellent, but comments like this are not helpful.”

“Most of the time the problem occurs in large lecture rooms where the acoustics don't really lend to having the student speak toward the front of the room, so I explain it that way [poor acoustics, not hearing loss].”

Several faculty members commented that colleagues have consulted them about their hearing impairments and the nature of the conversation:

“I have a colleague who has told me that she is deaf in one ear and so when speaking with me she moves to the side that she needs to so that she can hear, and she also looks at me when I am speaking. I learned that I myself need to be sure to speak slowly, clearly, and with sufficient volume in all situations, not just when speaking with her.”

“One of our staff members does a guest lecture in my course. He has difficulty hearing and cannot answer questions effectively. He explained that I would have to serve as a go-between.”

“We (another colleague with hearing loss) look for a quiet place to eat together.”

“My colleague wanted to know what instrument I found most helpful among the choice of hearing aids.”

“I have a colleague who has recently had cochlear implants placed. We talked about impact of hearing loss on his career trajectory before the implants were placed.”

“Two of my senior colleagues have severely impaired hearing that marginalizes them in group settings. I took a course in articulation at the Guthrie Theatre so they could understand me better, and I always stand directly in front of them and speak a bit more loudly and slowly when I converse with them.”

“One colleague just got cochlear implants and following his journey has been a fascinating story in adult neural plasticity. I've also seen his mood change from gloomy to much more hopeful.”

“No colleague has EVER mentioned my wearing a hearing aid in the two + years I have done so (this is surprising to me).”

The Effect of Hearing Loss on Professional and Social Interactions

Hearing loss can be socially and intellectually isolating. The results in Table 17 indicate that most faculty members said that their hearing loss is rarely or almost never a cause for feeling isolated in different settings nor does it, in most cases, affect engagement in various activities. However, 14.3 percent of the respondents believed that

their hearing impairment did affect their feelings of isolation and the level of engagement in professional activities and 21.4 percent of the respondents said that their hearing impairment affects their interaction in the classroom and at University social events.

Selected remarks from faculty members about their feelings of isolation, marginalization, and frustration because they cannot hear at professional activities, formal group settings, classroom discussions, and informal events suggest that ambient noise, including voices and fans, are problematic. Each of the following comments shows a different perspective shared by other respondents:

“The greatest problem is hearing conversations in crowded rooms.”

“Classrooms generally have extraneous noises that interfere with hearing. Parties, of course, have many.”

“The worst meeting areas are at the university: large, high ceiling areas where the sound bounces. I cannot hear or respond appropriately.”

“My hearing loss, though moderate, is not incapacitating. I have encountered difficulty primarily in hearing questions during lectures.”

“My hearing loss is currently only a problem in noisy environments such as crowded rooms.”

“My experience depends on the room and the size of the group. Classrooms are very frustrating at this university. It is difficult to find a room where I can hear that also offers the technical equipment I use to teach. Few of our classrooms

offer the ability to use both a whiteboard and a computer projector. Those that do are often difficult for me to hear in.”

The following comments demonstrate the need for hearing colleagues to understand the challenges that faculty members with hearing impairments face. They also show the feelings of isolation and frustration that frequently accompany hearing loss:

“I think that for the most part I hide my impairment pretty well, for good or for bad. I think that the students in my courses would be the ones that are the most aware of it, as it is obvious that I cannot always hear their contributions to class discussion as well as I would like and I have to ask them to speak up or repeat, which is probably annoying to them. I think my avoidance of social contexts with my colleagues, both internal to the University and at external conferences and such is interpreted as social withdrawal, reticence or disinterest rather than what it mostly is, i.e., embarrassment that I cannot follow the conversation in a crowded, noisy environment and so I would rather ‘beg off’ or not show up than be there but then unable to hear clearly.”

“My hearing loss is irritating to me, and probably others, because I need people to repeat themselves fairly frequently. . . . Apparently, I can hear well in a silent room when I am focused on a voice in my ear with zero other distractions. But real life is different, and soft-spoken students or any background noise is a problem. Still, this probably qualifies as "mild" hearing loss. Bet I would answer this questionnaire differently 10 years from now.”

“The issue is that sometimes I may not hear what was said or someone addressing me even. This can be uncomfortable as everyone is then staring at me. Like I said, I never thought to tell people but maybe I should and this survey is helping me get the courage to do this.”

“Basically, if I am simply speaking (presenting a scientific paper or lecture), there is zero problem. If I have to engage in an exchange I often misunderstand questions and answer the question incorrectly such that I feel silly about my answer. Most of the time, I guess at what the question is. In class, I have the TA translate it but in a scientific situation I cannot do this.”

There were frequent remarks about the difficulty in understanding what people with accents or with different speech patterns say. The following remark is typical:

“People who speak rapidly or have a heavy accent are very difficult to understand. Irish and British accents are difficult as are some Asian accents.”

Selected responses to the survey have practical implications for professional interactions and engagement. Table 18 shows that most faculty members find the acoustics in their work areas not conducive to hearing: 59.6 percent of the respondents believed that the classroom acoustics were very poor, poor, or fair, and 56.1 percent of the respondents believed that acoustics in meeting rooms were very poor, poor, or fair.

Faculty members were asked to check those items which would help maximize their engagement. As Table 19 shows, better acoustics, smaller classes, and oval conference tables were the three most common responses.

Table 17

Hearing Impairment (HI) Affecting Feelings of Isolation, Interactions, and Engagement (N=84)

Affects of HI	<u>Not applicable</u>		<u>Almost never / rarely</u>		<u>Sometimes</u>		<u>Frequently</u>		<u>Almost always</u>	
	N	%	N	%	N	%	N	%	N	%
HI affects isolation from professional activities		59	70.3	12	14.3	2	2.4			
HI isolation from group settings	40	47.6	31	36.9	2	2.4				
HI: isolation from class discussions	31	36.9	40	47.6	1	1.2	1	1.2		
HI: isolation from social gatherings	26	31	41	48.8	6	7.1	1	1.2		
Feel isolation from colleagues	18	21.4	51	60.7	5	6				
Feel judged by aural limitations	26	31	47	56	1	1.2				
HI interactions in classroom	8	9.5	46	54.8	18	21.4	1	1.2	1	1.2
HI interactions in office	12	14.3	60	71.4	2	2.4				
HI affects interactions in lab	39	46.4	29	34.5	5	6				
HI affects engagement at professional events	8	9.5	51	60.7	12	14.3	2	2.4	1	1.2
HI affects engagement at U social events	10	11.9	39	46.4	18	21.4	6	7.1	1	1.2
Feel lack of departmental support for accommodations	34	40.5	34	40.5	3	3.6	2	2.4		

*Percentages, based on N=84, may not add up to 100 due to rounding and missing values

Table 18

Responses	<u>Acoustics in office</u>		<u>Acoustics in lab</u>		<u>Acoustics in classrooms</u>		<u>Acoustics in meeting rooms</u>	
	N	%	N	%	N	%	N	%
Not applicable	8	9.5	37	44	5	6	4	4.8
Very poor	8	9.5	4	4.8	4	4.8	7	8.3
Poor	7	8.3	6	7.1	24	28.6	18	21.4
Fair	10	11.9	12	14.3	22	26.2	23	27.4
Good	32	31.1	11	13.1	19	22.6	20	23.8
Very good	12	14.3	5	6.0	1	1.2	4	4.8
Total	77	91.7	75	89.3	75	89.3	76	90.5

Table 19

Responses	N	%
Captioning phones	4	4.8
Smaller classes	22	26.2
Better acoustics/sound absorbing qualities	39	46.4
Looped rooms	11	13.1
Online teaching opportunities	5	6
Phone amplifier	9	10.7
Light signal	2	2.4
Oval conference tables	17	20.2
Other	16	19

Note: Percentages may not add up to 100 due to rounding and missing values.

Faculty members commented about what other items would facilitate engagement and inclusion; the selected responses range broadly from comments on degree of hearing loss to other assistive devices or ideas. The following comments refer to technology enhancements that facilitate engagement:

“I know that I need hearing aids and plan to get them within the coming year. I have had regular audiology check-ups at Health Partners.”

“A Videophone would be very helpful.”

“I checked ‘looped’ rooms but have no idea whether this would help. Same with a captioning phone, I do not really know what that is. Telephone conference calls are horrible for me and I have them regularly. They are extremely frustrating.”

“The number one accommodation that allows me to function was a joint self-purchase followed by a donation from Phonak. . . . Bluetooth allows direct transmission to a Bluetooth enabled hearing aid. My aids cost \$8,000; the Bluetooth transmitter another \$1,000. With this transmitter, I can hear crystal clear on my cell phone. Phonak has a Bluetooth type listening device but the cost of \$3,000 was beyond my reach. I was a grad student at the time and approached Disability Services about purchasing the listening device, since I could not hear in meetings and could not conduct my research. I was told this was not possible but they contacted Phonak, who then donated a blue-tooth listening device to assist me with my research. This device has made meetings, conferences, presentations all possible.”

“Microphones for students (in lecture halls) to ask a question would be helpful.”

“Use of microphones by speakers at large meetings helps. Sometimes I cannot hear the speaker well.”

“1) A few auditoria have horrible sound systems (e.g., . . . auditorium) which must be problematic for many people 2) in some large conferences, there are adequate microphones at lecterns and for audience, but some speakers do not take the time to turn up the volume adequately or position the microphone close enough.”

As indicated earlier, poor acoustics in classrooms and meeting rooms were a recurring theme, as noted in the following comments”

“Poor classroom conditions are a constant problem. Many of the classrooms I teach in are subpar.”

“My problems only occur in meeting rooms.”

“As noted, problems primarily occur in meeting rooms, especially with female students/colleagues.”

“See the meeting rooms in . . . Hall, I believe they are . . . an example of rooms that are impossible to hear in if you have a mild to moderate hearing loss.”

Several respondents said the ventilations systems in their work areas interfere with their ability to hear. Typical responses about what would improve their environments include:

“Quieter ventilation -- the HVAC fans create a din that interferes with hearing certain sounds (like voices!)”

“Improve office acoustics. I sit under the ventilation system for my building.”

There were several comments about suitable classrooms for the class size, as articulated in the following comment, which also includes a statement about the suitability of switching to an online format:

“‘Deep’ classrooms, where students can sit in the back even when there is room at the front create unnecessary problems. Changing to an online format is an extremely lame approach to this problem or ANY teaching problem. Students should benefit from personal contact and conversational inter-changes. Depriving them of this by installing more online courses is a great leap backward in terms of the quality of their training at the university.”

The answers to the question, “Based on your experiences, please discuss policies, procedures, or practices, or the lack of, within the University that you believe are barriers to maximizing the engagement of faculty members with hearing impairments” suggest that faculty members with hearing loss are not aware of policies that either help or hinder engagement, but they do have opinions:

“I am not aware of any policies or procedures that help.”

“This is not faculty member engagement, per se, but is a situation that really bothered me. I had a deaf student in class, and was proactive in requesting closed captioning capability in the classroom and AV podium that I was using so that the student could view video clips and other such content in the classroom along with other students. My department technology/AV person was really a pain, he stalled and delayed and it was nearly the end of the term before I had the needed equipment. In the meantime, I had to spend a lot of my own time trying to jury rig a way for the student to ‘hear’ the class content. It was shameful, in my opinion, that my department was so unwilling to complete such a minor request to make my student's experience a positive one.”

“The barrier of COST.”

The following remarks tell about the isolation, discouragement, and reluctance to discuss personal hearing losses:

“I have never been asked about what accommodations could be made or when I have asked for better classrooms, no one has followed up on the conversation. Moreover, nothing has really ever been done.”

“The focus is on deaf persons with accommodations such as sign language or note taking. Most HOH persons do not sign. Note taking means I cannot interact/participate which is not an option.”

“I have yet to talk with an administrator who has talked about this to anyone.”

“This issue is never discussed, mostly because it is viewed as personal and not important given all of the other Human Resource issues to deal with.”

“It is my sense that the university is not aware of the impact of a mild to moderate hearing loss. Accommodations are made for people with profound hearing losses, often by hiring interpreters etc.; however, interpreters, etc. do not help those of us who have lost our hearing gradually and do not sign.”

Some remarks tell about the comfort level required to acknowledge their hearing losses:

“It's a hidden disability, so just bringing it up is a good step.”

“I guess feeling comfortable to share that I have a hearing impairment is a huge step. And, after that, hoping people have enough patience to repeat a question or speak more slowly, etc.”

Faculty members were asked to share any experiences of best practices for accommodating faculty with hearing impairments that they have experienced or witnessed at the University. There were many qualitative responses similar to “None,” and “I’m not aware of any.” Samples of the responses reinforce the data that faculty members are not aware of support or accommodations for hearing loss:

“I have not experienced any.”

“None.”

“To be honest, none. The only institution that truly accommodated my hearing loss was a conference at the National Library of Medicine.”

“I haven't found any.”

“I do not know of any.”

“I have seen nothing. I think part of the problem is that discussing any disability is seen as a potential threat by an administrator. For example, should an administrator bring up a disability, how are they to know that the discussion will be accepted in the right way by the faculty member. This is a ‘catch-22’ situation for an administrator.”

To better understand what practices are most helpful, faculty members were asked, “From your experiences and/or communication with colleagues at other institutions, can you share best practices for accommodating deaf or hearing impaired teaching faculty, practices that keep the faculty with hearing impairments engaged in order to maximize their contributions to the academy?” What follows is a representative sample of the comments provided by the respondents, some which reinforce previous remarks. About technology, comments included:

“Have listening devices available at ALL university functions, regardless of size. Now that I have a personal listening device, this is not an issue, but can be for others. Also, most amplification devices used in public places (movies, theaters)

require hearing aids to be removed so the earpiece can be inserted. This is a bit of a problem, since removing a hearing aid removes the ability to hear.”

“Some of my larger classes come with built-in microphones for students (for recording purposes). That can make hearing less of an effort.”

“Redesign meeting rooms. Create a phone system that can use phones that incorporate volume control.”

Remarks about best practices and accommodations include:

“I am not aware of any best practices.”

“I really have never spoken to anyone about it, I keep it to myself, but I would say that for me personally, having smaller classes and carpeted classroom space with less extraneous noise from outdoors or outside hallways would be helpful to me.”

“None.”

“Maybe hearing impairments could be connected to diversity issues?”

“Again, I haven't been aware of any accommodations.”

Concerns about insurance coverage are issues for many faculty members, and are clearly articulated in the following statements:

“Include hearing loss devices in health coverage for previous fed employees who are still on the payroll.”

Previous federal employees should be eligible for hearing devices as part of their health insurance. State employees have some coverage for hearing devices, federal employees have NONE. It causes one to hesitate to purchase a hearing device when the costs are so high.”

Respondents were asked for any additional thoughts or comments they would like to include in the survey responses. The following responses are broadly categorized as closing comments:

“There are two circumstances in which my very mild hearing loss becomes noticeable to me: - Dealing with people who have very soft voices. . . . And carrying on conversations in a language other than my primary language. In these two situations, I notice that my ability to understand against competing background noise is quite a bit less than it used to be. I also find that I simply avoid high-noise situations. I can still understand (at least English) speech pretty well against ambient noise, but it takes more conscious attention than it used to, and it becomes very tiring.”

“. . . Most of my interactions with Disability Services were as a student. I was given a t-coil listening device. As I progressed into graduate level seminars, this was inadequate and I had to find my own solution (was offered a note-taker - not much use when a course is interactive and participatory.”

“Because my issue is minimal, I manage most of the time. Still though, I have to think about where I sit, how I move around the class to hear students, and always

worry about what I may miss or what if someone addresses me and I do not hear them. The language issue adds to the problem. And once I got yelled at by the Department Head because I did not hear her addressing me and this was in front of many other people at a meeting. Although it was humiliating, it made me realize that her unprofessional behavior could not have gone unnoticed by everyone else.”

“I love it here - don't get me wrong please! I fake it really well. It's true that I spend extra energy on this aspect of my life and that some colleagues are really quite uncooperative when I ask them to speak up or enunciate. . . . But in general, my experience at this university is pretty much awesome.”

Chapter 5

Discussion and Conclusions

My interest in the experiences of hearing impaired faculty began about four years ago when my husband, Tim, a full professor, lost all his hearing. There was an assumption that he would take an early retirement, but Tim had no intentions of retiring. He received a cochlear implant, and was able to continue teaching.

During the year in which Tim lost his hearing and received the implant, certain incidents caused me to become fixated on Tim's experience, and led me to realize the experiences of hearing impaired faculty warranted further investigation. One incident was when he asked Disability Services at his institution for some help with teaching; he was told (nicely) that their services were for students and their office did not deal with faculty issues (he was not referred to any other office). About the same time, I happened upon three articles that reinforced my interest in the experiences of academics with hearing impairments. Rebecca Raphael's article in the September 15, 2006 issue of *The Chronicle of Higher Education*, "Academe Is Silent About Deaf Professors;" Romeria Tidwell's article in the volume 7, 2004, issue *The Journal of Higher Education*, "The 'Invisible' Faculty Member: The University Professor With a Hearing Disability;" and Kathryn Woodcock, Meg J. Rohan, Linda Campbell's (2007) article in *The Journal of Higher Education*, "Equitable Representation of Deaf People in Mainstream Academia: Why Not?" made powerful statements about the absence of and experiences of hearing impaired academics in higher education.

Literature on resources led to myriad information on deaf students, teaching deaf students, support for deaf students, classroom techniques for teaching deaf students, but rarely a word about faculty members with hearing impairments. What if these students want to be faculty members? Do they not need role models? I emailed participants of a listserv, deafacademics.org, to ask if there was any literature on the experiences of hearing impaired faculty in mainstream disciplines. The responses confirmed the worthiness and timeliness of this topic.

The respondents to the inquiry to deafacademics.org, although self-selected, talked about feelings of marginalization, isolation, and being misunderstood, and, to their knowledge, this was an unexamined area. Their experiences were parallel to the experiences of many faculty of color in predominantly white institutions, as supported by critical race theory, which, very simply stated, advances a social justice framework, examines power, privilege, and aims to redress socially constructed racism and discrimination (Tate, 1997). Thus began my examination of the experiences, feelings, and needs of faculty with hearing impairments.

When institutions of higher education recruit hearing impaired faculty members (which supports common mission statements about commitment to a diverse faculty, including faculty members with disabilities), or have faculty members who become hearing impaired, often the campus climate may not be conducive to supporting those faculty members (Tidwell, 2004; Woodcock, 2007; Raphael, 2006). Raphael (2006) wrote that the goal should be to change the way people think about deafness so that academics are judged independent of hearing. As stated earlier, hearing impaired scholars need to be supported in their academic lives. Raphael, a University of Chicago

Ph.D. in Philosophy, and cochlear implant recipient, wrote, “Few mainstream universities today have even one deaf assistant professor, let alone a deaf dean or deaf president. The deaf scholars are out there, and our numbers are growing. The laws exist to protect us from discrimination. The services exist to let us navigate a hearing world. What does not exist—yet—is the will to include us” (2006, p. B12).

With Tidwell’s, Woodcock’s, and Raphael’s comments in mind, this final chapter frames the data collected, analysis conducted, and summarizes findings and relevant conclusions within the minority and British social models.

Since there is minimal literature in this area, this research does not attempt to test causal hypotheses, although some hypotheses may be generated on which further research could be based. There is no comparison group, so no inferences were drawn about causal associations, although there were some associations made between selected variables.

The chapter is divided into five sections. It begins with a brief overview of the study, followed by a discussion of the research questions and results reported in the Chapter Four. The third section is a discussion of implications of the study. Section four identifies limitations, and the chapter concludes with suggestions for future research.

Overview of the Study

Hearing impaired faculty members expect to be held to the same standards as hearing colleagues, and benefit the academy by challenging norms, assumptions, and teaching styles, and by modeling standards of excellence for all colleagues and students, including students with hearing impairments (Deaf Academics.org, 2008; Raphael, 2006;

Tidwell, 2004; Woodcock, Rohan *et al.*, 2007). This statement supports critical race theory, critical disability theory, and provided a foundation for the survey. The email introduction to the survey provided a link to the survey, which was sent to over 3000 faculty and staff with teaching responsibilities during the spring semester, 2011. The analysis was based on 84 respondents who identified as being hearing impaired and who completed the survey.

The descriptive statistics obtained in this research tell, simply, what is--the information drawn from both quantitative and qualitative inquiry at one moment in time. The survey was based, in part, on the minority model, which frames the experience of minorities as a group of people who, because of their physical and/or cultural uniqueness, are singled out from the others, and treated differently, and the British social model, which suggests that the barriers that people with disabilities face are socially constructed and are fundamentally a question of power, politics, and marginalization (Devlin & Pothier, 2006).

Both models suggest that marginalization, exclusion, and isolation experienced by minority groups, including people with disabilities, are socially constructed. The social model, when applied to academic situations, implies that academic faculty members are hired for their intellectual contributions, and, in the case of faculty members with hearing loss, the academy needs to ask what barriers prevent full participation in the academy and what supportive resources help to maximize their engagement.

This section presents a brief discussion and concomitant conclusions for each of the four research questions. This section is written with the belief that impairments are part of the human experience and, framing it in the social model, examines the socially

constructed barriers that disable people with impairments (Devlin & Pothier, 2006; Hahn, 1988; Oliver, 1996), in this case, faculty members with hearing loss.

Demographic Information

The sample, for the most part, was mature both professionally and chronologically. Seventy-one percent of the respondents were either Associate or Full Professors, and 63.1 percent were between the ages of 46 and 65. Nearly 42 percent developed their hearing losses later in life, between the ages of 46 and 65. The sample was predominantly white, and 52.4 percent male.

The demographic data tell us that there were more respondents as age and rank increased; only 7.2 percent of the respondents were below the age of 45. Not unexpectedly, there was a statistically significant association among age, rank, years of employment, and degree of hearing loss. The two respondents who identified as having a profound hearing loss also were the same two respondents who identified with Disability Services. This was not surprising, as one of the challenges the academy faces is to encourage faculty members with hearing loss to feel comfortable in disclosing their impairments and for colleagues and administrators to better understand the experiences of faculty members with hearing loss.

Encouraging faculty members to talk about hearing loss leads to the question about how severe a hearing loss should be for a faculty member to even consider identifying with Disability Services. The comments from respondents also suggest that, unless hearing devices and/or hearing losses are obvious, for many, hearing loss is, indeed, a hidden disability. The qualitative data suggest that for some, it is intentionally

kept hidden; for example, one respondent said that his/her ears “are” his/her job, and if anyone in the department knew about his/her hearing loss, s/he would worry about his/her status in the department.

Seventy-five percent of the respondents said they had a mild or moderate hearing loss (on a four-point Likert scale, from 1 (minimal) to 4 (profound)). The percentages regarding the degree of hearing loss were based on the respondent’s own assessment of their hearing loss. There were no diagnostic tests required to determine the degree of loss, although some respondents disclosed that they had been to an audiologist.

With a mild hearing loss, if someone is farther away, in a classroom, for example, or the background environment is noisy, the person may not be able to follow a conversation. Weak voices (often female, or higher pitched) are difficult for people with mild hearing losses to understand. A mild hearing loss can affect professional interaction at many levels. A person with a moderate hearing loss has difficulty keeping up with conversations when not using a hearing aid (Hear-It.Org, 2011). This information is particularly compelling when paired with the qualitative responses such as, “I avoid meetings or places where crowd noises are dominant--hard to hear against crowd backgrounds” and “The issue is that sometimes I may not hear what was said or someone addressing me even. This can be uncomfortable as everyone is then staring at me. Like I said, I never thought to tell people but maybe I should”

Of the 84 respondents, 48.8 percent said they do not need a hearing device, 26.2 percent said they probably should wear a device, but do not, 16.7 percent of respondents wear a device, and 7.2 percent have a device but do not use it. To change the culture toward a more inclusive one that accepts hearing loss as part of the human experience,

and accepts open discussions about hearing loss among the faculty and staff, the findings suggest that, with regard to hearing devices, the challenges are: 1) how to encourage an appointment with an otolaryngologist or audiologist, 2) how to encourage the use of hearing devices for those who said they probably should be wearing one, and 3) how to improve the experiences for those who have devices but do not use them.

Forty-four percent of the respondents said they did not disclose their hearing impairments before their employment at the university. Considering that 53.6 percent of the respondents said their hearing loss occurred after their employment, clearly, applicants do not want to disclose their hearing loss. Why should this be? Framing this question in the minority model, for example, the answer could be a fear of discrimination, marginalization, or lack of understanding. Two respondents did disclose their hearing loss before employment and in one case accommodations were not offered during the interviewing process, and the other response indicated that the offer of accommodations was “not applicable” for reasons we do not know. Further inquiry needs to be conducted on why applicants are reluctant to disclose their hearing losses before or during the interviewing process, and why the academic units missed asking what accommodations might be helpful.

As previously indicated, the two respondents identified as being profoundly deaf self-identified to Disability Services. One moderately deaf person could not recall if s/he identified with Disability Services and the remaining 96.4 percent of the respondents did not identify with Disability Services. There is apparent confusion about how hard of hearing one must be to consult Disability Services and the role of UReturn, the division within Disability Services that supports faculty with disabilities, including hearing

impairments. It would be helpful to have a more clearly articulated process for faculty requests for accommodations, possibly beginning with questions about hearing which might include:

Do you have a problem hearing over the telephone?

Do you have a problem hearing in the classroom?

Is it difficult for you to hear when two or more people are talking at the same time?

Do you have to strain to understand conversation?

Are noisy backgrounds problematic for you?

Do you find yourself asking people to repeat themselves?

If someone answers yes to a predetermined number of questions, then the process for seeking support should begin, but the process, as previously indicated, is not clear for faculty members.

In personal conversations and emails with three faculty members from two system campuses, the assumption about UReturn was that one had to “go away” from the University for a period of time, for example, on a medical leave, before one could use the services of UReturn (Bier, Roufs, Kerr, personal communication, 2011). A question about the process to a UReturn employee clarified the process for obtaining the services of UReturn: Ideally, but not necessarily, the faculty member will have gone to the appropriate medical provider before contacting UReturn, that part of Disability Services that provides support and accommodations to faculty members with impairments. But is this communicated to faculty members? And, if so, how? To provide faculty members equipment, such as looping, UReturn requires appropriate medical documentation. At

other times, UReturn provides faculty members with ideas for coping with hearing loss or confirms that there are other accommodations that can be very effective (Fuecher, personal communication, April 23, 2011). More clearly articulated information about UReturn policies and processes for support for faculty members with hearing loss would be useful, but the challenge remains: how to reach the faculty who would benefit from the services.

Faculty Introduction To and Ease of Finding University Resources

Many of the qualitative comments suggested that faculty with hearing loss did not know they had options for seeking assistance. Research question one asked about how well informed faculty members with hearing impairments were about resources available to help them maximize their engagement. The data suggest that for 98.8 percent of the respondents, resources or support for faculty with hearing loss were not discussed at any orientation: department, college, or university. Orientations provide a good opportunity to discuss hearing loss for faculty members who are hearing impaired, or for those who may lose their hearing due to other causes, including aging or trauma. The discussion needs to include resources available and a clearer UReturn definition and procedure for consultations, should the faculty members want to avail themselves of the services. Discussion of resources at orientation brings the subject of hearing loss into the open, and in the words of some respondents, removes the stigma.

The department that practices inclusion will practice strategies that result in accommodations that matter and a sense of purpose that engages all the faculty, whether hearing or not (Baird, Rosebaum, *et al.*, 2008; Braddock & Bachelder, 1994; Castaneda

& Peters, 2000). The findings imply that most department chairs do not discuss accommodations, probably because it has never occurred to them to do so. Department meetings would provide a venue for reminding all faculty members that, should they need such services, or should they notice they are not hearing as well as they used to, support is available, and also that the subject is not taboo. Framing this conversation in the social model by discussing what faculty members with hearing loss need to maximize their engagement would also provide an appropriate introduction to support and resources.

Respondent comments such as “The topic [faculty members with hearing loss] has never come up except for students with hearing impairments,” “And even after I mentioned my hearing impairment she did not say anything—she did not offer any solutions,” and “It is my sense that the university is not aware of the impact of a mild to moderate hearing loss [on faculty]. . . . When I started, I asked for a special phone, and received nothing,” are compelling testimonials that more emphasis needs to be placed on talking about and meeting the needs of faculty members with hearing impairments.

The findings also suggest that the web pages for resources and support are not easily found. For example, when doing a search for UReturn on the University home page, the first several urls belong to University of Minnesota Duluth. Or, searching on “hearing loss” yields no results germane to resources and support for faculty with hearing loss. A search on “hearing impairment” brings up issues about and for students with hearing impairments. Seventy-one percent of the respondents to the question about ease of finding resources on the university web pages said that they were either “difficult, but possible,” or “nearly impossible” to find. Web pages for resources for faculty with

hearing impairments should be easier to find, and, most people probably would not think to search under “UReturn.”

Knowledge about budgets from which accommodations come affects the experiences of faculty members with hearing impairments: 76.2 percent of the respondents did not know from which budget accommodations came. This is critical information because many faculty members who believe that the accommodations come from the department budget generally will not ask for accommodations. In fact, nearly all accommodations come from a designated ADA budget, according to Dave Fuecher, Director of the UReturn program (personal communication, June, 2011). Comments such as, “Again - it boils down to resources. If I bring this up, is the department then obligated to spend money on resources for me?” and “I don't know how the money part works. But I'm extremely hesitant to cost my department money. . . . I'm not really "Deaf enough" to justify the departmental resources,” suggest that faculty members need to be better informed about accommodations and budgets.

The findings indicated that 75 percent of the respondents were not aware of rooms with good acoustics, and 89.3 percent were not aware of looped rooms, although, there are such rooms available on campus. Again, faculty members with hearing loss need to be better informed about rooms available with better acoustics and/or looping. It is also important that faculty members with documented hearing impairments be considered high priority when assigning such rooms.

The data suggest that faculty members with hearing loss need to be better informed about available resources, including web pages, support, processes for requesting accommodations, budgets, and rooms more conducive to teaching with a

hearing impairment. Orientations and department meetings are excellent venues for informing all faculty members about resources they might currently need, need in the future, or encourage a colleague to use.

The Effect of Hearing Loss on Academic Activities

The good news is that respondents said that their hearing losses rarely or very rarely affected their jobs as they are currently structured, and the hearing impairment did not affect telephone usage (56 and 76.2 percent, respectively). Not to be ignored, however, are the 31 percent of faculty members who did say their hearing impairments occasionally affect their jobs as they are currently structured. There was a preference for using email rather telephone, which may explain why using the phone is rarely or very rarely a problem: it is simply not the communication of choice for faculty members with hearing loss. Qualitative comments suggested the current phone systems were frustrating to use. Statements from respondents such as “Phone communication is one of the most important deficiencies at the U . . . ,” and “I think more awareness of . . . phone amplification techniques and available support [would be helpful]. When I purchased a phone amplification system, I got no help from anyone at the University,” suggest that more could be done to make telephone communication more convenient for faculty members with hearing impairments.

Many faculty members with hearing impairments have developed coping mechanisms to help them successfully navigate their professional worlds. From simply asking others to speak more loudly or slowly, asking others to repeat what they said, or carefully selecting seats that allow a visual of the participants at meetings, one finds that

most of the coping mechanisms are behavioral, very subtle, and, frankly, low cost. Many faculty members with hearing loss also avoided conversations in certain areas and carefully positioned themselves in conversations. The qualitative responses supported the habits of behavioral accommodations: “I avoid meetings or places where crowd noises are dominant--hard to hear against crowd backgrounds,” “I lip read when possible,” and “In class, I apologize for my hearing loss and ask a T.A. or students to repeat for me what someone (usually a female with a soft, high-pitched voice) has said.” It appears that many faculty members are resilient and have managed to modify their behaviors to accommodate their hearing losses.

Comfort in Disclosing and Discussing Hearing Losses with Students, Department Chairs, and Colleagues

The move toward equitable inclusion of deaf and hard of hearing colleagues within faculty ranks recognizes that the barriers to academic success can be understood in the context of ignorance, prejudice, and ableism (Woodcock, Rohan *et al.*, 2007). And, as previously argued, services for faculty members with hearing loss are on our campuses, but the will to embed the support into the culture appears to be missing to the point that there is reluctance on the part of many deaf and hearing impaired faculty members to express their social, professional, and intellectual needs and to ask for accommodations for a variety of reasons including stigma, false perceptions of professional competence, cost, and degree of accommodations (Baldrige, 2001).

Perhaps this helps explain why only 39 percent of the respondents said that they are comfortable or very comfortable in disclosing and discussing their hearing losses with

their students, and 26 percent said they are extremely or somewhat uncomfortable discussing their hearing loss with students. By way of contrast, regarding frequency of such discussions, 52.4 percent of the respondents said they never discuss their hearing impairment with students. The findings are similar for comfort levels in discussing and the frequency of actual discussions of hearing loss with colleagues and department chairs. It is interesting to note that, irrespective of comfort levels in discussing their hearing losses, 63 percent of the respondents believe their colleagues are not aware of their hearing impairments, and 26 percent said that only some of their colleagues are aware of their hearing impairments, suggesting faculty members only occasionally, if at all, discuss their hearing losses with colleagues.

Only faculty members themselves know what they typically talk about to each other, but faculty members apparently are not discussing their hearing impairments with colleagues, even when they say they are comfortable doing so, and perhaps, for good reason. The question may have served a better purpose if it asked if faculty members “mention” their hearing impairments to colleagues. At any rate, the results show that, for the most part, hearing impairments are not discussed at orientations or among faculty, or between colleagues. Further inquiry into why faculty members say they are comfortable discussing their hearing impairments, but do not, is necessary.

Poignant comments from some faculty members suggest that there still is a stigma attached to discussing one’s impairment with colleagues: “I do not think this type of discussion would be well received by higher ups/administrators,” and “In fact, I sometimes get vile criticism on course evaluations that I cannot hear well! In general, I rank my overall course evaluations as excellent, but comments like this are not helpful.”

Remarks such as, “I do not feel reluctant in general because my academic stature is too high to worry about what others think. . . ,” “I am tenured so it is much easier to talk about these issues now,” and “I have not had to talk to colleagues about this issue . . . I also have tenure,” and “I am a department head and have tenure [so I am now free to discuss my hearing loss].” imply that unless the faculty member has senior status and/or tenure, it is best not to discuss hearing limitations. “I teach in . . . and I would never want this to be known,” “I have not brought this issue up . . . I guess it is the stigma around it since I am young. . . .” are testimonials to the silence of faculty members with hearing impairments.

Faculty members, as discussed earlier, said they are comfortable talking with students, and the anecdotal comments confirm this. In class, some show their hearing aids, “At the start of class, I lift my hair and show my hearing aids . . . ,” others make jokes, “Just make occasional jokes about getting old,” some put a notice in the syllabus, “I have a section in every course syllabus where I mention my hearing difficulty . . . ,” and many simply remind the students to speak more loudly and clearly, “If students mumble, I ask them to speak up.”

Faculty members with hearing impairments, as previously mentioned, say they are comfortable in discussing their hearing with colleagues and administrators, but the data and comments suggest that they do not. Many of the respondents preferred to keep information about their hearing impairments private, according to the qualitative comments. Remarks such as, “I do not think this type of discussion would be well received by higher ups/administrators,” “I didn't think anyone would care,” and “I have

been generally unaware of the resources available for hearing impaired,” are persuasive statements about the reasons many faculty members keep their hearing losses private.

To summarize the discussion of comfort levels in discussing and actual frequency of discussions of hearing loss, the data suggest that many faculty members do appear to be comfortable in telling their students in class about their hearing losses, and have developed their own ways of informing the students by methods including commenting in the syllabus, announcing it the first day of class, and reminding students to “speak up,” but they are reticent to talk about their hearing losses with colleagues and administrators.

The Effect of Hearing Loss on Professional and Social Interactions

Hearing loss can be a socially and, in some cases, professionally isolating impairment. The findings show that, on average, only 7 percent of the respondents said that their hearing loss is sometimes or frequently a problem leading to feelings of isolation, but qualitative remarks suggest that for some, at least, that is not the case. Comments such as “I think that for the most part I hide my impairment pretty well, for good or for bad . . . I think my avoidance of social contexts with my colleagues, both internal to the University and at external conferences and such is interpreted as social withdrawal, reticence or disinterest rather than what it mostly is, i.e., embarrassment that I cannot follow the conversation in a crowded, noisy environment and so I would rather “beg off,” “Basically, if I am simply speaking (presenting a scientific paper or lecture), there is zero problem. If I have to engage in an exchange I often misunderstand questions and answer the question incorrectly such that I feel silly about my answer. Most of the time I guess at what the question is” and “Once I got yelled at by the Department

Head because I did not hear her addressing me and this was in front of many other people at a meeting,” suggest that hearing loss does affect social and professional interactions and feelings of inclusion, but faculty members, for the most part, have learned to “deal with it.”

Respondents made statements about difficulty in hearing in certain areas: “The greatest problem is hearing conversations in crowded rooms,” “. . . background noise is a problem,” “The worst meeting areas are at the U. . . . Large, high ceiling areas where the sound bounces,” and “The issue is that sometimes I may not hear what was said or someone addressing me even. This can be uncomfortable as everyone is then staring at me. . . .” It is apparent that rooms without sound absorbing qualities, situations with background noises, or several people speaking at once present difficult situations for people with hearing impairments and call for an empathic response from colleagues.

Faculty members who cannot hear well suggest that if they do not go to a social event, there is a perception that they are anti-collegial, but if they do attend, it is extremely difficult to engage in any conversation or to hear what is being said. One faculty member said that conversations from social events were often continued “at work,” and he “diplomatically avoided making comments” because he had missed the conversation at the social event, although he was at the table when the discussion occurred,” (Lynn, personal communication, May 2011).

Faculty members also remarked about classrooms and meeting rooms. Rooms with good acoustics and/or sound absorbing qualities are important to the professional interactions of faculty with hearing impairments. Fifty-five percent of the respondents

said the acoustics in their classrooms were fair or poor, and 49 percent said the acoustics in meeting rooms were fair or poor.

Faculty members were clear that some system-wide modifications would help their engagement in classrooms and at meetings: rooms with better acoustics, more sound absorbing qualities, and fewer noisy fans and ventilators were a high priority for 46 percent of the respondents. Several comments said the ventilation systems were interfering with hearing. Others said that more availability of looped rooms would benefit all students, staff, and faculty with telecoils in their hearing devices.

Smaller classes would be beneficial for 26.2 percent of the respondents, due, in large part, according to the qualitative remarks, poor acoustics in many of the large rooms. In smaller venues, faculty members find it easier to lip read and engage more effectively with students.

Finally, oval conference tables at meetings would allow all participants to see each other better, and for those with hearing loss, to lip read and simply “see” the person who is talking more clearly. Oval conference tables would facilitate more interaction for everyone.

A faculty comment captured the thoughts of many, “Still though, I have to think about where I sit, how I move around the class to hear students, and always worry about what I may miss or what if someone addresses me and I do not hear them.”

Implications

Faculty members with hearing loss are among us. Their issues need to be addressed. People with hearing losses are not going away. As James Battey, Jr., (2006,

¶13) Director of the National Institute for Deafness and Other Communication Disorders, reported, “Young people live in a loud and noisy world. In this age of the escalating use of personal stereo systems, hands-free cell phones, and portable movie/game systems, youth worldwide are exposed to harmful levels of noise every day.” These activities often lead to noise induced hearing loss. In fact, the prevalence of hearing loss is increasing in U.S. youth: one in five adolescents now has some degree of hearing loss (Stapleton, 2010). Some of these youth may want to have academic careers; their hearing needs will accompany them into institutions higher education.

Many faculty members with hearing loss were reluctant to disclose their impairment before they were hired. Two respondents were profoundly deaf. For one, no accommodations were offered for the interview process and for the second, the response was “not applicable.” To create a culture of acceptance of a hearing impairment, applicants need to feel comfortable in disclosing their impairments, and accommodations should be openly offered.

The study found that faculty members with hearing impairments are not well informed about accommodations, budgets, services, rooms conducive to better teaching, and processes for requesting accommodations. Based on the evidence, it is time to put procedures in place to provide all faculty members more information about available support for dealing with hearing loss at orientations, especially the college and departmental orientations. Department meetings are a good venue to inform faculty of UReturn services and also clarification about from which budget accommodations come. The university should make the web pages for support for faculty with hearing impairments easier to find, and, in the process, better inform the entire university faculty

and staff what UReturn is, who its constituents are, the vast services they offer, and how and when to interface with UReturn.

The results also show that department chairs rarely discuss accommodations or indicate knowledge of ADA compliance. Results of this study confirmed that administrators need to be more informed about the impact of hearing loss in the academy, to be more comfortable in discussing support and to be more supportive when requests for accommodations are made. Putting this topic on the agenda at collegiate level seminars for administrators would be an effective start to a culture change of open discussions about the impact of hearing loss on individuals and on the academy.

The findings indicate that faculty members rarely discuss their hearing impairments with colleagues or administrators. By opening up the discussions on hearing loss at all levels of the university, perhaps, as one faculty member anecdotally commented, talking about not being able to hear should be as comfortable and common as talking about not being able to read without bifocals.

The qualitative comments suggest that a more consistent, uniform telephone system for faculty members with hearing loss would aid communication. “Phone communication is one of the most important deficiencies at the U,” (survey comment, 2011). One university faculty member estimated that before he had a Captel phone, he had at least 40 messages on his phone because using the phone was difficult, and listening to the messages was equally problematic (Roufs, personal conversation, 2011). Faculty members frequently feel they need to pursue/purchase assistive phones on their own. Literature about options for phones and how to request an assistive phone would be

helpful to many faculty members. Information about telephones would be good information to have on an easily accessible web page.

Faculty members' responses also suggest that rooms with better acoustics and/or soundproofing would vastly improve their experiences. The ventilations systems were problematic for several respondents. An investigation about how to make the ventilation systems less noisy is timely. Better soundproofing can be as simple as adding drapes, rugs, or sound absorbing tiles to rooms used by faculty with hearing impairments. These rooms could be designated as more conducive to teaching with a hearing impairment and listed as such, and the list could be made available to faculty.

Smaller classes were a high priority for the respondents. A companion response also suggested that appropriate rooms for the class sizes would be helpful in communicating with students. Although it might not be realistic to allow faculty with hearing impairments to teach smaller classes, attempts should be made to incorporate their needs into the classroom experience. Comments such as, "Some of my larger classes come with built-in microphones for students (for recording purposes) . . . That can make hearing less of an effort," suggested making microphones available in large classes, so that questions and comments from students could be more easily heard and understood. Looping rooms, for those with telecoil hearing aids or implants, would also benefit many students and faculty.

Faculty respondents made several comments about looping, some faculty members had not heard of looping. One faculty member, as a result of the survey, got new hearing aids with telecoils, visited a looped classroom at another campus, and will have his/her classroom looped. The process at the campus which s/he visited was

seamless, and the technicians were extremely supportive. The looping was paid for through ADA funds (Roufs, personal conversation, May, 2011). The comments of faculty members suggest that for some, on occasion, resistance from administrators and/or technical support has led to reluctance to request accommodations. Faculty members need to feel free and supported in discussing what would help them maximize their engagement at all levels.

Faculty respondents indicated they want to participate in meetings, but not being able to make eye contact at traditional rectangular conference tables created situations where some participants could not hear what was being said. When it is reasonable, oval conference tables, including rectangular tables with curved extensions, should replace the traditional rectangular conference tables because the curved tables facilitate hearing and better information exchanges by allowing for better visual communication. At the very least, microphone systems at meetings would assist participants with hearing loss.

Simply understanding the challenges people with hearing loss confront would facilitate engagement at multiple levels. Understanding that social events are often difficult, meetings and events in certain halls and rooms with noisy ventilations systems, fans, and/or echoes can be problematic, and following conversations in such environments is, for many, challenging. An enlightened public would understand why there might be a lack of participation in such events by colleagues with hearing loss. Again, as mentioned earlier, talking about the impact of hearing loss at multiple levels of the university would benefit the academy by supporting its faculty and its mission of inclusion.

It is good practice, when attempting to determine needs, to ask those most directly affected. In a recent request for accommodations on a particular campus, the technicians deemed what was best for the professor with a hearing loss. The professor requested a looped room for a variety of reasons, one of which was that the cost of looping the room was comparable to providing an FM receiver type system, and, the other, the FM receiver would not “fix the problem” for the faculty person, and probably not for any deaf students ⁴ (personal communication, June, 2011). This appears to be an extension of the medical model, which places the source of the “problem” within the impaired person: the disability is a problem to be cured (even when there is no cure). Solutions are found by focusing on the individual, not what is best for all, including students (Longmore, 2003).

This survey attempted to hear the voices of faculty members with hearing impairments. The following comments support further exploration of the experiences of faculty with hearing loss:

“It is my sense that the university is not aware of the impact of a mild to moderate hearing loss. Accommodations are made for people with profound hearing losses, often by hiring interpreters etc.; however, interpreters do not help those of us who have lost our hearing gradually and do not sign. When I started I asked for a special phone, and received nothing.”

⁴ Name and institution of the individual are not disclosed at the request of the contributor

“Thank you for this survey! This is the first suggestion I've had that I might get some help from the University with these difficulties.”

“This is an issue that should receive attention, and be more visible so that affected faculty can more easily seek remedies.”

These powerful comments, and those in Chapter 4, are from a group of faculty members who are eager to maximize their intellectual contributions to the academy. It is imperative to listen to their needs and, thereby, improve the climate for all faculty members. The myriad comments about environments that inhibit discourse in classrooms and in meeting rooms imply that in many situations, simple acoustical modifications would enable faculty members with hearing loss to engage more effectively. The evidence that support for hearing loss and knowledge of accommodations are not discussed at any level of administration suggests that, perhaps, the topic of hearing loss is taboo, and may lead to an environment where discussing a hearing loss might also be taboo, as one respondent wrote. Many respondents said they have learned to “fake it,” lip read,” or not actively participate in professional functions. Others, at risk of being perceived as non-collegial, choose not to participate in events with background noises, echoes, fans, or multiple people talking at once. The comments also suggest that the needs of many faculty members with hearing loss are lower budget items, for example, rearranging a room to accommodate hearing in the “better” ear or simple behavioral changes on the part of enlightened colleagues, such as not covering one’s mouth when speaking.

Recommendations

The university needs to ask the stakeholders how to best support faculty with hearing loss. This may mean a team of otolaryngologists, faculty members with hearing loss, staff from UReturn, audiologists, and appropriate administrators, as support must come from the top down to facilitate a culture change. The team could make further recommendations on how to reach faculty members with hearing loss and how to improve the culture for faculty members with hearing loss, and thereby, improve the culture for all people involved at the University.

Certainly, if a faculty member discloses a hearing impairment in the hiring process, accommodations must be offered.

The university needs to embed discussion of hearing loss into the culture by making it an agenda item at orientations. The designated team could recommend items to be included at the orientations, items such as which rooms are conducive to teaching with a hearing loss (good acoustics, sound absorption, or possibly looped rooms), and advocate for reasonable accommodations, including more rooms with sound absorbing qualities and looping. The University of Minnesota Duluth, for example, is installing loops in current remodeling projects – some are stand alone looped areas, and others will accommodate a cart. And, the technicians are proud to say, they are forward thinking on this topic.

Create a list of simple “do’s and don’ts” for department chairs and colleagues. For example, if there is a faculty member with hearing loss in the department, do look at that person when you are talking, don’t cover your mouth if you are talking (if you are in a situation where your mouth must be covered, wearing a surgical mask, for example, ask

the person in advance how best to communicate), do understand that background noise creates an uncomfortable situation for hearing, do understand that a colleague with hearing loss may not attend some social events because it is simply too difficult to have conversations – they are not being anti-collegial, do know if there are rooms more conducive to teaching with a hearing loss in your area, and do tap a hearing impaired person on the shoulder to get their attention when s/he has his/her back to you.

Disability Services, particularly UReturn, should be a “household word” for faculty; the challenge is how to reach the faculty members. The roles of the Otolaryngology Department in diagnosis, treatment, and relationships to audiologists, and the role of UReturn need to be clearly articulated for all faculty and staff members. UReturn and their services need to reconsider how faculty and staff are informed about their services, and, at the very least, their web pages should be easy to find.

Department chairs and administrators could be coached in how to comfortably discuss resources, support, and accommodations for faculty members with hearing impairments. Department chairs should also educate their faculty members about the budget from which accommodations come, so that all the departmental colleagues understand that most accommodations do not come from departmental budgets.

As buildings are remodeled and renovated, install looping cables along with other technology cables. Looping requires minimal maintenance, is cost effective, and benefits all people with telecoils in hearing aids and cochlear implants. (Bluetooth and other FM receivers and devices benefit one person at a time and need batteries and other ongoing maintenance.) Students (and others) who wear hearing aids with telecoils would not be identifiable in a looped room.

Present faculty choices about telephones and amplification systems.

As appropriate, replace rectangular conference tables with oval or rectangular tables with oval drop sides to facilitate lip reading and visual communication.

Have available an inventory of rooms with better acoustics, looping or fm setups, microphones, oval tables, and other assistive devices available for departments.

Begin to make every video presentation and DVD available with closed captions.

Establish a mentoring program where faculty with hearing loss in mainstream disciplines could mentor deaf students interested in the discipline. There is an obvious absence of deaf and hearing impaired role models (Woodcock, 2007).

Limitations of the Current Study

Care must be taken not to generalize the results and conclusions from this study. This survey was limited in scope and only focused on one institution of higher education. The results may or may not reflect attitudes and perceptions of other faculty members with hearing impairments.

There may be limitations based on the number of responses. Because of the confidential nature of hearing loss, the survey was sent to all faculty and staff with at least 66 percent time employment, in anticipation that those with hearing impairments would respond. As indicated earlier, many faculty members, even those with hearing loss, may not be aware of their impairment, may not acknowledge it, or may not see it as a disability, and, therefore, would likely not respond to this survey. The challenge was to get responses from enough faculty members to accurately reflect the perspectives of all

faculty members who are experiencing hearing loss; it is possible that the results may be susceptible to bias of the participants.

The survey did not focus on insurance benefits. There were some qualitative comments about the cost of hearing devices vis-à-vis the insurance policies of the respondents. More exploration of the benefits of some insurance programs over others would be good information for those with hearing loss.

The survey did not effectively link hearing loss to thoughts about retirement. A study by Johnson (2011) of tenured faculty members at a major research institution found three items ranked as most important in retirement decision-making. The three items were “Health insurance coverage for myself,” “Health insurance coverage for spouse or partner,” and “Concern about financial security.” According to Johnson, interviews with faculty members who participated in the study revealed that for those who were impacted by a personal or family health condition, such as hearing loss, the option of phased-retirement was a valuable benefit. This statement, however, brings into question the possible marginalization of faculty with hearing loss and possibly an assumption of retirement on the part of the institution.

This survey captured one moment in time for the respondents, and opportunities to make qualitative comments were limited, but, in the end, provided valuable insights into the experiences of the participants.

Suggestions for Future Research

This study raised new questions and areas deserving of more research. Additional study is needed across a broader range of institutions, so that results could be compared

and contrasted. Specifically, it would be helpful to know best practices, as most of the respondents were not aware of any at the study institution or other institutions. More qualitative exploration of the experiences of faculty with hearing impairments through interviews and focus groups, across disciplines, and across universities could help develop further understanding of what barriers, challenges, and opportunities faculty with hearing loss encounter in their professional lives.

A second area worthy of more examination is the variation among health insurance carriers with regard to support for hearing examinations and devices, and the satisfaction of the policy holders (in this case, faculty members) with the carriers.

Inquiry into faculty emeriti decisions to retire could provide further information as to whether hearing loss, marginalization, or exclusion contributed to those decisions.

Student perceptions of faculty with disabilities, including hearing loss, are topics of limited research. How students perceive others may have an impact on their own learning, and deserves exploration.

A final area of exploration would focus on what universities are currently doing, framed in theory, to serve faculty with disabilities and to examine current faculty attitudes about support and services. With a wealth of research, published information, and theories available to guide the development of effective practices to support students with hearing impairments, there is scant literature about support for faculty with hearing impairments. Institutions need to embrace their faculty members with hearing loss, offer them resources and support, listen to their needs, and remove the apparent stigma of being a faculty member with a hearing impairment.

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APPENDIX A

Survey for Deaf and Hearing Impaired Faculty

Teaching/Hearing Survey 6

1. Survey for Faculty Members with Hearing Loss at the University of Minnesot...

Faculty members,

Thank you for your willingness to respond to this survey.

According to the National Institute on Deafness and Other Communication Disorders, about 17 percent of all adults in the U.S. have some hearing loss. In the 1998 National Survey for Post-Secondary Faculty (the last to identify disabilities), only .1 percent of post-secondary faculty acknowledged having a hearing impairment. Your responses will help identify barriers to engagement of hearing impaired faculty members, inform the University how it can be more helpful to faculty members experiencing hearing loss, and understand why so few post-secondary faculty members are willing to disclose or discuss their hearing losses in a hearing centered profession: teaching.

The responses to this survey are confidential. By completing the survey you are agreeing to participate in the research. This system allows you to leave the survey and resume it later. The [Next] button on a page or the [Done] button at the end of the survey must be clicked to save the page(s) of answers. If you exit the survey early, you will need to return the same computer and use the same browser to complete the survey.

NOTE: Cookies must be enabled.

Again, thank you for your participation. If you have any questions or would like to know the results of the survey, please email Kathleen Roufs at kroufs@d.umn.edu.

1. Hearing loss can be gradual or sudden. Some individuals are born with a hearing impairment, others acquire it through age, trauma, or disease. An individual with a mild to moderate hearing impairment may be able to hear sound, but may have difficulty hearing speech in a conversation, meeting, classroom, or social environment. Individuals with a profound hearing impairment may not be able to hear sounds at all. Based on these descriptions, as you think about your interactions with others, how do you, as a faculty member, describe your level of hearing loss? (Check one.)

- Minimal
- Mild
- Moderate
- Profound

2. Do you wear hearing aid(s) or have you had cochlear implant(s)? (Check one.)

- I do not need a hearing device.
- I probably should have a hearing device, but I do not.
- I wear a hearing device(s).
- I have a cochlear implant(s).
- I have a hearing device(s), but do not wear it (them).

Teaching/Hearing Survey 6

2. Time of hearing loss, disclosure in hiring process

Some hearing impaired graduate students or applicants applying for faculty positions question whether they should disclose their hearing impairment before, during, or after the hiring process. This section is about when you acquired your hearing impairment relative to the hiring process at the University of Minnesota.

3. Did you disclose your hearing impairment to the search committee before or during the interviewing process for your initial University of Minnesota position?

- Yes
- No
- My hearing loss occurred after my employment at the University.

4. If you did disclose your hearing impairment prior to or during the interviewing and hiring process, were accommodations such as a quiet room, interpreters, or transcription services provided or offered to you? (Check one.)

- Yes
- No
- Did not disclose
- Do not recall
- Not applicable

Teaching/Hearing Survey 6

3. After Your Employment at the University of Minnesota

This section asks questions about your initial experiences as a teaching assistant or faculty member at the University of Minnesota.

5. Resources for hearing impaired faculty were discussed at my

	Yes	No	I did not participate	There was no orientation at this level offered to me	Do not recall
Department Orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
College Orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
University of Minnesota Orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Have you self-identified as being deaf or hearing impaired to Disability Services?

- Yes
 No
 Do not recall

Please comment about the reasons for your decision:

7. Are your departmental faculty colleagues aware of your hearing impairment?

- Yes, I believe that most of them are aware of my hearing impairment
 Yes, some of them are aware of my hearing impairment
 No, as far as I know, none of them are aware of my hearing impairment
 Only my department chair/head is aware of my hearing impairment.

Teaching/Hearing Survey 6

8. Being hearing impaired can be challenging because of the energy it takes to focus on a conversation or on what is being said. What coping mechanisms do you use to navigate your life as a hearing impaired faculty member? (Check all that apply.)

- I ask others to speak more loudly.
- I ask others to speak more slowly.
- I ask others to look at me when they speak.
- I use email rather than phone.
- I am careful where I sit in a meeting.
- I use the phrase "Pardon me?" or a similar phrase many times each day.
- I avoid conversations in areas where it is difficult to hear.
- In meetings with an individual, such as a student or colleague, I position myself to accommodate my hearing loss.

Other (please specify)

9. For some faculty with hearing impairments, teaching in a large lecture hall or a noisy room is problematic. Think about your own situation. In your opinion, how often does your hearing impairment affect your ability to interact at your job as it is currently structured? (Check one.)

- Very Rarely
- Rarely
- Occasionally
- Frequently
- Very Frequently

10. For some faculty with hearing impairments, communicating through phone calls is problematic. Think about your own situation. In your opinion, how often does your hearing impairment affect your ability to communicate using the phone? (Check one.)

- Very Frequently
- Frequently
- Occasionally
- Rarely
- Very Rarely

Teaching/Hearing Survey 6

4. Academic Environment for Deaf or Hearing Impaired Faculty Members

The purpose of this set of questions is to determine how supported and comfortable faculty members who are deaf or hearing impaired feel in their professional lives.

If you are deaf or hearing impaired and wear hearing aid(s) or have had a cochlear implant, please answer the following questions based on wearing the device(s). If you do not wear a device, please answer the questions based on your daily experiences in living with a hearing loss.

11. How often do you discuss your hearing impairment with:

	Never	Rarely	Occasionally	Fairly often	Very often
Students	<input type="radio"/>				
Colleagues	<input type="radio"/>				
Department Chair	<input type="radio"/>				
Dean or next higher administrator	<input type="radio"/>				

12. There are faculty members who are reluctant to discuss their hearing impairment because of concerns about being marginalized or encouraged to retire.

Please indicate how comfortable you are in discussing your hearing impairment with each of the following:

	Does not apply	Extremely uncomfortable	Somewhat uncomfortable	Rarely uncomfortable	Comfortable	Extremely comfortable
Students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Department Head	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Members of Promotion and Tenure Committee	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dean or next higher administrator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please comment on your responses:

13. Please discuss how and when you explain your hearing impairment to your students, if you do choose to tell them about your hearing loss.

Teaching/Hearing Survey 6

14. Have colleagues approached you to discuss their hearing impairments?

- Yes
 No

If you have had colleagues consult with you about their hearing impairments, what was the nature of the conversation and/or what did you learn?

15. Have students approached you to discuss their hearing impairments?

- Yes
 No

If you have had students consult with you about their hearing impairments, what was the nature of the conversation and/or what did you learn?

Teaching/Hearing Survey 6

5. Acoustics and Accommodations in the Academic Environment

Acoustics and accommodations are major factors in how comfortable and successful deaf or hearing impaired faculty members are in their work lives. Please give careful consideration to answering the following questions.

16. Has your Department Chair or next higher level administrator ever discussed what accommodations might be helpful to faculty members who have difficulty hearing?

- Yes
 No
 Do not recall

Please comment to clarify your response:

17. Do you know if a looped classroom is available to you? ("Looping" refers to a system that transmits directly to hearing aids and cochlear implants with telecoils (T-coils.))

- Yes, there is a looped classroom available to me and I use it.
 Yes, there is a looped classroom available to me, but I do not use it.
 No, I am not aware of any looped classrooms.

18. How would you rate the acoustics, in terms of supporting better hearing by muffling noises, diminishing the sounds of fans, echoes, etc. in the following settings:

	Not applicable	Very poor	Poor	Fair	Good	Very good
Office?	<input type="radio"/>					
Lab?	<input type="radio"/>					
Classrooms?	<input type="radio"/>					
Meeting Rooms?	<input type="radio"/>					

19. Are you aware of any classrooms available to you that are more conducive to, or have been adapted to, teaching with a hearing impairment, for example, the rooms are carpeted or have other sound absorbing qualities?

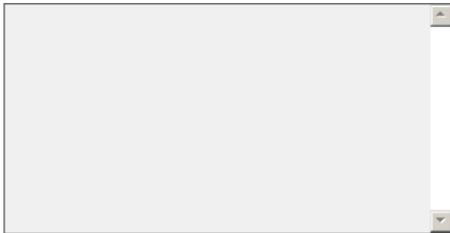
- Yes, I have such rooms available for my use, but I do not use them.
 Yes, I am aware of such rooms, and I use them.
 No, I am not aware of any rooms with sound absorbing qualities.

Teaching/Hearing Survey 6

20. Which of the following modifications or accommodations might help you maximize your professional contributions at the University? (Check all that apply.)

- Captioning telephone for my use
- Smaller classes
- More rooms with sound absorbing qualities such as carpet
- Looped rooms
- Changing my courses to an online format
- Phone amplifier for my use
- Note taker at meetings
- Light signaler (light flashes when someone enters your office, etc.)
- Oval conference tables (which allow for better eye contact and easier lip reading)
- Other

If "other," please describe what modifications or accommodations would help you maximize your contributions at the University.



Teaching/Hearing Survey 6

6. ADA and Budget

This section of the survey is to help determine whether deaf or hearing impaired faculty members know about basic services and budgets for accommodations.

21. Are alarm systems in the areas where you work ADA compliant, for example, do they have flashing lights? (Check all that apply.)

	Not Applicable	Yes	No	Do not know
Office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lab	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Restrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hallways	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meeting rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. Some faculty members are reluctant to ask for accommodations because of departmental budget issues. Which budget covers the cost of accommodations?

- Department
- HR/Disability Services
- Other
- Do not know

Teaching/Hearing Survey 6

7. Support for Deaf and Hearing Impaired Faculty Members

23. Has your department chair/head indicated that s/he has knowledge about ADA compliant procedures for accommodating and improving the teaching environment for deaf and hearing impaired faculty?

- Yes (If yes, please comment below)
- No
- Not applicable

How was this knowledge communicated?



24. Can you easily find your institutional web pages with resources for deaf or hearing impaired faculty?

- Yes, they are easily found
- No, it is difficult, but possible, to find them
- No, it is nearly impossible to find them

Teaching/Hearing Survey 6

25. Being deaf or hearing impaired can lead to feelings of marginalization or isolation.

For each of the following, please indicate how frequently, if at all, your hearing loss affects your sense of being excluded or isolated in:

	Almost never	Rarely	Sometimes	Usually	Almost always
Departmental professional activities such as conferences and lectures.	<input type="radio"/>				
Formal group settings such as meetings and seminars?	<input type="radio"/>				
Classroom discussions.	<input type="radio"/>				
Informal events such as departmental or collegiate social gatherings/parties.	<input type="radio"/>				

Please comment on your experiences:

Teaching/Hearing Survey 6

25. Being deaf or hearing impaired can lead to feelings of marginalization or isolation.

For each of the following, please indicate how frequently, if at all, your hearing loss affects your sense of being excluded or isolated in:

	Almost never	Rarely	Sometimes	Usually	Almost always
Departmental professional activities such as conferences and lectures.	<input type="radio"/>				
Formal group settings such as meetings and seminars?	<input type="radio"/>				
Classroom discussions.	<input type="radio"/>				
Informal events such as departmental or collegiate social gatherings/parties.	<input type="radio"/>				

Please comment on your experiences:

Teaching/Hearing Survey 6

8. Prioritizing Needs of Deaf or Hearing Impaired Faculty Members

26. After thinking about the survey questions, consider how the following items associated with hearing impairments are true for you as a faculty member.

	Not applicable	Almost never a problem	Rarely a problem	Sometimes a problem	Frequently a problem	Almost always a problem
Isolation from my colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Judged by my aural limitations, not my intellectual achievements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to interact with students in the classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to interact with students in my office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to interact with students in my lab.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to fully engage at professional events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to fully engage at social events connected to my University work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of departmental support for accommodations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. To what extent, if at all, do you think your hearing impairment has affected your

	Not applicable	Minimally, if at all	Slightly	Moderately	Quite a bit	Greatly
Course evaluations?	<input type="radio"/>					
Performance evaluations?	<input type="radio"/>					
Promotion and tenure?	<input type="radio"/>					
Thoughts on retirement?	<input type="radio"/>					

28. Based on your experiences, please discuss policies, procedures, or practices, or the lack of, within the University that you believe are barriers to maximizing the engagement of faculty members with hearing impairments.

29. Please share any experiences of best practices for accommodating faculty with hearing impairments that you have experienced or witnessed at the University of Minnesota.

Teaching/Hearing Survey 6

30. From your experiences and/or communication with colleagues at other institutions, can you share best practices for accommodating deaf or hearing impaired teaching faculty, practices that keep the faculty with hearing impairments engaged in order to maximize their contributions to the academy?

31. Please add any additional comments based on your experiences as a deaf or hearing impaired faculty member at the University of Minnesota.

Teaching/Hearing Survey 6

9. Demographics

32. In which college of the University is your primary appointment? (If you have a joint appointment, indicate which college you consider "home.") Check only one.

- College of Food, Agricultural and Natural Resources Sciences
- College of Design
- College of Biological Sciences
- Carlson School of Management
- College of Continuing Education
- School of Dentistry
- College of Education and Human Development
- Hubert H. Humphrey Institute of Public Affairs
- College of Science and Engineering
- Law School
- College of Liberal Arts
- Medical School
- Allied Health Program
- School of Nursing
- College of Pharmacy
- School of Public Health
- College of Veterinary Medicine

33. About what percentage of your time is spent in each of the following areas (insert whole numbers, e.g. 60, 30, 10, instead of 60%, 30%, 10%. The numbers should add up to 100).

Teaching	<input type="text"/>
Research	<input type="text"/>
Service	<input type="text"/>
Administration	<input type="text"/>
Other	<input type="text"/>

34. Gender

- Female
- Male
- Transgender

Teaching/Hearing Survey 6

35. Current age:

- younger than 25
- 25 - 35
- 36 - 45
- 46 - 55
- 56 - 65
- 66 or older

36. Age of onset or awareness of hearing loss:

- Younger than 25
- 25 - 35
- 36 - 45
- 46 - 55
- 56 - 65
- 66 or older
- It came on gradually; I do not know when it happened.

37. Race and Ethnicity: Please select all that apply:

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic or Latino
- Native Hawaiian or Other Pacific Islander
- White
- Other

If "other," please specify.

38. How many years have you been employed at the University of Minnesota in your current capacity?

- <5
- 5 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- 26 - 35
- +> 36

39. What is your current faculty rank?

- Professor / Regents Professor
- Associate Professor
- Assistant Professor
- Instructor
- Professional & Administrative staff member
- Other

If other, please specify:

You have now completed the survey. Thank you for your willingness to participate. Your responses will help determine how to be more sensitive to and better meet the needs of deaf and hearing impaired faculty members at the University of Minnesota. Please encourage your colleagues who are experiencing hearing impairments to participate in the survey. All responses are confidential.

If you are interested in the survey results, email kroufs@d.umn.edu.

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APPENDIX B

Email Letter of Introduction to the Survey

Faculty members,

I am writing to ask your help in a study on the experiences of deaf and hearing impaired faculty who have age induced hearing loss, were born with a hearing impairment, or acquired it through illness or trauma, or simply notice that they are not hearing as well as they used to. This research is central to the completion of my dissertation for the Doctorate of Education degree at the University of Minnesota.

Think about your hearing and how it affects your teaching in the classroom, your participation in departmental discussions, your interactions with students and colleagues, and your enjoyment of professional social events.

Do you have to concentrate more intensely to follow conversations?

Do telephone conversations become more problematic because of your hearing?

Do background noises interfere with your hearing?

Do you find yourself asking, "Pardon me?" in and out of the classroom more frequently?

Is it becoming more difficult to hear in the classroom or at departmental meetings and social gatherings?

If you answered "yes" to any of these questions, please take about 20 minutes to respond to this survey. The University wants to learn how to better support faculty who are deaf or hearing impaired from the very faculty who are experiencing hearing impairments. What would help you in your life as a faculty member?

Perhaps you have colleagues who are living with a hearing loss. Please encourage them to respond to this survey. On behalf of all faculty members suffering from hearing loss, thank you for your participation.

Thank you for your willingness to participate in this survey. When you are ready to begin the survey please click on the URL/Web address listed below:

<http://www.surveymonkey.com/s/YNZZSTQ>

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