

Deaf Supervisors of Hearing Employees: A Profile in Progress

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Abstract

Deaf and hard-of-hearing postsecondary graduates from a national technical college were surveyed to identify who among them were supervisors of primarily hearing employees. The sample was selected based on past job information they provided and referrals solicited from the college community. Questions about current job title, span of responsibility, communication modes, and supervisory experience were included to identify graduates who met our supervisor criteria. A profile of these graduates is provided along with discussion of the positive and negative aspects they associated with supervising other employees. Outcomes from this phase of the study will be used as a guide to exploring the results in more depth during interviews with deaf and hard-of-hearing supervisors.

Introduction

A substantial body of literature has been written in the last several decades relative to deaf and hard-of-hearing workers¹ and their careers. Their circumstances have been examined in terms of unemployment rates and underemployment (Schein & Delk, 1974; Barnarrt & Christiansen, 1985; Schroedel, 1987; MacLeod-Gallinger, 1989; Welsh & MacLeod-Gallinger, 1991; Foster & Welsh, 1991; MacLeod-Gallinger, 1992; Steffanic, 1992; Compton, 1993); as well as lack of career options and career mobility (Crammate, 1968, 1987; Vernon, 1970; Walter, Welsh, & Riley, 1988; Welsh, 1989; Steffanic, 1992; Compton, 1993; MacLeod-Gallinger, 1992; Mowry & Anderson, 1993). On-the-job accommodations, access to appropriate employment, as well as communication and cultural issues, have been the focus of numerous articles and books relative to deaf and hard-of-hearing workers as well (Schroedel, 1987; Jamison, 1987; Foster, 1988; Foster, 1992; Mowry & Anderson, 1993; Davila, 1993; Mangrubang, 1993).

Legislation both relating to education and labor, have ameliorated some of these circumstances. Most recently, the Americans with Disabilities Act (ADA, 1991) has opened the way for deaf and hard-of-hearing persons and others with various handicapping conditions for greater access to the workplace. Earlier attitudes towards hiring deaf or hard-of hearing workers have been described as "permissive", at best, i.e., "yes, we will hire them but don't expect any accommodation; progressing to "accomodative", which involves restructuring the job somewhat to get around the communication difficulties"; to "facilitative", whereby organizations actually institutionalize special programs within to expand accommodative measures (Jamison, 1987). This is

¹ In this paper the use of the descriptors, "deaf" and "hard-of-hearing" are used. These include anyone who meets the hearing level required by NTID for admission and support services for deaf students. The criteria is a 70 decibel puretone average, i.e., a hearing loss of 70 dB or greater in the better ear.

where the ADA, new technology, and awareness in the workplace are moving, i.e., becoming more pragmatic and assistive versus merely acquiescing to hiring workers with special needs. Deaf and hard-of-hearing persons are also learning more about what their on-the-job needs are, and feeling more confident about expressing these needs to their employers.

Research on alumni of the National Technical Institute for the Deaf (NTID), one of Rochester Institute of Technology's eight colleges suggests that they are performing very well in many aspects of their employment (Walter, Welsh, & Riley, 1988; Foster, 1992). In particular, postsecondary education has had a consistently positive effect on labor force participation, occupations, earnings, and certain types of career mobility (Welsh & Walter, 1988; Schroedel, 1987). However, there is less data regarding the degree to which NTID alumni are moving into positions of management, particularly when those positions involve direct supervision of employees in settings other than those serving deaf and hard-of-hearing people.

Despite the problems that exist for deaf and hard-of-hearing workers, we know that there are some who either currently supervise hearing employees, or have in the past. The objective of this study is to determine the characteristics and circumstances of NTID alumni who have become supervisors or managers in the course of their employment. The term "supervisor" herein is defined as an employee who directly supervises the work of others, including the performance of such functions as hiring, evaluation, and when necessary, termination. Further, the focus is on deaf and hard-of-hearing supervisors working in environments that are not staffed by or serving primarily deaf and hard-of-hearing people, that is, in what is sometimes described as the "hearing" versus the "deaf" sector of employment.

This paper will focus on results of the first phase of the study which involved identifying, locating, surveying, and profiling potential supervisors among NTID's alumni. The information derived from this initial phase will inform the second phase, when in-depth interviews will be conducted with alumni who fit our defined criteria of a deaf supervisor, and who have expressed a willingness to discuss their experiences.

Methods

Identification of Potential Supervisors. Several strategies were used to identify NTID/RIT alumni who might be supervisors or managers on their jobs. The primary sources of potential supervisors were derived from analyses done using NTID's Alumni Feedback Questionnaire data base; solicitation of the NTID community for names of alumni whom they thought were currently supervisors or managers on their jobs; and an announcement about the study in NTID's Alumni Newsletter.

The Alumni Feedback data file contains information provided by alumni via reiterated surveys sent to them since they have graduated. These surveys have varied in content, but each contained a core of questions including continuing educational activities, employment status, occupations, industries and in some instances, earnings. The Bureau of the Census (1990) occupational codes are used to categorize jobs alumni report on their Alumni Feedback surveys. Potential supervisors were selected by the occupation coded on their most recent questionnaire response.

The NTID faculty and staff were contacted via electronic mail to ask them to please share the names of any alumni they knew of who possibly met our criteria for supervisor or manager on their jobs. They were very responsive to our request. In addition to some of the same names we had also selected from our data base, they provided numerous other alumni prospects. The newsletter announcement let alumni know that the study was being conducted, and if they were interested in participating, to contact us and provide their current address.

Additionally, when completed surveys were returned, information such as last reported occupation and industry, highest degree conferred by RIT, and employment status, was extracted from existing alumni data bases to help verify, compare, and interpret answers alumni gave to similar questions on the supervisor surveys. The Sample. The combined strategies to identify potential supervisors among NTID/RIT alumni resulted in 213 names. All but ten, for whom addresses were incorrect/unknown, were successfully contacted, resulting in a final sample of 203 potential supervisors.

Current address data files were used to develop the mailing list. Letters were sent with each questionnaire explaining the rationale for the study and how the information gathered was intended to be used to help other students and alumni. Additionally, they were informed that when the study was completed, all who responded would receive a summary of the results. The explanation and request was sent out via our Alumni Relations Officer, with his signature. The authors also signed the letters and were identified as co-investigators of the study.

An incentive was offered to encourage participation. Each potential respondent was informed that five participants would be randomly chosen to receive a gift certificate from a well-known national catalog company who, it was noted, was one of the first to provide a TTY² number for customers. Those who responded by a certain date would be eligible for the drawing. In the interim, a reminder mailing was done regarding the survey sent. After the drawing, the winners as well as other participants were informed of the results of the drawing for the gift certificate. A second questionnaire mailing was also done approximately four weeks after the first to give non-respondents another opportunity to complete and return a questionnaire. There were a total of 121 responses to the survey, yielding a 59.6 percent return rate.

The Survey Instrument. The instrument was designed to gather detailed information in a variety of areas including employment history, continuing education experiences, primary job responsibilities, number of other deaf and hard-of-hearing workers at ones' place of employment, scope of supervision (be it of people and/or projects), and past supervisory experience. It also included open-ended questions designed to explore with respondents elements of their work experience, such as strategies they use to communicate with employees and positive or negative aspects of being a supervisor.

In addition to questions pertaining to employment, occupations, supervision, communication methods used, and education, respondents were also asked to provide any telecommunication means by which we could

² TTY is used in this paper for describing the original teletype machine developed for deaf and hard-of-hearing persons for phone communications. It is the term preferred by many deaf persons. TDD is a more general term which means telecommunication device for the deaf. This term is used in the paper when a respondent specifically used the term "TDD" in comments they wrote on their questionnaires.

contact them. Places to list phone number (TTY/Voice), electronic mail address, and a facsimile number were provided on the questionnaire.

Because names and social security numbers of alumni were used, and the personal nature of some questions asked, the survey instrument had to be reviewed and classified by the college's Institutional Review Board relating to use of human subjects in research. The study was classified as requiring informed consent and therefore, signatures were required by respondents in order for their information to be used in the study (see Appendix A: Employment Experiences Survey).

Results

General Characteristics of the Sample

Nearly two thirds of respondents were male, and a little over a third, female. The majority of the alumni who responded were currently employed (92.6%). Nine alumni who did not have jobs at the time they responded to the survey, had either been laid off from their jobs or had quit. One person stated that s/he was in the process of setting up a business, and no one said they had been fired from their last job. Two individuals were unemployed, but actively looking for work.

Seven individuals were technically out of the labor force; that is, they did not currently have jobs, nor were they actively looking for jobs. Three checked that they were not working because they were going back to school; four checked family responsibilities that required their not being in the work force; and two checked that they were too ill to work. A couple of respondents checked more than one reason for being out of the labor force, which explains why there were nine reasons checked instead of one each for the seven who were out of the labor force.

Although one individual had been in the same job for as long as 26 years, and another only one year, half of the respondents had been in the same job for six years or less. This makes sense in view of the fact that nearly half of them also reported that they had made job changes since the last time they responded to an alumni feedback questionnaire. Among the job changers, about two thirds indicated that these were promotions for them. And for the entire sample, nearly 69 percent indicated that they had had at least one promotion during their career. A little over a quarter each noted that the promotion was either initiated by the individual (28.2%) or by their manager (25.6%). Nearly half indicated that the idea of promotion was shared. Promotions and job mobility will be dealt with in more depth during the interview phase of the study. However, looking at this sample of deaf college graduates thus far, stagnation on the job appears not to be a predominating factor (see Slide 2).

A little over 13 percent of the respondents had made changes in both their jobs and industry or company since they last provided information to NTID. In these cases the percentages of females doing so were somewhat greater than for males. Three times as many employees made job changes versus changes in the type of industry in which they worked. This suggests either upward or lateral mobility within one's place of work, or a change to another company or business that engages in the same line of work.

Alumni were also asked if they were owners of a business. Of the 23 individuals who reported owning their businesses (21.6%), three quarters were men. There were two individuals (one male and one female) for whom this business was a secondary enterprise, and not their primary source of income (see Slides 21-23 for the name of businesses owned).

Respondent Profile

Type of job responsibility. Alumni were asked if they (1) supervised other employees, (2) supervised projects, or (3) worked as part of a team. Many respondents checked more than one of the three conditions. Since it is possible in reality to do all three as part of one's job, respondents were counted as potential supervisors, unless they specifically did not check that item on the questionnaire. This did not prevent identification of persons who met our criteria for supervisor, because there were additional, qualifying questions on the survey that allowed distinctions to be made as to who were and were not truly supervisors or managers of people.

Individuals categorized themselves about equally as being supervisors of others (38.4%), part of a team (37.5%), or as project leaders (33.0%). And among those who reported that they owned their businesses, a little over half also classified themselves as supervisors (see Slide 2).

Numbers of Deaf Employees at Place of Work. The range was very wide for the number of deaf and hard-of-hearing persons at a respondent's place of work. There were as many as 600 in one instance, and none at the other end of the spectrum. However, fifteen was the mean number of other employees who were deaf at their places of work. Similarly, numbers of other employees who used sign language averaged twenty three. But more than half of the respondents reported that they worked in environments where there were neither any other deaf or hard-of-hearing persons, nor other users of sign language. Even when there were other deaf and hard-of-hearing employees at their places of work, almost three quarters of respondents said they didn't actually work directly with them. Therefore, the majority were interacting and doing business primarily with hearing individuals (see Slide 3).

Types of Businesses Where Employed. The businesses and industries where respondents are employed for the most part reflect their educational backgrounds and training versus any particular sector of the marketplace. There are some small concentrations in government departments, which has been a major employer of deaf and hard-of-hearing persons. A variety of employers typified the lists for both men and women, although there are differences between the two (see Slides 15 to 20).

Business Ownership. As mentioned previously, 23 respondents reported that they were owners of a business. Most often these were services or consulting businesses, and a few were wholesale or retail sales (Slides 21 to 23 list these for males and females by job title and business).

Continuing Education. Alumni were asked about any kinds of additional education they have had since graduating from college. All but 10 respondents reported some form of continuing education. Over half (53.7%) cited on-the-job training, and almost as many (43.0%) said they had taken courses toward a degree. Many (38.0%) indicated that they took courses specifically to update their skills. Others simply took courses that were of personal interest (24.0%). Nine individuals were currently in school. Certainly these NTID/RIT

graduates demonstrate recognition of the need for life-long learning. This can also be interpreted as an indicator of career mobility in that they are either keeping current in their fields or seeking new opportunities (see Slide 4).

Among those who had taken courses toward a degree there were two associate's, ten bachelor's, 16 master's, and three doctoral degrees earned. This amounts to 28.9 percent of the sample. The programs in which these degrees were earned are contained in Slides 24 and 25.

Supervisors and Non-Supervisors

In addition to being asked if they were currently supervisors on their jobs, alumni were also asked if they were supervisors in a previous job. Forty-three respondents indicated they were currently supervisors of others; 26 of whom reported that they had also held supervisory positions in a past job, and 17 were new to supervising. There were 61 (50.4%) who reported having been supervisors in the past.

For this phase of the study, individuals were categorized as supervisors based solely on self identification as such in their current jobs. All others were categorized as non-supervisors. When individuals are selected for in-depth interviews in the next phase of the study, both current and past supervisory experience will be taken into account. Moreover the selection criteria will include a minimum number of employees supervised, supervision of either exclusively hearing, or a mix of deaf and hard-of-hearing and hearing employees. Experience at hiring and evaluating others will also be criteria.

Supervisors (43) and non-supervisors (78) of people were compared for number of deaf employees and number of employees who used sign language at their places of work, and how many deaf and hard-of-hearing employees they worked with directly, communication modes used on the job³, and their perceptions about the positive and negative aspects of being a supervisor (see Slide 6 for an overview of Current Supervisors).

Work Environment. On the average, current supervisors were responsible for 14 other employees, although the median number supervised was six. A very small percentage (2.2%) worked exclusively with other deaf or hard-of-hearing employees. More than half worked (55.6%) with hearing individuals only. Less than half (42.2%) supervised a mix of deaf and hard-of-hearing, and hearing workers.

As mentioned earlier, more than half of the respondents worked in places where there were neither any other deaf or hard-of-hearing persons, nor other users of sign language, and therefore were most often interacting with hearing workers. However, there was a significant difference between the two groups in numbers of deaf employees with whom they worked directly. Almost three times as many supervisors (42%) reported that they worked directly with one or more deaf persons than did non-supervisors (14%). The mean numbers, medians, and ranges of deaf and hard-of-hearing employees at their places of work, and number of other employees who used sign language were essentially the same as for the sample as a whole (see Slide 10).

³ Communication modes used **overall** versus those used **most often** are discussed in terms of supervisors versus non-supervisors only. They were not presented in the general profile section because our focus for this variable in particular was to demonstrate not only variety of use but differences between the two groups.

Communication On-the-Job. Several examples of types of communication were included in this question. Respondents often cited these, to which they added other modes also used by them at work. Then they were asked to indicate which of these they used most often. The preferred method(s) were not as easily pinned down as originally thought. Some respondents listed the same methods for both cases. This generally suggests that they are flexible and adaptive, using whatever works best in any given situation. Upon closer examination however, differences emerged between communication modes used **overall** and **most often**, and between supervisors and non-supervisors (Slides 7 and 8 lists these).

Supervisors and non-supervisors used a wide variety of methods. Both cited phone/tty as a primary communication tool, followed by speaking. Facsimile, e-mail, interpreters, and relay followed in frequency of use. The most notable difference between supervisors and non-supervisors occurs with use of signing and writing to communicate on the job. Supervisors cited both methods significantly more often than non-supervisors. Moreover, supervisors cited the use of gestures and lipreading more often than non-supervisors. In general, supervisors appeared to have more tools or equipment available, as indicated by reported use of pagers, voice mail, video conferencing, and electronic notes.

A slightly different distribution occurs for methods **most often used**. Speaking tops the list for both groups. Supervisors also used signing quite often, more so than electronic mail, writing, or interpreters. Other than high use of speaking, non-supervisors tended to rely on electronic mail and writing. They also used interpreters only slightly more often than supervisors. Phone/TTY and facsimile played a larger role among non-supervisors (see Slide 9).

Opportunity to learn more specifics about the communication challenges deaf and hard-of-hearing supervisors face in their daily working environments will be provided by way of interviews with selected supervisors. Still, we can glean some insights into the communication issue through analyses of comments made relative to positive and negative aspects of supervising. As one might expect, communication problems and strategies fell out as a primary theme.

Positive and Negative Thoughts about Supervising Others. Two open-ended questions "What do you think are positive..." and, "What do you think are negative things about being a supervisor or manager?" were asked of all alumni. Both positive and negative comments written by each respondent were typed verbatim into a file. First they were read and analyzed for common occurring themes or points. Categories were developed based on these themes. All comments were then scored for number of times a theme or point occurred.

Because communication is an integral component of supervising others, especially for deaf and hard-of-hearing persons, it was subjected to additional analyses in order to distinguish what were communication issues for **any supervisor** versus those specific to **deaf and hard-of-hearing supervisors**. Deaf-related versus general supervisory issues will be examined following discussion of the positive and negative aspects of supervising.

Communication issues related to supervising were categorized under negative aspects. However, as we will learn later, many supervisors described ways in which they were able to take advantage of their

position, to make communication a "positive" for them. Slide 11 contains the percentages of occurring themes for supervisors and non-supervisors.

Both current supervisors and non-supervisors thought that the "Opportunity to Lead" and "The Challenge" were key positive aspects of supervising. "Opportunity for Teamwork", however, was deemed a positive aspect by those who were not supervising, more than by supervisors. Having "More Exposure to Information" was cited almost equally by both supervisors and non-supervisors. The two groups differed quite a bit on the positive value they attributed to other aspects of supervising. The ability to "Exercise Vision" was valued more by supervisors, as was the "Opportunity to Educate." "Improved Self-Esteem" was less of an issue for supervisors than for non-supervisors.

Many of these differences were not great. But some of the non-supervisors had past experience as supervisors. Therefore it seemed useful to look at where these themes placed for individuals who had never been supervisors. Interestingly, this group perceived supervising as providing more in the way of personal satisfaction as opposed to enabling them to educate or influence others. For example, "Improved Self-Esteem", "More Job Satisfaction", and "More Perks" were high on the never-supervisors list of positives. "Opportunity for Teamwork" was cited much less often than among non-supervisors as a group (Slide 11).

Looking at the negative side of supervising, "Communication Difficulties" ranked first among the groups. "Problems with Employees" was second most cited as a negative, followed by "Administrative Burdens", and "Stress". Supervisors and non-supervisors mentioned other categories at about the same frequency, except as concerned "Bias toward Deaf Persons" which supervisors viewed as less of a problem compared to non-supervisors. In fact, those in the position to "know", as it were, were less likely to mention deafness-related issues as negatives than were non- or never-supervisors. One possible explanation for this finding is that perspectives based on actual experience are often different than those based on speculation. On the other hand, it could also be that individuals who had aspired to supervisory positions, but were unable to achieve their goal, believed that "Bias toward Deaf Persons" was a major contributing factor (Slide 12).

Of the total number of possible responses regarding supervising, 100 positive and 98 negative responses were given. Some persons wrote only one comment, while others offered several comments in response to the questions. Responses were further broken down into four broad categories: (1) positive comments not related to deafness, (2) negative comments not related to deafness, (3) positive comments related to deafness, and (4) negative comments related to deafness. Within each of these categories, comments were further analyzed for recurring patterns and themes.

The first category consists of **positive comments** that were **not** related to deafness. Respondents described both benefits of being a supervisor or manager, and the qualities they felt were important in a supervisor/manager. Respondents mentioned many types of benefits to being a supervisor. Many said they appreciated the opportunity to improve their organization, or to help it grow. Others focused on material or personal benefits, such as increases in pay, responsibility, professional growth, status, leadership opportunities, self-esteem, and visibility within the company. Still another type of benefit involved enjoyment derived from working with others, e.g., mentoring and guiding other employees, and teamwork. Lastly, some respondents

said that being a manager provided greater access to information and professional networks within the organization, and several said they liked the opportunity to get to know and work with upper management. Examples of qualities deemed important in supervisors included effective communication, assertiveness, fairness, patience, technical competence, and the ability to work well with others.

The second category of response was **negative comments not** related to deafness. By far the most frequently mentioned negative aspect of being a supervisor was personnel issues, including responsibilities for hiring, evaluating, disciplining, and possibly terminating employees. Others complained about the long hours expected of managers, a condition which was exacerbated when it occurred without additional pay. A third kind of negative comment involved reflections on the pressures and stress associated with management, including social isolation and having to make difficult decisions. Several mentioned the increased level of responsibility as a negative factor, as well as the administrative aspects of supervision, including meetings, policies/regulations, and paperwork. Lastly, several respondents said they felt the politics involved in management was a negative aspect of the job. Examples of qualities which were described as negative in a manager included poor communication skills, a negative attitude (failure to praise, looks for flaws, critical, demanding), a lack of authority, presence, or decisiveness, failure to support growth in one's employees, and favoritism.

Positive comments related to deafness comprised the third category. They tended to focus on two areas - attitude and communication. Several respondents felt that, as a deaf or hard-of-hearing supervisor, they were able to provide a positive role model for deaf and hard-of-hearing people as well as hearing people to show others that "deaf can do it." Other positive responses related to attitude included the opportunity to spread an awareness of deaf culture and the power to influence company policy and direction with respect to deaf or disabled persons.

Respondents also offered positive comments associated with communication. For example, several noted that as supervisors they have more control over communication and are able to "enforce" effective communication. In a similar vein, a respondent said that his/her employees are taking sign courses and learning how to use a TDD. Another said that s/he has more "control" over communication, and that the employees "listen to" him/her more now, rather than the other way around. Other examples of positive comments related to communication include being able to get technology and services to support communication (TTY, e-mail, interpreters), having a staff assistant who "listens" for the deaf person, and the notion that deaf supervisors have more time to focus and become better observers than hearing supervisors because they "don't need to communicate as much."

The final category focused on **negative comments related to deafness**. Again, comments involved either communication or attitude. Some people were very general in discussing negative aspects of communication, noting simply that there was "too much communication," "communication hardship," "miscommunications," or "communication barriers." Others were more specific.

Several people commented on problems with support services. In this vein, some cited difficulties scheduling interpreters or finding money in the budget to pay them, and one person said that it was difficult to

control a meeting even with an interpreter. One respondent complained that s/he was not able to get everything at meetings without a notetaker because people sometimes mumble, while another said that the typing skills of the notetakers was sometimes poor. Many said that the phone presented problems - some simply observed that they could not use the telephone with voice, while others said that customers were not always patient or willing to use the relay service.

Several respondents focused on difficulties associated with interpersonal communications with particular people or under specific conditions. For example, one person had difficulty handling communication with upper management, while another described difficulties getting complete information from business partners. A third person said that when the interpreter was not present, the "hearing employees forget you're deaf." A fourth responded pointed out that it is difficult to communicate with new employees, and that it takes time to teach them sign language; the alternative (finding a hearing employee who knows ASL and can be trusted) is even more difficult.

Negative comments pertaining to attitude focused on attitudes of hearing co-workers or company management. Several said that it was difficult for deaf people to get promoted because there was a lack of trust, faith, understanding, sensitivity, acceptance, or knowledge on the part of hearing management. For example, one person said that hearing people think that deaf people can't handle management responsibilities such as meetings, or don't want to spend the money for interpreters. Another person commented that "employees don't like having a deaf or hard-of-hearing person over them, upper management (hearing people) doesn't like the idea of deaf or hard-of-hearing people being the 'experts' in the field of deafness--they don't like to listen to a deaf person and/or don't accept a deaf person's management style."

Profile/Summary

General

Two thirds of respondents are men; one third women. The majority are currently employed (92.6%) and had been in their jobs an average of six years. Nearly half had made job changes since last responding to an alumni survey. The majority of respondents (68.6%) had had at least one promotion during their years of employment. Therefore, they were either laterally or upwardly mobile. Nearly a quarter were owners of a business (75% men).

Approximately a third each of the respondents noted that they supervised others, worked as part of a team, or supervised projects.

Half of the respondents worked in environments where there were neither any other deaf or hard-of-hearing persons, nor users of sign language. Even when there were other deaf and hard-of-hearing employees, nearly three quarters indicated that they did not work directly with them.

Twenty eight percent of the respondents had earned additional degrees and nine were currently enrolled in school. Most had received some kind of additional education. In order of frequency, the types of continuing education received were: on-the-job training; courses toward a degree; courses specifically to

update skills; or simply courses for personal interest. It appears that on the whole, these alumni recognized and pursued the need for maintaining and updating the skills required to succeed in their careers.

The jobs and places of work reported by these alumni are reflective of the instructional programs in which they had earned degrees, versus specific sectors of the market place. And there was a considerable variety of sectors and industries represented.

Current Supervisors (N=43) Versus Non-Supervisors (N=78)

Communication On-The-Job. Fifteen different modes of communication were cited by both supervisors and non-supervisors. Those ranked as the top five for supervisors were: phone/TTY; speaking; signing; writing; and equal use of e-mail and facsimile. For non-supervisors the top five differed somewhat: phone/TTY; speaking; fax; e-mail; and interpreters.

The modes of communication **most often** used followed a slightly different order of frequency, but were in greater agreement. For supervisors, the order of most often used mode was: speaking; signing; e-mail; writing; and interpreters. For non-supervisors the order was: speaking; e-mail; writing; signing; and phone/TTY. Although use of interpreters among non-supervisors ranked sixth on their list in order of frequency, in terms of actual percentage use, both used interpreters equally often. Supervisors used phone/TTY's at a much lower frequency than did non-supervisors. In contrast, supervisors used sign language more often than non-supervisors. Based upon the data and comments written regarding the communication aspect of supervising, more frequent use of sign language by supervisors can be attributed to two primary factors. First, they reported working more often with other deaf employees than did non-supervisors. Second, several supervisors commented that they have greater decision-making power as to the communication modes to be used between them and the individuals they oversee.

It is important to emphasize that even though speaking was cited as the number one most often used mode of communication by supervisors and non-supervisors on-the-job, a variety of methods were used frequently by both groups.

Positive and Negative Aspects of Supervising. Supervisors and non-supervisors agreed that "Opportunity to Lead", and "The Challenge" were the top two positive aspects of being a supervisor. For supervisors, "Opportunity for Teamwork", "Exposure to Information", and "Opportunity to Educate" ranked third, fourth, and fifth as positives. Non-supervisors ranked "Exposure to Information", "Improved Self-Esteem", and "More Job Satisfaction" as third, fourth, and fifth in their view of positives. Although there were differences in the rank ordering, in actual percentages most of the other categories were prioritized similarly. Greatest disagreement occurred for the themes, "More Perks" and "Improved Self-Esteem", which non-supervisors perceived as positives of supervising more than did supervisors. Another theme, "Opportunity to Educate", was viewed as more positive by supervisors than by non-supervisors.

The non-supervisors group contained both individuals who supervised in a past job as well as those who had never supervised others (never-supervisors). Therefore, never-supervisors were analyzed separately to see if their perceptions differed substantially than those who had supervisory experience. In fact, the never-

supervisors ranked "Improved Self-Esteem", "More Job Satisfaction", and "More Perks" highest on their list of positive aspects of supervising. Clearly, these individuals valued personal enhancements as being the positives of having a supervisory position much more than those who were or had been supervisors.

As for the negative aspects of supervising, supervisors and non-supervisors were most divergent with regard to the issues of "Bias toward Deaf". Non-supervisors viewed this presenting a greater problem than did supervisors. And those who had never supervised saw it as a primary obstacle. In contrast, supervisors felt that having "Total Accountability" was more of a burden that came with a supervisory job.

Finally, responses regarding supervisory or management experiences included both comments unrelated to deafness and comments related to deafness. Comments in the first group focused on many areas, including personal as well as general considerations. Comments in the second group focused on communication or attitude.

Questions to Pursue

Further analyses have been done to identify alumni respondents who meet our criteria of "supervisor", defined as "an employee who directly supervises the work of others, including the performance of such functions as hiring, evaluation, and when necessary, termination", and "deaf and hard-of-hearing supervisors working in environments that are not staffed by or serving primarily deaf and hard-of-hearing people, that is, in what is sometimes described as the 'hearing' versus the 'deaf' sector of employment".

At present, forty alumni respondents who meet our criteria have been identified. Our plan is to contact them and set up interviews with as many of them as possible. This will enable us to pursue more in-depth exploration regarding their supervisory experiences. Some of the questions we want to pose are listed on Slides 13 and 14. They consist of background and demographic information, while others are specific to the work environment and strategies used to deal with communication and accommodation issues.

We are now seeking input from other professionals who work with deaf and hard-of-hearing individuals regarding important questions they think should be added to our current list.

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Appendix A

EMPLOYMENT EXPERIENCES SURVEY

Name: _____ Date: _____

(please print)

Your signature means that you have read the cover letter. It also means that we can use the information from this questionnaire. Please sign it.

Signature _____ Phone: (____)

Voice TTY Both (check

which one)

Fax: (____)

E-mail:

EMPLOYMENT

1. Are you employed now?

- No. (Please go to question #9)
 Yes. How long have you been in your present job?

Have you made any job changes since you last sent us information about yourself?

- No. (Please go to question #2)
 Yes.

Was your job change (check the one that is true for you):

- A **different job** at the **same company**? Name of new job:

- The **same** type of **job**, but in a **different company** or type of business?

Kind of business or company:

- A **different job** in a **different company**? Name of new job:

Type of company or business:

Was this job change a promotion for you? Yes No

If yes, whose idea was the promotion?

Yours Your manager's Both yours and your manager's

If **not a promotion**, did you want it to be a promotion? Yes No, not really

2. Do you manage your own business? Yes No

If you manage your own business, what kind of business is it?

3. In your present job or business, do you (check which one is true for you):

Supervise any other employees? If yes, how many? _____

Hearing Deaf Both

Have you ever hired another employee? Yes No

Have you ever done employee evaluations? Yes No

Supervise project activities, but not other employees?

Work as a part of a team, but do not supervise a project by yourself or supervise other employees?

4. What is your job title now?

5. How do you communicate on your job? Please list all the methods you use (for example: signing, speaking, writing notes, phone - voice/TTY, E-mail, FAX, interpreters, etc.)

6. How do you communicate **most often** on your job?

7. Are there any other employees in your company who are deaf or hard or hearing?

No Yes, there are _____ (how many?).

Do you work directly with any of them? Yes No

8. Are there employees in your company who use sign language?

Yes. How many use sign language? _____

No.

9. In any past job, did you supervise other employees?

Yes. How many? _____

Hearing Deaf Both

Have you ever hired another employee? Yes No

Have you ever done employee evaluations? Yes No

No.

10. In your career, have you ever received a job promotion? Yes No

11. What do you think are **positive** things about being a supervisor or manager? (Even if you have never been a supervisor or manager.) Please explain:

12. What do you think are **negative** things about being a supervisor or manager? (Even if you have never been a supervisor or manager.) Please explain:

CONTINUING EDUCATION

13. Have you taken any courses or training since you graduated from RIT/NTID? Check which ones you have taken:

- Courses toward another degree
- Courses to update skills, but not for a degree
- On-the-job training/courses
- Courses just for personal interest or fun
- No additional courses or special training since graduation

14. Did you earn any other degrees(s)? Yes No
If yes, what degree(s)?

Where did you earn the degree(s)?

(school or facility)

What year did you earn the degree(s)?

CURRENTLY UNEMPLOYED

15. If you are not currently employed, why not? (Check which is true for you):

- I was laid off from my job.
- I was fired from my job.
- I quit my job.
- I am trying to set up my own business.
- I can't work right now because:
 - I am going to school. What are you studying?

- I have an illness or disability. What kind?

- I have family responsibilities and can't work outside of the home.
- Other reasons? (Please explain)

We thank you for giving us this information. We hope the information will be helpful to other NTID/RIT graduates like yourself. We will send you a copy of the results when we finish our study. (Remember to sign your questionnaire before returning it.)

Employed

Years in current job:

Mean	7.4 years
Median	6.0 years
Range	1.0 to 26.0 years

Job changes since last reports?

Yes	54.6%
No	45.4%

Have ever received a promotion: 68.6%

Supervises others: 38.4%

Works as part of a team: 37.5%

Supervises projects: 33.0%

Work Environments: All Employed Respondents

Work directly with other deaf employees?

No = 74.1%

Yes = 25.9%

	<u>Mean</u>	<u>Median</u>	<u>Range</u>
Number of deaf employees at place of work	15	1	0 to 600
Number of employees who use sign language	23	1	0 to 600

Continuing Education

Types

On-the-job training	53.7%	(65)
Courses toward a degree	43.0%	(52)
Update skills	38.0%	(46)
Personal interest 2	4.0%	(29)
No continuing education	8.3%	(10)

Continuing Education (continued)

Other Degrees Earned:

Associate's	5.7%	(2)
Bachelor's	28.6%	(10)
Master's	45.7%	(16)
Ph.D.	8.6%	(3)

Current Supervisors (N = 43)

Females = 27.9%

Males = 72.1%

Number of employees supervised:

Mean

14

Median

6

Range

1 to 80

Hearing status of those supervised:

Deaf Only

2.2%

Hearing Only

55.6%

Both Deaf and Hearing

42.2%

Do you hire employees?

Yes = 86%

Do you evaluate employees?

Yes = 90.7%

Communication Modes Used on the Job

	<u>Supervisors</u>	<u>Non-Supervisors</u>
Phone/TTY	86.0%	72.2%
Speaking	74.4%	70.2%
Signing	69.8%	50.4%
Writing	62.8%	49.6%
E-Mail	58.1%	52.1%
Fax	58.1%	52.9%
Interpreters	55.8%	51.2%
Relay	23.3%	19.8%

Communication Modes Used on the Job (continued)

	<u>Supervisors</u>	<u>Non-Supervisors</u>
Lipread	14.0%	8.3%
Gestures	14.0%	6.6%
Pager	14.0%	6.6%
Electronic Notes	9.3%	6.6%
Voice Mail	11.6%	6.6%
Video Conferencing/Letters	9.3%	4.1%
Real-Time Display	7.0%	4.1%

Most Often Used Communication Modes on the Job

	<u>Supervisors</u>	<u>Non-Supervisors</u>
Speaking	65.1%	58.7%
Signing	37.2%	24.8%
E-Mail	16.3%	19.0%
Writing	16.3%	18.2%
Interpreters	11.6%	12.4%
Phone/TTY	7.0%	11.6%
Fax	7.0%	9.1%
Relay	2.3%	3.3%
Gestures	2.3%	0.8%
All of the Above	4.7%	3.3%

Work Environment: Supervisors vs. Non-Supervisors

	<u>Supervisors</u>	<u>Non-Supervisors</u>
Work directly with other deaf employees:	42.0%	14.0%
Number of deaf employees at place of work:		
Mean	12.6	14.1
Median	1.0	0.0
Range	0 to 200	0 to 600
Number of deaf employees who use sign language:		
Mean	25.8	18.7
Median	1.0	0.0
Range	0 to 200	0 to 600

Positive Aspects of Supervising Supervisors vs. Non-Supervisors

	<u>Supervisors</u>	<u>Non-Supervisors</u>
Opportunity to Lead	36.4%	30.6%
The Challenge	26.0%	24.8%
Opportunity for Teamwork	16.9%	12.4%
Exposure to Information	15.6%	15.7%
Opportunity to Educate	13.0%	9.9%
Ability to Exercise Vision	11.7%	8.3%
Improved Self-Esteem	10.4%	13.2%
More Job Satisfaction	9.1%	10.7%
Serve as a Role Model	7.8%	9.1%
More Perks	5.2%	9.1%

Negative Aspects of Supervising Supervisors vs. Non-Supervisors

	<u>Supervisors</u>	<u>Non-Supervisors</u>
Communication Difficulties	27.3%	27.3%
Employee Problems	19.5%	15.7%
Administrative Burdens	11.7%	12.4%
Stress	10.4%	10.7%
Total Accountability	9.1%	7.4%
Long Hours/Meetings	9.1%	10.7%
Politics	7.8%	6.6%
Bias Toward Deaf	3.9%	8.3%
Isolation	1.3%	1.7%
Misc. Other Problems	7.8%	8.3%

Some Interview Questions

Education and occupations of parents/guardians?

Did you have supporters/mentors for your educational and career paths? Who?

Was becoming a supervisor a goal for you? Always or later on?

How long had you been working before you became a supervisor?

What barriers did you encounter in your career? How did you overcome them?

What strategies do you use routinely to overcome communication difficulties?

Some Interview Questions (continued)

What accommodations has your company made for you to improve your ability to do your job?

What advice would you give other companies relative to deaf employees?

What would you do differently if you could do it over again?

Types of Industries or Businesses of Employment - Males

Landscape and Horticulture	2
Agricultural Services	1
Construction	1
Manufacturing - Misc.	
Non-Metal Materials & Stone	1
Manufacturing - Computers and Related Equipment	4
Manufacturing - Electrical Machinery, Equipment & Supplies	1
Radio & TV Broadcasting	1
Telephone Communications	3
Radio, TV, & Computer Stores	1
Eating and Drinking Places	1

Types of Industries or Businesses of Employment - Males (continued)

Miscellaneous Retail Stores	1
Electric Light & Power	1
Sanitary Services	1
Wholesale Hardware, Plumbing, & Heating Supplies	1
Retail Motor Vehicle Dealers	1
Furniture & Home Furnishings	1
Banking	2
Credit Agencies	1
Insurance	1
Real Estate, Real Estate Insurance Officers	1
Computer & Data Processing Services	2
Business Service, n.e.c.	4

Types of Industries or Businesses of Employment - Males (continued)

Engineering & Survey Services	1
Hotels & Motels	1
Laundry, Cleaning & Garment Services	1
Theaters & Motion Picture Services	1
Miscellaneous Recreation & Entertainment Services	1
Offices & Clinics of Optometrists	1
Health Services, n.e.c.	3
Colleges & Universities	3
Accounting, Auditing, Bookkeeping	1
General Government, n.e.c.	2
Justice, Public Order, & Safety	1

Types of Industries or Businesses of Employment - Males (continued)

Public Finance, Taxation, & Monetary Policy	2
Management & Public Relations	1
Administration of Human Resources	4
Administration of Environmental Quality and Housing	4
National Security & International Affairs	4
<i>TOTAL</i>	64

Types of Industries or Businesses of Employment - Females

Printing & Publishing (except newspapers)	1
Guided Missiles	1
Manufacturing - Photographic Equipment & Supplies	1
U.S. Postal Service	1
Wholesale Lumber & Construction	2
Grocery Stores	1
Miscellaneous Retail Stores	1
Vending Machine Operators	1
Hospitals	3
Elementary & Secondary Schools	3
Colleges & Universities	4

Types of Industries or Businesses of Employment - Females (continued)

Education Services, n.e.c.	2
Social Services	2
Accounting, Auditing, Bookkeeping	2
Public Finance, Taxation, & Monetary Policy	3
Research, Development, & Testing	1
Management & Public Relations Services	1
Administration of Human Resources	6
National Security & International Affairs	1
<i>TOTAL</i>	<i>37</i>

Alumni Owning Businesses: Males

Job Title

Optometrist

Manager

Manager

Manager

Director

Services Manager

President

Landscape Contractor

Landscape Architect/Contractor

Artist

Type of Business

Optometrist Office

Retail Furniture and Appliances

Interpreting Service

Carpentry (construction) Business

Video/Film Productions

Wholesale Hardware Business

Captioning Service

Landscape/Horticulture Business

Landscape/Horticulture Business

Screen Printing

Alumni Owning Businesses: Males (continued)

Job Title

Multi-Media Specialist

Owner/Operator

Crew Chief

Boating Captain

Programmer/Analyst

Computer Systems Analyst/Scientist

Type of Business

Multi-Media Service

Kennel Management/Breeder

Carpet Cleaning Business

Chartered Fishing Trips

Consulting Business

Computing Consulting Business

- * One other gentleman reported that he had his own consulting business in addition to his government job. However, he did not provide any details about the nature of the consulting work.

Alumni Owning Businesses: Females

Job Title

Public Relations Specialist

Supervisor

Supervisor

Social Scientist Consultant

Management Analyst Consultant

Type of Business

Printing/Publishing Company
(not a newspaper)

Vending Machine Business

Miscellaneous Retail Business

Educational Services

Management & Public Relations
Service

- * One woman operated a rubber stamp business in addition to her full-time system's analyst job with the government.

Additional Degrees Earned: Instructional Programs

<u>Program</u>	<u>Males</u>	<u>Females</u>
Computer & Information Sciences	2	0
Computer Programming	1	0
Educational Administration	0	1
Educational Administration: Special Education	2	1
Architectural Engineering	1	0
Judicial Science: Legal Specialist	1	0
General Studies	0	1

Additional Degrees Earned: Instructional Programs

<u>Program</u>	<u>Males</u>	<u>Females</u>
Theological Studies	1	0
Social Work	1	2
Optometry	1	0
Human Resources Mgmt.	0	1

Note: Although 35 alumni reported having earned another degree, not all reported the program from which they received their degree.