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## **EARLY CAREER ATTAINMENTS OF EMPLOYEES WHO ARE DEAF OR HARD OF HEARING TEN YEARS AFTER COLLEGE: SOME PRELIMINARY FINDINGS**

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**Paul D. Geyer, Steven Boone & John Schroedel**

### **Abstract**

This paper addresses questions about the early career attainments and attitudes of a sample of 325 deaf and hard of hearing workers with postsecondary training and education. The overall goal is to identify the strategies that create job change and career advancement opportunities for deaf and hard of hearing workers. Specific questions addressed include: "what kinds of jobs do these alumni have and what are their earnings?" "What are their attitudes about their jobs?" "How long have they worked on these jobs and have they been promoted?" Overall, descriptive information bearing on these and similar questions suggest that postsecondary training and education has been effective as a strategy for early career preparation and advancement. Two other common strategies for career advancement seem evident: working for larger employers and having a willingness to make a long-term commitment to a career with the same employer.

What are the early career strategies that create job change and career advancement opportunities for deaf and hard of hearing workers? Information on this question would be of special interest to deaf and hard of hearing consumers in the job market (or preparing to enter it), and the postsecondary and rehabilitation professionals who seek knowledge about the early career strategies of people who are deaf or hard of hearing. For example, career guidance counselors in postsecondary institutions may find such information useful in their planning and programmatic or curriculum development activities.

What is known from prior research about the attainments of workers who are deaf or hard of hearing with postsecondary training? A brief review of the literature may provide a basis for drawing comparisons between findings reported here and those reported in other studies. Labor force participation (ability to find gainful employment if searching for work) is an important attainment variable. Historically, persons who are deaf have not enjoyed access to the same employment opportunities as their hearing counterparts. Welsh and MacLeod-Gallinger (1992) reported unemployment rates two to three times higher for a national sample of deaf high school graduates compared to their hearing peers. Fewer than one-third of the respondents between the ages of 20 to 34 who wanted to work could find a job!

Another attainment variable is underemployment. Clogg (1979) defined underemployment as employment in jobs that require lower skills,

training, abilities, and credentials than those possessed by the worker in his or her career. One example of this noted by Schein and Delk (1974) was the 43% of people who are deaf with 13 or more years of education who were employed in clerical, operative, laborer, service, or household jobs.

Yet a third attainment variable is career advancement. Career advancement may be observed in many ways such as increasing pay, promotions, or increased responsibilities. What are the prospects for career advancement for workers who are deaf? Overall, a number of studies suggest that those making the most gains were those with a college education, an accomplishment still achieved by a minority of deaf persons (Barnertt & Christiansen, 1996; Watson, 1995; Welsh & MacLeod-Gallinger, 1992). MacLeod-Gallinger (1992) reported that deaf persons with a bachelor's degree or higher had achieved some socioeconomic parity with their similarly educated peers who hear, but overall they still lagged behind hearing workers in the socioeconomic quality of their jobs.

Beyond attainment variables, worker attitudes and perceptions were also examined in this study. Employees form attitudes about many aspects of their work including on-the-job communication, relations with supervisors, and job satisfaction. Attitudes and perceptions have received attention in several prior studies. For example, Geyer and Schroedel (1998) reviewed 13 studies of the levels of job satisfaction among workers who are deaf. These studies revealed that the large majority of workers who are deaf report being satisfied or highly satisfied with their jobs. Few studies have reported information about attitudes and perceptions for workers who are hard of hearing.

The purpose of this article is to disseminate descriptive information about the early career attainments and work attitudes of 325 deaf and hard of hearing alumni ten years after graduating from postsecondary education and training programs in the United States. The survey focused on educational, occupational, and economic attainments as well as attitudes towards respondent's jobs, bosses, co-workers and other aspects of their work environment. General patterns among the respondent's attainments and attitudes may hold the "secrets" to success in the workplace -- that is, the results may reveal common strategies used by these alumni in their efforts to become successful in their careers.

## Method

Sample. Participants were 325 alumni who are deaf or hard of hearing, who have been involved in a series of research projects which

began in 1984 (Schroedel & Watson, 1991). Regarding their ages, 6% are 30-34 years old, 91% are 35-49 years old, and 3% are 50-65 years old. Females comprise 53% of the sample and males 47%. Almost 92% of respondents are white and 8% have other ethnic backgrounds. Fifty-five percent are married and 45% are not. Ninety-one percent reported no additional significant disabilities besides loss of hearing. Sixty-nine percent identified themselves as deaf and 31% as hard of hearing. Almost 63% had a hearing aid. Upon completion of the 10-year follow-up survey in 1994, all respondents had a postsecondary degree including one-year vocational certificates (29%); an associate's degree or another two-year degree (20%); a bachelor's degree (32%); a master's degree (18%); or a doctorate (1%).

Procedure. In 1989, questionnaires were sent to individuals in the classes of 1983, 1984 and 1985 at 47 special postsecondary programs, including two- and four-year colleges and technical institutes. A total of 490 participants completed mailed questionnaires which gathered information on a comprehensive work history, use of social services, and additional educational attainments (El-Khiami, 1993). In 1994, a ten-year follow-up survey gathered information on the employment of respondents, including satisfaction with their jobs as well as information on their current employer and employment status. Mail and phone efforts to trace the 490 people who participated in the 1989 survey yielded a sample of 400 potential respondents (82% of the 490). Four mailings of the questionnaire netted a response rate of 80%, or 325 completed survey forms from the 400 traced alumni. The results are described primarily using descriptive statistics (e.g., means, percentages, frequency counts) supplemented by a few bivariate statistics (correlations). Some respondents chose not to answer some questions; therefore the number (n) of respondents varies for some questions as revealed in the tables and text.

## Results

Labor Force Status. Among the 325 respondents, 271 participants (83%) were employed, and 54 (17%) were not working. Among those without jobs, 26% ( $\underline{n} = 11$ ) were unemployed job seekers (unemployed people who had been searching for a job within the past four weeks), whereas 55% were staying home to take care of a family, 14% were in school, and 5% were too sick to work. The accepted method for calculating the unemployment rate is to divide the number of unemployed job seekers ( $\underline{n} = 11$ ) by the number of unemployed job seekers plus the number of people who are employed ( $11 + 271 = 282$ ). Applying this

formula to this sample of college alumni who are deaf or hard of hearing, the unemployment rate is 5.5% (11/282). For the same time period, 1994, 5.0% of the college-educated general labor force was unemployed (U.S. Bureau of the Census, 1995). In most other surveys of deaf adults, rates of unemployment were two or three times larger than joblessness rates among peers who hear (e.g., MacLeod-Gallinger, 1992). The overall superior educational position of these college alumni in contrast to deaf adults in other surveys is a clear example that level of unemployment decreases as level of education increases.

The remaining results are based on information provided by the 271 employed participants who completed the 1994, ten-year follow-up survey. Because many participants were employed (83%), their personal attributes (e.g., age, gender, marital status, education level, deaf or hard of hearing) closely match those reported earlier for all participants and are not repeated here.

Characteristics of Respondents' Jobs. Most respondents worked for large-scale employers: 50% were employed at firms with payrolls exceeding 250 personnel, 10% were in companies with a work force of 100 to 250 employees, 28% were with companies having 15 to 100 workers, and 12% worked at companies with less than 15 employees. Regarding their work settings, 50% worked for private industry, 25% in schools and human service programs for deaf persons, 23% for government, and 2% were self-employed.

Underemployment. The previously mentioned measure of underemployment described by Schein and Delk (1974) is imprecise. For example, they consider workers in professional and managerial occupations to be fully employed and not underemployed; yet some workers in professional and managerial occupations may be underemployed if their education levels (e.g., Ph.D.) exceed the educational requirements of their job (e.g., bachelor's degree). Nevertheless, though imprecise as a measure of underemployment, it provides the best measure available within the current database. When it is applied to the participants in the current study, it seems that underemployment is about the same as in the Schein and Delk study (38% here vs. 43% in Schein & Delk, 1974). This can be estimated by considering type of occupation held by participants. Regarding type of occupation, 48% were employed in professional jobs, 4% in managerial positions, and 24% worked in clerical and administrative support occupations. Also, 10% worked in crafts jobs, 5% were machine operators, and 1% were transit operators. Nearly 6% worked in service jobs and 3% worked as laborers or farm workers. Following the definition given above,

those in professional, managerial, or crafts occupations (totaling 62%) would not be considered underemployed, whereas the participants in other occupations (38% of participants) would be considered underemployed considering educational credentials.

As just noted, relatively few respondents (4%) worked in managerial positions. Nevertheless, many non-managerial positions involve responsibility for supervising other employees. Among the respondents, 29% reported that they supervised one or more other employees. Supervisory responsibilities are among the requisite experiences for advancing into managerial positions.

Income. As shown in Table 1, the median salary in 1993 was between \$20,000 and \$24,999. Some 7% of respondents earned less than \$5,000 a year whereas about 12% reported earnings of more than \$40,000. Incomes of others were distributed fairly evenly between these extremes. Most of the 271 employed participants (88%) worked full-time (more than 35 hours per week). The lower salaries (i.e., those below \$5,000 per year), are associated with the 12% who worked part-time. According to an earlier survey of these alumni their median 1989 income fell in the \$15,000 to \$20,000 category (Schroedel, Geyer, & McGee, 1996). No other comparable samples of college-educated persons are available to provide a broader context for contrasting this information on earnings.

**Table 1.** Percent Distribution of 1993 Earnings (N=267)

Earnings	%
Below \$5,000	7.1
\$5,000 to \$9,999	5.2
\$10,000 to \$14,999	10.1
\$15,000 to \$19,999	12.0
\$20,000 to \$24,999	18.8
\$25,000 to \$29,999	12.7
\$30,000 to \$34,999	13.9
\$35,000 to \$39,999	8.6
\$40,000 or more	11.6
TOTAL	100.0

**Attitudes and Perceptions.** Because high-quality communication is important to work success, participants were asked about the quality of communication at work. Eighty-four percent of respondents felt they had either good or very good communication with their co-workers and 79% felt likewise about communication with their bosses (Table 2). Almost 77% perceived good or very good communication with other persons at work, such as customers. When asked how they communicated with their boss, 39% used speech only, 29% used talking and writing, 21% signed and talked with their bosses, and 11% signed without talking.

**Table 2.** Percent Distribution of Perceived Quality of Communication at Work (N=269)

Communication with	Very Good	Good	Fair	Poor
Boss	38.8	40.3	16.0	4.9
Co-workers	35.3	49.1	14.1	1.5
Other people at work	27.9	48.7	19.7	3.7

Having a good relationship with a supervisor is an important aspect of success on the job. As shown in Table 3, more than half of respondents considered that their supervisors "very often" or "often" treated them fairly (62%), listened to them (54%), and gave clear instructions (53%). Somewhat less than half felt that their bosses "often" or "very often" praised their work (48%), gave good advice (43%), helped solve work problems (43%), or helped to improve their work (40%). In contrast, a maximum of 22% of respondents stated that their bosses "almost never" or "never" exhibited any of the seven attributes listed in Table 3. Taken as a whole, most alumni had favorable attitudes about their supervisors, presumably reflecting positive relationships between these workers and their bosses.

Communication and work relations were important in other ways as well. Deaf respondents were asked to compare themselves to their co-workers and report if they functioned better, the same, or worse on various attributes of work performance (Table 4). Deaf workers considered themselves to be better performers on four attributes: quantity of work completed, quality of work completed, absent from work less, and able to work without supervision. Deaf employees perceived they performed the

same on eight attributes, five of which require high-quality communication: teamwork, getting along with the boss, co-workers, other people at work, and ability to follow detailed instructions. The other attributes for which respondents perceived their performance to be the same as their hearing co-workers were punctuality, working safely, and accepting changes in job duties. Among these 12 attributes of their jobs, deaf respondents did not consider themselves to be worse than their hearing peers on any one attribute.

**Table 3.** Percent Distribution of Attitudes Towards Attributes of Boss (N=265-267)

Attribute	Very Often	Often	Some-times	Almost Never	Never
Gives you good advice	16.9	26.2	38.6	15.0	3.4
Helps you improve your work	15.4	24.7	38.2	17.2	4.5
Treats you fairly	26.3	35.7	29.3	6.4	2.3
Helps you solve work problems	18.0	25.1	39.3	13.1	4.5
Gives clear instructions	21.5	31.3	33.6	11.3	2.3
Praises your work	21.8	26.7	33.8	13.9	3.8
Listens to you	26.3	27.8	29.7	11.5	4.5

Respondents also had positive attitudes about their overall employment situation. When asked about their job in general, 28% reported being "very satisfied," 59% reported being "satisfied," and only 14% reported being "not satisfied." This pattern is consistent with findings reported in other studies of job satisfaction for people who are deaf or hard of hearing (e.g., Geyer & Schroedel, 1998).

Promotions and Career Mobility. Respondents are beginning to establish themselves in their careers. Forty-two percent have worked on the same job for six or more years in contrast to the 16% who have been on the same job for approximately one year (Table 5). Job tenure increases fairly evenly for the annual intervals between the first and sixth year.



**Table 4.** Percent Distribution of Attitudes Towards Co-Workers on Work Performance Attributes (N=266-271)

Work Performance Attributes	Compared to Co-Workers		
	Better	Same	Worse
Amount of work completed	48.5	47.4	4.1
Quality of work completed	53.7	43.3	3.0
On-time for work	46.3	51.5	2.2
At work everyday (not absent)	49.6	48.9	1.5
Teamwork	36.1	58.7	5.2
Get along with boss	36.3	55.6	8.1
Working safely	44.2	53.5	2.2
Accept changes in job duties	44.6	52.1	3.4
Follow detailed instructions	42.1	56.8	1.1
Work without supervision	55.0	43.9	1.1
Get along with co-workers	39.5	56.5	4.1
Deal with other people	35.1	58.6	6.3

**Table 5.** Percent Distribution of Tenure on Present Job (N=264)

Tenure	%
Up to one year	15.9
Two years	14.1
Three years	11.4
Four years	10.2
Five years	6.4
Six or more years	42.0
	100.0

How did respondents get the job they now have? Twenty-eight percent got a promotion and 15% made a job transfer while working for the same company. Among other respondents, 30% got a job with a new employer after leaving an old job. Twelve percent obtained a new job after being out of the labor market. Fifteen percent were working on the same job and no changes have occurred in their employment status. In response to a separate question of how long they planned to stay on their current job, 7% said one year, 28% one to three years, 20% three to five years, and 45% stated more than five years. Clearly, the pattern is towards career advancement through a focus on growing in one job over time.

When asked about promotions, nearly half (48%) of the respondents indicated that they had received no promotions within the past five years, whereas 21% had received one promotion, 7% two promotions, 11% three promotions, and 12% four promotions. When asked why they did not get promotions, 39% of respondents who had not received any promotions stated that their current job did not lead to promotions. There are many job titles, such as teacher or engineer, that do not have career ladders clearly stated by name of job. Only 11% of those with no promotions stated their requests for promotions had been rejected, whereas another 10% stated that possible promotions were not open. About one-quarter of respondents had reasons for not being promoted which centered on their individual attributes: 10% felt they were not qualified, 9% had not asked, and 4% did not want a promotion. It thus seems that most of these respondents did not perceive employer prejudice as a reason for limited promotions. Rather, elements of the individual worker and the work environment were apparently responsible for the lack of promotions reported by these respondents.

Promotions are part of a larger issue of job change. Attitudes about changing jobs are intricate, involving an interplay of perceptions about one's current job and about possible future jobs. Table 6 provides some examples of these attitudes. For example, about 64% of respondents either agreed or strongly agreed with the statement, "My job is so good I cannot leave it." Similarly, more than 75% either agreed or strongly agreed with the statement that "It would be very hard to find a better job." In this example, the overall attractiveness of the present job is weighed against the presumed desirability of the new job as well as with the perceived difficulty of searching for such a job.

**Table 6.** Percent Distribution of Attitudes Towards Changing Jobs  
(N=259-270)

Job Attribute	Strongly Agree	Agree	Disagree	Strongly Disagree
I would not leave this job even if I was not happy.	13.0	33.8	37.2	16.0
A new job may not be better than the job I now have.	16.7	44.3	31.4	7.6
It would be exciting to move to a new job.	25.3	48.0	22.3	4.5
I feel stuck on this job.	13.0	29.6	42.6	14.8
My job is so good I cannot leave it.	23.0	40.7	31.1	5.2
It would be easy to find a better job if I looked for one.	15.7	44.4	26.5	13.4
With my skills and experience, it would be easy to find a better job.	7.1	31.3	42.9	18.7
It would be very hard to find a better job.	26.6	44.9	22.1	6.4
Employers are not hiring deaf people.	16.2	21.2	45.9	16.6
If I were to change jobs, I probably would end up worse off than I am now.	15.2	34.1	40.9	9.8
There are a lot of jobs that I could get.	10.4	31.3	44.1	14.2

### Bivariate Statistics

The descriptive statistics presented above suggest that participants pursued some common strategies in their early careers. These are discussed below. One of these strategies is that these participants seem to be pursuing jobs with large employers. A more complete discussion of this strategy requires additional information. In this study, employers with

250 or more employees were defined as large. Fully half of the participants worked for large employers, whereas the other half were distributed among the smaller employers, as described earlier. What would be the advantages of working for large employers? Should counselors recommend that job seekers seek employment with large employers? In an effort to answer these questions, statistical tests were conducted to see if the size of employer was related to salary, number of promotions, or benefits other than salary. Pearson product-moment correlation coefficients ( $n=251$ ) suggest that in fact as the size of the employer increases, so does salary ( $r = .31$ ;  $p < .001$ ) and number of promotions ( $r = .17$ ;  $p < .01$ ). Also, as size of employer increases, so does the likelihood that each of the following benefits will be available ( $p < .001$  for each coefficient): health insurance ( $r = .31$ ); retirement pension plan ( $r = .51$ ); vacation benefits ( $r = .27$ ); and sick leave benefits ( $r = .31$ ). (Probability levels are based on a one-tailed test of significance since benefits were expected to be more likely to be offered by larger employers).

These results do not prove that study participants set out to join larger employers to be sure to have advantages in pay and benefits. Nevertheless, the results do suggest that the participants in this study who do work for larger employers have experienced advantages over those who have been working for smaller employers. Such advantages should be discussed with job seekers during career counseling sessions.

## Conclusions

What are the strategies that create job change and career advancement opportunities for deaf and hard of hearing workers? The results do seem to point to three career strategies used by these participants: complete postsecondary training and education, obtain work with a major employer, and commit to a specific job or related sequence of jobs with the same employer. The following discussion elaborates on these strategies. In addition, several topics for future research are considered.

**Postsecondary Education.** As a whole, the respondents seem to be very successful in their careers and very satisfied with their current employment circumstances. We attribute these positive outcomes largely to their relatively high levels of education. Each of the participants in this study had completed at least one-year of postsecondary training and many of them had earned at least a bachelor's degree. As noted earlier, the unemployment rate of 5.5% resembles that for the general population, unlike rates found in other studies where unemployment for samples of

people who are deaf were two or three times larger than the general population. Unemployment in other studies tends to be higher, relative to the general workforce, when studies focus on deaf workers without postsecondary training (MacLeod-Gallinger, 1992; Welsh & MacLeod-Gallinger, 1992).

The low unemployment levels suggest that seeking postsecondary education or training is an important strategy for entering the workforce. Difficult to evaluate from these (or any) results is the degree to which participants are underemployed. A person who has obtained a job that does not utilize or require the person's postsecondary education or training would be underemployed. Deaf or hard of hearing employees who lack marketable job skills can expect to remain underemployed or face problems in retaining their jobs. The imprecise measure of underemployment described earlier suggested that up to 38% of participants in this study may be underemployed, a figure similar to findings reported by Schein and Delk (1974). The relatively high levels of job satisfaction for these respondents would seem to be contraindicative of underemployment, in that underemployed workers would be expected to be dissatisfied with their jobs. Nevertheless job satisfaction is a complex attitude influenced by many aspects of the job (such as pay, benefits, working conditions, interpersonal relations) other than the degree of underemployment. Research is needed to assess more precisely the degree of underemployment among workers who are deaf or hard of hearing.

Obtain Employment with Large Employer. As the results indicated, over half of the participants reported that they worked for a large employer (one with over 250 employees). Major employers tend to offer advantages over smaller employers, as was found for study participants with respect to salary, number of promotions, and various benefits. As with most people, advancement opportunities are important to these participants, many of whom (48%) had not been promoted within the past five years. Also, compared to smaller employers, major employers are more likely to provide work accommodations (Geyer & Schroedel, 1999).

Large employers simply have more resources available to support their workforce. Job seekers should be made aware of these advantages. For example, 29% of this sample will not receive retirement benefits from their employer, and so must find other means for financial security during retirement. Efforts should be made to guide job seekers towards jobs with retirement benefits (perhaps by seeking work with larger employers) or to counsel job seekers in ways to set up individual retirement plans. We know of no studies of the retirement circumstances of older members of the labor

force who are deaf or hard of hearing and recommend attention to this area of research. Similarly, beyond retirement issues, issues such as salary, opportunities for promotions, and availability of other benefits including accommodations should also be discussed with job seekers when considering the merits of differing employment opportunities.

Commitment to Career Stability and Employer. Respondents were developing stability in their careers as 42% had worked for the same employer for six years or more, 45% intended to stay with the same employer another five years or more, and 43% had obtained either promotions or transfers to new jobs with the same employer. Most respondents intended to keep their jobs. They expressed high overall job satisfaction and a plurality had positive attitudes about their supervisors. This aspect of their employment should help prospects for promotions on the job.

The topic of job advancement is a complex issue. Most perceived they had limited chances of promotions on their current jobs and faced hurdles to finding a better job elsewhere. These circumstances, thus, were increasing prospects for career stability on the present job.

Future Research Needs. This study did not examine several important variables which influence the socioeconomic attainments of deaf and hard of hearing workers because they were beyond the immediate scope of this descriptive study. One of these variables is gender. Another report on the alumni in the present survey found that males compared to females were more likely to earn more, have more job benefits, and gain promotions in part because larger proportions of females worked in part-time jobs (Schroedel, Geyer, & McGee, 1996). These discrepancies persist despite the fact that females were more likely than males to earn bachelor's and master's degrees. One reason for this is that larger percentages of deaf males compared to deaf females are trained in scientific and technical fields which lead to higher paying jobs (MacLeod-Gallinger, 1992). Research is needed to determine why factors such as gender stereotypes of occupations contribute to these career decisions.

Another important variable is hearing status. In the aforementioned 1994 survey it was also reported that deaf workers differed from hard of hearing workers in the use of six on-the-job accommodations (Geyer & Schroedel, 1999). It is important to point out that these hard of hearing alumni graduated from colleges with support service programs which are dissimilar to regular colleges. There are complex interrelationships between variables such as gender or hearing status and educational, occupational, and income attainments. These interrelationships

deserve separate study so that vocational rehabilitation and postsecondary professionals have more complete knowledge useful to improving services.

### Summary

In brief, the overall patterns found in this study have generally been positive for the deaf and hard of hearing workers involved. These are "success stories" in that we have studied highly educated and trained people who are deaf or hard of hearing who have done reasonably well in their early careers. We may have obtained very different results from studies of the early careers of people who are deaf or hard of hearing without postsecondary education and training. Completing at least some postsecondary education and training program seems to have helped to close the gap between this sample and the general work force, creating a more level playing field. Two other strategies which seem to coincide with their success have been obtaining work with major employers and making a commitment to working for the same employer for a long time. Without dismissing the value of other strategies for career advancement and development, these are the three which seem to be most prevalent among these "success stories."

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