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ABSTRACT

A followup study of 167 hearing impaired graduates from Pennsylvania educational institutions from 1970-1975 was conducted. Four instruments--a student questionnaire, an educational history form, a parent followup survey, and an employer survey were used to gather data. Among results were that the jobs held by deaf Ss did not require the use of any specific communication; employers felt the most appropriate types of jobs for Ss was any position with limitations; 83% of the Ss were single; 87% had a driver's license; 68% did not have a fulltime job lined up before they graduated; 66% were satisfied with their high school training for their present job; approximately one-third of the parents indicated they had received no counseling; and the majority of parents felt their child's job training was inadequate. (CL)

1970-1975 FOLLOW-UP OF HEARING IMPAIRED GRADUATES OF PENNSYLVANIA

BLOOMSBURG STATE COLLEGE
Bloomsburg Pennsylvania

July 1, 1975 - July 30, 1976

COOPERATIVELY DEVELOPED BY:

PDE RESEARCH COORDINATING UNIT

PDE BUREAU OF SPECIAL AND COMPENSATORY EDUCATION

PENNSYLVANIA SCHOOL FOR THE DEAF

INTERMEDIATE UNITS

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FORWARD

This research project concerned a 1970-1975 follow-up of hearing impaired graduates of Pennsylvania. The purpose was to gather information on graduates and their employers in order to assist in the evaluation of vocational and academic curriculum and plan for future programs. Bloomsburg State College managed the project in cooperation with a consortium from the Pennsylvania Department of Education and public and private training institutions for the hearing impaired. The results of this study indicated a tremendous need for appropriate vocational training programs for the hearing impaired. A note of caution should be indicated. Many of the public school programs for the hearing impaired, especially those in the intermediate units, have been in existance for a relatively short time. In fact, many of these programs are at the elementary school level and are beginning to feel the need for secondary programs. Therefore, this is a very opportune time to begin to plan appropriate vocational programs for the hearing impaired. It is strongly recommended that an evaluation be made of existing vocational programs available to the hearing impaired client. The results of this research indicate the need for such a study.

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CHAPTER I

Introduction

Background

Education and employment of the hearing impaired served as the impetus for this follow-up study. The need for examination of the educational and employment status of the hearing impaired has been cited by many professionals (Vernon, 1966). One area of importance has been parent and employer concern and the usefulness of these concerns. Another area of consideration has related to the development of a systematic and useful method to implement the follow-up of hearing impaired graduates (P.S.D. 1972).

Parental concern has been a major factor in considering the education nad employment of the hearing impaired. Parents of the hearing impaired have indicated a need for more realistic types of services for both themselves and for their children. Their indications have shown a need for such services as counseling, training and job placement (P.S.D. 1972). Several parents in this study stated that they did not know about their child's educational program and needs until the time was too late. Further, parents who were interviewed in relationship to this study asked questions relating to why students were not trained for a job. The usefulness of these parent concerns have provided a further need for follow-up of appropriate vocational programs for the hearing impaired (Lewis and Powers, 1976).

Employers of the hearing impaired have reflected positive attitudes in terms of the capabilities of the hearing impaired worker. However, instances in which more than one hearing impaired person was employed were found to be rare. Employers indicated a feeling of apprehension when confronted with the possibility of employing more than one hearing impaired person. They were

found to be uncertain in terms of the amount of time necessary for training the hearing impaired and the factor of advanced technology (Lewis and Powers, 1976).

The second area of concern pertains to a useful method to follow-up hearing impaired graduates in Pennsylvania. Each year the vocational department of the Pennsylvania School for the Deaf has conducted face-to-face interviews with employed graduates. The results of these interviews are used to evaluate progress and to plan for future programs. The Pennsylvania Department of Education's Research Coordinating Unit felt that since the follow-up efforts of the PSD seemed to be successful in improving the employment potential of the hearing impaired student, an expansion of the follow-up should be developed to include all employed and unemployed hearing impaired in Pennsylvania.

The PDE follow-up of vocational education graduates groups special education and handicapped students into one category, making it impossible to study a particular population. Also, the low reading levels of special education graduates made it difficult to use self-completion questionnaires. It seemed that face-to-face interviews were the only way to collect reliable data from the hearing impaired graduates.

It was considered useful to expand the follow-up to include graduates of the Western Pennsylvania School for the Deaf, Scranton State School, Intermediate Units, Pennsylvania School for the Deaf and private schools. Since PSD had already developed a retrieval system, all that was necessary was to develop a systematic way to collect data from other institutions. However, an inherent problem associated with follow-up data has been interpretation. Success and failure variables when analyzing the hearing impaired are numerous. The logical conclusion in handling the problem was the organization of a consortium made up of staff from residential schools, intermediate units, teacher training institutions and PDE. Problems associated with analyzing

and interpretation of the data were decided upon by the consortium.

Objectives

The present study attempted to follow-up employed and unemployed hearing impaired graduates in Pennsylvania from 1970-1975. The main objective was to analyze patterns of work adjustment in order to identify the critical vocational problems facing the young deaf adult and to determine their causes. Specifically, the objectives of the study were to:

1. Describe the current vocational status of the unemployed hearing impaired in Pennsylvania from 1970-75.
2. Describe the current vocational status of the employed hearing impaired in Pennsylvania from 1970-75 in terms of their vocational adjustment and job satisfaction.
3. Develop a retrieval system for the collection of the data.
4. Organize a consortium made up of staff from residential schools, intermediate units, teacher training institutions and PDE to manage the collection and analysis of data.

Definitions

dB (decibel) In the field of hearing, the decibel has no absolute valus, but indicates the ratio by which one level of sound is greater than another. The reference levels for hearing are most commonly established upon normal listeners.

hearing impaired A generic term encompassing both deaf and hard of hearing.

deaf Refers to those whose primary handicap is a severe to profound hearing loss requiring continual classroom placement (special) and instruction in language and communication appropriate to their needs.

hard of hearing Refers to those children whose degree of hearing loss is mild, moderate or severe, i.e., they have useful residual hearing to assist them in their attempts to communicate. Their degree of impairment is such that they may function and progress satisfactorily in the hearing classroom with supplemental services.

mild hearing loss (15 dB-30 dB) The child with this type of hearing loss will learn speech through hearing. He is borderline between normal hearing children and those with severe impairments, and may in some cases find a hearing aid helpful.

profound hearing loss The child with this type of hearing loss, using amplified

sound, receives a noise-type sensation of speech through the avenue of hearing. He requires intensive education by teachers trained to teach deaf children.

variables of (hearing impaired) Vital statistics pertinent to hearing loss as degree of impairment, age of onset of hearing loss, type of hearing loss and additional handicapping conditions.

intermediate unit Pertains to the twenty-nine educational structures in Pennsylvania. Each structure is responsible for meeting the needs of all areas of exceptional children. Each structure has been organized on the basis of geographical area. Each structure operates under an individual administration.

N.C.D. National Council of the Deaf

PDE Pennsylvania Department of Education

prevocational Development of basic attitudes, experiences and skills which prepare a student for vocational training.

vocational training Training for gainful employment; example: linotype operator, plumber, electrician, carpenter, mason, typist and similiar occupations.

technical training Training for gainful employment in areas as dental technician, draftsman, surveyor, laboratory technician and similar occupations.

unskilled employment Those occupations which require no training.

semi-skilled employment Those occupations which require a minimum of on-the-job training.

skilled employment Those occupations which require formal vocational training.

R.C.U. Research Coordinating Unit of the Pennsylvania Department of Education.

VEMIS Vocational Education Management Information System

Limitations

This research had the following limitations:

1. All subjects had to have an obtained I.Q. score of 70 or above.
2. All subjects presented no diagnosed psychosis.
3. All subjects had at least a 40 decibel loss for speech .
4. A majority of the subjects had a severe to profound hearing loss.
5. A majority of the subjects attended residential school programs (87%).

The reason such a small percentage (13%) came from intermediate units

may be due to the fact that these programs are relatively new.

Chapter II

Review of Literature

Introduction

The following literature review is based on information which relates directly to the objectives stated in this research study. The information presented has been divided into three major areas. These three areas included incidence of hearing impairment and vocational status, the affect of hearing loss on achievement, and the affect of hearing loss on job success.

The first area, incidence of hearing impairment, utilized the National Council on the Deaf incidence figure of 2/1,000 to determine an estimated figure of hearing impairment in Pennsylvania. This was combined with figures cited by the Department of Labor and Industry to yield data on the employment of the hearing impaired in Pennsylvania. The estimation of these incidence figures provided a basis for determining employment and specific occupations in which the hearing impaired persons were employed.

The second area contained in this literature review, the affect of hearing loss on achievement, included achievement of the hearing impaired person in terms of language, reading and math. The review also includes information concerning types of communication and testing of the hearing impaired.

The third and final area of this literature review combined statistics of the Vocational Rehabilitation Administration with various regional studies dealing with employment status of the hearing impaired and employer attitudes towards the employment of the hearing impaired. The major factors which related to the employment of the hearing impaired were found to be achievement, technological advancement, employer attitudes and psycho-social behavior of the hearing impaired.

Hearing Loss and Vocational Status

Studies conducted in the area of incidence of hearing impairment in the United States have indicated varying prevalence rates. The National Census of the Deaf Population (Schein, Delk, 1974) found that 2/1,000 persons in the United States were hearing impaired. Additional studies have indicated the incidence of hearing impairment to be as high as 7/1,000 persons (Schein, Delk, 1974). The figures cited have shown a discrepency in incidence figures for the hearing impaired population. It was necessary to examine this discrepency to facilitate the description of the population contained in this study.

One significant reason for the discrepency is the lack of an appropriate definition for the hearing impaired population which has been studied in past research. The definition of hearing impairmentusually is based on a continuum ranging in degree of severity. Degrees of severity in hearing loss have been divided into categories which include mild, moderate, severe and profound losses. One researcher might define a population to include all degrees of the continuum, while another researcher includes only the lower degrees of the continuum.

The National Census of the Deaf defined that population as being those persons who could not hear and understand speech and who had lost (or never had) that ability prior to 19 years of age (Schein, Delk, 1974). The National Census of the Deaf determined the population which was included in the 1972 study to be 2/1,000. This incidence figure was found to be related directly to the definition of the population whcih was studied. The N.C.D. based this figure on specific demographic characteristics of the hearing impaired population and on past research which concerned incidence. The incidence figure of 2/1,000 was derived by focusing on the extreme end of the continuum - those persons who had severe and profound hearing losses. The population

defined in the N.C.D. study was found to correlate most favorable with the population defined in this research study.

This research study has chosen to define population to include those hearing impaired persons who had at least a 40-50 dB hearing loss for the speech range in the better ear. The population was further defined to include those persons who completed their academic or vocational program during the 1973-74 and the 1974-75 school years, obtained an IQ score of 70 or above on standardized intelligence tests and who presented no diagnosed psychosis.

TABLE 1

Total Hearing Impaired Population in Pennsylvania

Year	Population
1972	11,880,000
1973	11,862,000
1974	11,841,000
1975	11,827,000

(Department of Labor and Industry, 1976)

Pennsylvanias' total population for the years 1972-1975 are indicated in Table 1. Using the N.C.D. incidence figure of 2/1,000, there were approximately 24,000 severely hearing impaired people in Pennsylvania between the years 1972-1975.

TABLE 2

Department of Labor and Industry: Pennsylvania

	Total Population (Pennsylvania)	Total Unemployed Population	Percentage Unemployed
1972	11,880,000	264,000	5.4
1973	11,862,000	241,000	4.8
1974	11,841,000	258,000	5.1
1975	11,827,000	443,000	8.7

(Butler, Loughray, Magan, 1976 Employment Data)

Table 2 indicates the population, unemployed population and percentage of unemployment in Pennsylvania during the years 1972-1975. The percentage of unemployment and the unemployed were used to calculate an estimated Total Civilian Labor Force in Pennsylvania for the years 1972-1975. The N.C.D. incidence figure of 2/1.000 was then applied to this figure to yield a Total Hearing Impaired Labor Force for these years. The results for the hearing impaired are shown in Table 3.

TABLE 3

Labor Force in Pennsylvania: Hearing and Hearing Impaired

	I. Total Civilian Labor Force	II. Total Hearing Impaired Labor Force
1972	4,625,000	9,250
1973	4,270,000	9,600
1974	4,801,000	9,600
1975	4,650,000	9,300

(Butler, Loughray and Magan, 1976)

Unemployment in Pennsylvania is shown in Table 4. Descriptions of employment have been based on those used by the Pennsylvania Department of Labor and Industry.

TABLE 4

Unemployed Civilian Labor Force

	1975	1974	1973	1972
Professional	6.5	7.2	7.9	7.3
Clerical	10.0	10.9	12.7	11.0
Sales	3.9	4.2	4.8	5.0
Service Occupations	6.7	7.1	9.1	7.9
Processing	8.1	4.1	5.2	6.8
Machine Trade	10.8	4.5	7.0	9.8
Bench Work	17.2	8.2	13.3	13.6
Structural Work	19.1	19.2	25.3	23.6
Miscellaneous	16.6	24.2	13.9	14.1
Farming, Fishing	0.7	0.8	0.8	0.9
No information	1.4			

(Butler, Loughray, Magan, 1976)

Tables 2, 3 and 4 were combined with the N.C.D. incidence figure of 2/1,000 to yield the Total Civilian Labor Force (Table 5) and the Total Hearing Impaired Labor Force (Table 6). Table 6 indicates that the majority of the Hearing Impaired Labor Force was engaged in machine work, bench work, and structural work during the years 1972-1975. Clerical employment was also included as a major occupation for the hearing impaired. Findings have been

based only on the N.C.D. and the Department of Labor and Industry incidence figure. The results have not accounted for unemployment.

TABLE 5

Total Civilian Work Force According to Occupation

	1975	1974	1973	1972
Professional	302,230	345,660	336,510	337,420
Clerical	464,980	523,290	543,550	508,740
Sales	181,340	201,640	104,930	231,250
Service Occupations	311,530	340,860	389,450	365,170
Processing	376,630	216,040	222,550	314,500
Machine Trade	502,270	393,670	299,600	453,240
Bench Work	508,360	921,760	569,220	628,990
Structural Work	771,860	1,171,800	1,082,810	1,091,480
Miscellaneous	437,190	657,710	594,900	652,110
Farming, Fishing	325,480	38,410	33,720	41,620
No information	65,100			

(Department of Labor and Industry, N.C.D.)

TABLE 6

Total Hearing Impaired Labor Force According to Occupation

	1975	1974	1973	1972
Professional	610	690	770	680
Clerical	930	1,050	1,090	1,020
Sales	360	400	210	460

TABLE 6 (con't)

	1975	1974	1973	1972
Service Occupations	620	680	780	730
Processing	750	430	450	630
Machine Trade	1,010	690	600	910
Bench Work	1,020	1,840	1,140	1,260
Structural Work	1,180	2,340	2,170	2,180
Miscellanous	1.540	1.320	1,190	1,300
Farming, Fishing	70	80	70	80
No information	130			

(N.C.D. and Department of Labor and Industry)

Affect of Hearing Loss on Achievement

Demographic variables of hearing loss include age of onset, degree of hearing loss, type of hearing loss, type of hearing loss and additional handicapping conditions. These demographic variables are important in relation to the language level and achievement of the hearing impaired. These variables are in every consideration of programs for the hearing impaired.

The development of language in the hearing impaired is a basic factor when considering the achievement of the hearing impaired. The degree of language progress has a critical effect on achievement. The higher the childs' grasp of language fundamentals, the higher the educational achievement. Language development of the hearing impaired affects all areas of education, especially verbal performance. This has been exemplified in the fact that the hearing impaired tend to function higher on performance portions rather

than verbal portions of achievement tests (Jensema, 1975). In the ten year period from age 8 to 18, the average hearing impaired student increases his vocabulary only as much as the average normal hearing does between the beginning of kindergarten and second grade (Jensema, 1975). The poor language development of the hearing impaired has a direct relationship to achievement and academic learning.

The hearing impaired child has been found to achieve poorly in the language related academic areas of reading and vocabulary development.

Table 7 indicates achievement scores as researched by the Office of Demographic Studies. The population which was studied was limited in terms of encompassing the total school age population during the test year. Additional research findings have indicated that sixty percent of the hearing population achieved a fifth grade educational level and that five percent of the hearing impaired population achieved a tenth grade educational level after ten to fifteen years of schooling.

Table 7 represents specific academic achievement of the hearing impaired as researched by the Office of Demographic Studies. Scores were obtained for the average nineteen year old hearing impaired person. Their achievement in all levels of education was found to be directly related to their hearing loss. At about the middle of second grade level, the academic areas of arithmetic, spelling and language mechanics began to surpass reading comprehension.

TABLE 7

Primary Battery I Stanford Achievement Test Results
For Hearing Impaired School Leavers

Word Reading	2.3
Paragraph Reading	1.9
Vocabulary	1.4

TABLE 7 (con't)

Spelling	2.5
Word Study Skills	1.4
Arithmetic	1.8
Total	2.0

(Demographic Studies, 1971)

The area of intelligence testing for the hearing impaired has been a problem in the past (Vernon). One significant explanation for this appears to be a lack of knowledge concerning appropriate instruments for measuring the intelligence of the hearing impaired. The hearing impaired perform poorly on standardized tests of intelligence and achievement due to their lack of language and verbal performance. Testing appropriate to the hearing impaired has revealed this population to be of comparable intelligence to the hearing population (Vernon, 1970).

This study has not been concerned with condoning any one method of communication, but rather indicating types of communication used in educating the hearing impaired in Pennsylvania.. Residential school programs and Intermediate Unit programs in Pennsylvania have been found to use manual communication, speechreading, speech, writing, residual hearing and gestures as modes of communication and education. These six areas are referred to in the data of this study.

Affect of Hearing Loss on Job Success

The Vocational Rehabilitation Administration revealed in a nationwide study a high percentage of unemployed or underemployed deaf (Douglas, 1973). This study also revealed a relationship between educational achievement and job success. Achievement was not the only factor that related to job success.

The areas of technological advancement, employer attitudes and psycho-social behavior of the hearing impaired were found to be of prime importance.

Technological developments in recent years have brought about radical changes which significantly affect the hearing impaired. Opportunities for unskilled workers have sharply declined. The major segment of the employed hearing impaired labor force are employed in manufacturing and bench work. It has been speculated that, by 1980, manufacturing and bench work will employ less than one-half of the labor force (Schein, Delk, 1974). In terms of specific occupational trends, the hearing impaired workers were found to be far behind in professional, technical, clerical, sales and service proportions - the largest and most rapidly increasing categories of employment (Schein, Delk, 1973). Babbidge has observed that five-sixths of deaf adults work in menial jobs as contrasted to only one-half of the hearing population (Williams, 1973).

Employer attitudes were found to be a second area of importance when considering the job success of the hearing impaired. Research indicated employers have reported that hearing impaired employees could not complete job applications, had poor speech, and were dependent upon others. Employers further reported that hearing impaired employees lacked social skills, appeared naive and immature and took longer to train than hearing employees (Williams, 1973). Related to this was the fact that business is becoming so centralized that employers cannot deal with the hearing impaired on an individual basis. Employers were reluctant to hire hearing impaired workers because they found them to be inflexible and difficult to manage. Employers also regard the hearing impaired as safety risks. It must be noted that this employer attitude has only prevailed since increased automation. Prior to automation, the employability of the hearing impaired was found to be satisfactory. Their work habits were considered good and they were found to be stable in job tenure. Opportunities for advancement for the hearing impaired, however, were limited (Vernon, 1970).

Psycho-social behavior was found to be a third factor related to job success of the hearing impaired. The behavior has been attributed directly to the hearing handicap (Williams, 1972). Research has indicated that the hearing impaired are moving to large cities for job opportunities and to be with other hearing impaired people (Stewart, 1972).

Williams (1972) noted an obvious relationship between hearing impairment and levels of family income and educational achievement. He reported:

1) A very high proportion of deaf adults are employed in unskilled or semi-skilled occupations.

2) The mean wages for young deaf adults are much lower than for the hearing.

3) Their unemployment rate is much higher than that of the general population.

Underemployment is a major consideration in hearing impairment. Vernon (1970) found the hearing impaired to be equal to the hearing in terms of intelligence and manual dexterity. However, it was found that when a deaf person is employed in other than manual labor, the chances are that he is still underemployed in terms of his innate potential (Williams, 1972).

Beginning in the mid 60's and continuing to the present there has been more concern about the employment status of graduates and dropouts of schools for the deaf than in any other similar period in education of the hearing impaired (Parks, 1964 as quoted in Kronenberg and Blake, 1966). This was evidenced in the follow-up research in this study.

Lunde and Bigman (1959) conducted the first large scale occupational study among deaf adults. They found that 78% of the respondents were employed. Eleven percent were housewives. Approximately 70% were engaged in skilled or semi-skilled occupations. Job stability and satisfaction were found to be high. Deaf men were found to earn less than hearing men, but deaf women were found to earn the same as hearing women.

Boatner, Stuckless and Moores (1964) conducted the first regional survey. They were interested in determining the occupational status of young deaf adults in New England and the need and demand for a regional vocational training center for the deaf population. Results of the study indicated that a high percentage of young deaf adults were employed in unskilled or semi-skilled jobs. Unemployment was found to be higher than that of the general population.

Kronenberg and Blake (1966) conducted a second regional survey in the Southwest. They found the mean yearly income on the hearing impaired to ge $2,860 gross. Further studies indicate a mean wage to be $4,400 (Prisuta, 1970).

Summary of the Literature

The effect of hearing loss on vocational status is evident in many instances. Many of the hearing impaired labor force are performing such jobs as machine work, bench work and structural wors, as well as clerical work. The jobs are decreasing in demand, which presents further problems for the hearing impaired. Hearing loss has a definite effect on the achievement of the hearing impaired individual when concerned with language related and verbal areas. Hearing impaired persons do show intelligence comparable to that of the hearing population in testing that accomodates for the hearing loss.

Employer attitudes, technological advancement and psycho-social behavior of of the hearing impaired were found to have a marked effect on the success of a hearing impaired individual in his employment. The need for unskilled labor has decreased, employers with attitudes against the hearing impaired will not hire them and hearing impaired individuals with psychological problems about their loss will have limited success in employment.

CHAPTER III

Procedures

Introduction

Information contained in this section of the follow-up study includes educational programs and services in Pennsylvania, sample selection and specific sample characteristics. Several areas are included in the sample selection section. These are population, questionnaire development, interviewers, interview process, representativeness of the sample, and response status. The information which pertained to specific sample characteristics are hearing loss, sex, age, achievement levels upon completion of school, method of communication, types of programs, year of graduation, I.Q., types of school and marital status.

Educational Programs and Services

The educational management of the hearing impaired in Pennsylvania has been considered in two basic areas, types of educational programs and auxiliary services. The first area of consideration, types of programs, assumed that there were five educational placements for the hearing impaired in Pennsylvania. These placements include residential schools, self-contained day classes, part-time day classes, resource rooms and itinerant programs.

Residential schools and intermediate units are accountable agencies for providing educational programs to the hearing impaired. The responsibilities of residential schools have been historically defined. The Intermediate Unit concept has been utilized in Pennsylvania during the last five years. The concept was based on the premise that this type of organizational structure could effectively provide services and programs for all areas of exceptionality. Programs for exceptional children were originally under the auspices of individual

counties in Pennsylvania. Many of these counties were combined on the basis of geographical area. The result was the initiation of twenty-nine individual intermediate units in Pennsylvania. Each of the twenty-nine intermediate units have functioned under an individual administration. During the 1974-75 school year, 90% of these Pennsylvania Intermediate Units were programming for the hearing impaired.

This research study has not been concerned with the comparison of effectiveness of programs. The study has accounted for the fact that residential school programs have been established over a significantly longer period of time than intermediate unit programs.

The residential school provides a satisfactory solution to the geographic problem....that of offering an organized educational program to deaf children whose homes are in rural areas. Residential schools offer specialized technical training for hearing impaired children which ranges from early educational experiences to a comparative high school education. Pennsylvania has three residential schools for the deaf. They are the Scranton State School for the Deaf, located in Scranton, Western Pennsylvania School for the Deaf located in Pittsburgh, and Pennsylvania School for the Deaf located in Philadelphia. These schools offer vocational training.

Resource rooms for the hearing impaired meet the needs of a specific population. They allow for the integration of hearing impaired children into hearing classrooms. Pennsylvania Intermediate Units programmed a total of nine resource rooms during the 1974-75 school year. Itinerant programs allow for individualized programs for the integrated hearing impaired. Pennsylvania programmed for eighty itinerant programs during the 1974-75 school year (Andrews, 1974).

The second area of consideration, auxiliary services, has been observed. The hearing impaired who have completed Intermediate Unit programs or residential

school programs have a limited choice concerning employment. Those who have completed technical and vocational training at residential schools seek immediate employment in trade areas. Their employment is secured through the vocational level of residential school guidance. The Bureau of Vocational Rehabilitation manages those hearing impaired students to Intermediate Unit programs. The Bureau combines efforts with Intermediate Unit staff and arranges assessment and needs when considering each student. Assessment is based on evaluations from the Hearing Conservation Program and psychological testing. The student is then referred to a training program. The appropriate training program is selected on the basis of a differential diagnosis of the hearing impaired student. The Bureau of Vocational Rehabilitation refers most students requiring vocational training to the residential school. Pennsylvania is limited in additional post-secondary vocational and technical training programs for the hearing impaired. The minority of hearing impaired students who are referred for advanced academic and technical training are referred to out of state centers. Research has indicated that the Community College of Philadelphia is the only college which adapts academic programs to meet the needs of the hearing impaired population. The major out of state agency considered when referring students for advances academic and vocational training are National Technical Institute for the Deaf in Rochester, New York and Gallaudet College in Washington, D.C.

Each year the Bureau of Vocational Education conducts an annual follow-up survey of Pennsylvania secondary level vocational education graduates. Also, the Pennsylvania School for the Deaf vocational department conducts face-to-face interviews with their employed graduates. In both surveys, the main purpose is to provide the necessary data to evaluate program effectiveness and to help plan for future programs.

Sample Selection

The total population for this study was approximately 600 normal hearing impaired young adults who were residents of Pennsylvania and graduates from Pennsylvania educational institutions from 1970-1975. A sample of 167 were selected to be interviewed. Graduates from Western Pennsylvania School for the Deaf, Scranton State School for the Deaf, Pennsylvania School for the Deaf, intermediate units and private schools qualified for the population.

Normally functioning hearing impaired were those young adults who met the following criteria: (1) no diagnosed organic impairment other than deafness; (2) obtained an IQ score of 70 or above on standardized intelligence tests; (3) presented no diagnosed psychosis and (4) had at least a 40 to 55 decibel loss for the speech range in the better ear.

Development of Instruments

The development of the questionnaires which were used in this study was decided upon by a consortium composed of staff from residential schools for the deaf, intermediate units, teacher training institutions and the Pennsylvania Department of Education. Four basic instruments were developed for the survey procedure. These instruments consisted of a Student Questionnaire, an Educational History Form , a Parent Follow-Up Survey, and an Employer Survey.

The Student Questionnaire consisted of eighteen questions in addition to a rating scale (Appendix B). Questions were directed towards personal information about the subject and included marital status, hearing status of parents and spouse, present relationship with parents, numbers of friends and their hearing status, and membership in deaf clubs. The Student Questionnaire further included specific questions which pertained to the subjects' education. This section included the students' opinions of his/her educational program and it's relationship to employment. Employment and salary were included in this

section. The final portion of the Student Questionnaire consisted of The Minnesota Satisfaction Scale, a twenty item rating scale. The items were concerned with the students' impressions of his/her job and employer.

The Educational History Form consisted of general identifying information concerning the subject in addition to specific educational information. Items included a description of Educational Program (i.e., vocational, academic), number of years enrolled in the program, number of hours enrolled in the program, degree of hearing loss, intellectual intellectual information, achievement levels upon completion of school and method of communication which was utilized by the student (Appendix B).

The Parent Follow-Up Form included the parents' age, hearing status, educations, occupations, and family income. Also included was specific information which concerned the son/daughter. This included the parents impressions of the son/daughter, degree of hearing loss, age of onset, etiology, methods of reciprocal communication between the parent and child, parent impressions of secondary educational programs, impressions of vocational training, and services and means of transportation of the son/daughter. In total, this questionnaire consisted of twenty-six items.

The Employer Survey Form was divided into two portions. The first consisted of twelve questions pertaining to the training of the hearing impaired employee, the relationship between the hearing loss and job success, advancement, degree of success as compared to hearing workers, satisfaction with the hearing impaired worker, referral source for the hearing impaired worker and social adjustment.

The Minnesota Satisfactoriness Scale consisted of twenty-eight questions which compared the hearing impaired worker to others in his group.

Interviewing Process

A total of six interviewers were selected to conduct the interviewing

process. The interviewers were selected on the basis of three major criteria. The first consideration was the interviewers ability to communicate with the hearing impaired since a face-to-face interviewing process was utilized. The second consideration was the geographic location of each of the interviewers. Geographic location was a key factor in terms of travel and interviewing costs. The third requirement was that each interviewer be affiliated with the hearing impaired in some professional way. The interviewers were teachers, counselors and/or administrators in the field of hearing impairment. There were four female and two male interviewers.

Each of the six interviewers were trained in the use of each of the survey instruments. A training workshop was conducted during which each of the instruments was explained. Each instrument was reviewed item by item. Comments and hypothetical situations were created to promote a thorough understanding of each survey questionnaire. Definite limitations were set regarding adaptations which were permitted with each form. Each interviewer was responsible for obtaining information from all educational facilities within his/her specified geographical area.

Initial referrals of the subjects contained in this study were obtained from intermediate units, residential schools and provate institutions for the hearing impaired in Pennsylvania. Each educational institution was contacted by mail. Their participation and assistance were requested. All residential schools for the hearing impaired in the Commonwealth participated. Most of the Intermediate Units participated although a few refused to supply information. Several intermediate units reported fheir programs have not had graduates at the time of the research. Confidentiality requirements were described. The educational institutions were requested to secure permission of parents and graduates to be interviewed face-to-face by the project staff. Each educational facility was requested to forward any referrals which they might have had.

The referred population was in keeping with the definition of the population used in this study. The research project complied completely with confidentiality requirements with regard to individual rights and anonymity of educational programs.

Each of the six interviewers were responsible for face-to-face interviews with parents, students and employers. In some instances, employer forms were mailed. Initially, letters of introduction were sent to parents, students, employers and schools. The letters explained the nature of the survey study, why the study was important, and who was conducting the study. The letters encourage persons to participate, and notified them that they would be contacted in the near future. A time limit of three months was set to complete the interview process.

It was assumed that about half of the graduates were living at home, therefore, parents were interviewed on the same visit. Parents and students were given a copy of the questionnaire. Items were signed to low functioning parents and students. The interviewer filled in the data on all forms and gave a rationale for any missing data. The interviewers were instructed not to interview parents and students simultaneously, and not to interview groups of students together. Each interview was confidential. The student and parent were instructed to sign a declaration of understanding on each survey form (see appendix for forms). All recommendations and comments were recorded. Results were then forwarded to project headquarters for data analysis.

Comments which were made and recorded by the interviewers were mainly centered around the language involvement of students and parents. The interviewers reported that they had to explain many of the items from the student and parent forms over and over to insure comprehension and validity.

Population Characteristics

Specific characteristics of the population included in this study have been defined in terms of accountability, extent of hearing loss, method of communication used, and intelligence.

A total of 600 persons were referred to be included in this follow-up study. Of those 600 persons who were referred, a total of 167 subjects were actually interviewed in this study. The remainder (433) were either unobtainable or did not complete the questionnaire.

TABLE 8

Breakdown of Referral Sources Used in this Study

	n	%
Pennsylvania School for the Deaf	170	28
Western Pennsylvania School for the Deaf	150	25
Pennsylvania State School for the Deaf	145	24
Intermediate Units	75	13
Private Schools , Community Programs	60	10
Total	600	100

Table 8 represents a breakdown of referral sources which were included in the study. It is evident that the majority of persons referred attended residential schools for the deaf. An apparent explanation for this is the fact that residential schools have been established over a longer period of time, whereas Intermediate Units are relatively newer educational facilities and therefore did not have any graduates at the time of the research.

Table 9 represents the accountability of persons to be included in this study.

TABLE 9

Referral Accountability

	n	%
Interviewed	167	28
Unable to Locate	58	10
Deceased	0	0
Referral received too late	163	27
Unknown	212	35
Total	600	100

Extent of Hearing Loss

The 167 subjects were evaluated in terms of the degree of severity of hearing loss. Of the 167 subjects, audiologic information was not available for six persons or 4% of the sample. The degrees of severity of hearing loss were described in terms of mild, moderate, severe and profound. The results are indicated in Table 10.

TABLE 10

Extent of Subjects' Hearing Loss

	n	%
Mild (15 dB - 40 dB)	5	3
Moderate (40 dB - 60 dB)	9	5
Severe (60 dB - 70 dB)	11	7
Profound (70 dB and above)	137	82
Unknown	5	3

Based on most recent audiologic information as indicated by the training institutions, the majority (or 82%) of the population surveyed were found to have profound hearing lossed of 70 dB or above. The least (3%) were found to have a mild hearing loss (15 dB - 40 dB).

Communication

The educational history of each of the 167 subjects was reviewed in terms of the method of communication used by the training institutions. Educational institutions that were involved in the analysis of communication demonstrated the following table. Table 11 indicates a summary of specific communication skills as indicated by the training institutions. This included multiple skills specific to each of the 167 persons in the sample.

TABLE 11

Summary of Graduates' Communication Skills

Manual Communication	93%
Speechreading	87%
Speech	51%
Writing	55%
Hearing	27%
Gestures	77%
Total Communication	19%

The results of Table 11 indicated that of the 167 subjects, the majority were assessed as using manual communication during instruction. Hearing was found to be the least indicated form of communication used during the instructional period.

Further, 69% of the subjects were found to have relied on the combination of manual communication, speechreading and gestural communication. Nineteen

percent of those subjects evaluated were found to have veen instructed in all six areas of communication.

In conclusion, the bulk of the subjects did not rely on all methods of communication. The majority were indicated to have learned manual communication, speechreading and gestural communication.

Intelligence

An analysis of school files showed that the majority of the sample was tested with the Wechsler Adult Intelligence Scale. Several contributing factors were considered so that the I.Q. data among the subjects would be comparable. The factors that were considered important were: 1) the most recent psychological test was used for each subject and 2) the majority of the subjects were tested using the Wechsler Adult Intelligence Scale. Of the 167 subjects, 2 or 1% did not have data pertaining to intelligence. Of those subjects not tested with the Wechsler Adult Intelligence Scale, 7% were tested with the Wechsler Intelligence Scale for Children. The classification of mentally deficient was not included in compiling results.

TABLE 12

Intelligence Classifications

I.Q.	Classification	Percent Included		
		Theoretical Normal Curve	Actual Sample	Hearing Impaired Sample
130 and above	Very Superior	2.2	2.3	1
120-129	Superior	6.7	7.4	10
110-119	High Average (Bright)	16.1	16.5	22
90-109	Average	50.0	49.4	53
80-89	Low Average (Dull)	16.1	16.2	9
70-79	Borderline	6.7	6.0	4
69 and below	Mentally Deficient	2.2	2.2	1

Table 12 indicates that 86% of the population had I.Q.'s in the average and above intellectual classifications. In summary, a significant portion of the population did not fall in the Very Superior or the Mentally Deficient range. The majority of the population fell within the Average and Bright Normal range.

> "Based on this research representing approximately 50 independently conducted investigations, it is clearly evident that the deaf and hard of hearing population has essentially the same distribution of intelligence as the general population (Vernon, 1968b). There is no causal relationship between hearing loss and I.Q. The law public and the professionals' occasional association of hearing loss with "dumbness" or stupidity is without basis in fact. It rests either upon the age-old fallacy of assuming the lack of speech to be related to the absence of advanced cognitive process or the equally invalid assumption that the difficulties deaf and hard of hearing people often experience with written language reflect their intelligence instead of simply their lack of exposure to language through hearing."

The intellectual normality of the hearing impaired population was supported by this research. In fact, the sample consisted of individuals with average and above average intelligence.

CHAPTER IV

Results of Employer Survey

Introduction

An employer's judgement of a hearing impaired worker has always been an excellent indication of the success of educational programming. Therefore, it was considered important to include the Employer's Survey (PSD, 1972) in the Follow-Up Survey. An additional optional questionnaire was also included; The Minnesota Satisfactoriness Scales (Gibson, Weiss, Davis, and Lofguest, 1970).

The following section deals particularly with an analysis of the Employer's Survey as reported by the employers of the hearing impaired working graduates.

The sample included all working hearing impaired graduates of Pennsylvania education facilities from 1970 to 1975.

A portion of the sample was eliminated due to difficulties encountered by the interviewers, such as, the inopportunity to reach the deaf workers or the employers, or incompleted questionnaires. The total data used in this portion of the study was 92 completed interviews.

A portion of the questionnaire used in evaluating the employment success of hearing impaired graduates deals with comparing the worker to his coworker. This gives the reader more meaningful information, since it relates the deaf workers' successfulness to normal workers. Other questions examine the training performance and advancement of the deaf worker; locating employment, and social adjustment.

The one-page questionnaires were completed by the employers of the hearing impaired workers with the assistance of one of the six qualified interviewers

of the project staff. Many questions were open-ended, in which the respondents could answer as they wished. In some cases the questions seemed to be misunderstood by the employers. This led to inaccurate data, which could not be included in the findings.

The answers for each question were tabulated and analyzed descriptively. An addition to the descriptive tabulations, a relationship was found between the job success of hearing impaired workers (question 5) and their skill in communication. The statistic used to analyze this was the Pearson Product Moment Correlation.

Findings and Analysis

Entry Jobs: Educators and counselors of the hearing impaired may gain significant information from the results of the first aspect of the Employer's Survey. A comparison of U.S. employed persons (1968) and rehabilitated deaf clients (1967) was demonstrated in the report, "Diversifying Job Opportunities of the Adult Deaf" (Fellendorf, Atelsek, and Mackin, 1971). A portion of the graph is included below in Table 13.

TABLE 13

Occupational Distribution of U.S. Workers and Deaf Rehabilitated Clients

	U.S. Employed Persons 1968		Employed Rehabilitated Deaf Clients 1967
1.	Farm Workers	5%	3%
2.	Unskilled Workers	* 6%	*21%
3.	Service	12%	25%
4.	Semi-skilled Workers	*18%	*11%
5.	Skilled Workers	*13%	*12%
6.	Clerical and Sales	23%	19%
7.	Professional, Technical, Managerial	24%	8%
	* Workers in industry	37%	44%

One has to take note of the imbalance found in most areas of employment between deaf and hearing workers in the areas of unskilled workers and service; while the percentages drop significantly in farm and semi-skilled as well as professional, technical, and managerial groups.

The present study used the Dictionary of Occupational Titles to classify the hearing impaired working population. Although the system is somewhat different from the one referred to in Table 13, some comparisons can be made between them. The breakdown of the populations held by the hearing impaired graduates in Pennsylvania (1970-75) can be found in Table 14.

TABLE 14

Entry Level Job of the Hearing Impaired

Dictionary of Occupational Titles Classification	Hearing Impaired Employees (%)	N
1. Professional, Technical, and Managerial	10%	8
2. Clerical and Sales	25%	21
3. Service	19%	16
4. Farming, Fishing, and Forestry	0%	0
5. Processing	7% *	6
6. Machine Trades	19% *	16
7. Bench Work	13% *	11
8. Structural Work	3% *	2
9. Miscellaneous	4%	3
TOTAL	100%	83
	* Workers in industry	
	41%	35

There continues to be a downward shift in the occupational areas of professional, technical, and managerial positions: only 8% of the deaf work force in Pennsylvania, as compared to 24% of the U.S. employed persons in 1968. In similar studies in Baltimore (Furfey and Harte, 1968) and in the Southwest (Kronenburg and Blake, 1967) the percentage of deaf employees in the professional

group was also very low; 2.0% and 1.1% respectively. Fellendorf, Atelsek, and Mackin believe this condition will continue as long as schools for the deaf promote vocational-technical programs, which often leads to underemployment of the deaf. Professionalism in the deaf will increase only when their ability to use language improves (Fellendorf, Atelsek, and Mackin, 1971).

A surprisingly high incidence of employment of the deaf was found to be in the clerical and sales areas (25% of the deaf labor force). In previous studies only 12% to 15% of the deaf were employed in clerical jobs (Moores, 1964, Kronenburg and Blake, 1966, and Furfey and Harte, 1968). It is interesting to note, that 83% of the clerical and sales group in Pennsylvania were office machine workers and repro-typists. This fact distorts the statistics and makes it difficult to draw reliable conclusions. The findings do however, coincide with the national standards for 1968.

The percentage of workers in the area of service for the Pennsylvania group was only 19%, approaching the national standards of 12%. The number of deaf workers in industry (indicated by the asterisk) was also very close to the 1968 standards, 41% and 37% respectively. In this study, there were no hearing impaired graduates working in the area of farming, fishing, and forestry. The 1968 study revealed 5% of U.S. workers were employed in this area, but it was projected that this number would drop to 3% by 1980.

Excluding the professional, technical, and managerial group; the deaf workers in Pennsylvania appear to be closing in on the gap that once existed between deaf and hearing employment.

The following questions were included in the Employer's Survey:

Question I Was he/she properly trained? (high school program)

a. Skillwise
b. On appropriate equipment
c. Additional training needed

This first inquiry examines the employer's judgement on the quality of training received by the deaf worker while in high school. Often, as with hearing workers, the deaf receive jobs for which they are not properly trained. Their lack of skills in completing their duties and in operating appropriate equipment may necessitate their requiring additional training. In a recent study completed by Reich and Reich (1974), it was found that in 25% of the cases were the deaf employees getting any special help to learn their job.

A) Of the 92 employers who returned Employer's Survey only 65 of them responded to this question. It was found that 90% of the deaf employees were properly trained during high school in the area of possessing appropriate skills.

B) Of the 58 employers who answered section (b), 83% felt that their deaf workers were properly trained in the use of appropriate equipment.

C) 54% of the 67 employers felt their deaf workers needed additional training upon hiring.

While most employers reported that their deaf workers were properly trained in high school, more than half of them found that additional training was necessary. The author believes that the final figure (54%) does not reflect a true picture of the deaf worker's need for training upon hiring. Some of the employers have reported routine inservice training which the workers receive, whether it is required or not. It is possible that fewer deaf employees actually needed additional training.

Question II Was the job reengineered?

In some cases of hiring the hearing impaired, it is necessary to redesign the workers responsibilities to accomodate his handicap. Reich and Reich (1974) found that virtually none of their sample of deaf workers had his job changed in any way to compensate for his handicap.

It was discovered that the work role was reengineered for only 6 (10%) of

the 88 cases reported. This would indicate that most of the deaf graduates obtain jobs which do not put demands upon their communication, or that they were very well prepared for all aspects of their employment.

Question III What relationship is there between the disability and the job the employee is performing?

It is important to discover the extent of the influence that a persons' handicap has on the performance of his job responsibilities. In reviewing this information one can examine the relationships between communication handicaps and the jobs held by the hearing impaired workers.

Seventy-four employers responded to this question. This was an open-ended question, requiring the employer to answer "in his own words". Some responses indicated that the question was misinterpreted by the employer, and those particular cases were not included in the tabulations. Eighty percent (59) cases of those employers who answered, reported that they did not see any relationship between the disability and the job that the deaf employee is performing. The responses are listed in Table 15 in rank order.

TABLE 15

Response to Question III

Relationship	
1. NONE	59
2. OTHER	
a. Communication Difficulties	6
b. Needs Greater Visual Attention	2
c. Works with Deaf Children	2
d. Needs Hearing	1
e. Cannot Hear Directions	1
f. Works Better When Not Disturbed	1
g. Sound Factor	1
h. Little	1
TOTAL	74

As suggested in Question III, there appears to be little need for most deaf workers to communicate at their jobs, when there is usually little or no relationship between their disability and their work responsibility.

Question IV Has employee made any advancement?
a. Skillwise
b. Job Classification
c. Salary

Three indications of a worker's success are his level of advancement, job classification, and salary. The deaf do not differ that greatly from their hearing co-workers in the area of initial employment. Studies have shown that the greatest difficulties for the deaf arise from advancement (Reich and Reich, 1974). As other workers begin to make progress in the area of promotions, salary, and skills, most deaf workers find themselves fixed into a certain pattern of duties. Once stationed into performing their jobs, the deaf have much less chance for advancement than the hearing workers.

It was discovered that while 98% of the 89 reported deaf workers made advancement in skills, 48% of them made advancement in their classification and 90% made advancement in salary.

It is difficult to assess the degree of advancement in salary made by deaf workers as opposed to hearing workers. No differential was made between an "across the board" raise or an individually earned raise in salary. Stating that 90% of deaf workers receive increases in salary is not valid unless qualified by the type and degree of raise given. This information is not available. However, it is evident that the deaf are not increasing the degree of advancement commensurate with their abilities.

Question V Success of deaf graduates in comparison to hearing workers.

a.	Quality of work ----------	good	average	poor
b.	Quantity of work ----------	good	average	poor
c.	Handling of equipment ----------	good	average	poor
d.	Attention to work ----------	good	average	poor
e.	Attitude toward work and initiative ----------	good	average	poor
f.	Attitude toward supervision ----------	good	average	poor

Question V (con't)

g. Relations with coworkers ---------- good average poor
h. Accident rate ---------- good average poor
i. Absenteeism ---------- good average poor

Research has shown that most hearing impaired employees have tended to perform well in their jobs. Employers of the deaf have been generally satisfied with their work (Kronenburg and Blake, 1966, Boatner, Stuckless, and Moore, 1964).

This research used both this survey instrument (Question V, Employer's Survey) and The Minnesota Satisfactoriness Scale (Gibson, et al. 1970) to assess the employment success of deaf workers. The latter gave statistical evidence that deaf workers were rated by their employers as being equally successful at their jobs as hearing workers. The mean and standard deviation of the deaf population was found to be 64.4 and 10.96. The t value of .894 was not significant at the .05 level. This supports the hypothesis that there is no significant difference between the success in employment of deaf versus hearing workers. It was found that 14% of the hearing impaired workers obtained highly satisfactory ratings on the Minnesota Satisfactoriness Scales. Sixty-five percent receives average ratings and 21% obtained poor ratings from their employers.

The average score received by the 62 respondents on Question V of the Employer's Survey was 24, (9 = poor; 18 = average; 27 = good). In general, one can assume that most hearing impaired workers are rated higher than average in successfulness in work. Individual areas considered as good measures of a worker's success were not computed at this time. It might prove valuable to investigate which areas appeared to be the greatest obstacle for the deaf, (i.e. relations with co-workers).

A similar study (Blewitt, 1976) which was recently completed could be included in this section. A relationship was analyzed between the communication skills of young deaf adults and their success in employment as rated by their

employer. The research involved both questionnaires previously mentioned: the Employer's Survey (Question V) and The Minnesota Satisfactoriness Scales.

Correlations were performed using the two employer surveys and a communication scale (See Appendix). The data would seem to indicate that the degree of communication skills in young deaf adults is not significantly related to their success in employment as measured by the Employer's Survey and The Minnesota Satisfactoriness Scales.

In the majority of the cases, it was found that the job held by the deaf worker did not require the use of any specific communication to any extent. It was mentioned earlier that there was little or no relationship between the worker's disabilities and his job responsibilities. Skill in communicating would not appear to play an important role in determining the deaf worker's job success in these particular cases.

Question VI — Would you consider employing another hearing impaired/handicapped person?

Many times, employers find that the difficulties hiring handicapped workers are too great to continue to do so. The possibility of communication, social, or work relates problems could hinder employment of the deaf.

Eighty-six employers answered this portion of the questionnaire. Ninety-five percent of them reported that they would consider hiring hearing impaired/handicapped persons. It would appear that the problems which arise in employing the deaf do not deter the employers from hiring another hearing impaired person.

Question VII — If the answer to Question VI was yes, what kind of job? (would be considered appropriate for hearing impaired workers)

This area of study could be one of the most valuable in giving educators of the hearing impaired information concerning vocational training. Inasmuch as the employer finally determines the particular jobs the deaf perform, they would be excellent indicators of the types of jobs most appropriate for deaf

workers.

Eighty-two responded to this question. The results are listed in Table 16 in rank order.

TABLE 16

Response to Question VII

	Job Recommended by Employers	N
1.	Any position with limitations	7
2.	Any position	6
3.	Key punch operator	5
4.	Assembly sewing maching operators	5
5.	Clerical	4
6.	Presser	4
7.	Repro-typing	4
8.	Assistant cook	4
9.	Woodworking	3
10.	Collator	2
11.	Machine operator	2
12.	Hair dresser	2
13.	Terminal operator	2
14.	Barber	2
15.	Housekeeping aid	1
16.	Bakery helper	1
17.	Lab technician	1
18.	Child care worker	1
19.	Janitor	1
20.	Cabinet maker	1
21.	Typesetter	1
22.	Printer	1
23.	Linotypist	1
24.	Lift truck operator	1
25.	Boys' counselor	1
26.	Artist	1
27.	Examiner packer	1
28.	Dorm supervisor	1
29.	Lathe operator	1
30.	File clerk	1
31.	Machine hand	1
32.	Fashion knitter trainee	1
33.	Assistant electronic technician	1
34.	Food service	1
35.	Porter	1
36.	Laborer	1
37.	Welder	1
38.	Secretary	1
39.	Dish machine operator	1
	TOTAL	*82

These figures could be influenced by the types of jobs available at the time of the interviews. In that case, this list could reflect the kinds of jobs "available" for the deaf rather than those "most appropriate". It is evident that there is no particular job mentioned by the employer.

Question VIII — If answer is "no" to Question VI why not? (hire additional handicapped/hearing impaired workers)

Only five employers listed reasons why they would not hire other deaf workers. Communication difficulties were mentioned by three of them. The other two employers reported that there were no openings available. The latter does not seem to be a valid reason for refusing to hire additional handicapped workers.

It would appear that communication problems were the only reason why employers do not want to hire the deaf. However, this was not statistically significant.

Question IX — Have you previously had experience with the handicapped/hearing impaired other than this employee? Yes ( ) No ( ) What_____?

It is interesting to understand what connection exists between the employers who hire the handicapped and the deaf population. One can obtain this knowledge by observing the kinds of previous experience the employer has had with the hearing impaired.

A portion of this question was open-ended, and was misinterpreted by some of the respondents. It was found that only 53% of the 91 employers have had some previous experience with the deaf. The types of experience mentioned by the employers are listed in Table 17 in rank order.

TABLE 17

Previous Experience with the Deaf

Experience	N
1. Other employees	26
2. Deaf school	5
3. Church	1
4. Deaf cleaning woman	1
5. Deaf child	1
6. Counselor, educator	1
TOTAL	35

It is surprising to find that more than half of the employers have had no experience with the deaf, other than the deaf worker they were presently employing. Most of those employers who had experience with hearing impaired/ handicapped persons were involved with hiring other deaf workers.

Question X Do you employ other handicapped workers?
Yes ( ) No ( ) Number ( )

It was discovered that 53 of the 89 employers responded to this question. It was revealed that 60% do hire other handicapped workers. The numbers of additional handicapped workers employed are indicated in Table 18.

TABLE 18

Numbers of Additional Handicapped Workers

Number of Employees	Number of Employers
1	6
2	6
3	3
4	6
5	7
6	3
7 or more	3
TOTAL	34

It was found that 60% of the employers of the handicapped hire other impaired workers. This indicates that more than half of the employers are pleased with their deaf employees and desire additional help from other handicapped persons. Most of them hired between one and six handicapped persons.

Question XI How did you find this person for employment? (Agency, Friend, Newspaper, School, etc.)

Deaf adults have always been quite dependent upon others in getting a job, although, this might diminish with experience. Reich and Reich (1974) reported that agencies serving the deaf are the most important resource in locating jobs. Many deaf persons have another person assisting in gaining employment, whether an agency, friend, or family.

The results of this question are reported in Table 18. The means of locating hearing impaired employees and its frequency can be observed.

TABLE 19

Methods Used to Find Deaf Employees

Method	Number of Employers
1. School	25
2. Friend	19
3. Applied in Person	12
4. Relative	10
5. Newspaper	8
6. Agency	4
7. Other	7
TOTAL	85

Of the 85 respondents, 25 employers used the school to locate deaf workers. As can be observed in Table 19, friend, personal application, family, and newspaper were cited in decreasing popularity. Agencies also associated with the deaf were used only in 4 cases. Some misinterpretation of the question

could have been experienced. While a deaf person could have "located" the job with the assistance of a friend or relative, the validity of the particular question is in doubt.

Question XII Do you feel the hearing impaired individual has had a problem socially adjusting within the company?
Yes ( ) No ( ) If yes, what steps were taken to help with the problem?

It has been pointed out that the greatest problem facing the deaf worker is his difficulty in communicating. This limitation could put strains on relationships with employers and co-workers.

Only 9% of the 91 responding employers felt that their deaf employee was having any problem socially adjusting within the company. This is a very good indication that most deaf workers are handling their communication difficulties and getting along well socially within the company. A list of the steps taken to deal with those employees who did experience difficulty is presented in Table 20 in rank order.

TABLE 20

Measures Taken to Deal with Social Problems

Measures Taken	Number of Employers
1. Employers and/or co-workers are learning to use sign language	3
2. Counseling	2
3. Meet with co-worker socially	1
4. Use written explanations	1
5. Ask deaf worker to repeat himself	1
6. Co-workers consider disability	1
TOTAL	9

These measures are all very good suggestions for any employer of the hearing impaired or handicapped worker.

Summary

1) The distribution of job classification of deaf workers is close to or approaching that of hearing workers. The only exception is the area of professional, technical, and managerial employment, in which the deaf group is significantly lower than the hearing.

2) Most deaf workers were found to be trained adequately in both areas of working skills and use of equipment. About half of them needed additional training.

3) The employers reported that it was necessary to reengineer the job for the hearing impaired workers in only 10% of the cases.

4) In most instances, there was no relationship between the disability of the deaf worker and the job he was performing.

5) While the deaf are making advancement in skill and salary, they are not advancing in job classification. They are not increasing the degree of advancement commensurate with their abilities.

6) Most hearing impaired workers are rated higher than average in successfulness at work.

7) The degree of communication skills in young deaf adults is not significantly related to their success in employment.

8) Ninety-five percent of the employers of the deaf reported that they would consider having another hearing impaired or handicapped person.

9) Communication problems appear to be the main reasons why some employers would not consider hiring other deaf workers.

10) Fifty-three percent of the employers have had previous experience with the deaf.

11) It was reported that 60% of the employers do hire handicapped persons.

12) Only 9% of the employers felt that their deaf workers were having problems adjusting socially within the company.

CHAPTER V

Results of Student Questionnaire

Introduction

This study was undertaken to gain as much knowledge as possible on hearing impaired graduates on a state-wide level for the Commonwealth of Pennsylvania. This chapter deals with the data obtained from the student questionnaire. The data was collected as an effort to gain knowledge about hearing impaired persons and to provide new insights into methods to improve educational opportunities. The data collected was organized into the following sections: personal status, educational program information, and present status.

Specific aspects deal with marital status, parents hearing status, children and spouse hearing status, social relationships (clubs and friends), educational program information, and employment information.

The following tables represent response data to questions on the student graduate questionnaire in terms of numbers and percentages. The area researched is included at the top of each table. The numbers and percentages that were reported were not the same for all the questions. The reason for this was that the interviewers were instructed to skip items that were not applicable to the graduate. Where there was not any data recorded it indicated that the graduates did not respond to that question.

Present Personal Status

This section included information on marital status, hearing status of close relatives (spouse, children, mother, and father), usage of hearing aids, and social interaction with the deaf and/or hearing friends.and clubs.

TABLE 21

Marital Status

Marital Status	N	%
1. Married	26	15.7
2. Single	139	83.7
3. Separated	-	-
4. Divorced	1	.6
5. Widowed	-	-
TOTAL	166	100

The marital status of the hearing impaired sample is shown in Table 21. Only 15.7% of the subjects were married, 83.7% were single, and .6% were divorced. The small percentage of those married may be a factor of the young age group researched in this study. This possibility is in conjunction with the findings of Reich and Reich (1974) who concluded that hearing impaired people marry at a later age than their hearing peers.

TABLE 22

Hearing Status of Close Relatives

	N	%
1. Does your spouse have a hearing loss?		
Yes	19	76.0
No	6	24.0
TOTAL	25	100.0
2. Do your children have a hearing loss?		
Yes	1	7.7
No	12	92.3
TOTAL	13	100.0
3. Does your father have a hearing loss?		
Yes	22	13.6
No	140	86.4
TOTAL	162	100.0

TABLE 22 (con't)

	N	%
4. Does your mother have a hearing loss?		
Yes	14	9.3
No	136	90.7
TOTAL	150	100.0

The preceeding table represents the hearing status of close relatives. Seventy-six percent of the married respondents indicated their spouse had a hearing loss. Among the children reported by the subjects, 7.7% had a hearing loss. Approximately 9% of the mothers and 14% of the fathers of the hearing impaired sample were reported as having a hearing impairment.

TABLE 23

Social Interaction

	Deaf N	Deaf %	Hearing N	Hearing %	Total N	Total %
Number of Friends:						
1 - 10	54	44.3	68	55.7	122	100.0
11 - 20	17	65.4	9	34.6	26	100.0
21 - 30	21	60.0	14	40.0	35	100.0
31 - 40	7	63.6	4	36.4	11	100.0
41 - 50	14	77.7	4	22.3	18	100.0
Over 50	8	72.7	3	27.3	11	100.0

Number of Membership in Clubs	Deaf N	Deaf %	Hearing N	Hearing %
0	104	62.3	150	89.8
1	38	22.7	15	9.0
2	17	10.2	2	1.2
3	1	.6	-	-
4	1	.6	-	-
More than 4	-	-	-	-
TOTAL	167	100.0	167	100.0

Table 23 presents the social interaction of the hearing impaired sample. The table indicates the subjects have both hearing and hearing impaired friends, although most subjects have more hearing impaired friends than hearing friends. Approximately 40.0% of the hearing impaired subjects belong to some kind of social club, deaf club, and/or hearing club. Of those belonging to deaf clubs, 22.7% belong to one club and 15.0% belong to two or more clubs. When asked about membership in hearing clubs 9.0% of the subjects indicated belonging to one hearing club and 1.2% to two or more hearing clubs.

TABLE 24

Usage of Hearing Aids

	N	%
1. Presently Wearing Aid	43	29.0
2. Not Wearing Aid	105	71.0
TOTAL	148	100.0
3. Does Own Aid	92	74.2
4. Does Not Own Aid	32	25.8
TOTAL	124	100.0

Table 24 represents data concerning the usage of hearing aids. Twenty-nine percent of those who responded to this item were wearing hearing aids; a large majority, 71%, were not wearing hearing aids. However, it is interesting to note that 74.2% of the subjects did own hearing aids, whereas only 25.8% did not own aids.

TABLE 25

Transportation

	N	%
1. Do you have a driver's license?		
Yes	145	87.3
No	21	12.7
TOTAL	166	100.0

TABLE 25 (con't)

	N	%
2. If so, who instructed you?		
Guidance Counselor	20	21.5
School Driver Education Program	37	39.9
Family	26	27.9
Private Driving School	7	7.5
Friends	3	3.2
TOTAL	93	100.0
3. Do you own a car?		
Yes	38	71.1
No	15	28.3
TOTAL	53	100.0
4. Mode of Transportation		
Car	71	60.0
Public Transportation (bus, train, etc.)	27	23.0
Car Pool	8	7.0
Family Provides Transportation	5	4.2
Walk	6	5.0
Motorcycle	1	.8
TOTAL	118	100.0

Table 25 indicates a majority (87.0%) of the hearing impaired sample has a driver's license. School driver education programs provided training for the largest members of the sample. Other subjects received training from guidance counselors, teachers, family members, private driving schools, and friends.

Educational Program Information

This section includes three subtitles: attitudes, guidance, and relatedness of jobs held to training.

Attitudes: One of the major goals of this study was to provide feedback to educational institutions, administrators, and teachers involved with the hearing impaired. Many items on the student questionnaire dealt with educational experiences. The subjects were asked to indicate what they liked

and disliked about their educational program.

Table 26 presents a listing of subjects or areas liked and disliked by the respondents.

The most frequently mentioned area liked by the subjects was vocational training. Math was also indicated as a favorite.

In relating their dislikes about school there was almost no mention of vocational training in general. Academics were indicated as a major dislike.

Many dislikes centered around program areas, such as, insufficient academics, lack of modern equipment, lack of variety in programs. Only a few mentioned lack of communication skills training (speech, language, signing). It seems communication skills are not perceived by the hearing impaired to be an important part in their education as indicated by the small number who even mentioned communication skills. Also, only 3 indicated they disliked residential living.

TABLE 26

Educational Program Likes and Dislikes

	N
1. What did you like about your educational program?	
General Vocational	58
Graphic Arts	17
Business Education	11
Other Vocational Courses	40
General Academics	5
Math	37
English	14
Reading	9
Other Academic Courses	12
Communication Skills	5
Language	2
Speech	1

TABLE 26 (con't)

	N
1. What did you like about your educational program? (con't)	
Sign Language	1
Physical Education	27
2. What did you dislike about your educational program?	
General Academics	9
Math	4
English	4
Reading	2
Other Academic Courses	7
General Vocational	4
Business	2
Other Vocational Courses	2
Communication Skills	2
Speech	2
Language	1
Writing	1
Program	
Lack of Variety	8
Insufficient Academics	8
Lack of Signing	4
Lack of Language, Grammar	3
Inability to Select Program	2
Inadequate Speech Training	1
Lack of Modern Equipment	2
Poor Preparation for Employment	2
Inadequate Sports	2
Miscellaneous	
Rules	10
Residential Living	4
Unfair Teachers	3
Food	1

TABLE 27

Program Information

	N	%
1. Do you feel you had enough information for selecting a senior high program in college or vocational education?		
Yes	98	62.8
No	58	37.2
TOTAL	156	100.0

As shown in Table 27, 62.8% of the sample felt they had enough information for selecting a senior high program on college preparatory or vocational education. This information, given by guidance counselors, parents and Bureau of Vocational Rehabilitation counselors, consisted of educational information, observations of programs, and experiences in specific trades and testing.

TABLE 28

Adequate Vocational Training

	1970-71 N	%	1972-73 N	%	1974-75 N	%
1. Do you feel your vocational training in senior high was adequate for today's job market?						
Yes	10	40.0	30	52.7	30	57.7
No	15	60.0	27	47.3	22	42.3
TOTAL	25	100.0	57	100.0	52	100.0

2. If yes, explain why it was adequate:	N
Obtained Related Job	45
Vocational Course Prepared for Job	13
Helped Me Obtain and Advance in My Job	5

TABLE 28 (con't)

	N
Good Preparation for College.....	2
3. If no, explain why it was not adequate:	
Need More Advanced Training.....	30
Unable to Get Job for Which Trained.....	11
Took Academic Course.....	13
No Selection of Vocational Training.....	4
Not Informed About Vocational School.....	1
Attended Other School for Training.....	1
Insufficient Funds for Equipment.....	1

Table 28 represents the subjects' attitudes on their vocational training as to how well their training prepared them for today's job market. This table has been divided into three time intervals according to years the subjects have graduated. This is due to the differences in the rapidly changing economy. Of those subjects graduating in the years 1970 and 1971, the majority (60%) felt their vocational training was not adequate for the job market. Higher percentages, 52.7% in the years 1972-73 and 57.7% in the years 1974-75, felt their vocational training was adequate. The data obtained on graduates from 1972-1975 revealed that the students felt they were adequately trained for their jobs in spite of the fact that they were seeking employment during the recession.

Guidance: This sub-section deals with the attitudes of the graduates towards the guidance they received in high school. Tables reveal data obtained on pre-employment guidance and job line prior to graduation. Also found here are methods used to obtain full time employment.

TABLE 29

Information on Vocational or Educational Programs

	N	%
1. Were you ever informed about the educational or vocational programs available to you? If yes, who informed you?		
Yes	128	80.0
No	32	20.0
TOTAL	160	100.0
2. List of Informants (Multiple Response)		
Guidance Counselor	49	
Teacher	35	
Principal of Vocational School	28	
BVR Counselor	8	
Hearing Center	6	
Director of School	4	
School District	3	
School for the Deaf	3	
Speech Therapists	2	
Family	2	
Social Counselor	2	
Friend	1	
Parental Guidance	1	
Post-High School Education	1	

Table 29 reveals that 80.0% of the graduates responded that they had been told about educational and vocational programs available to them. Only 20.0% of the graduates reported "no" to the question. A variety of responses were found in the list of informants. However, the most significant were: guidance counselor (49), teacher (35), and principal of vocational school (28). This supports the concept that the hearing impaired graduates surveyed were given a lot of guidance and help in selection of their programs. The researchers were very pleased with the results because it is very important that the students have a chioce in the selection of their courses. It was felt that because the

students were being trained in areas that were of interest to them they wanted to pursue careers in their field of study. This is evidenced in Table 33 where 71.2% of the graduates reported they want to continue doing what they learned in school.

TABLE 30

Pre-employment Guidance

	N	%
1. Did anyone at your school talk to you about what you would do after school?		
Yes	116	73.0
No	43	27.0
TOTAL	159	100.0
2. Did your school give you a list of bosses who need workers to help you find a job?		
Yes	47	29.0
No	114	71.0
TOTAL	161	100.0
3. Did any possible bosses offer you a job before you left school?		
Yes	40	26.0
No	113	74.0
TOTAL	153	100.0
4. Did you get a job because of a boss talking to you before you left school?		
Yes	48	30.0
No	112	70.0
TOTAL	160	100.0
5. Did your school give you a lot of help in finding a job?		
Very Much Help	38	24.0
Much Help	13	8.0
Some Help	25	16.0
No Help	82	52.0
TOTAL	158	100.0

Table 30 represents those questions which involved pre-employment guidance. It was found that 73.0% of the graduates reported that they had talked to someone at school about what they would do after graduation. Only 27% reported that they had not talked to anyone.

Twenty-nine percent of the graduates reported they had received a list of employers who needed workers in order to help them find a job, whereas, 71% of the subjects responded "no". Only 26% of the graduates had a job offer before they left school. It was found that 74% of the graduates did not have a job offer before graduation. Thirty percent of the graduates reported that they got their job because of a boss talking to them before they graduated.

The data reveals that 52% of the graduates rated their school as giving "no help" in finding a job; whereas 24% reported "very much help". Only 8% responded with "much help" and 16% reported "some help".

TABLE 31

Job Line-Up Prior to Graduation

	N	%
1. Did you have a full-time job before you left high school?		
Yes	45	32.0
No	94	68.0
TOTAL	139	100.0

Table 31 shows that 68.0% of the graduates did not have a full-time job arranged before they graduated. It was also found that only 32.0% of the graduates had a full-time job when they graduated.

The data in Table 32 reveals that the most popular method used to obtain a job was through family and parents. Twenty-eight percent of the graduates reported that their school helped them. Also, 11.7% of the graduates obtained

their job through friends. It was noted that only 4.2% of the graduates got their job on their own.

TABLE 32

Methods Used to Obtain Jobs

	N	%
1. How did you get your first full-time job after you left school? (multiple response)		
Your School Helped You	34	28.3
Your Vocational Teacher Helped You	6	5.0
Your Counselor	8	6.5
Other Teacher	1	.9
Your Family, Parents	44	36.6
Your Friends	14	11.7
By Yourself	5	4.2
Through an Office at School		
Through an Office of the State	6	5.0
Private Employment Agency	1	.9
Through School Placement Office	1	.9
TOTAL	120	100.0

Relatedness of Jobs Held to Training: This sub-section reveals the graduates' motivation to work in the field for which they were trained, the student's rating of their high school training, and the relationship of their present job to their high school training. Also found in this section are the graduates' reasons for not entering the field for which they were trained.

TABLE 33

Motivation to Work in Field of Study

	N	%
1. When you left school did you want a job doing what you did in school?		
Yes	104	71.2
No	42	28.8
TOTAL	146	100.0
2. Do you still want a job doing what you did in school?		
Yes	75	56.0
No	59	44.0
TOTAL	134	100.0

Table 33 reveals that 71.2% of the graduates wanted to obtain employment in the field of study for which they were trained. It was also reported that at the time of the survey 56.0% of the graduates still wanted work in the occupation for which they were trained. This shows that school programs offered courses and training the students were interested in and wanted to pursue after graduation.

TABLE 34

Student Rating of High School Training

	N	%
1. Did your school do a good job in training you for the job you now have?		
Very Good	28	26.2
Good	43	40.2
Not So Good	23	21.5
Bad Training	13	12.1
TOTAL	107	100.0

In Table 34 it is reported that 26.2% of the graduates rated their high school training as very good, and 40.2% found it to be good. Furthermore, 21.5% said the training was not so good and only 12.1% considered their high school training to be bad. A total of 66.4% of the graduates were pleased with the training they received in high school. The researchers felt that the reason some of the graduates reported "not so good" and "bad training" was because many of them were performing jobs which were completely unrelated to their training (43.9%, Table 35).

TABLE 35

Relatedness of Jobs to Training

	N	%
1. Do you use what you learned in school in the job you have now?		
The Same Thing as You Did in School	29	22.3
Almost the Same Thing You Did in School	13	10.0
Some of the Things You Did in School	31	23.8
Not What You Did in School	57	43.9
TOTAL	130	100.0

Table 35 deals with the relationship of training to employment. The highest percentage (43.9%) was found for the category "not what you did in school" which means that many of the hearing impaired graduates are not working in the field for which they were trained. One of the reasons for this may be attributed to the nation's unemployment problem. Many graduates probably could not find employment in the areas for which they were trained. They would probably take any job (even if it was unrelated to their training) just to have some type of employment. In Table 33 it was reported that over half of the graduates wanted employment in

the field for which they were trained.

TABLE 36

Reasons for Not Entering Field for Which Trained

	N	%
1. What was the reason for not getting a job like you were trained for in school?		
I did not want to do what I was trained for	4	5.9
I tried, but could not get a job in what I was trained for	19	27.9
I did not think I learned enough to get a job in what I was trained for	10	14.7
The pay was not enough	6	8.8
Too little advancement opportunity	2	2.9
I would not be able to get a better job		
I did not like the working conditions	2	2.9
I got a chance for a better job	1	1.4
I was unable to work in the apprentice program	3	4.6
Other	21	30.9
TOTAL	68	100.0

In Table 36 it is found that only 68 of the 167 graduates surveyed responded to this question. One of the reasons for this is that some of the graduates were attending post-secondary education programs (28.5%) and therefore were not employed. Of the graduates who did respond it was noted that 30.9% of them reported "other" reasons than those listed as the reasons for not entering the field for which trained. Unfortunately, these respondents did not list what the other reasons were. Therefore, the researchers were unable to draw any conclusions. About 27% of the graduates who did not enter their field of study reported that they were unable to find a job in that field. In this table the reader will note that only 5.9% of the graduates reported not wanting a job for

which they trained. This was further evidence that the graduates wanted to work in the field of study.

Present Status

This section is divided into three sub-sections: post-high school status, those employed, and those in college.

Post-High School Status: This section reveals data on the graduates' post-high school activities. The subjects were asked if they worked full-time, part-time, or if unemployed. They were also asked if they were attending college or vocational school either full-time or part-time. The graduates' response as to whether they were self-supportive or not is also included in this section.

TABLE 37

Present Status

	1970-71 N	1970-71 %	1972-73 N	1972-73 %	1974-75 N	1974-75 %
1. What is your present status? (multiple response)						
I work full-time	18	53.0	41	66.1	46	78.0
I work part-time	4	11.7	2	33.0	2	3.4
I do not work, but am looking for a job	4	11.7	7	11.3	6	10.2
I do not work	1	3.0	3	4.8		
I take care of my house all the time	4	11.7	2	3.3		
I go to college full-time	2	5.9	3	4.8	4	6.7
I go to college part-time			1	1.6		
I go to vocational school full-time	1	3.0	3	4.8	1	1.7
I go to vocational school part-time						
TOTAL	34	100.0	62	100.0	59	100.0
2. Are you now self-supportive?						
Yes	23	79.3	37	63.8	41	68.3
No	6	20.7	21	36.2	19	31.7
TOTAL	29	100.0	58	100.0	60	100.0

Table 37 reveals that the highest percentage (78.0%) of full-time employment was reported for those graduates who left school between 1974-75. It was also found that none of these graduates reported to be full-time housewives for those years. This was probably because the students had just graduated and fewer of them would be married, as opposed to those who had graduated earlier. It was found that those who graduated in 1970-71 responded that 11.7% were full-time housewives. This interval had the highest percentage for this category. The researchers found a decline (3.3%) for this category for those who graduated in 1972-73. Fifty-three percent of the 1970-71 graduates reported that they were working full-time, whereas, 66.1% of the 1972-73 graduates responded in this category. It was noted that there was a consistent percentage for all six years in the category of unemployed but looking for work. Graduates from 1972-73 had the highest percentage of part-time employment (33.0%) and full-time vocational school (4.8%).

The data in this table reveals that 79.3% of the 1970-71 graduates were self-supportive and 20.7% of them were not. Approximately 63% and 68% of the 1972-73 and 1974-75 graduates were self-supportive, whereas, only 36.2% and 31.7% respectively were not self-supportive. The most significant reason for not being self-supportive was because they were attending school full-time.

For Those Employed: The subjects were asked to indicate the location of their present employment. The information concerned data such as, the location of work in the same county as school, another county in Pennsylvania, another state near Pennsylvania, or a state not near Pennsylvania. There was not enough sufficient data to draw any valid conclusions.

TABLE 38

Time Period Before Full-Time Employment

	1970-71 N	1970-71 %	1972-73 N	1972-73 %	1974-75 N	1974-75 %
1. How long after you left school did you start your first full-time job?						
Right Away	6	23.1	25	59.5	33	66.0
2 Weeks	1	3.8	4	9.5	2	4.0
4 Weeks	2	7.7			1	2.0
6 Weeks	1	3.8			1	2.0
8 Weeks	2	7.7	2	4.8	3	6.0
10 Weeks			1	2.4		
12 Weeks	2	7.7	1	2.4	1	2.0
14 Weeks					1	2.0
16 Weeks					1	2.0
More than 16 Weeks	12	46.2	9	21.4	7	14.0
TOTAL	26	100.0	42	100.0	50	100.0

Table 38 reveals that 68% of the sample who did not have a job before they left school were asked to indicate the time period between leaving school and obtaining their first full-time employment. In the years 1970-1971, 23% obtained jobs right away, while 46% took more than 16 weeks to find employment. In later years, 1972-1973 and 1974-1975, 59% and 66% respectively, found jobs right away. This data is congruent with information in Table 38 which states that in spite of the economy's recession there was a higher percentage of obtaining jobs immediately after leaving school. The time period taken to obtain a job decreased over the five year period.

TABLE 39

Level of Earnings

	1970-71 N	1970-71 %	1972-73 N	1972-73 %	1974-75 N	1974-75 %
1. How much money do you make a month before money is taken out for taxes?						
Below $400	8	34.8	12	29.3	17	33.3
$400-449	6	26.1	10	24.4	12	23.5
$450-499			5	12.2	8	15.7
$500-549	1	4.4	3	7.3		
$550-599			3	7.3	4	7.8
$600-649	2	8.7	2	4.9	2	3.9
$650-699	3	13.0	1	2.4	1	1.9
$700-749			2	4.9	3	5.9
$750-799			2	4.9	1	1.9
More than $800	3	13.0	1	2.4	3	5.9
TOTAL	23	100.0	41	100.0	51	100.0

Table 39 presents information concerning the level of earnings of the employed hearing impaired sample. There was not much difference in salary in the five year intervals. Approximately 55% of each interval earned less than $500 a month.

TABLE 40

Occupational Classification

	N	%
1. What kind of job do you do?		
Professional, Technical, and Managerial	6	4.9
Clerical and Sales	30	24.6
Services	31	25.4
Farming, Fishing, Forestry, and Related	2	1.6
Processing	2	1.6
Machine Trades	34	27.9

TABLE 40 (con't)

	N	%
Bench Work	4	3.3
Structural Work	4	3.3
Miscellaneous	9	7.4
TOTAL	122	100.0

Each subject was asked to state his present employment. As shown in Table 40 jobs were categorized into nine classifications according to the Dictionary of Occupational Titles. Approximately 78% of the sample are equally distributed among machine trades, service, clerical and sales. The remainder were in miscellaneous, professional, technical and managerial, bench work, structure work, processing, and farming, fishery, forestry, and related.

TABLE 41

A Comparison of MSQ Scores for Employed Hearing Impaired and Regular Workers

Group	Number	S.D.	Mean MSQ Score	t
1. Hearing Impaired Workers	127	13.14	81.73	18.18*
2. Office Clerks	227	12.45	74.48	

*Significant beyond the .01 level

In Table 41 results of a t-test analysis are presented in which the performance of two groups of workers on the Minnesota Satisfactoriness Questionnaire is contrasted. The two worker groups were designated as general hearing impaired workers and office clerks. The general hearing impaired worker group are graduates from 1970-74 that completed the MSQ. The office clerks were selected from the normative data given in the Manual for the MSQ. The office clerks most closely characterized the general hearing impaired worker with the exception

hearing loss. The results indicate that the general hearing impaired worker is significantly better adjusted and satisfied with his/her job than the office clerk. It should be noted that other normative groups of workers listed in the manual had scores similar to the office clerk.

For Those in College: This sub-section deals with those hearing impaired graduates who were enrolled in some form of post-secondary education. The table includes information on the type of school, the location of the school, and the relationship of courses to those taken in high school. The graduates were also asked where they resided.

TABLE 42

Post-High School Education

	N	%
1. What kind of school do you go to now?		
Community College	2	7.4
Private 2 Year College		
State College Branch Campus	1	3.7
State College Main Campus		
Private 4 Year College	5	18.5
Private Business School		
Private Technical School	3	1.0
Area Vo-Tech	2	7.4
Other School	14	52.0
TOTAL	27	100.0
2. Where is the college or school you now attend?		
In State	12	46.2
Out of State	14	53.8
TOTAL	26	100.0
3. Do you live at home or school?		
At Home	10	38.5
At School	16	61.5
TOTAL	26	100.0
4. Does what you're studying now have anything to do with what you were trained for in high school?		
Related	4	33.3
Unrelated	8	66.7
TOTAL	12	100.0

Of the graduates pursuing some form of post-secondary education 18.5% were attending private 4 year colleges. Eleven percent of the graduates were enrolled in private technical schools. It was also found that 7.4% of the graduates were attending community college and area vo-tech schools.

It was reported that 53.8% of the graduates were attending schools out of state. This percentage of over half of the graduates was probably due to the fact that major post-secondary schools for the hearing impaired are located out of state.

The research found that 61.5% of the graduates lived at school. It was also found that 38.5% of the graduates lived at home.

The data in this table revealed that 66.7% of the graduates were studying courses which were unrelated to their high school training.

Summary of Findings

Present Personal Status:

1. Approximately 16% of the hearing impaired graduates were married. A large majority (83%) were single.

2. Seventy-six percent of the respondent's spouses had a hearing loss and 8% of their children had a hearing loss. Approximately 9% of the mothers and 14% of the fathers of the subjects had a hearing loss.

3. The hearing impaired sample have both hearing and hearing impaired friends. They have more hearing impaired than hearing friends. Approximately 37% belong to deaf clubs and 10% belong to hearing clubs.

4. Only 29% of the sample wore hearing aids, although 74% of the subjects did own hearing aids.

5. Eighty-seven percent of the respondents had a driver's license. A majority received driver training at school from driver education program or guidance counselor.

Educational Program Information:

Attitudes

1. The most liked subject area in school by the hearing impaired was vocational education. Academics were indicated as a major dislike.

2. Approximately 63% of the hearing impaired sample felt they had enough information for selecting a senior high program in college prep or vocational education. Most of the information was given to subjects by a guidance counselor.

3. A majority of those graduating in the years 1970-71 felt their training was inadequate for the job market. Those graduating from 1972-75 felt their vocational training was adequate in preparing them for the job market.

Guidance

1. Over half of the graduates (80%) reported that they had been told about educational or vocational programs available to them.

2. Guidance counselors, teachers, and principals of vocational schools provided most of the program guidance to the hearing impaired graduates.

3. Seventy-three percent of the graduates reported they has received post-high school guidance from someone at school before they graduated.

4. Approximately 70% of the graduated responded that they did not receive enough help from their school in finding a job.

5. The majority of graduates (68%) reported they did not have a full-time job lined up before they graduated.

6. The most frequent method of obtaining a job was through family and friends (36.6%). Other means were through their schools (28.3%). Only 4.2% of the graduated found jobs on their own.

Relatedness of Jobs Held to Training:

1. At the time of graduation 71.2% of the graduates reported they wanted to obtain a job in the field of study; whereas, only 28.8% of the graduates did not want to continue a career in the occupation studied.

2. At the time of the survey 56.0% of the graduates expressed a desire to obtain a job in the field for which they were trained in high school. Forty-four percent did not want a job in the field of study.

3. A total of 66.4% of the graduates were satisfied with their high school training for their present job. Only 33.6% of the graduates reported that they did not receive adequate training for their present job.

4. Approximately 44% of the graduates reported thair present job was completely unrelated to their high school training. Twenty-two percent of the graduates said their job was related to their high school training.

5. Approximately 28% of the graduates reported that they did not enter the field for which they trained because they could not find a job in the occupation they studied. Also, 14.7% of the subjects said they did not think they learned enough to get a job in what they were trained for. Almost 9% reported that the pay was not enough.

Present Status:

Post-High School Status

1. The graduates of 1970-71 reported that 53% of them were employed full-time. For those who graduated in 1972-73 a percentage of 66.1 was recorded and for the 1974-75 graudates the data revealed 78% were full-time employed. The highest percentage (11.2%) of post secondary education was found among the 1972-73 graduates. Approximately 11% of the 1970-71 graduates responded that they were full-time housewives. This was the highest percentage among the five year period.

2. Seventy-nine percent of the 1970-71 graduates reported that they were self-supportive. Approximately 63% and 68% of the 1972-73 and 1974-75 graduates, respectively, were self-supportive.

For Those Employed

1. During the years 1970 & 71, 23% obtained jobs right after leaving school. A higher percentage (59%) and (66%) in the years 1972-73 and 1974-75 found jobs immediately after leaving school.

2. Approximately 55% of all hearing impaired graduates earned less than $500 a month.

3. Approximately 78% of the hearing impaired graduates were employed in machine trades, service, and clerical and sales.

For Those in College

1. Fifty-two percent of the graduates reported that they were attending

another school than listed in the question. Eighteen percent were attending a private 4 year college. A total of 17.4% were attending either a technical or vo-tech school.

2. Fifty-three percent of the graduates were enrolled in schools or colleges not in Pennsylvania.

3. Approximately 61% of the subjects reported that they lived at home.

4. Sixty-six percent of the graduates responded that post-high school education was completely unrelated to their high school education.

Chapter VI

Results of Parent Questionnaire

Introduction

This section contains tables and data analysis based on information collected through the parent survey instrument of the follow-up study of hearing impaired young adults. The Parent Follow-Up Survey consisted of twenty-three items which were completed by the parent or parents of selected hearing impaired young adults. For purposes of data analysis questionnaire items were grouped into three sections.

Section I consisted of items one through eight and was concerned with personal history information, information regarding the child's birth, parental ages, parental marital status, parental hearing status, parental educational and occupational status and family income.

Section II included items nine through fifteen and item twenty-three. These items were concerned with parental knowledge of the child's hearing impairment. Responses to these items provided information regarding the degree of the child's hearing loss, age of onset of the hearing loss, age of diagnosis of the hearing loss, cause of the hearing loss, methods of communication used by the parents and the hearing impaired child, parental training in communication methods and the parent-child relationship.

Section III consisted of items sixteen through twenty-two, which were concerned with parental knowledge of educational programs for the hearing impaired. These items contained information about the child's secondary educational and vocational programs, educational and vocational counseling, adequacy of the child's vocational training and the need for follow-up services.

Section I

Parent follow-up information was collected in order to provide the researchers with parental data relevant to the success of the hearing impaired child. This information was of value due to the important role of the parents in providing a supportive and stimulating environment for their hearing handicapped child. Information regarding socio-economic background, parental attitudes toward the child and his hearing loss, and attitudes regarding the child's educational opportunities were important aspects of the research.

Personal History Information: Personal history information provided insights into the family structure, socio-economic status, and hearing status of the hearing impaired childs' parents. Of one hundred fifty-three respondents to the Parent Follow-Up Survey only one child was reported to be adopted.

TABLE 43 shows parental age ranges. Age of the parents, especially of the mother, at the time of conception and birth of the hearing impaired child, may be a significant factor when considering the etiology of the child's hearing loss. Advanced age may contribute to a more complicated pregnancy and birth, placing the child in a high risk category for possible hearing impairment.

TABLE 43

Parent Ages

Age	Mother (%)	Mother N	Father (%)	Father N
25-44	(21)	31	(7)	10
45-64	(79)	118	(90)	128
65 (and over)	(0)	0	(3)	5
Total	(100)	149	(100)	143

According to the data presented in Table 43, it appeared that most parents fell into the middle age category (Mean Age of the Mothers = 49.7 yrs., Mean Age of the Fathers = 51.[illegible] yrs.). Most of their offspring are presently in their late teens and early twenties. It would appear that parental ages at the time of birth of the hearing impaired subjects did not significantly influence the possibility of occurrence of hearing loss.

TABLE 44 indicates the marital status of the parents. The high percentage of parents falling into the married category (86%) indicated that the parents of hearing impaired subjects have maintained stable marital relationships. It appeared then that most of the hearing impaired subjects had had the benefit of a stable two parent family structure.

TABLE 44

Marital Status of the Parents

Status	(%)	N
Married	(86)	131
Divorced	(4)	6
Single	(1)	1
Widowed	(5)	9
Separated	(4)	6
Total	(100)	153

TABLE 45 soncerns the hearing status of the parents involved in the follow-up. Research by Stuckless and Birch (1966), Meadows (1967), Stevenson (1964) and Quigley and Frisina (1961), indicated that deaf children of deaf parents appeared to be better adjusted to their hearing loss, had better communication skills, were better adjusted socially, and had better overall educational achievement levels. Possible explanations for the superiority of the deaf children of deaf parents in these areas were early use of manual

communication skills, realistic expectations on the part of the hearing impaired parents, and a better understanding of the hearing handicap.

TABLE 45

Parental Hearing Status

Range	Mother (%)	Mother N	Father (%)	Father N
Normal	(89)	135	(87)	132
Deaf or Hearing Impaired	(11)	17	(13)	20
Total	(100)	152	(100)	152

Of the seventeen hearing impaired mothers in the survey, the mean age of occurrence of their hearing losses was 3,9 years. The mean age of occurrence of the hearing losses of the twenty hearing impaired fathers was 6.4 years. TABLE 46 classifies the age of onset of the hearing losses as pre or post lingual. Since the age of onset of the hearing loss is an important factor in the overall linguistic development of the hearing impaired, it in turn influences their functioning in academic, vocational, and communication skills. It is reflected in the hearing impaired parents' educational level, employment status, and overall socio-economic status.

TABLE 46

Age of Onset of Parental Hearing Loss

Age of Onset	Mother (%)	Mother N	Father (%)	Father N
Pre-lingual (0-2 yrs.)	(65)	11	(68)	13
Post-lingual (2+ yrs.)	(35)	6	(32)	7
Total	(100)	17	(100)	20

TABLE 47 shows the educational achievement levels of the survey parents. Sixty-one percent of the mothers had at least high school educations and fifty-two percent of the fathers had high school educations. Twenty-six percent of the mothers and twenty-eight percent of the fathers had completed training beyond the high school level.

TABLE 47

Educational Achievement of Parents

Educational Levels	Mother		Father	
	%	N	%	N
Grade School	9	13	17	26
High School	61	92	52	79
Vocational School	13	20	9	13
College	13	20	19	28
School for the Deaf	4	6	3	5
Total	100	151	100	151

Questions 6a through 7b addressed themselves to the occupational status of the parents. The Dictionary of Occupational Titles was used to classify occupational responses into the categories in TABLE 48. An additional category was added to account for those parents who considered themselves full-time housewives. See Appendix for a complete listing of parental occupations.

Of 153 respondents to question 6b regarding the fathers' occupational status, seventy-nine percent were currently employed in their usual occupation. Five percent were unemployed, and eleven percent were working at jobs not considered their usual occupations or were retired. Approximately five percent of the fathers were deceased.

Questions 7a and 7b were concerned with the mothers' occupational status. Fifty-four percent considered themselves full-time housewives and forty-six percent were employed outside the home at least part-time. Ninety-three percent of the mothers were currently employed in the occupation they considered their usual occupation. Two percent were unemployed and five percent were employed in occupations other than their usual one. One mother was deceased and one mother who did not consider herself a full-time housewife did not indicate her present occupation.

TABLE 48

Parent Occupations

Occupational Categories	Father		Mother	
	%	N	%	N
Professional, Technical, and Managerical Occupations	24	34	17	26
Clerical and Sales Occupations	13	18	11	17
Service Occupations	11	15	7	11
Farming, Fishery, Forestry and Related Occupations	3	4	0	0
Processing Occupations	5	7	1	2
Machine Trade Occupations	11	16	3	4
Bench Work Occupations	4	5	5	8
Structural Work Occupations	13	19	0	0
Miscellaneous Occupations	16	23	2	3
Housewives	0	0	54	80
Total	100	141	100	151

Question 8 was concerned with family income. Six parent respondents did not indicate their combined family income for the twelve month period preceding

the survey. The responses of the remaining one hundred forty-seven families are shown in Table 49.

TABLE 49

Family Income

Income Ranges	%	N
Under $5,000	10	15
$5,000 - $9,999	19	28
$10,000 - $14,999	31	45
$15,000 - $19,999	19	28
$20,000 and over	21	31
Total	100	147

In summary the majority of parents involved in the follow-up survey appeared to be middle-aged, married, and normal hearing. Most had achieved a high school education or greater and were employed. Family incomes ranged from under $5,000 to over $20,000, with the greatest number of families falling into the middle-income category of $10,000 to $14,999. The data which describes the follow-up parents is very similiar to that which we might expect to find in a population of parents of normal hearing children of the same ages.

Section II

Knowledge of Hearing Loss: Information regarding the parents' knowledge of their child's hearing impairment and their knowledge and use of communication methods is contained in this section. Specific survey items were concerned with the degree of the child's hearing impairment, the ages of onset and diagnosis of the hearing loss and the cause of the loss. Additional survey questions were concerned with communication methods used by both the parents

and the children, and formal training in communication methods. Responses to survey question twenty-five, regarding the parent-child relationship are also discussed in Section II.

TABLE 50 shows the degree of hearing loss of the surveyed students, as perceived by the survey parents. All of the losses fell within the moderate to profound ranges. Most of the surveyed students were considered deaf rather than hard of hearing. The severity of the losses was explained in part by the fact that most of the hearing impaired students were graduates of residential schools for the deaf, not intermediate units or public school programs for the hearing impaired.

TABLE 50

Child's Degree of Hearing Loss

Ranges	Right Ear		Left Ear	
	%	N	%	N
Normal	0	0	0	0
Mild	0	0	1	1
Moderate	11	16	7	11
Severe	40	60	35	52
Profound	49	73	57	84
Total	100	149	100	148

Question ten addressed itself to the age of discovery of the child's hearing loss. Parents of forty-three students indicated that their child's hearing loss was discovered at birth. The remaining one hundred and ten respondents indicated their childrens' hearing lossed were discovered at the ages indicated in TABLE 51. The mean age of discovery of the hearing loss, excluding those discovered at birth was 1.9 years.

Responses to survey question eleven provided information about the age of occurrence of the child's hearing loss. Twenty-six percent of the parents said the age of occurrence of their child's hearing loss was unknown. Sixty-one percent indicated the loss occurred at birth. The responses of the remaining thirteen percent of the parents reported the age of occurrence as ranging from one through six years. The mean age of occurrence of the hearing loss excluding those that occurred at birth or at an unknown time was 2.7 years. TABLE 51 shows the ages of discovery and the ages of occurence of the hearing losses.

TABLE 51

Ages of Occurrence and Discovery of Hearing Losses

Ages	Age of Occurrence %	Age of Occurrence N	Age of Discovery %	Age of Discovery N
Birth to 2.0 yrs.	74	114	76	116
2.1 to 4.0 yrs.	7	11	19	29
4.1 to 6.0 yrs.	2	2	16	8
Unknown	17	26		
Total	100	153	100	153

The age of onset and the age of discovery of the hearing loss are important variables in the habilitation of the hearing impaired child. The most important consideration when considering these variables is the degree to which the child's language has developed before the loss occurred. In general, the better a child's grasp of basic language fundamentals the better he will be able to take advantage of the prevalent educational environment. The later the age at which a hearing loss occurs, the better the language development may be expected to be.

Probable causes of hearing loss are shown in TABLE 52. As might be expected the greatest percentage of responses (43%) fell within the undetermined category. The second largest category contained twenty-four percent of the percent of the responses and included causes other than those specified in TABLE 52.

TABLE 52

Causes of Hearing Loss

Causes	%	N
Undetermined	43	67
Maternal Rubella	6	9
Complications of Pregancy	5	8
Pre-maturity	7	11
Birth Trauma	3	4
Heredity	8	14
Other	24	38
Combinations of Factors	4	6
Total	100	151

The large percentage of children with hearing losses of an undetermined etiology points out the need for better and more sophisticated methods of identification and diagnosis of hearing impairment. We need to conduct more research into the specific causes of hearing impairment, so as to prevent as well as identify the causes of hearing handicaps.

Communication methods were described by survey questions thirteen and fourteen. Communication between the parents and the hearing impaired child is probably the greatest problem encountered by the parents of the hearing handicapped. It is also a tremendous problem for the hearing impaired child who tries to communicate with his parents or with others in his environment. TABLE 53 shows the methods used by thi parents to communicate with the child and by the child when he communicates with the parents.

TABLE 53

Communication Methods

Categories	Parent to Child %	Parent to Child N	Child to Parent %	Child to Parent N
Speech	40	61	38	58
Sign Language	0	0	4	7
Fingerspelling	1	1	0	0
Writing	1	1	1	1
Gestures	1	1	1	1
Combination	57	89	56	86
Total	100	153	100	153

In both parent to child and child to parent communication the largest percentage fell into the combination of methods category. This category could have been titled total communication, except that total communication often implies the use of manual sign language. Many of the combination methods indicated on the surveys did not include the use of manual communication or fingerspelling. Combinations often included only speech and writing, speech and gestures, or speech, gestures and writing. There appears to be a correlation between the methods used in parent-child interactions and in child-parent communications.

Question fifteen was concerned with the availability of formal training for parents in communication methods. Twenty-eight percent of parents indicated that they had been provided with formal training. Seventy-two percent said that they had not received any formal training in communication techniques. The parents indicated a variety of sources of training in communication methods. The training sources have been classified into several general categories listed in TABLE 54.

TABLE 54

Training Sources

Categories	%	N
Schools for the Deaf	19	8
Public Schools	7	3
Speech and Hearing Clinics	12	5
Rehabilitation Centers	5	2
Churches and Clergy	21	9
Associations for the Handicapped	8	4
Other	16	7
No sources indicated	12	5
Total	100	43

The sources included in the Other category were private classes, a hearing child of deaf parents, the parent's own children and sign language courses with no indication of who provided the courses. Five percent responded that they had had formal training, but did not mention the training source. Churches and clergy appear to be the largest training sources with schools for the deaf being the second largest.

The large percentage of parents who received no formal training in communication methods indicated a need for a training program to meet the communication needs of parents, or a program designed to inform parents about training sources that are presently available. This weakness in parent training may be a major weakness in the educational programming for the hearing impaired. Because of the vital role of the parents in early language training and in the long-range overall achievement levels of the child, it is necessary to provide the parents with an effective and efficient method of communication. Correspondingly, the child must be provided with a communication method to meet his needs for expression with his parents and with his environment.

Survey item twenty-three was the last question to be included in Section II.

The question polled the parental attitudes toward their relationship with their hearing impaired child. Seventy-six percent of the parents described their relationship with their hearing impaired child as very successful. Twenty-two percent considered their relationship somewhat succcessful. Only two percent of the parents described the parent-child relationship as somewhat unsuccessful or very unsuccessful.

Summary

An overview of survey items included in Section II indicated the parents' awareness and knowledge of the hearing handicaps of their children. The degrees of hearing losses of the children ranged from moderate through profound with most losses occurring at birth. Most of the hearing losses were discovered at birth or between the ages of one and two years. The majority of the hearing losses were of undetermined cause. The information describing this hearing impaired population pointed out the need for additional research to help pinpoint causes of hearing loss and to develop a program of hearing loss prevention. Considering the young ages at which the hearing losses were discovered, it would appear that our audiometric and identification techniques are adequate. However, there are still children with hearing handicaps that go undiagnosed until the child is nearly school-aged. These are the cases that need immediate attention, so as to diagnose the hearing loss at the earliest possible time.

In terms of communication skills and knowledge of various communication methods, administrators and educators apparently have not provided adequate training for parents or for their children. There is a need for a more unified and universal approach to providing the necessary training in communication methods and counseling.

In spite of the problems and inadequacies in identifying and remediating

problems associated with hearing loss most parents believed they had established satisfactory relationships with their children.

Section III

Responses to items fifteen through twenty-two are described in Section III. These responses contained information regarding the parents' awareness of and attitudes toward the educational provisions made for their hearing impaired sons and daughters. Likes and dislikes of the child's training are discussed. Adequacy of educational planning and counseling were surveyed along with the adequacy of the actual training the students received. The need for follow-up services and the child's present job status are discussed, along with suggestions for program improvement.

Educational and Vocational Training: The purpose of conducting a follow-up survey of hearing impaired young adults was to determine if they are leading productive and satisfying lives in our hearing society. The major determiner of the success of the hearing handicapped graduates was their present functioning in society. Job success is an important measure of their overall success or failure to deal with their handicap. The graduates' employment status and ability to cope with the working world depends largely on the educational and vocational preparation provided for him by his school. The following survey items deal with the parents perceptions of their child's success or failure in relation to the types of educational, vocational, and supportive services provided for their child.

Question sixteen asked what the parents liked most about their child's educational program. The parent comments were classified into several general categories. The most frequent remark (24%) was that the parents liked the overall school program including curriculum, vocational training, and extra-curricular activities. Second in frequency (23%) was the approval of the

vocational aspects of the training programs. Five percent of the parents liked mainstreaming and the opportunities for socialization with both hearing and hearing handicapped peers. On the job training, work study opportunities and individualized instruction were mentioned as the next most favorable aspects of programs for the hearing impaired. Preparation for the future, adequate guidance counseling, specialized academic training, good speech programs, qualified instructors, and instructional methods were favored by the parents. A large percentage (15%) of the parents responded negatively to question sixteen, saying there was nothing they liked about the educational programs. An almost equally large percentage (13%) indicated no comments in response to question sixteen.

Dislikes were surveyed in question seventeen with the following results recorded. Twenty-three percent of the parents could think of nothing they disliked about their child's educational program. Twelve percent did not comment on their dislikes. The greatest shortcoming of the programs appeared to be the lack of emphasis in speech. Second to that was the lack of emphasis on remediation of specific academic weaknesses in math, reading, and language. Comments that occurred with nearly equal frequency were concerned with the need for more emphasis on language development, more emphasis on on-the-job training, need for more vocational training, need for a more flexible training program, need for training in practical living skills, need for increased use of sign language, need for more guidance counseling, and the need for educational programs near the students' homes.

Survey item eighteen continued questioning regarding educational and vocational programming. The parents were asked if they had received counseling regarding the programs available to their children. They were also asked who provided that training. Sixty-five percent replied that they had benefitted from counseling regarding the educational and vocational programs

available to their children. Thirty-five percent indicated that they had received no counseling services. The sources of educational information fell into four categories, school personnel, Bureau of Vocational Rehabilitation Counselors, speech and hearing centers, and a category of other sources. School personnel, including teachers, guidance counselors, and school principals comprised eighty-two percent of the information sources. Bureau of Vocational Rehabilitation Counselors were the second largest group of advisors, comprising seven percent of the total group of sources. Four percent of the sources were speech and hearing centers. The remaining five percent of the sources fell into the category titled other, and consisted of friends, organizations for the deaf, and post-secondary schools.

Question nineteen asked the parents if they thought their child had enough information for selecting his or her secondary educational program. It also inquired about the type of information received. Forty-four percent responded that they did not have sufficient information. Eight percent did not respond to the question. Approximately twenty-percent responded that they received information from Bureau of Vocational Rehabilitation Counselors, school guidance counselors, and other types of counselors. Approximately eight percent received counseling from other school personnel, mainly from teachers and school principals. An additional fourteen percent indicated that they had received an adequate amount of information, but they did not specify the source of the information. Other sources of information were social workers, other students, and brochures and catalogs from colleges and post-secondary training programs. Approximately five percent replied that they did not know if their child had received an adequate amount of information.

The percentage of those who had received counseling, and those who did no receive counseling was approximately the same. This means that nearly one half of the students and parents surveyed had not received adequate counseling

or information to help them select an appropriate college preparatory or vocational program. A significant number of comments were recorded regarding the rigidity of the programs offered, inappropriateness of programs, unrealistic goals of the programs, and limited program selections.

Question twenty asked the parents if they believed their hearing impaired child's training was adequate for today's job market. Respondents to the question were asked to indicate why they believed the training was or was not adequate.

The responses of the parents indicated that the majority of the graduates were not adequately trained for today's job market. Approximately forty-eight percent expressed a definite need for additional job training to meet the demands of today's job market. Reasons for citing the need for additional training were the lack of adequate vocational preparation, lack of opportunity for advancement, job skills confined to a too limited specialty area, not enough jobs available in the field trained for, incomplete guidance counseling, and an inability to keep up with rapidly advancing technology. Fourteen percent did not respond to the question. An additional three percent did not know if the training was adequate. Thirty- six percent of the parents believed the training was adequate for today's job market. Half of these parents based their judgements on their child's success in finding and holding a job. The remaining half of this group of parents responded yes for various other reasons such as adequate vocational training, good on-the-job training, job satisfaction, and good earning power.

Survey item twenty-one addressed itself to the employment status of the students. Sixty-four percent of the students were self-supportive at the time of the interview. Thirty-six percent were not self-supportive for the following reasons: ten percent were unemployed, eleven percent were students, and

twelve percent did not indicate reasons for not being self-supportive. Four percent were employed, but their income was too low to be able to support themselves. An additional two percent were not gainfully employed due to health reasons or marriage and motherhood. One percent did not respond to the question.

Question twenty-two asked the parents if they believed there was a need for follow-up services to assist their hearing handicapped children in obtaining and maintaining good jobs. Twenty percent of the parents indicated no need for follow-up services. Fourteen percent did not respond to the question and three percent did not know if there was a need for follow-up assistance. The remaining sixty-three percent of the parents indicated a definite need for follow-up services. Specific services requested fell into several categories. Approximately thirty-one percent expressed a desire for follow-up counseling and advice in the form of Bureau of Vocational Rehabilitation Services, guidance counseling from schools for the deaf, a counseling service for deaf adults, post-graduate training in academic and vocational skills, retraining to maintain skills needed for advancing technology, retraining in new vocational areas to overcome job dissatisfaction, and training to advance in one's field. Job placement services were mentioned as a need by sixteen percent of the parents. The parents indicated that placement services should include interpreters for job interviews, services for multiply-handicapped graduates, employer counseling concerning deafness, and communication training for the deaf and for their employers and hearing coworkers.

Summary: Section III, concerned itself with the parents knowledge of and attitudes toward their child's educational and vocational training. His success or failure as an employable, self-supporting member of a hearing world was discussed in terms of the parent attitudes toward and perceptions of their

hearing handicapped child. A brief review of the findings indicated that the parents were satisfied with many aspects of the child's school experiences and preparation. However, there was a significant percentage of parents who had negative feelings toward the education provided for their child. The positive aspects of their training programs included vocational preparation, on-the-job training, specialized academic training, qualified instructors, good instructional methods, and adequate guidance counseling. Dislikes included negative feelings toward the rigidity of training programs, lack of emphasis on language development, lack of on-the-job training for many students, and lack of preparation in practical living skills.

Most parents indicated they and their children had received some counseling concerning the educational and vocational opportunities available to the child. Approximately one third of the surveyed parents indicated that no counseling was provided for them. Sources of counseling included school personnel, Bureau of Vocational Rehabilitation Counselors, and speech and hearing centers.

In response to a question regarding the adequacy of the guidance counseling only one half of the survey population felt their child had experienced adequate counseling so he could select an appropriate school program.

The majority of the parents were in agreement concerning the inadequacy of the child's job training. They seemed to agree that the children are not being prepared for the world of work. Many of the parents felt the need for follow-up services to assist their children in maintaining their vocational and academic skills and to place the graduates in appropriate employment situations throughout their adult lives.

Section IV

Section four consists of findings and implications acquired through the

Parent Follow-Up Survey. Most of the findings and implications deal with the vocationally oriented Section III of the survey form.

Findings: Our survey population consisted mostly of graduates with severe to profound hearing losses.

Implications: These graduates were probably representative of the most severely handicapped hearing impaired. Their problems are probably typical of other deaf populations with the same degree of hearing losses. Therefore, we can probably apply much that has been learned from this follow-up study to other deaf populations.

Findings: Most of the child's hearing losses occurred pre-lingually.

Implications: These individuals are the most language handicapped and consequently the most academically and vocationally handicapped hearing impaired. They need the greatest amount of services for the deaf.

Findings: Most of the hearing losses had been discovered before two years of age.

Implications: These hearing impaired individuals have benefitted from early diagnosis and educational intervention and should be good examples of the deaf child's potential for success.

Findings: A large percentage of the causes for the hearing impairment were undetermined.

Implications: There is a need for increased concern and research into the reasons for hearing losses. We should concentrate more effort toward prevention of hearing loss rather than remediation.

Findings: Many parents of deaf children cannot communicate efficiently with their children. The use of a combination of trial and error methods appears to be the most frequently used communication method.

Implications: Providing the parents with adequate training in communication methods may possibly be the most economical and efficient means of providing the services required for the hearing handicapped child. The parent, given an ability to communicate with the child, may be able to provide adequate counseling and guidance without the continued intervention of professionals.

Findings: Seventy-two percent of the parents had no formal training in communication methods for the hearing impaired.

Implications: There is a great need for formal training programs for families of hearing impaired children. Programs for the hearing impaired must take the initiative to provide this much needed service.

Findings: Parents of the hearing impaired liked the vocational aspect of school curriculums and felt it was an integral part of the child's success in the job world.

Implications: Educators and lawmakers should look at the type of programs they are providing for the deaf. If vocational training programs are one of the deciding factors in the success of hearing impaired individual, then certainly quality vocational programs should be provided for other hearing impaired individuals.

Findings: Parents commented that their children were not trained in practical living skills.

Implications: More careful planning and counseling will allow every child to have the exposure and the experience he needs in this area.

Findings: There are a variety of sources of guidance counseling and professional services available to parents of deaf children. However, there appears to be a lack of an accurate and efficient means of disseminating that information to parents and agencies at the right time.

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Implications: There is a need for information clearinghouses for the deaf in different localities. Clearinghouses could provide necessary information quickly and at low cost. It would prevent duplication of services and would be more economical than our present haphazard trial and error system.

Findings: The parents expressed a need for follow-up services for their children following graduation from secondary educational programs.

Implications: A program of counseling services for adult deaf should be initiated as a part of a continuing education program of all educational programs for the deaf. Deaf adults have a need for vocational counseling, job placement assistance, interpreters, academic tutoring, training in communication skills, and continued vocational training to provide opportunities for advancement and upgrading of their job skills.

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APPENDICES

APPENDIX A

JOB CATEGORIES

APPENDIX A

Parent Occupations-Fathers

Professional, Technical, and Managerial Occupations

Medical Technologist
Insurance Agent
College Professor
Auto Service Manager
Auto Body Shop Manager
Airlines Supervisor
Architectural Designer
Personnel Manager
Plant Superintendant
Industrial Engineer
Operator Engineer
Business Manager
Accounting Manager
Computer Supervisor
Mechanical Engineer
Accountant
Stockbroker
Steel Engineer
Manufacturing Engineer
Postal Supervisor
Sales Manager
Meat Operations Director
Auto Service Manager
Manufacturing Supervisor
Accountant
Assistant Superintendant of Schools
Broadcaster
School Superintendant
School Board Inspector
Engineer
Supervisor
Teacher
Computer Supervisor
Banker
College Professor
Assistant School Principal

Clerical and Sales Occupations

Retail Proprietor
Insurance Agent
Scheduling Supervisor
Salesman
Insurance Salesman
Sales - Radio Station
Salesman
Rural Mail Carrier
Mail Carrier
Sales Engineer
Salesman - Heating ant Plumbing
Automobile Dealer
Worker - Department of Justice
Milk Salesman
Furniture Salesman
Clerk

Service Occupations

Barber
Butcher
Janitor
Housekeeping Aide in Hospital
Seaman
Firefighter
Self-Employed Handyman
Security Officer
Boys' Dormitory Director
Pest Control-Exterminator

Parent Occupations-Father (con't)

Farming, Fishery, Forestry, and Related Occupations

Dairy Manager
Farmer
Farmer-Stockman

Processing Occupations

Laborer-Steel
Millwright
AVCO Inspector
Leather Manufacturing
Baker
Cabinet Maker

Machine Trade Occupations

White Metal Grinder
Assembler-Steel Mill
Assembler-Steel Mill
Body Sheet Metal Worker
Printer
Aviation Metalsmith
Production Mechanic
Machinist
Recorder in Steel Mill
Machinist
Machinist
Printer
Assembler
Machine Operator
Machinist

Bench Work Occupations

Assembler
Web Pressman
Pressor
Lathe Operator
Pressman

Structural Work Occupations

Painter
Boiler Operator
Laborer-Highway
Blacktop Paving Business
Welding Supervisor
Roofer
Steelworker
Construction Worker
Plumber
Carpenter
Building Maintence Worker
Plumber
Carpenter
Carpenter
Carpenter
Ironworker
Maintenance Electrician
Construction Inspector
Electrician

Parent Occupations-Fathers (con't)

Miscellaneous Occupations

Book Binder
Warehouseman
Railroad Conductor
Railroad Conductor
Logger
Lock Operator
Railroad Engineer
Truck Driver
Factory Foreman
Laborer
Driller
Trucker

Book Binder
Truck Driver
Sign Maintenance Worker
Miner
Self-Employed
Lift Operator
Truck Driver
Truck Driver
Truck Driver
Maintenance Electrician

Parent Occupations-Mothers

Professional, Technical, and Managerial Occupations

Registered Nurse
Dental Wax Technicial
Executive Director of the American Cancer Society
Educational Specialist
Nutritionist
Registered Nurse
Registered Nurse
Crises Intervention Counselor
Accountant
Instructor
Electronics Inspection Supervisor
Psychiatric Aide
Registered Nurse
Site Manager- Meals on Wheels
Telephone Service Representative
Registered Nurse
Dental Wax Technicial
Teacher
Income Maintenance Technician
Nutritionist
Pre-School Teacher
Registered Nurse
Practical Nurse
Tax Examiner
Registered Nurse
Retail Store Manager
Fund Raising Director of the American Heart Association

Clerical and Sales Occupations

Executive Secretary
Office Clerk
Office Clerk
Salesperson
Office Manager
Store Stockroom Manager
Bankteller
Secretary
Office Manager
Bank Employee
Clerk
General Office Worker
Assistant Bank Treasurer
Mail Order Clerk
Store Clerk
Receptionist-Secretary

Service Occupations

Housekeeper
Housekeeping Aide
Seamstress
Waitress
Cafeteria Worker
Beautician
Beautician
Waitress
Laundry Worker
Housekeeper
Custodian

Processing Occupations

Cigar Wrapper

APPENDIX B

RESEARCH INSTRUMENTS

BLOOMSBURG STATE COLLEGE
Bloomsburg, Pennsylvania 17815

The purpose of this correspondence is to request your participation and assistance in a project to follow-up hearing impaired students in Pennsylvania. The project has been funded by the Pennsylvania Research Coordinating Unit for Vocational Education and has been endorsed by many educators of the hearing impaired as well as Deputy Secretary of Education David Hornbeck.

In order to meet the new confidentiality laws for Pennsylvania, the following is requested:

I. The first step in completion of this project is to establish a list of those hearing impaired students who have completed their academic or vocational program during the period of June 1970-1975. Enclosed you will find Educational History Forms to be completed for each of the hearing impaired students who meet the following criteria:

   A. Obtained an I.Q. score of 70 or above on standardized intelligence tests;

   B. Presented no diagnosed psychosis and;

   C. Has at least a 40 decibel hearing level for the speech range in the better ear.

The Pennsylvania Department of Education is allowed under the confidentiality laws to collect data on students educational history providing that the information will be analyzed on a collective base and no individual or agency be named in the analysis.

II. The second step involves obtaining permission from students and parents to be interviewed face to face by the project staff. Enclosed are some sample letters of permission that we would like your agency to prepare on your letter head and mail to the students requested in the survey and their parents. Also enclosed are the interview forms for students and parents. Only the students and parents that comply with the request will be interviewed.

If you have any questions on completing the forms, please feel free to call me at (717) 389-2217. Thank you for your efforts in behalf of the hearing impaired in Pennsylvania.

Gerald W. Powers, Ed.D.
Project Director

Instructions for Student Follow Up Forms

1. Read a summary of the following statement to the student.

The Pennsylvania Department of Education and Bloomsburg State College, in cooperation with training institutions of the deaf, are conducting a follow-up survey of hearing impaired young adults. This survey is part of an effort to gain some much needed knowledge about hearing impaired persons and provide some new insights into methods to improve the educational opportunities for all hearing impaired persons.

We hope that you will assist in our research by allowing me to ask you some questions about your educational program. All the information which you give to me will be held strictly confidential and will only be used by those working of the study to prepare statistical summary information. All of the information will be analyzed on a collective basis and no individual or agency will be named.

2. Give the student a copy of the questionnaire.

3. Sign items to low functioning students.

4. The interviewer should fill in all the data.

5. Give reasons for missing data.

6. Do not interview students and parents together and do not interview groups of students together. Each interview should be confidential.

7. Insure confidentiality have the student sign the questionnaire.

8. Record all recommendations and comments.

9. Send completed forms to Bloomsburg State College.

Instructions for Parent Follow-up Form

ANNOUNCEMENT TO BE USED WHEN MAKING ARRANGEMENTS FOR INTERVIEWING

Dear Parent:

The Pennsylvania Department of Education and Bloomsburg State College, in cooperation with training institutions of the deaf, are conducting a follow-up survey of hearing impaired young adults. This survey is part of an effort to gain some much needed knowledge about hearing impaired persons and provide some new insights into methods to improve the educational opportunities for all hearing impaired persons.

We hope that you will assist in our research by allowing me to ask you some questions about your son/daughter's educational program. All the information which you give to me will be held strictly confidential and will only be used by those working on the study to prepare statistical summary information. All of the information will be analyzed on a collective basis and no individual or agency will be named.

1. It is assumed that about half of the graduates are living at home; therefore, parents can be interviewed on the same visit.

2. Give parents a copy of the instrument.

3. Read items to low functioning parents.

4. Fill in all the data.

5. Give reason for missing data.

6. Do not interview students and parents together; each interview should be confidential.

7. Record all recommendations or comments.

8. Send completed forms to Bloomsburg State College.

Instructions for Employer Survey Form

1. The employer survey is a two-part instrument. The first section is required and the second section is optional. If the interviewer has the time or opportunity, conduct a face-to-face interview with the employer.

2. Let employer read the following statement.

   The Pennsylvania Department of Education and Bloomsburg State College, in cooperation with training institutions of the deaf, are conducting a follow-up survey of hearing impaired young adults. This survey is part of an effort to gain some much needed knowledge about hearing impaired persons and provide some new insights into methods to improve the educational opportunities for all hearing impaired persons.

   We hope that you will assist in our research by allowing me to ask you some questions about your employee's work history. All the information which you give to me will be held strictly confidential and will only be used by those working on the study to prepare statistical summary information. All of the information will be analyzed on a collective basis and no individual or agency will be named.

3. Make sure the employer has first hand knowledge of the employee in question.

4. Make sure they fill in all the data.

5. Reemphasize that Section two is "optional."

6. Give reasons for missing data.

7. Record all recommendations or comments.

8. Send completed forms to Bloomsburg State College.

NOTE: Employees that cannot be reached by a face-to-face interview, Bloomsburg State College will send forms and instructions by mail.

PERMISSION TO INTERVIEW STUDENT

1. Read the following statement to the student:

The Pennsylvania Department of Education and Bloomsburg State College, in cooperation with training institutions of the deaf, are conducting a follow-up survey of hearing impaired young adults. This survey is part of an effort to gain some much needed knowledge about hearing impaired persons and provide some new insights into methods to improve the educational opportunities for all hearing impaired persons.

.We hope that you will assist in our research by allowing me to ask you some questions about your educational program. All the information which you give to me will be held strictly confidential and will only be used by those working on the study to prepare statistical summary information. All of the information will be analyzed on a collective basis and no individual or agency will be named.

Students Name _____ Date _____

Interviewers Name _____ Date _____

EMPLOYERS PERMISSION

1. Give student the students copy of the employer form.

"I have read the employer survey form, understand it and give my permission to the interviewer to interview my employer."

Students Name _____ Date _____

Interviewers Name _____ Date _____

STUDENT QUESTIONNAIRE

Name _____ (Last) _____ (First) _____ (Middle Initial)

Married Name _____ (Last) _____ (First) _____ (Middle Initial)

School Residential ( ) Day Student ( ) Day School ( ) Day Class ( ) Public ( ) School

Home Address _____ (Street) _____ (City) _____ (State-Zip Code)

Parent Address _____ (Street) _____ (City) _____ (State-Zip Code)

Employer Name _____

Employer Address _____

Birth Date: _____ Sex _____ Soc. Sec. No. _____

Yr. Graduated _____ Course _____

Interviewer _____ Date _____

1. Marital Status: Married( ) Single( ) Separated( ) Divorced( ) Widowed( )

2. Does your spouse have a hearing loss? Yes( ) No ( ) Number of children _____ Number of children that have a hearing loss _____

3. Does your father have a hearing loss? Yes( ) No( ) Does your mother have a hearing loss? Yes( ) No( )

4. How would you describe your present relationship with your parents? Very Successful( ) Somewhat Successful( ) Somewhat Unsuccessful( ) Very Unsuccessful( )

5. Number of friends that have hearing loss. Deaf Friends( ) Hearing Friends( )

6. Number of memberships in clubs. Deaf Clubs_____ Hearing Clubs_____

7. Hearing aid, is wearing a hearing aid( ), is not wearing a hearing aid( ), does own hearing aid( ), does not own a hearing aid( )

8. What did you like about your educational program?_____

_____

9. What did you dislike about your educational program?_____

_____

10. Were you ever informed about the educational or vocational programs available to you? Yes ( ) No ( ) If yes, who informed you?_____

11. Do you feel you had enough information for selecting a senior high program in college prep or vocational education? If yes, explain the type of information received._____

_____

12. Are you now self-supportive? Yes ( ) No ( ) If no, explain why. _____

_____

13. Do you feel your vocational training in senior high was adequate for today's job market? If yes, explain why you feel training was adequate.

_____

_____

If no, explain why it was not adequate._____

_____

14. If employed, please answer. Present job_____

15. Do you have a drivers license. Yes ( ) No ( ) If so, who instructed you?

_____

Do you own a car? Yes ( ) No ( )

16. Respond to the following communication information:

	Good	Average	Poor
manual communication	( )	( )	( )
speechreading	( )	( )	( )
speech	( )	( )	( )
writing	( )	( )	( )
hearing	( )	( )	( )
gestures	( )	( )	( )

A. Mark each that refers to you

( ) I work full time.
( ) I work part-time
( ) I do not work, but am looking for a job.
( ) I do not work.
( ) I take care of my house all the time.
( ) I go to college full time.
( ) I go to college part-time.
( ) I go to a vocational school full time.
( ) I go to a vocational school part-time.

B. (2) Did anyone at your school talk to you about what you would do after you finished school? Yes ( ) No ( ) If yes who_____

(3) Did your school give you a list of bosses who need workers to hel you find a job? Yes ( ) No ( )

(4) Did any possible bosses offer you a job before you left school? Yes ( ) No ( )

(5) Did you get a job because of a boss talking to you before you left school?
Yes ( ) No ( )

(6) Did your school give you a lot of help in finding a job?
Very much help ( ) Some help. ( )
Much help. ( ) No help. ( )

(7) When you left school, did you want a job doing what you did in school?
Yes ( ) No ( )

(8) Do you still want a job doing what you did in school? Yes ( ) No ( )

C. (9) Where do you work now?

Name_____
Address_____
_____

Same county as school? Yes ( ) No ( )
Another county near the school? Yes ( ) No ( )
Some other county in Pennsylavnia? Yes ( ) No ( )
Another state near Pennsylvania? Yes ( ) No ( )
Another state not near Pennsylvania? Yes ( ) No ( )

(10) Did you have a full time job before you left high school? Yes ( ) No ( )

(11) How long after you left school did you start your first full time job?

( ) Right away	( ) 6 weeks	( ) 12 weeks	( ) more than 16
( ) 2 weeks	( ) 8 weeks	( ) 14 weeks	
( ) 4 weeks	( ) 10 weeks	( ) 16 weeks	

(12) How much money do you make a month before money is taken out for taxes?

( ) below $400	( ) 500 - 549	( ) 650 - 699	( ) more than 800
( ) 400 - 449	( ) 550 - 599	( ) 700 - 749	
( ) 450 - 499	( ) 600 - 649	( ) 750 - 800	

(13) Did your school do a good job in training you for the job you have now?
( ) very good training for present job
( ) good training
( ) not so good
( ) bad training

(14) What kind of job do you do?_____

(15) Do you use what you learned in school in the job you have now?
( ) The same thing as you did in school.
( ) Almost the same thing you did in school.
( ) Some of the things you did in school.
( ) Not what you did in school.

(16) What was the reason for <u>not</u> getting a job like you were trained for in school?
( ) I did not want to do what I was trained for.
( ) I tried, but could not get a job in what I was trained for.
( ) I did not think I learned enought to get a job in what I was trained for.
( ) The pay was not enough.
( ) Too little opportunity for advancement.
( ) I would not be able to get a better job.
( ) I did not like the working conditions
( ) I got a chance for a better job.

(continued on next page)

(16) ( ) I was not able to work in the apprentice program.
( ) Other

(17) How did you get your first full time job after you left school?
( ) Your school helped you
( ) Your vocational teacher helped you.
( ) Your counselor
( ) Other teacher
( ) Your family, parents
( ) Your friends
( ) By yourself
( ) Through an office at school
( ) Through an office of the state
( ) Private employment agency
( ) Thru school placement office

(18) What kind of school do you go to now? Is it in Pennsylvania? Do you live at home or at school? Does what you're studying now have anything to do with what you were trained for in high school?

( ) Community College
( ) Private 2 year College
( ) State Coll. Branch Campus
( ) State Coll. Main Campus
( ) Private 4 year College
( ) Private Business School
( ) Private Technical School
( ) Area Vo-Tech School
( ) Other School

Location

( )In state
( )Out of state

Residence

( ) At home
( ) At School

Name and Address_____

_____

_____

Relation

( ) Related

( ) Unrelated

This is a scale. Please answer the questions on this scale. The questions tell us what you like about your job. They tell us what you don't like about your job. This scale will be sent to all hearing impaired people in Pennsylvania. We want to find out what hearing impaired people like and dislike about their jobs. This is confidential. No one will see this except us. We will not show it to your employer.

Directions:

There are 20 questions below. Read each question slowly. Take your time. Think about each question. Fill in the circle that tells how you feel about the sentence. The circles are not the same. The circles have these meanings or definitions.

		Sign
A	means I like this very much	(Very Good)
B	means I think this is okay	(ok)
C	means I can't decide.	(don't know)
D	means I don't like this	(don't like)
E	means this bothers me a lot	(very bad)

Please fill in one circle after each question.

	A	B	C	D	E
MY JOB:					
1. Keeps me busy (activity	( )	( )	( )	( )	( )
2. Lets me work alone	( )	( )	( )	( )	( )
3. Lets me do different things	( )	( )	( )	( )	( )
4. Makes me feel important outside of work	( )	( )	( )	( )	( )
5. Lets me do things I think are right	( )	( )	( )	( )	( )
6. Is a sure job-I will have this job in the future	( )	( )	( )	( )	( )
7. Lets me help other people	( )	( )	( )	( )	( )
8. Lets me tell other people what to do	( )	( )	( )	( )	( )
9. Lets me use what I know	( )	( )	( )	( )	( )
10. Is good pay-pays good	( )	( )	( )	( )	( )
11. Makes me work hard (work incentive)	( )	( )	( )	( )	( )
12. Lets me try things my way	( )	( )	( )	( )	( )
13. Is a good place to work	( )	( )	( )	( )	( )
14. The people get along good	( )	( )	( )	( )	( )
15. Tells me I do good work	( )	( )	( )	( )	( )
16. Makes me feel I do good work	( )	( )	( )	( )	( )
17. What do you think of company rules?	( )	( )	( )	( )	( )
18. Can you get better job here?	( )	( )	( )	( )	( )
MY BOSS:					
1. Is fair to the workers	( )	( )	( )	( )	( )
2. Knows what he's doing	( )	( )	( )	( )	( )

EDUCATIONAL HISTORY FORM

Last Name First Middle

Address of Graduate Telephone of Graduate

Address of Parents Telephone of Parents

Social Security Number Sex: Male_____ Female _____

Describe Secondary Educational Program (i.e. vocational, academic etc.) _____

Number of years in Vocational Program_____ Name and type of_____
Number of hours per week _____ Program

Hearing loss:
right ear_____decibels left ear_____decibels best by normal average _____decibels.

Check one: 1. Mild ( )
2. Moderate ( )
3. Severe ( )
4. Profound ( )

Intellectual Information:
I.Q._____ Name of Test_____ Date _____
(1) Very Superior ( )
(2) Superior ( )
(3) Bright Normal ( )
(4) Average ( )
(5) Dull Normal ( )
(6) Marginal ( )
(7) Mentally Defective ( )

Achievement level upon finishing school:

Reading level_____ Math level_____ Language level_____
Other_____

Communication Information:

Communication Information: Please check methods of communication utilized by the student.
manual communication_____ speechreading_____ speech_____ writing_____

Hearing_____ gestures _____

Please give a short case history description of this student including the abilities, attitudes methods of communication, adjustment with hearing loss or any other information you feel pertinent.

STUDENTS ABILITY TO UNDERSTAND QUESTIONS

ABILITY TO UNDERSTAND QUESTION	FREQUENCY
SUBJECT SEEMED TO UNDERSTAND THE QUESTION VERY WELL WITHOUT INTERVIEWERS HELP	_____
SUBJECT UNDERSTOOD QUESTION AFTER INTERVIEWER REPEATED THEM, INTERPRETED THEM, OR OFFERED EXAMPLES	_____
WITH HELP, SUBJECT UNDERSTOOD ONLY SOME OF THE QUESTIONS	_____
WITH HELP SUBJECT UNDERSTOOD HARDLY ANY OF THE QUESTIONS	_____

MODES OF COMMUNICATION USED AT THE INTERVIEW

MAJOR MODE	QUALITY		
	GOOD	FAIR	POOR
SIGN LANGUAGE WAS THE PRIMARY MODE			
FEW SIGNS IN TALKING			
TALKING ONLY			
WRITING ONLY			
FINGERSPELLING			
TOTAL COMMUNICATION			
INTERPRETER			

PARENT FOLLOW-UP SURVEY

Name of Son/Daughter_____

If son/daughter named above is adopted, please check here _____

1. Mother's age _____ years of age. Father's age _____ years of age.

2. Parents' marital status: Married ( ) Single ( ) Separated ( )
Divorced ( ) Widowed ( )

3. Mother's hearing: __Normal Hearing ___Hearing Impaired (or Deaf):
Please give age when hearing loss occurred. _____ Years of age.

4. Father's hearing: __Normal Hearing ___Hearing Impaired (or Deaf):
Please give age when hearing loss occurred: _____ Years of age.

5. What is the highest grade you and your spouse completed in school?
(Check the correct line and then circle the last grade completed)

MOTHER	FATHER
___Grade School: 1 2 3 4 5 6 7 8	___Grade School: 1 2 3 4 5 6 7 8
___High School: 1 2 3 4	___High School: 1 2 3 4
___Vocational or Secretarial: 1 2 3 4	___Vocational or Secretarial: 1 2 3 4
___College/University: 1 2 3 4 5+	___College/University: 1 2 3 4 5+
____School for Deaf	___School for Deaf

6. Father's occupation:

a. What is the usual occupation of the father?_____
b. What is the current occupation of the father?
_____same as above _____unemployed _____other (describe)_____

7. Mother's occupation:

a. What is the usual occupation of the mother? ____Full-time housewife
Other (describe) _____

b. What is the current occupation of the mother? ____same as above ___unemployed
other (describe)_____

8. Please check the appropriate box indicating your total, combined family income for the past twelve (12) months:

____under $5,000 ___$10,000-$14,999 ____$20,000 and over

_____$5,000-$9,999 ___$15,000-$19,000

9. What is the hearing loss of your son/daughter:
Right Ear ___Normal ___Mild ___Moderate ___Severe ___Profound
Left Ear ___Normal ___Mild ___Moderate ___Severe ___Profound

10. At what age was your son/daughter when you discovered his/her hearing loss?
_____ at birth _____years of age

11. At what age did your son/daughter lose his/her hearing?
____at birth ____years of age ____age hearing was lost is unkown.

12. Cause of child's hearing loss:

_____Cause cannot be determined

If onset at birth what was the probable cause?(check all that apply)

_____Maternal Rubella ____Other complications of pregnancy ____Prematurity
_____Trauma at Birth ____Heredity ____Other (Specify)

13. What methods of communication do you use most often when communicating with you hearing impaired son/daughter?

____Speech Sign Language ___Fingerspelling ____Writing _____Gestures
____Other (Describe)_____

14. What methods of communication does your hearing impaired son/daughter use when he/she communicates with you?

____Speech _____Sign Language ____Fingerspelling ____Writing ____Gestures
____Other (Describe)_____

15. Have you had any formal training on how to communicate with your son/daughter?
Yes ( ) No ( )
If yes, who provided the training?_____

16. What did you like about your son's/daughter's secondary educational program?

_____

17. What did you dislike about your son's/daughter's secondary educational program?

_____

18. Were you ever informed about the educational or vocational programs available to your son/daughter? Yes ( ) No ( ) If yes, who informed you? _____

_____

19. Do you feel your son/daughter had enough information for selecting a senior high program in college prep or vocational education? If yes, explain the type of information received.

_____

_____

20. Do you feel your son's/daughter's vocational training in senior high was adequate for today's job market? If yes, explain why you feel training was adequate._____

_____

If no, explain why you feel it was not adequate. _____

21. Is your son/daughter now self-supportive? Yes ( ) No ( ) If no, explain why._____

22. Do you feel there is a need for follow-up services to help your son or daughter to advance and obtain a better job? If yes, what type of services should be given?_____

_____

23. Does your son/daughter drive a car? Yes ( ) No ( ) If yes, who trained he/she to drive?_____

24. Does your son/daughter own a car? Yes ( ) No ( )

25. What mode of transportation does your son/daughter use to travel to work?

26. How would you describe your present relationship with your son/daughter?

___Very Successful ____Somewhat Successful ____ Somewhat Unsuccessful

____Very Unsuccessful

EMPLOYER SURVEY

(Students Copy)

Employer: _____

Address: _____
Street City State-Zip Code

Telephone: _____ Date: _____

No. of Employees:_____ No. of hearing impaired employed:_____

Employee:_____ Interviewer:_____

Entry Job: _____

1. Was he/she properly trained? (high school program)
   A. Skillwise_____
   B. On appropriate equipment _____
   C. Additional training needed _____
2. Was job reengineered? Yes ( ) No ( ) To what extent?_____
3. What relationship is there between the disability and job employee is performing?
   _____
4. Has employee made any advancement?
   A. Skillwise_____
   B. Job classification_____
   C. Salary_____
5. Success of our graduates in comparison to hearing workers.

	Good	Average	Poor
A. Quality of work	( )	( )	( )
B. Quantity of work (productivity)	( )	( )	( )
C. Handling of equipment	( )	( )	( )
D. Attention to work	( )	( )	( )
E. Attitude toward work and initiative	( )	( )	( )
F. Attitude toward supervision	( )	( )	( )
G. Relations with co-workers	( )	( )	( )
H. Accident rate	( )	( )	( )
I. Absenteeism	( )	( )	( )

6. Would you consider employing another hearing impaired/handicapped person? Yes ( ) No ( )
7. If answer is yes, what kind of job?_____
8. If answer is no, why not?_____
9. Have you had previous experience with the hearing impaired/handicapped other than this employee? Yes ( ) No ( ) What?_____
10. Do you employ other handicapped workers? Yes ( ) No ( ) Number ( )
11. How did you find this person for employment? (Agency, Friend, Newspaper, School, etc.) _____
12. Do you feel the hearing impaired individual has had a problem socially adjusting within the company? Yes ( ) No ( ) If yes, what steps were taken to help with the problem?_____

_____

EMPLOYER SURVEY

Employer: _____

Address: _____
Street City State-Zip Code

Telephone: _____ Date: _____

No. of Employees: _____ No. of hearing impaired employed: _____

Employee: _____ Interviewer: _____

Entry Job: _____

1. Was he/she properly trained? (high school program)
   A. Skillwise _____
   B. On appropriate equipment _____
   C. Additional training needed _____
2. Was job reengineered? Yes ( ) No ( ) To what extent? _____
3. What relationship is there between the disability and job employee is performing?
   _____
4. Has employee made any advancement?
   A. Skillwise _____
   B. Job classification _____
   C. Salary _____
5. Success of our graduates in comparison to hearing workers.

	Good	Average	Poor
A. Quality of work	( )	( )	( )
B. Quantity of work (productivity)	( )	( )	( )
C. Handling of equipment	( )	( )	( )
D. Attention to work	( )	( )	( )
E. Attitude toward work and initiative	( )	( )	( )
F. Attitude toward supervision	( )	( )	( )
G. Relations with co-workers	( )	( )	( )
H. Accident rate	( )	( )	( )
I. Absenteeism	( )	( )	( )

6. Would you consider employing another hearing impaired/handicapped person? Yes ( ) No ( )
7. If answer is yes, what kind of job? _____
8. If answer is no, why not? _____
9. Have you had previous experience with the hearing impaired/handicapped other than this employee? Yes ( ) No ( ) What? _____
10. Do you employ other handicapped workers? Yes ( ) No ( ) Number ( )
11. How did you find this person for employment? (Agency, Friend, Newspaper, School, etc.) _____
12. Do you feel the hearing impaired individual has had a problem socially adjusting within the company? Yes ( ) No ( ) If yes, what steps were taken to help with the problem? _____

_____

Employee Name _____ Job _____

Rated by _____ Date _____

Please check the best answer for each question

Be sure to answer all questions

Compared to others in his work group, how well does he . . .	*not as well*	*about the same*	*better*
1. Follow company policies and practices?	☐	☐	☐
2. Accept the direction of his supervisor?	☐	☐	☐
3. Follow standard work rules and procedures?	☐	☐	☐
4. Accept the responsibility of his job?	☐	☐	☐
5. Adapt to changes in procedures or methods?	☐	☐	☐
6. Respect the authority of his supervisor?	☐	☐	☐
7. Work as a member of a team?	☐	☐	☐
8. Get along with his supervisors?	☐	☐	☐
9. Perform repetitive tasks?	☐	☐	☐
10. Get along with his co-workers?	☐	☐	☐
11. Perform tasks requiring variety and change in methods?	☐	☐	☐

Compared to others in his work group . . .	*not as good*	*about the same*	*better*
12. How good is the quality of his work?	☐	☐	☐
13. How good is the quantity of his work?	☐	☐	☐

If you could make the decision, would you . . .	*yes*	*not sure*	*no*
14. Give him a pay raise?	☐	☐	☐
15. Transfer him to a job at a higher level?	☐	☐	☐
16. Promote him to a position of more responsibility?	☐	☐	☐

Please check the best answer for each question

Be sure to answer all questions

Compared to others in his work group, how often does he . . .	*less*	*about the same*	*more*
17. Come late for work?	☐	☐	☐
18. Become overexcited?	☐	☐	☐
19. Become upset and unhappy?	☐	☐	☐
20. Need disciplinary action?	☐	☐	☐
21. Stay absent from work?	☐	☐	☐
22. Seem bothered by something?	☐	☐	☐
23. Complain about physical ailments?	☐	☐	☐
24. Say 'odd' things?	☐	☐	☐
25. Seem to tire easily?	☐	☐	☐
26. Act as if he is not listening when spoken to?	☐	☐	☐
27. Wander from subject to subject when talking?	☐	☐	☐

28. Now will you please consider this worker with respect to his overall competence, the effectiveness with which he performs his job, his proficiency, his general overall value. Take into account all the elements of successful job performance, such as knowledge of the job and functions performed, quantity and quality of output, relations with other people (subordinates, equals, superiors), ability to get the work done, intelligence, interest, response to training, and the like. In other words, how closely does he approximate the ideal, the kind of worker you want more of? With all these factors in mind, where would you rank this worker as compared with the other people whom you now have doing the same work? (or, if he is the only one, how does he compare with those who have done the same work in the past?)

In the top ¼ . . . . . ☐

In the top half but not among the top ¼ . . . . . ☐

In the bottom half but not among the lowest ¼ . . . . . ☐

In the lowest ¼ . . . . . ☐

APPENDIX C

CORRESPONDENCE

BLOOMSBURG STATE COLLEGE
Bloomsburg, Pennsylvania 17815

December 12, 1975

The purpose of this correspondence is to inform you that we are involved in a Research Project in cooperation with the Division of Research of the Pennsylvania Department of Education. Mr. Hornbeck has reviewed this project and has given his support. This Research Project, Follow-up of Hearing Impaired Graduates 1970-1975, is an attempt to establish employment levels of Hearing Impaired Graduates of the School programs of the Commonwealth of Pennsylvania. You can be of assistance by providing us with the names of Hearing Impaired Graduates from your area who finished school during 1970-1975. You will find materials enclosed with this correspondence to facilitate this census. Upon completion of the census please send us the names and addresses of any Hearing Impaired students from your intermediate unit who finished school during the period from 1970-1975. We appreciate your efforts in benalf of this Research Project and would be glad to share our findings upon its completion.

Sincerely yours,

Gerald W. Powers, Ed.D
Project Director

cc: Mr. Fred Crowl
Mr. Russell Gilbert

GWP/tjm

Enclosures

BLOOMSBURG STATE COLLEGE
Bloomsburg, Pennsylvania 17815

The purpose of this correspondence is to request your participation and assistance in a project to follow-up hearing impaired students in Pennsylvania. The project has been funded by the Pennsylvania Research Coordinating Unit for Vocational Education and has been endorsed by many educators of the hearing impaired as well as Deputy Secretary of Education David Hornbeck.

In order to meet the new confidentiality laws for Pennsylvania, the following is requested:

I. The first step in completion of this project is to establish a list of those hearing impaired students who have completed their academic or vocational program during the period of June 1970-1975. Enclosed you will find Educational History Forms to be completed for each of the hearing impaired students who meet the following criteria:

   A. Obtained an I.Q. score of 70 or above on standardized intelligence tests;

   B. Presented no diagnosed psychosis and;

   C. Has at least a 40 decibel hearing level for the speech range in the better ear.

The Pennsylvania Department of Education is allowed under the confidentiality laws to collect data on students educational history providing that the information will be analyzed on a collective base and no individual or agency be named in the analysis.

II. The second step involves obtaining permission from students and parents to be interviewed face to face by the project staff. Enclosed are some sample letters of permission that we would like your agency to prepare on your letter head and mail to the students requested in the survey and their parents. Also enclosed are the interview forms for students and parents. Only the students and parents that comply with the request will be interviewed.

If you have any questions on completing the forms, please feel free to call me at (717) 389-2217. Thank you for your efforts in behalf of the hearing impaired in Pennsylvania.

Dr Gerald W Powers

Gerald W. Powers, Ed.D.
Project Director

EDUCATIONAL HISTORY FORM

Last Name _____ First _____ Middle _____

Address of Graduate _____ Telephone of Graduate _____

Address of Parents _____ Telephone of Parents _____

Social Security Number _____ Sex: Male_____ Female _____

Describe Secondary Educational Program (i.e. vocational, academic etc.) _____

Number of years in Vocational Program_____ Name and type of Program _____
Number of hours per week _____

Hearing loss:
right ear_____decibels left ear_____decibels best by normal average _____decibels.

Check one: 1. Mild ( )
2. Moderate ( )
3. Severe ( )
4. Profound ( )

Intellectual Information:
I.Q._____ Name of Test_____ Date _____
(1) Very Superior ( )
(2) Superior ( )
(3) Bright Normal ( )
(4) Average ( )
(5) Dull Normal ( )
(6) Marginal ( )
(7) Mentally Defective ( )

Achievement level upon finishing school:

Reading level_____ Math level_____ Language level_____
Other_____

Communication Information:

Communication Information: Please check methods of communication utilized by the student.

manual communication_____ speechreading_____ speech_____ writing_____

Hearing_____ gestures _____

Please give a short case history description of this student including the abilities, attitudes methods of communication, adjustment with hearing loss or any other information you feel pertinent.

Dear Parent:

The Pennsylvania Department of Education and Bloomsburg State College in cooperation with your educational agency is conducting a follow-up survey of hearing impaired young adults. This survey is part of an effort to gain some much needed knowledge about hearing impaired persons, and provide some new insights into methods to improve the educational opportunities for all hearing impaired persons.

We hope that you will assist in our research by allowing a qualified interviewer to ask you some questions about your son/daughter _____ educational program. All the information which you give to the interviewer will be held strictly confidential and will only be used by those working on the study to prepare statistical summary information. All of the information will be analyzed on a collective basis and no individual or agency will be named.

Please sign and date this letter in the spaces indicated below and return in the enclosed stamped self-addressed envelope. Your cooperation and promptness will be appreciated.

I hereby authorize the Pennsylvania Department of Education and Bloomsburg State College to conduct an interview at my convenience regarding my son/daughter _____ educational program.

Date _____ Signed _____
(Parent)

Dear Graduate:

The Pennsylvania Department of Education and Bloomsburg State College in cooperation with your educational agency is conducting a follow-up survey of hearing impaired young adults. This survey is part of an effort to gain some much needed knowledge about hearing impaired persons, and provide some new insights into methods to improve the educational opportunities for all hearing impaired persons.

We hope that you will assist in our research by allowing a qualified interviewer to ask you some questions about your educational program. All of the information which you give to the interviewer will be held strictly confidential and will only be used by those working on the study to prepare statistical summary information. All of the information will be analyzed on a collective basis and no individual or agency will be named.

Please sign and date this letter in the spaces indicated below and return in the enclosed stamped self-addressed envelope. Your cooperation and promptness will be appreciated.

I hereby authorize the Pennsylvania Department of Education and Bloomsburg State College to conduct an interview at my convenience regarding my educational program.

Date _____ Signed _____
(Graduate)

BLOOMSBURG STATE COLLEGE
Bloomsburg, Pennsylvania 17815

December 18, 1975

Dr. Pat Toole
Executive Director
Central Susquehanna Intermediate Unit 16
Box 213
Lewisburg, Pennsylvania 17837

ear. Dr. Toole:

The purpose of this correspondence is to inform you that we are involved in a Research Project in cooperation with the Division of Research of the Pennsylvania Department of Education. Mr. Hornbeck has reviewed this project and has given his support. This Research Project, Follow-up of Hearing Impaired Graduates 1970-1975, is an attempt to establish employments levels of Hearing Impaired Graduates of the school programs of the Commonwealth of Pennsylvania. You can be of assistance by providing us with the names of Hearing Impaired Graduates from your area who finished school during 1970-1975. You will find materials enclosed with this correspondence to facilitate this census. Upon completion of the census please send us the names and addresses of any Hearing Impaired students from your intermediate unil who finished school during the period from 1970-1975. We appreciate your efforts in behalf of this Research Project and would be glad to share our findings upon its completion.

Sincerely yours,

Gerald W. Powers, Ed.D.
Project Director

cc: Mr. Fred Crowl
Mr. Russell Gilbert

GWP/tjm

Enclosures

BLOOMSBURG STATE COLLEGE
Bloomsburg, Pennsylvania 17815

December 18, 1975

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Executive Director
Central Susquehanna Intermediate Unit 16
Box 213
Lewisburg, Pennsylvania 17837

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Sincerely yours,

Gerald W. Powers, Ed.D.
Project Director

cc: Mr. Fred Crowl
Mr. Russell Gilbert

GWP/tja

Enclosures

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We hope that you will assist in our research by allowing a qualified interviewer to ask you some questions about your educational program. All of the information which you give to the interviewer will be held strictly confidential and will only be used by those working on the study to prepare statistical summary information. All of the information will be analyzed on a collective basis and no individual or agency will be named.

Please sign and date this letter in the spaces indicated below and return in the enclosed stamped self-addressed envelope. Your cooperation and promptness will be appreciated.

I hereby authorize the Pennsylvania Department of Education and Bloomsburg State College to conduct an interview at my convenience regarding my educational program.

Date _____ Signed _____
(Graduate)

Dear Parent:

The Pennsylvania Department of Education and Bloomsburg State College in cooperation with your educational agency is conducting a follow-up survey of hearing impaired young adults. This survey is part of an effort to gain some much needed knowledge about hearing impaired persons, and provide some new insights into methods to improve the educational opportunities for all hearing impaired persons.

We hope that you will assist in our research by allowing a qualified interviewer to ask you some questions about your son/daughter _____ educational program. All the information which you give to the interviewer will be held strictly confidential and will only be used by those working on the study to prepare statistical summary information. All of the information will be analyzed on a collective basis and no individual or agency will be named.

Please sign and date this letter in the spaces indicated below and return in the enclosed stamped self-addressed envelope. Your cooperation and promptness will be appreciated.

I hereby authorize the Pennsylvania Department of Education and Bloomsburg State College to conduct an interview at my convenience regarding my son/daughter _____ educational program.

Date _____ Signed _____
(Parent)

The Pennsylvania School for the Deaf

SINCE 1820

PHILIP A. BELLEFLEUR, PH.D.
HEADMASTER

7500 GERMANTOWN AVENUE
PHILADELPHIA, PENNSYLVANIA 19119
TELEPHONE: (215) 247-0700

GRAPHIC COMMUNCATIONS
EDWARD E. HERRITT, COORDINATOR
RUTH P. DAVIS, TYPOGRAPHY
ROBERT V. HEGEL, LITHOGRAPHY
ROY H. KELLER, TYPOGRAPHY
STEPHEN C. SWAVELY, PRESSWORK

April 14, 1976

Dr. Gerald W. Powers
Bloomsburg State College
Bloomsburg, Pa. 17815

Dear Dr. Powers:

As we approach the final stages of the follow-up survey for hearing impaired vocational graduates, I feel there is a need for the following:

1. Identifying and evaluation of existing vocational training programs.

2. Staff members operating outside of school to help vocational graduates with problems before and after the graduates start working.

There is a definite need for research in these areas, and I would be interested in participating in this type of study.

Sincerely,

Edward E. Herritt

Edward E. Herritt

STATE OF MICHIGAN

DEPARTMENT OF EDUCATION

MICHIGAN SCHOOL FOR THE DEAF
Flint, Michigan 48502
Area 313 – 238-4621

JOHN W. PORTER
Superintendent of
Public Instruction

April 8, 1976

Dr. Gerald W. Powers
Bloomsburg State College
Bloomsburg, Pennsylvania 17815

Dear Dr. Powers:

Under the direction of Dr. George Lavos, we are currently planning a follow-up study of former students of this school and former students at other deaf schools and classes in Michigan. This study will concentrate on counseling, training, placement, and initial job experiences. It will also incorporate a study of sheltered workshops and occupational trends for the deaf.

I understand from Dr. Robert Gates, our superintendent, that you are in the process of doing a follow-up of all deaf students in Pennsylvania. I would be interested in receiving a copy of your proposal, questionnaire, and bibliography of the current research you have. I am enclosing a bibliography of parallel studies which we have on hand.

I personally appreciate any assistance from you.

Sincerely yours,

Janice I. Blanck

Janice I. Blanck
Vocational Rehabilitation Specialist
MICHIGAN SCHOOL FOR THE DEAF

STATE OF MICHIGAN

DEPARTMENT OF EDUCATION

MICHIGAN SCHOOL FOR THE DEAF
Flint, Michigan 48502
Area 313 – 238-4621

JOHN W. PORTER
Superintendent of
Public Instruction

September 2, 1976

Gerald W. Powers, Ed.D.
Department of Communication Disorders
Bloomsburg State College
Bloomsburg, Pennsylvania 17815

Dear Dr. Powers,

This correspondence is a reply to our telephone conversation yesterday. When you have your follow-up study finished, and in document form, would you please send us a copy?

Thank you, in advance, for your assistance.

Sincerely yours,

Janice I. Blanck

Janice I. Blanck
Vocational Rehabilitation Specialist
MICHIGAN SCHOOL FOR THE DEAF

JIB:mib

The Pennsylvania School for the Deaf

SINCE 1820

PHILIP A. BELLEFLEUR, PH.D.
HEADMASTER
JOHN M DEGLER
DIRECTOR, VOCATIONAL SCHOOL

7500 GERMANTOWN AVENUE
PHILADELPHIA, PENNSYLVANIA 19119

TELEPHONE: (215) 247-9700
TTY: (215) 247-0860

April 6, 1976

Progress Report: Project #19-5815
Follow-up of Hearing Impaired Graduates 1970-1975

All necessary survey forms, questionnaires and other instruments (8) to be used in project were printed and distributed to interviewers as of January 30, 1976.

The three interviewers collecting the data from graduates, employers and parents in the geographical area served by The Pennsylvania School for the Deaf have completed survey forms for approximately 90 graduates which is 50% of the graduates from The Pennsylvania School for the Deaf during the five year period.

Data collected to date indicates the following:

- need for continuing education programs
  vocational - upgrading - retraining and training
  academic - social and cultural development

- need for counseling services - employment, health services and legal problems

- need for parental guidance and counseling for parents while children are in school

These needs would seem to indicate a need for a continuation of our research project for another year. It appears there is a need for continuing education for deaf persons of all ages in all communities of the state. Determining the need and feasibility of establishing regional facilities (3 or 4) in the state might be a goal of the continuation of the project.

Sincerely yours,

John M Degler

John M Degler, Director
The Nevil Vocational School

JMD/ms

Texas Education Agency

• STATE BOARD OF EDUCATION
• STATE COMMISSIONER OF EDUCATION
• STATE OEPARTME:IT OF EDUCATION

February 23, 1976

Dr. Gerry Powers
Bloomsburg State College
Bloomsburg, Pennsylvania 17815

Dear Dr. Powers:

In the January, 1976 Newsletter published by the Conference of Executives of American Schools for the Deaf, Inc., it stated that you have been awarded a research grant. According to the article, this grant is to gather information on hearing impaired graduates and their employers to assist in the evaluation of vocational and academic curricula and plans for future programs. Please put my name and address on your list to receive a copy of your project findings. We feel this information may be helpful in program planning in our area.

Thank you.

Sincerely,

Dorine Cunningham
(Mrs.) Dorine Cunningham
Educational Program Director

DC/js

Office of Education for the Deaf, North Region
100 N. Central Expressway, Suite 402
Richardson, Texas 75080

MONTGOMERY COUNTY INTERMEDIATE UNIT
Special Education Center
1605-B WEST MAIN STREET, NORRISTOWN, PENNSYLVANIA 19401 PHONE 215-539-8550

March 4, 1976

Dr. Gerald W. Powers, Project Director
Bloomsburg State College
Bloomsburg, PA 17815

Dear Dr. Powers:

I have received authorization from Dr. Barton Proger, Director of Pupil Records, which allows our Intermediate Unit to participate in your project entitled, "Follow-up of Hearing Impaired Graduates 1970-1975." We are currently putting a list of these students together. As soon as this has been accomplished, we will send out a copy of both a parent and student consent letter. A copy of both is attached.

I would appreciate your reviewing these letters and informing me that they meet with the intent of your project. Should you have suggestions or there is incorrect information contained in these letters, please communicate this to me immediately. As soon as I have received your reply, I will send out the letters.

Sincerely,

Marshall H. Siegel

Marshall H. Siegel
Assistant Director of
Speech and Hearing

MHS:vls

Attachments

carbon-lehigh intermediate unit

2370 Main Street, Schnecksville, Pennsylvania 18078 • 215-799-4111

DR. WILLIAM G. BARTHOLOMEW
Executive Director

DR. WILLIAM W. OSWALT
Assistant Executive Director

DR. EARL MILLER
Director, Special Education

Instructional Materials
MR. JOHN E. GOODMAN

Professional Education
MR. EDWIN F. WERTMAN

Research/Planning
DR. FLOYD N. KEIM

Special Education
MR. VERNON A. BARLIEB

December 22, 1975

Dr. Gerald W. Powers
Bloomsburg State College
Bloomsburg, PA 17815

Dear Dr. Powers:

In response to your request for names and addresses of hearing impaired students from the Carbon-Lehigh Intermediate Unit, we are reporting the following.

The Carbon-Lehigh Intermediate Unit does not conduct a secondary program for hearing impaired students. All hearing impaired students that we would have information on would have been graduated from Pennsylvania School for the Deaf in Philadelphia.

As per our phone conversation of December, 1975, you indicated that you have received all of the names of graduates from P.S.D. from 1970-75.

A brochure is enclosed depicting the geographic area and the names of the school districts served by the Carbon-Lehigh Intermediate Unit. The P.S.D. students would be the only students on whom we would have information.

If we can be of service in any other way, please contact us.

Sincerely,

Tom Mullen
Supervisor, Itinerant Services

TM/dlr
Enclosure
0605

Capital Area Intermediate Unit
Division of Special Services
Serving school districts in Cumberland, Dauphin and Perry Counties · 26 North 9th Street, P.O. 81, Lemoyne, PA 17043 (717) 761-6240
Department of Communication Disorders
2009 Rear, Market Street
Camp Hill, Pennsylvania 17011

December 23, 1975

Gerald W. Powers, Ed.D.
Bloomsburg State College
Bloomsburg, Penna. 17815

Dear Dr. Powers:

At this point in time I am very sorry to inform you that I am finding it very difficult to provide you with the names of hearing-impaired graduates from our area who finished school during 1970 - 75. This entails our strict compliance with the confidentiality policies of 24 different school districts not to mention the private schools and agencies where students are placed.

In the past I have cooperated very closely with Bloomsburg on a number of projects but the number of man hours needed here is beyond my means to give. Informed parent consent is not an easy thing to come by in these types of projects.

Thank you for your consideration. Best wishes for the New Year.

Yours truly,

Patricia Querry

(Mrs.) Patricia H. Querry, Supervisor
Department of Communication Disorders

PHQ:db

12 **Lincoln Intermediate Unit**
P.O. BOX 70 • NEW OXFORD, PENNSYLVANIA 17350 717—624-4616

Greencastle Satellite Office
11 East Baltimore Street
Greencastle, Pennsylvania 17225

York Satellite Office
Queensgate Shopping Center
York, Pennsylvania 17403

January 8, 1976

Dr. Gerald Powers
Project Director
Bloomsburg State College
Bloomsburg, Penna. 17815

In Re: Follow-up of Hearing Impaired Graduates 1970-1975

Dear Dr. Powers:

The Hearing Program in Lincoln Intermediate Unit No. 12 is relatively new. We had only one (1) itinerant teacher of the hearing impaired prior to 1970. Since that time we have added class and teachers but have dealt with the younger child.

It is virtually impossible for us to be of assistance in the research project since we have insufficient records. We would be pleased to know of your findings even though we will not be involved in contributing to the research.

Sincerely,

Clifford Lake

Clifford Lake, Supervisor
of Hearing Impaired Program

GREENCASTLE SATELLITE OFFICE
(717) 597-7191

CL:ed

THE BOARD OF PUBLIC EDUCATION

PITTSBURGH, PA. 15213

ADMINISTRATION BUILDING
BELLEFIELD AND FORBES AVENUES

January 7, 1976

Dr. Gerald Powers
Project Director
Bloomsburg State College
Bloomsburg, Pennsylvania 17815

Dear Dr. Powers:

Although the Pittsburgh Public Schools maintains only limited information concerning graduates, we will attempt to provide as much of the data as possible for your research project. Our records indicate that six hearing impaired students have graduated between the years 1970 and 1975. These six students meet your research criteria. Information concerning these students will be forwarded at a future time, since the Pittsburgh Public Schools is presently involved in a work stoppage.

Since Mr. Vaughan Weber has only supervisory responsibility for the Speech and Language Program, I would appreciate you corresponding directly with me concerning the follow-up study.

We shall make every attempt to assist you in implementing your research and are looking forward to your findings.

Sincerely,

Barbara Hast

Barbara Hast
Supervisory Instructional Specialist
Programs for the Hearing Impaired

BH:bp

THE SCHOOL DISTRICT OF PHILADELPHIA
BOARD OF EDUCATION
1801 MARKET STREET
19103

MICHAEL P. MARCASE
Superintendent of Schools

MARECHAL-NEIL E. YOUNG
Associate Superintendent
for Special Education
299-7248
299-7253

299-7255, Psychological Services
299-7253, Speech and Hearing
299-7248, Special Classes
299-7249, Emotionally Disturbed
and Brain Injured
299-7251, Home School

January 23, 1976

Dr. Gerald W. Powers, Project Director
Bloomsburg State College
Bloomsburg, Pennsylvania 17815

Dear Dr. Powers:

Thank you for your letter concerning the Research Project, Follow-up of Hearing Impaired Graduates 1970-1975.

I have asked Mr. Martin Bordman, Assistant Director for Speech and Hearing, to communicate with you concerning this Project and to give whatever assistance is possible within regulations of the School District governing research projects. You may wish to communicate directly with Mr. Bordman.

We will, of course, be interested in findings upon completion of your Research.

Sincerely yours,

Marechal-Neil E. Young
Associate Superintendent
for Special Education

MEY:dlk

CENTRAL SUSQUEHANNA INTERMEDIATE UNIT

P. O. BOX 213 — LEWISBURG, PENNA. 17837

717-524-4431

March 1, 1976

Dr. Gerald Powers
Dept. of Communication Disorders
Navy Hall
Bloomsburg State College
Bloomsburg, Pa. 17815

Dear Dr. Powers:

I received a letter from James Lewis, Research Associate, Pa. Dept. of Ed., designating you as their representative for the purpose of conducting a follow-up of the hearing-impaired graduates.

A memo has been sent to each member of our hearing staff requesting that they submit all names from their post roles and also to check with district nurses for the required information. This information will be sent to you as soon as possible. It will then be possible for you or your representative to inspect our files for the necessary information you need.

We apologize for any inconvience this may cause you but I'm sure you understand our concern with the new confidentiality codes under which we must operate. We are looking forward to helping you in this worthwhile project.

Sincerely,

Fred Crowl

Fred Crowl,
Supervisor

cc: Mr. George Herman

FC:sy

MONTGOMERY COUNTY INTERMEDIATE UNIT
Special Education Center
1605-B WEST MAIN STREET, NORRISTOWN, PENNSYLVANIA 19401 PHONE 215-539-8550

December 30, 1975

Dr. Gerald W. Powers, Project Director
Bloomsburg State College
Bloomsburg, PA 17815

Dear Dr. Powers:

I am in receipt of your communication of December 12 regarding your research project, Follow-up of Hearing Impaired Graduates 1970-1975. Since our policy for the Principles for Collection, Maintenance, and Dissemination for Pupil Records is rather rigid concerning release of this kind of information, I am forwarding your request to our Custodian of Records, Dr. Barton B. Proger, for his review. After his review, I am sure he will be able to indicate to me whether or not this kind of information can be released. Since I am sure time is of the essence to you in this project, I am sure his decision can be obtained within a short period of time. If he advises me that we are not in violation of our policy, we will be happy to participate with you in this project.

I will be in contact with you within the next week or so concerning our participation.

Sincerely,

Marshall H. Siegel

Marshall H. Siegel
Assistant Director of
Speech and Hearing

MHS:vls

cc: Dr. Leiss
Dr. Proger