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Mainstreamed deaf college students' ratings of factors influencing postsecondary education choices

Brenda L. Call
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**Mainstreamed deaf college students' ratings of factors
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Call, Brenda Louise, M.A.

San Jose State University, 1992

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Ann Arbor, MI 48106**

**MAINSTREAMED DEAF COLLEGE STUDENTS' RATINGS OF FACTORS
INFLUENCING POSTSECONDARY EDUCATION CHOICES**

A Thesis

Presented to

The Faculty of the Division of Special Education and Rehabilitative Services

San Jose State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Arts

By

Brenda L. Call

May 1992

APPROVED FOR THE DEPARTMENT OF SPECIAL
EDUCATION AND REHABILITATIVE SERVICES

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ABSTRACT

MAINSTREAMED DEAF COLLEGE STUDENT RATINGS OF FACTORS INFLUENCING POSTSECONDARY EDUCATIONAL CHOICES

by Brenda L. Call

This thesis reports results of a survey of 92 deaf students enrolled in three mainstreamed postsecondary educational programs. The overall goal was to gather information from deaf college students concerning factors which influenced their decisions to attend college and, once enrolled, to remain in college. This study might be useful to counselors and other people working to improve the educational opportunities of deaf persons.

The findings reveal that most of the deaf students surveyed learned about college programs early in their high school years. The most influential person in their decision to attend college was a family member. Parents and counselors were the most helpful with college plans. Most of the deaf students were aware of and used available college support services with the exception of tutoring. Interpreting was the service used the most and rated the highest. A low level of social interaction between deaf and hearing students was reported in the mainstreamed postsecondary educational institutions. Lack of funds for expenses and minimal participation in social activities were the areas most often seen as problems by deaf students in all three settings.

ACKNOWLEDGEMENTS

THIS STUDY IS DEDICATED TO MY FAMILY, PROFESSORS, AND FRIENDS,
AND MOST ESPECIALLY TO

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my husband

AND

CAROL CALL

my mother-in-law

who have supported me in all my postsecondary educational endeavors.

Also with grateful appreciation to

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who shared with me in my desire to learn.

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MAINSTREAMED DEAF COLLEGE STUDENTS' RATINGS OF FACTORS INFLUENCING POSTSECONDARY EDUCATIONAL CHOICES

CHAPTER I

Introduction

There has been a dramatic increase in the college enrollment of deaf students as deaf persons have begun to take advantage of new rights and opportunities in education. "Presently, there are hundreds of programs with small enrollments, and the total number of deaf students attending colleges and universities full-time and part-time throughout the United States and Canada is about 10,000" (Castle, 1986, p. 1). Considerable numbers of deaf persons are seeking higher education in community colleges and universities where the student population is predominantly hearing. Many of these 'mainstreamed' deaf students are now graduating successfully and going on to professional positions in the occupational world (Quigley, 1968). The deaf high school graduate has a full spectrum of educational opportunities from which to pick and choose within the college system. Awareness of these opportunities and advance planning help deaf high school graduates make better college decisions.

College Selection

According to Quigley (1968), various factors affect the college aspirations of a deaf student. Some of these factors are the type of high school attended,

parental encouragement, high school counseling, and the availability of a community college or a university that offers a support service model designed to permit deaf students to be successful in institutions which primarily serve hearing students. In view of the recent increased availability of postsecondary educational programs for people with handicapping conditions, a four year college education can now be considered a more attainable goal for most deaf high school graduates, and they may well need to be better informed about their options.

Problems can arise which affect a deaf student's ability to succeed in the community college or university of his/her choice. A major problem exists when high school students are unaware of their options for postsecondary education and so make uninformed decisions. The high school graduate may not be as informed as s/he should be concerning the availability of colleges and universities and what programs and services are provided for deaf students.

Support Services

"Interpreting, counseling and preparation form a triad of the most important services for deaf college students" (Quigley, 1968, p. 59). Institutions serving deaf students often provide services which include preparatory programs, counseling, interpreting, notetaking, tutoring, financial counseling, extracurricular programs, and job placement and follow-up that meet the social, as well as the academic, needs of the deaf student. Deaf students rely heavily

on the “support services” offered by their colleges in order to understand the courses offered and to reach their educational goals. Interpreting services are provided to give deaf students access to communication with their professors. While professors give lectures, deaf students watch their interpreters who translate the spoken words manually or into easy-to-lipread silent mouthing. Notetaking is another important service. While deaf students are watching their interpreters, it is difficult to take notes; so there is often someone who takes notes during the lectures.

For academic advising, some colleges have advisors who help meet the needs of deaf students by virtue of their knowledge of deafness, their skills in communicating in a preferred language, and so forth. Advisors can advise students how to plan their semester courses, which ones to take and so forth. For tutoring services, there may be someone who is skilled in signing and can tutor for specific courses in which deaf students may need extra help.

After enrolling, problems do occur if there are not enough student services to help meet the academic needs of the deaf students. The number of deaf students enrolled should be taken into account because the larger the program, the more extensive the support services need to be. Small programs are not as cost effective; therefore, they generally do not provide as many support services on campus.

Communication

Many factors contribute to communication problems for deaf students at the college or university level. They arrive on campus with a wide range of communication skills due to the variability of language training in this country and the differing philosophies among high schools. "There is no uniformity of sign language, therefore just because two deaf people use sign language does not mean that they will easily follow the same interpretation of a college-level lecture" (Quigley, 1968, p. 51). Problems can arise with communication between the deaf student and the interpreter or the deaf student and the professor, or even the interpreter and the professor. Quigley (1968) found that the greater the investment a college can make in special communication help, the more its deaf students will benefit from their college experience. With a communication system that is familiar, the deaf student has a better chance of understanding assignments and lectures in courses being offered. With understanding comes success in completion of the course of studies.

Attrition

Data from a study by DeCaro, Karchmer and Rawlings (1987) indicate that about 63% of the students who enter a postsecondary program for deaf students do not complete or graduate from the program. This figure is higher than the percentage reported by Beal and Noel (1980) for the general college population in the United States. There is certainly a need for general

postsecondary programs to develop more focused and innovative approaches to the dropout problem, and this need is even more urgent for programs serving deaf students. Problems which lead to dropping out can arise both for students who find they dislike a particular program, and for students who find they fall short on the academic requirements necessary to succeed. As with regular education students, personal and family problems may also cause deaf students to withdraw from college.

“During a typical school year, one out of every five deaf students withdraws from college and this rate increases to two of every five over a longer time span” (Rawlings, Karchmer, King & Brown, 1985, p. 12). “This decision about whether to continue his or her education at the postsecondary level is of major significance to the graduates’ future occupational status, employment, security, and earnings” (Walter, Gallinger & Stuckless, 1987, p. 8). Quitting college has costly consequences: deaf graduates earn between \$3,200 and \$4,000 a year more on the average than do deaf nongraduates (Rawlings, et al., 1985; Welsh & Walter, 1989). Postsecondary programs and state rehabilitation agencies working with deaf persons find that students who drop out eventually use more funds than those who graduate. With proper guidance and planning assistance from parents and from professionals from the high school and college staffs, deaf students may be able to choose an appropriate college or university program of study which they will be able to successfully complete and which will fulfill their educational needs and aspirations.

Purpose of the Study

The purpose of this study is to investigate the factors that affect mainstreamed deaf college students' ability to reach their educational goals. By reviewing data concerning support systems and how deaf students rated them, this study may help colleges and universities better serve their deaf students. By reviewing data on preferred modes of communication and how well deaf students understand their interpreters and instructors, this study measures how well institutions of higher learning are responding to the needs of deaf students who are using their support services.

The study also provides colleges and universities with data on when deaf students become aware of their postsecondary options. This will allow programs to assess their effectiveness and timeliness in getting information to deaf high school students. It will also help high school personnel be better prepared in getting postsecondary education information to their deaf high school students.

In this study, deaf college students were asked to explain the reasons why they chose the college or university they are presently attending, and why they plan to stay. This information should enable colleges and universities serving deaf students more insights into the relative importance of various programs and services. By studying the reasons that deaf college students give for staying in the program of their choice, we may also be able to understand how to reduce attrition rates for deaf students. This study will also provide

information on how well deaf students are being integrated into the mainstream activities on campus, and how colleges are meeting the social needs of their deaf students on campus.

The study investigates both the factors which affect the decisions of deaf students to attend college and to stay in college. A secondary focus is on deaf students' most pressing problems and what assistance they feel they need to succeed within the college environment. These data can be used by both secondary and postsecondary education institutions to better serve deaf students.

Two hypotheses were set forth. It was expected that: 1) deaf students who have more contact with deaf educational staff members in high school would have more information about college programs for the deaf than students in mainstreamed programs who have less contact with deaf adult role models; and 2) neither group receives sufficient information early enough to make informed choices concerning what college programs are offered and which to select.

Definition of Terms

Terms that might be open to different interpretations are defined below to help prevent potential confusion: American Sign Language (ASL), Pidgin Signed English (PSE), Signing Exact English (SEE), aural/oral approach, lipreading, hearing aid, support services, notetaking, interpreting, and

mainstreaming. The term ASL is used in sign language terminology. ASL is the language used by many deaf Americans. It is an unspoken and unwritten visual/gestural language. PSE is another term used in sign language terminology. PSE is the use of signs from American Sign Language in English syntax (Shroyer, 1989). SEE is also another term used in sign language terminology. SEE is a system which involves spoken English and signing in English order (Shroyer, 1989). These terms are discussed in greater detail in Chapter II.

The aural/oral distinction is made in educational terminology. It involves spoken English only. This method of communication primarily uses speech and speechreading. Speechreading, or lipreading, means recognizing a person's words by watching their lip movements. A hearing aid is a term used in audiology. A hearing aid is an instrument used by deaf persons to amplify sounds helping them to use their residual hearing.

"Support services" is a term used on college campuses. Support services for deaf students could include interpreting services, notetaking, counseling, tutoring, academic advising, audiometric testing, Department of Rehabilitation liaison, job placement, TDD (teletype device which permit deaf persons to use the telephone), or providing decoders (devices which allow deaf persons to read specifically captioned television programs). "Notetaking" is a term used in college support services. Notetaking means that a hearing person takes notes for a deaf student during a lecture. This service allows the

deaf student to watch his/her interpreter or speechread his/her professor during the lecture. If a deaf person takes notes, then he/she may miss out on some information during the lecture. "Interpreting" is another term in college support services terminology. Interpreting means using a hearing person who has the skills to translate English language orally or manually to deaf students. "Mainstreaming" is also a term used in college support services terminology. Mainstreaming means to integrate deaf students with hearing students in classrooms and social activities. These methods and services are discussed in greater detail in Chapter II.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The goal of this study was to investigate factors which affect the decisions of deaf students to attend college and to remain in college. The study surveyed current college students who graduated from either residential or mainstream high schools. The central research questions concerned factors which influence deaf students to pursue postsecondary education and factors which influence them to remain in their present postsecondary programs. A secondary focus was on deaf students' most pressing problems and what assistance they felt they needed to succeed in college. Information gathered from this research should help counselors and teachers of the deaf better prepare their students for successful college experiences. It should also shed light on factors which motivate deaf students to attend college and how they manage to succeed in mainstream colleges. This study may also produce ideas concerning services that might be provided by mainstream colleges to help deaf students succeed in the college environment.

History

Many works address the history of postsecondary programs. A study done by Schein and Bushnaq in 1962 showed that although the percentage of hearing students who attended college had steadily increased over the last sixty years, there was not a comparable growth in the enrollment of deaf

students in college. In the last thirty years, however, state and federal legislation has guaranteed new educational opportunities for students with handicapping conditions and, as a result, there has been a dramatic increase in the percentage of deaf students attending college (Quigley, 1973).

The changes in educational opportunity and increased college enrollment for deaf students mean that today's deaf youth face a broader and more promising future than their predecessors. "With the growth of enrollment in mainstreamed colleges and universities, deaf students' motivations, abilities, and imaginations are the only limits to a career and placement in the work force" (Quigley, 1968, p. 41).

Many community colleges have also established programs for deaf students on their campuses. Stuckless (1972) pointed out that the "mushrooming of local postsecondary institutions has resulted in the emergence of approximately 1100 community colleges with an enrollment of almost 3,000,000 (hearing) students" (Stuckless, 1972, p. 8). The Rehabilitation Act of 1973, Section 504 was particularly influential in leading the way to the establishment of services for students who are deaf in the context of campus programs serving students with various other disabilities (Schroedel & Watson, 1991). Many community colleges now offer vocational training for deaf students as well as preparation for entrance into a university. "Two factors were involved: the tremendous growth in college and university enrollment during the 1960's and the clamor of minority groups for open admissions of some type

in institutions of higher education” (Quigley, Jenne & Phillips, 1968, p. 2).

Rawlings and King (1986) did a study on the history of postsecondary education for deaf students. The study showed that the college enrollment of deaf students has been increasing since the 1950's. In 1945, it was estimated that about 200 deaf students were enrolled in colleges nationally. Forty years later, in 1985, the number of deaf college students had risen to over 8,000. “During the late 1980's, within a ten-year period of their high school graduation, nearly 50 percent of all deaf high school graduates had some college education” (Rawlings & King, 1986, p. 3). “It is important that the development of higher education programs for deaf students gives them a choice in the extent to which they can segregate or interact with the general student population in higher education” (Quigley et al., 1968, p. 3). Deaf students now have the choice to integrate by attending a mainstream college or university.

Boyenger (1968) states “that the opportunity to associate with and pursue academic fields alongside hearing persons is to be considered of major importance in the educational process of the deaf” (McIntire, 1977, p. 2). Some students come to college with a defined educational objective. Others may express interest in a given area without knowing its academic requirements or occupational prospects. “Deaf students often have led more sheltered lives than their hearing peers and may have even less realistic ideas about what they can reasonably expect from various courses of study and the necessary qualifications of the careers they pursue” (Quigley, 1968, p. 38). Quigley also

noted that admissions programs geared to evaluating deaf students generally attempt to strike a balance between academic aptitude or intelligence and possession of academic skills. Colleges have learned that a student needs both to succeed. Therefore, colleges need to do a good job of screening and counseling deaf students, making them aware of all student services and courses of study in which they might reasonably be expected to succeed.

We live in a time of rapid change and constant new challenges. Today, more than ever before, employment opportunities and choice for deaf and hard of hearing people are expanding. With the passage of the Americans with Disabilities Act of 1990, and changing demographic patterns in America, opportunities for deaf and hard of hearing persons are reaching unprecedented heights. Walter (1991) has noted that "America's work force is aging, and its entry-level labor pool is shrinking, creating a whole new set of challenges which translate into new employment potential for deaf and hard of hearing people, who likewise are taking advantage of expanding education and training opportunities to advance their careers, thereby enhancing their economic and political status and the overall quality of their lives" (p. 3).

The current emphasis on cultural diversity in the work place is changing attitudes and perspectives. Deaf and hard of hearing persons are gradually transforming attitudinal, language, and cultural differences into opportunities that will ultimately benefit all people involved. "Our country's ability to compete successfully in a global marketplace is being fueled by new ways of thinking

and doing business which points to the importance of education and training opportunities” (Walter, 1991, p. 3).

Deaf people are now taking their rightful place in colleges and universities. In our society, a higher education generally translates into earning a higher income. A deaf person with a college degree can improve his/her lifestyle considerably through being able to qualify for better paying jobs. Another added benefit is that the deaf person becomes more well rounded by experiencing the college environment and taking advantage of all that it has to offer (Quigley, 1968).

In comparing events in deaf history from 1962 to the present, education for deaf students has been greatly improved. There are more opportunities today than before. For example, the deaf people now have access to captioned television, TDDs, interpreters, more educational opportunities and jobs. President Bush signed American with Disabilities Act (ADA) in July 1990. This bill extends a deaf person’s civil rights opening many more doors to qualified deaf people in the work force.

Demographics

The Center for Assessment and Demographic Studies (CADS) at Gallaudet University (1990 - 91) conducted a nationwide survey of deaf students in schools and classes K - 12 to gather demographic information which included questions on gender and race. In this nationwide survey, 47,973

students were surveyed. According to the 1990 - 1991 report prepared by the CADS, California is representative of the nation as a whole with 54.3% of its deaf student population being male and 45.4% being female. The nationwide figures show males at 53.9% and females at 45.8%. The racial/ethnic distribution for deaf students in California is, 41.7% Hispanics, 10.7% black, 11.5% Asian, 32.8% white, 0.4% American Indian, 2.0 % Other, and 0.8% Multi-ethnic background. The national percentages are: 14.1% Hispanics, 17.2% black, 3.6% Asian, 62.5% white, 0.7% American Indian, 1.3% Other and 0.6% Multi-ethnic background.

Among deaf students there are various causes of deafness, and these may well influence their choices of programs and career options. Research done by DeCaro, Karchmer, and Rawlings addressed large enrollment increases in colleges during the 1980s due to the German measles epidemic of 1963 - 1965. It is important to remember, however, that there are many other causes of deafness in the current student population. Other important factors in hearing loss could be heredity, prematurity, blood type incompatibility, meningitis, mumps, and a side effect of drugs as well as measles. Some deaf students come from deaf families, but many others come from hearing families and their experiences are very different. Keeping track of demographic information concerning deaf students as well as the current causes of deafness would give colleges better data on the size of prospective enrollments and amount of services needed.

Quigley (1968) has pointed out that:

Among the vast number of programs offered, there is only a handful of programs that enroll more than 100 deaf students, a figure which relates to the size of the "deaf community" on each campus, the social universe in which the average deaf student can find support from a group of peers like himself. Although some deaf students move in hearing circles with ease, the large majority do not. Many educators feel that a certain "critical mass" of deaf peers makes it easier for these deaf students to find friends and develop confidence in themselves. When the institutions have large enrollments often deaf students group together and can talk among themselves and support each other academically. (p. 16)

Quigley (1968) also reported administrators feel that a substantial deaf enrollment is needed to justify costly support services and facilities required to serve deaf students well. The greater the investment a college can make in special support services the more its deaf students will benefit from their college experience. "Support services greatly ease the adjustment of deaf students to a hearing campus" (p. 57).

Other researchers have commented on the correlation between support services and the size of postsecondary programs. DeCaro, Karchmer and Rawlings (1987) worked with personnel from Gallaudet University (in Washington, D.C.) and the National Technical Institute for the Deaf (in Rochester, New York) to do a study in which all postsecondary schools which offer programs for deaf students were contacted. The 1986 edition of College and Career Programs for Deaf Students was used as a source for these contacts. Questions on the survey included items such as how many full-time

and part-time deaf students were enrolled in their programs; whether they had a program designed for deaf students; what types of degrees they offered for deaf students; and whether their support services were effective enough to meet the needs of deaf students.

In the surveys sent out by DeCaro, Karchmer and Rawlings, 258 out of 281 possible schools responded (a 92% response rate). One hundred forty-five out of the 258 schools reported having programs for deaf students. The other responding programs reported having closed down their programs.

DeCaro, Karchmer and Rawlings (1987) reviewed the status of postsecondary programs for deaf students, comparing data from a 1982 study with data collected in 1985. In the three years between 1982 and 1985, the number of programs for deaf students increased dramatically due to the peak of the rubella bulge, which was brought about by the German measles epidemic of 1964 and 1965. This caused a large influx of students with deafness and hearing impairments into postsecondary institutions during the 1980s. The DeCaro study found that the amount of support services grew to fit the size of enrollments in programs for deaf college students. They also learned that deaf students were more likely to attend college full-time than their hearing peers. This research was especially important as it compared enrollment data and program information to help education planners better serve the needs of deaf students.

The Role of Teachers and Counselors

Woodrick and Petty (1988) investigated which education professionals in the public school systems and which non-education professionals had major responsibilities for helping high school deaf students explore postsecondary education options. In this study, 69 administrators were chosen from 13 residential programs and 56 public day schools. The source was the 1986 annual Reference Issue of American Annals of the Deaf. This issue lists programs serving deaf students from pre-school to high school throughout the United States. The Woodrick and Petty survey was designed to find out: (1) how many deaf students were expected to leave or graduate in 1986; (2) the name and title of school personnel with the main responsibility for assisting deaf students in exploring postsecondary education options; (3) the name and title of non-school (outside service agency) personnel assisting the deaf in exploring postsecondary education options; and (4) the names of guidance counselors who worked with deaf students.

Fifty-one out of the 69 administrators (a 74% response rate) returned the survey. The results showed that 45 out of 51 of these administrators presently had programs for deaf students in their schools. These results also indicated that more than 577 deaf students graduated or left their programs in 1986. Forty-nine percent of the education professionals that assisted deaf students with their career goals were teachers. The other 51% were guidance counselors (24%), principals (7%), rehabilitation counselors (4%), and others

(16%). The "other" group included a supervising teacher, vocational coordinator, instructional specialist, consultant, counselor, and deaf adult. This research currently needs to be updated since it is now over six years old and many other important factors have changed in that time.

Unfortunately, the Woodrick and Petty study did not include questions pertaining to the amount and quality of advice given to deaf students by educational professionals and/or non-educational professionals. Questions such as "Did an educational and/or noneducational professional influence you to go to college?" would have been helpful in indicating how much influence parents, nonprofessional deaf role models, advisors and so forth have on the college decisions of deaf students. Questions concerning college awareness and planning also need to be addressed. More specifically, questions like: "When do deaf students become aware of or learn about the availability of colleges for the deaf?" "Do they know how to use support systems in mainstream colleges?" "If support systems are available, how do deaf students rate their usefulness?" "What forms of communication services might be available?" need to be asked.

Craig, Newman, and Burrows (1972) reported on characteristics of deaf students enrolled in three postsecondary programs (the Delgado, Seattle and St. Paul programs) and found that two-thirds of the deaf students who left before graduation did so by their own choice rather than because they were put on academic suspension. "Test scores taken from the evaluation reports would

suggest strongly that deaf students should succeed in schools that provide special tutoring and supportive services” (Craig, Newman, & Burrows, 1972, p. 609). Better counseling and career guidance at the pre-college level could reduce the number of deaf students who leave because their expectations are not met.

As counselors and advisors, parents of deaf students seem to play the most central role. Using a Likert scale, Quintana (1982) asked CSUN students how often their parents were influential in decision making regarding the value of a good education. Mothers were characterized as almost always influential by 62.9 % of the 27 respondents, and fathers were almost always judged influential by 51.9% of the sample. From this survey it seems that parents can be crucial in convincing their deaf children about the value of education, and should be considered as primary sources for the dissemination of college information to deaf students.

The Influence of High School Settings

Deaf students are enrolled in a variety of high school programs. Principally, these include residential schools for the deaf, day schools for the deaf, and public (mainstream) schools and classes. In schools for the deaf, the setting is often quite different from mainstream environments. There are usually more deaf teachers in residential school settings than there are in public school programs. These deaf teachers often serve as role models and help deaf

students realize that they can pursue education beyond high school. In residential settings, deaf teachers may have more contacts with the hearing world than their deaf students do. Therefore, they may provide a crucial link for sharing up-to-date news with their deaf students and keeping them informed about events in the world. This link can also involve information about current college programs, college experiences and job market outlook for the future.

Systems of Communication

A wide variety of communication systems are used by deaf people in this country. Sign language is not universal and the various visual communication systems used in the United States of America include: American Sign Language (ASL), Signing Exact English (SEE), and Pidgin Signed English (PSE). There are some deaf individuals who do not use sign language at all and rely only on an oral means to communicate.

Signing Exact English is a system which involves spoken English and signs. Its purpose is to translate every spoken English word into signs which are not heard. This is a system which includes signs established to represent English grammar as well as basic vocabulary drawn from ASL. It is often used in educational settings with deaf children with the goal of teaching the English language more successfully. It displays plurals, inflections, and articles in sentences signed in English word order (e.g. "The house is white"). Each part of the sentence is signed in exact correct English syntax (Shroyer, 1989).

According to Cokely and Baker (1981), American Sign Language is a "visual-gestural" language and is the language of most deaf people in the United States. They reported that in 1980, American Sign Language was being used by approximately 250,000 to 500,000 Americans of all ages. ASL and English are two distinct languages. Unlike English, which is a spoken and a written language, ASL is a visual-gestural language. Each language has its own set of grammatical and syntactical rules. ASL must be translated into English in the same manner as any other foreign language.

Pidgin Sign English (PSE) is a combination of signs from American Sign Language and English syntax but it does not include plurals, inflections, or other grammatical structures used in SEE. Fingerspelling is used more often in PSE than in ASL. PSE is often used for communication between deaf and hearing people (Shroyer, 1989).

For the non-signing, hearing-impaired individuals the aural/oral approach involves spoken English only. It primarily involves the use of speech, speechreading, and amplification of residual hearing. Generally it takes a deaf person many years of training with a speech therapist to become proficient. Vision is the primary avenue that the oral deaf person uses to progress in his/her communication skills by speechreading the lips of the person who is talking. Many deaf people rely on amplification using hearing aids. When using a hearing aid there are three important factors. These factors are "volume (loudness), clarity (lack of distortion), and the frequency range of the hearing aid

(from low to high sounds expressed in cycles per second" (Griffiths, 1967, p. 20). Currently available hearing aids do not give "normal hearing." They only help use what residual hearing a deaf person has.

Schools that serve deaf students usually have their own preferred (and/or required) communication system. For example, Oster Elementary School in San Jose, California has a program for deaf children. The instructors at Oster Elementary School use Signing Exact English with their students. Jackson Hearing Center in Palo Alto, California is an oral program for the deaf which means no sign language is used. The California School for the Deaf in Fremont, California is a residential state school serving deaf children. The instructors at California School for the Deaf use the bilingual/bicultural approach which utilizes ASL as the primary mode of communication. The bilingual/bicultural approach is a philosophy which allows deaf children to develop skills in both languages (ASL and English) and two cultures (deaf and hearing). For instance, deaf children will learn English through reading and writing skills and ASL through communication skills. Thus, different schools vary in the communication systems they use, and therefore, their graduates cannot always communicate easily with one another.

The variety of approaches to language training for deaf students in this country can be a complicating factor in college decisions and in success in a particular college once there. Students often feel most comfortable using their "first" or primary language. It is quite possible that two deaf people observing a

sign language interpretation of a college lecture would not leave the class with the same understanding of the lecture (Quigley, 1968).

“Sign languages are not primitive or simple, but are very rich and complex systems” (Battison & Baker, 1980, p. 51). Many college students come from all over the United States and meet at a college to study and interact with one another. Deaf persons who use different language systems may understand one another’s sign language only with difficulty.

Admissions Requirements

There are certain procedures which must be followed in order to enroll in any postsecondary institution. The California system of community colleges is designed for students preparing to transfer to the University of California or the California State University systems or for training students in various vocations. All high school graduates are eligible for admission in California community colleges. A person may enroll in any course offered at a community college provided prerequisites for the course have been met. Persons over 18 years of age who are not high school graduates may also be admitted to classes, as may those who have passed the California High School Proficiency Examination.

All new students, regardless of hearing status, are required to take the math and English placement tests. These tests are designed to help place students in the appropriate courses of study. The colleges request students’

transcripts from their last college or high school, although the high school transcripts are not required. If deaf, an audiogram or medical verification of disability is required by California law. Results from any recent scholastic tests, such as academic achievement tests or interest or aptitude test are also requested.

The California State University system is open to students in the top one-third of their high school graduating classes. A person can qualify for regular admission as a first-time freshman if he or she is a high school graduate in that category. The person must also have a qualifiable eligibility index and, prior to California State University enrollment, have completed with a grade of C or better the courses in the comprehensive pattern of college preparatory subject requirements. The eligibility index is a combination of the high school grade point average and the score on the American College Test or the Scholastic Aptitude Test. For a person who is deaf, an audiogram or medical verification of disability is required by California.

In order to receive the necessary accommodations, deaf applicants would need to inform the university system that they would need interpreters for their courses. For instance, California State University, Northridge (CSUN) has special services available to their students. Deaf applicants would need to report to the appropriate office and make request for interpreters for their courses. CSUN has sign language, oral, and deaf-blind interpreters available.

The University of California system is open to those students (usually the top 12% of high school graduates) who can meet its entrance requirements, provide Scholastic Aptitude Test scores, and submit disability documentation. Deaf students are recommended for special admission based on grade point average, SAT scores, support services used in high school, and so forth.

Necessary accommodations are provided depending on the certain special services available at each university. For example, the University of California at Davis has personal counseling services provided by counselors skilled in manual communication or who use interpreters. This university has sign language and oral interpreters available. Deaf students would need to inform the appropriate office if they need interpreters for their courses.

Undergraduate applicants for the University of California and California State University systems must fill out an admission application and submit either original documents or certified photocopies of previous school records. These records must show years attended at each college or university, indicating the number of hours per semester or year and all grades received. The official document that confirms the degree the person earned with the title and date it was awarded is also required.

Conclusion

The above findings indicate that deaf individuals in the United States face special challenges in pursuing and achieving postsecondary degrees.

Research is needed to determine what factors affect the decisions of deaf high school students to attend college, and once in college, what factors affect their willingness to stay and their ability to be successful. Further research is also needed in the areas of current attrition rates and reasons why deaf students have left college.

CHAPTER III

METHODOLOGY

Purpose of Study

The overall goal of the current study was to gather information from deaf college students concerning factors which influenced their decisions to attend college and, once enrolled, to remain in college. Factors investigated include the type of high school a deaf student attended, the persons who may have influenced the deaf student's decision to attend college, the student's college awareness and planning activities, whether or not the student must work, and a variety of demographic information which might be useful to counselors and other people working to improve the educational opportunities of deaf persons.

Subjects

The final sample for this study consisted of 92 deaf students enrolled in three California colleges. Surveys were sent to the Director of Disabled Student Services at Golden West College, a counselor at Ohlone College, and a volunteer at California State University, Northridge. Twenty-nine deaf students completed the questionnaire at Ohlone College, 28 deaf students agreed to participate at Golden West College, and 35 deaf students from California State University, Northridge were included. Fifty-five percent of the participants were male and 45% were female. With respect to ethnicity, 17% were Hispanics, 9% were black, 12% were Asian, 54% were white, and 8% classified themselves as "other."

These particular colleges were chosen for the study because of the size of enrollment in their deaf programs. They have been well established and in operation for some time and are located in the southern as well as the northern part of the State. California State University, Northridge was included because it is a nationally and internationally known four-year college and a pioneer in the field of mainstream education for deaf students. CSUN offers a choice of course opportunities in disciplines within seven schools offering baccalaureate degrees and/or master's degrees for deaf students. Its enrollment of deaf students is also large and the program has been in existence for a long time.

A brief description of each college follows:

The program description for Golden West College as described in its pamphlet is:

Golden West College (G.W.C.) is located in Huntington Beach, California and broke new ground by becoming one of the first mainstreamed educational programs for the deaf in September 1970. G.W.C. follows a support services model designed to allow deaf students to successfully attend an institution originally serving hearing students. This community college offers excellent support services such as interpreting services, notetaking, counseling, tutoring, job placement and follow-up, and audiometric testing. G.W.C. has a large staff of instructors that work closely with the support service staff. During the past 20 years, G.W.C. has assisted more than two thousand (2,000) deaf and hard-of-hearing students in pursuing their educational and career goals (G.W.C. Disabled Student Services, Golden West College, 1991, p. 1). Presently, there are approximately 135 students. These students come from different cultures as well as educational backgrounds. Some of these students come from mainstreamed or residential schools in California while others are from out-of-state or foreign countries. Both young and old people come to take different courses of study. They integrate in all that the campus life has to offer from student body government to varsity sports and drama. The

courses they take can lead to jobs or enrichment experiences. (p. 1)

The program description for Ohlone College as described in its pamphlet is:

Ohlone College is located in Fremont, California. In September 1972, Ohlone College reached out to deaf persons with a comprehensive program designed to meet the academic and vocational needs of deaf students. The program has grown and now approximately 150 students are enrolled. Ohlone College has a large staff with eight full-time instructors (four deaf), 17 part-time instructors (13 deaf), two counselors, and a support staff of 20 interpreters and resource persons. Ohlone College has a large support service system from which the deaf students can choose to maximize their college academics and social activities (Ohlone College Deaf Center, Ohlone College, p. 1). The large deaf student population allows for a wide variety of extra-curricular activities including a Deaf Club and a Sign Theater group as well as activities for deaf students within the local and bay area deaf communities. (p. 1)

The program description for CSUN as described in its pamphlet is:

California State University, Northridge (CSUN) is located in Northridge, California. In 1964, CSUN established a program for the deaf and is committed to providing a foundation of knowledge in the liberal arts and science for all its baccalaureate degrees. The present enrollment of deaf students in CSUN is approximately 225. The university employs a large teaching staff and also has a large support service staff for its deaf program (National Center on Deafness, 1991, p. 2).

In 1976, CSUN joined Gallaudet, National Technical Institute for the Deaf (NTID), St. Paul Technical and Vocational Institute (TVI), Seattle Central Community College and Delgado College as one of six federally funded centers (Quigley, 1968, p. 15).

In 1980, the Deaf CSUNians organization was formed under the Associated Student Body Government within the university. Some of

activities of the CSUN deaf students include Homecoming, Miss Deaf CSUN Pageant, Intramural Sports, Deaf Matador Newsletters, Rose Bowl Float, and the Annual Spring Banquet to keep its members busy year long. Its central purpose is to provide and promote academic, cultural awareness, political, recreational and social activities to its members and others who are interested (National Center on Deafness, 1991, p. 5). In the past two decades, 344 deaf students have completed master's degrees, and 247 deaf students have earned bachelor's degrees at CSUN. (p. 5)

The Survey Instrument

The survey had seven sections. These seven sections covered areas including the students' high school background, the person(s) who influenced the students to go to college, college awareness and planning, employment, the college currently attended, students' personal information, and problems/issues.

The section on high school background asked for the name of the high school attended, number of years of attendance, type of school (residential or mainstream setting), and percent of classes mainstreamed with hearing students. This was designed to give support service personnel an idea of their students' educational backgrounds. Some students might not have experienced a mainstream setting in high school. This would give colleges information on the types of orientation activities that might be needed to help deaf students adjust to mainstream classes.

Two items on the questionnaire asked, "During high school, whose encouragement most influenced you to go to college?" and "What reasons or

information did this person(s) give that helped you decide on going to a college?" Answers were expected to give high school staff members and parents information concerning the strength of various influences on students' decisions to get a college education. They were also expected to give support service personnel information concerning the success of publicity for college programs sent to deaf high school students.

Seven items on the questionnaire asked deaf subjects when they learned about colleges for deaf students and mainstream colleges with support services for deaf students; how they learned this information; what were their reasons for attending college; who helped them with their college plans; did they ever consider going to Gallaudet University or the National Technical Institute for the Deaf; and why they decided to go to their present colleges where there are both deaf and hearing students. These questions were multiple choice with the exception of the last question which was open-ended. This section was designed to give high school staff, support service personnel, and parents an understanding of what their students might need to know about their future college plans.

Another item on the questionnaire asked deaf subjects about their current job status; and if they are employed, if the job is related to their career goals or mainly for financial support. This section was designed to give high school staff, support service personnel, and parents information concerning deaf students' college life.

Three items on the questionnaire asked deaf subjects which support services were available, which services they have used, and how they would rate these services; and if they were involved in activities with other deaf students and/or hearing students at their college. These questions should give support service personnel an idea how their students are interacting on campus and how they might improve campus life for deaf students by upgrading support services and offering activities which the deaf students would enjoy.

Seven items on the questionnaire asked deaf subjects personal information such as age, gender, marital status, year in college, and preferred mode of communication. Specifically, an item on the questionnaire asked, "What is your preferred mode of communication?" It gave three choices, including ASL, PSE, and SEE. These data provide support service personnel with information concerning primary modes of communication on campus, and so with information needed in the hiring of appropriate sign language interpreters.

The final section of the questionnaire asked deaf subjects to rate a set of given problems/issues on a scale ranging from zero, meaning no problem, to four, meaning a big problem. These problems/issues include cost of tuition, related expenses, relationships with deaf and hearing students, participation in college/social activities, tutoring, and communication with professors and interpreters. These questions were designed to give the support service personnel an idea of what types of problems deaf students may be

experiencing and so may need help in solving.

Procedure

Before sending the final questionnaires out, a pilot study of the instrument was conducted using three randomly selected deaf students from Ohlone College. Information was collected on the clarity of the questions and the length of time required to complete the questionnaire. On the basis of pilot data, several questions were reworded to increase their clarity and usefulness. Several other questions were eliminated to cut down on the time needed to complete the instrument.

The cooperating staff member at each of the two community colleges and the university selected was sent a letter of instruction, a cover letter, and the survey (see Appendix A for cover letter and directions). These individuals were asked to locate volunteers for the study on their respective campuses and return the completed questionnaires within a month. Students were allowed to ask questions for clarification if they were confused by any item as they completed the survey.

As described above, the items on the survey were written to elicit information about the factors which were most influential in the deaf students' decisions to attend college, and once enrolled, their decisions concerning whether to remain at that college. The data collected were broken down into categories so that, for example, comparisons could be made among the three

colleges. High school educational background, mode of communication, cause of deafness, and degree of mainstreaming before college entrance were also used as categorical variables.

Statistical Analysis

The final survey (see Appendix B for a complete copy) included 23 questions, 14 of which were multiple choice, three of which were rating scales, and the remaining six were open-ended items. High school background, role models, awareness of college programs for deaf students, availability and quality of support services, sources of help for college planning, career planning, and problem areas for deaf college students were the major areas studied.

Responses to each item were tabulated and means and standard deviations were calculated. Cross tabulations were done using such variables as the respondent's gender, educational background, experience with mainstreaming, and type of college attended. The results are presented in bar graphs, tables, and narrative summaries in the next chapter.

CHAPTER IV

RESULTS

Introduction

The overall goal of this study was to explore the factors which influence the decisions of deaf students to attend college and, once enrolled, to remain in college. These factors include the type of high school the deaf students attended, persons who may have influenced them, their knowledge about college alternatives and how to plan for college, whether they work during college, and what services are provided for them by the particular college they attend, as well as other relevant demographic information. Results from the survey of deaf subjects in two community colleges and one university are presented here. Graphs and charts summarizing the data are also included. The data collection instrument used in this study was entitled "Survey of Deaf College Students" and is included here as Appendix B. The survey was divided into seven sections: (1) Your High School; (2) The Persons Who Influenced You; (3) College Awareness and Planning; (4) Your Job; (5) Your College; (6) Personal Information (Demographics); and (7) Problems/Issues. Each section is treated separately in the following presentation of results.

High School Background

In the survey's initial section, deaf subjects were asked about their high school background. The name of each high school attended was recorded so that any confusion as to what type of program they had been enrolled in could be easily cleared up. The number of years attending each school, kind of school, and percent of time with hearing students were also included. This information

was used to characterize the sample as a whole, as well as to consider any subsequent differences that might be related to high school experience.

Overall, 92 out of 105 deaf students in the three colleges responded to the survey - an 88% return rate. As can be seen in Table 1 below, the majority (65%) attended public schools while 33% attended residential schools. "Other" refers to students who have attended both residential and public schools.

Table 1. Type of school attended

Public Schools		Residential Schools		Other		Total
N	%	N	%	N	%	N
60	65%	30	33%	2	2%	92

Figure 1, which is broken down by the colleges sampled, shows that this pattern did not hold across all three postsecondary schools. At Golden West College, 28 students completed the survey. Of these deaf subjects, only six had attended schools for the deaf. In the Golden West program, the majority of deaf subjects had been enrolled in a mainstreamed public high school program. Among those who were mainstreamed, only one reported 100% integration (all classes with hearing students), two 50% integration and one 25% integration (partial mainstreaming). The remaining were in self-contained classrooms within a public school setting. At Ohlone College, 22 of the 29 deaf subjects who completed the survey had attended schools for the deaf; six attended mainstream public high schools, and one did not respond to the question. Only one of the deaf subjects who attended a school for the deaf reported any degree of integration with hearing students. Overall the deaf subjects in the Ohlone

Figure 1. High school backgrounds of deaf students in three colleges

sample had very few of their high school classes with hearing students. Seventy-two percent of the Ohlone deaf subjects experienced no mainstreaming during their high school experience. This difference can be partially explained by the geographic proximity to Ohlone of the California School for the Deaf in Fremont.

Of the 35 deaf subjects at California State University, Northridge (CSUN) who completed the survey, only two deaf subjects had attended a school for the deaf. One of these spent part of his high school career at a mainstream public high school and part at a school for the deaf. Thus, the majority of the CSUN deaf subjects had attended mainstreamed high school programs with hearing students. Nearly all had been integrated most of the school day. (See Table 2 for a breakdown of the sample by percentage of high school classes taken with hearing students.)

Table 2. Time mainstreamed in high school classes

% of h.s. classes	GWC		OHLONE		CSUN		TOTAL SAMPLE	
	N	%	N	%	N	%	N	%
0%	5	18%	21	72%	2	6%	28	30%
25%	5	18%	1	3%	0	0%	6	7%
50%	11	39%	3	10%	2	6%	16	17%
100%	6	21%	1	3%	31	88%	38	41%
NR	1	4%	3	10%	0	0%	4	4%
TOTAL	28	100%	29	100%	35	100%	92	100%

Persons Influencing College Plans

Section B of the survey was entitled "The Persons Who Influenced You" and was designed to find out whose encouragement most influenced the deaf subjects to go to college. In Section B(1), the types of individuals were listed as: a deaf adult (role model in the Deaf Community), a teacher, a family member, a

friend or classmate, a school counselor, or other. The deaf subjects were asked whose encouragement most influenced their decision to attend college, as well as what kind of information these influential individuals had given them concerning going to college.

For the sample as a whole, 40% reported that they were most influenced by a family member, 15% reported being influenced by a classmate or friend, 14% were most influenced by a teacher, and 10% by a deaf adult. A deaf role model in the community was the least cited as being important in making the decision to attend college. This was true for both groups of deaf subjects---those who attended schools for the deaf and those who went to mainstreamed schools (See Figure 2). Table 3 gives a more complete summary of these results.

Results revealed that of the 28 deaf subjects at Golden West College who completed this survey question, seven or 25% of them, stated that the person most influential in their decision to attend college was a friend or a classmate. The next most frequently influential person, with nearly as many responses, was a family member. Twenty-one percent listed a family member as being influential. Tied for third place were teachers and school counselors with four each. Three of the Golden West deaf subjects circled "other" and two of them listed "myself." One listed a vocational rehabilitation counselor as being influential.

Among the Ohlone College deaf subjects, the most influential person in their decision to attend college was a family member. Thirty-one percent cited a member of their family as most influential. The second most influential person was a teacher with 24%, followed by a friend or classmate with 21%. The least

Figure 2. Persons influencing deaf students to attend college by type of high school attended

influential was a school counselor who was credited by only one student as being influential.

At CSUN, 63% of the deaf subjects named a family member as being the most influential in their decision to attend college (See Table 3). The second most frequent response on this survey question was "other" which included persons such a speech teacher, interpreter, VR counselor, etc. Three students cited a teacher as being the most influential person; a deaf adult and a school counselor were each selected twice. One student listed a friend or classmate as being the most influential.

Table 3. Persons influencing deaf students to attend college by college attended

	GWC		OHLONE		CSUN		TOTAL SAMPLE	
	N	%	N	%	N	%	N	%
A	3	11%	4	14%	2	6%	9	10%
B	4	14%	7	24%	3	9%	14	15%
C	6	21%	9	31%	22	63%	37	40%
D	7	25%	6	21%	1	3%	14	15%
E	4	14%	1	3%	2	6%	7	8%
F	3	11%	1	3%	5	14%	9	10%
NR	1	4%	1	3%	0	0%	2	2%
TOTAL	28	100%	29	100%	35	100%	92	100%

A = a deaf adult

B = a teacher

C = a family member

D = a friend or classmate

E = a school counselor

F = other

NR = No response

In Section B(2), the subjects were asked "What reasons or information did these persons give that helped you decide on going to college?" In the Golden West sample, 22 responded to this question. Eleven specifically mentioned getting a better job as the reason that this influential person gave them that helped them decide to go to college. This was by far the most frequently chosen response. The second most frequent reason given was to improve English skills. Several deaf subjects also mentioned wanting to please their parents and to improve themselves. In the Ohlone sample, more deaf subjects' responses referred to wanting to learn more and to have a better standard of living than in the Golden West sample. Getting a better job was a major factor for this group also. In the CSUN sample, most of the respondents made statements about the value of an education in general terms. Fewer referred to employment advantages.

College Awareness and Planning

Section C of the survey was entitled "College Awareness and Planning" and was designed to find out when and how the deaf subjects first learned about colleges for deaf students and what support services these colleges offered. It was also designed to assess the relative importance of various reasons for attending college, as well as to find out who helped them with their college planning. Finally, this section was designed to find out if the deaf subjects had considered attending an all deaf college and why they chose a mainstreamed college.

For the sample as a whole, 29% of the subjects reported first learning about colleges for deaf students before high school. At Golden West College,

32% of the deaf subjects responded on the survey that they first learned about colleges for deaf students, such as Gallaudet University or National Technical Institute for the Deaf, before they reached high school. On the other hand, 21% said that they did not know about these colleges until after they had graduated from high school. The responses from the Ohlone College sample revealed 31% of the deaf subjects had learned about colleges for deaf students by their freshman year in high school. Only three percent of the Ohlone deaf subjects did not know about these colleges until after they had graduated. In the CSUN sample 26% of the deaf subjects had learned about colleges for deaf students before they reached high school, with 17% learning about these colleges after graduation from high school (See Figure 3).

For the sample as a whole, 23% of the subjects reported first learning about mainstream colleges with support services for deaf students by their junior year in high school. At Golden West College, 25% of the deaf subjects responded on the survey that they first learned about mainstream colleges with support services for deaf students by their senior year in high school. On the other hand, 18% said they did not know about these colleges until after high school graduation. The responses from the Ohlone College sample revealed 28% of the deaf subjects had learned about mainstream colleges for deaf students by their sophomore year and another 28% by their junior year in high school. Only 14% of the Ohlone deaf subjects did not know about these colleges until they had graduated. For the CSUN sample 26% of the deaf subjects had learned about mainstream colleges for deaf students by their junior year in high school, with 17% learning about these colleges after high school graduation (See Figure 4).

Figure 3. Timing of students learning about colleges for the deaf across three sampled colleges

Figure 4. Timing of students learning about mainstream colleges with support services across three sampled colleges

For the sample as a whole, 52% of the subjects reported they learned about colleges for the deaf and colleges with support services from a high school teacher and their deaf friends. The Golden West sample of deaf subjects learned about both types of colleges from either a high school teacher and their deaf friends. Nearly as many cited a high school counselor as the source of this information. Only one Golden West student indicated that he had sent away for a catalog. Six deaf subjects, or 21%, listed their parents as a source of information about these programs. A large majority of the Ohlone deaf subjects learned about both types of colleges from high school teachers and deaf friends. Only three cited using catalogs in the school library or asking for the catalog to be mailed by the colleges. In the CSUN sample, the most frequent response given for learning about colleges with support services was from "deaf friends," followed closely by parents. The least cited source of information was through college catalogs (See Figure 5).

For the sample as a whole, 75% of the subjects cited as their reason for attending college was to receive a degree for their chosen field. The most common reason for attendance at college given by the Golden West College sample of deaf subjects was "I need the degree for the job I want." This was selected by 19 deaf subjects or 68%. Nearly as many also selected "a college education will help me know more." The least often selected reasons for attending GWC were the influence of friends', sweethearts' or parents' wishes. Since so many of the respondents did not rank these factors in order of importance, no analysis of the ranking was possible. In the Ohlone College sample, the deaf subjects most selected reason for attending college was "a college education will help me know more." This was selected nearly twice as

Figure 5. How deaf students received information about colleges across the three colleges sampled

Note: Percentages do not add up to 100% because subjects could select more than one alternative

often as “I need a degree for the job I want” or “my parents want me to go.”

Three reasons were cited for choosing to go to college by the CSUN sample of deaf subjects: needing a degree for the job they wanted, their parents desire that they attend college, and a general desire for knowledge (See Figure 6).

For the sample as a whole, 60% of the subjects reported that their counselors helped them with their college plans, while 59% reported their parents were most helpful. A deaf adult was the least selected answer (See Figure 7). Most Golden West deaf subjects indicated that their counselors were the people who helped them with their college plans. The second most selected choice was parents. A deaf adult was listed as helping with college plans by only five of the deaf subjects. Teachers were the least selected person. In the Ohlone College sample, deaf subjects selected parents and counselors as the persons who helped them with their college plans. Four people mentioned a deaf adult as assisting them with college plans. More CSUN deaf subjects selected parents as helpers than counselors.

For the sample as a whole, 57% of respondents had not considered attendance at Gallaudet University or National Technical Institute for the Deaf. In the Golden West sample, 19 or 68% of the 28 deaf subjects answering the question on whether or not they had considered enrolling at Gallaudet University or National Technical Institute for the Deaf said they had not considered it. The Golden West deaf subjects who said that they did consider these colleges cited a variety of reasons from specific programs offered to the numbers of services available. For the Ohlone sample, 16 (or 55%) of the deaf subjects said that they had thought about attending a college for deaf students. Several deaf subjects mentioned plans to transfer to Gallaudet University. A desire to

Figure 6. Reasons for attending college given by students at three different colleges

Note: Percentages do not add to 100% because subjects could select more than one alternative

Figure 7. People who helped with college planning

Note: Percentages do not add to 100% because multiple responses were allowed

socialize with other deaf students was also reported as a reason for wanting to transfer. In the CSUN sample, 21 or 60% of the deaf subjects said they had not considered enrolling in a college for deaf students (See Table 4).

Table 4. Students considering Gallaudet University or National Technical Institute for the Deaf by college attended

	GWC		OHLONE		CSUN		TOTAL SAMPLE	
	N	%	N	%	N	%	N	%
No	19	68%	12	41%	21	60%	52	57%
Yes	8	29%	16	55%	14	40%	38	41%
NR	1	4%	1	3%	0	0%	2	2%
Total	28	100%	29	100%	35	100%	92	100%

As for students from mainstreamed public schools, 35% of the respondents did consider going to Gallaudet University or National Technical Institute. From residential schools, 57% of the respondents considered these colleges (See Table 5). This case may be due to the fact that residential schools retain the Deaf Culture and promote deaf colleges more than the mainstreamed schools do.

Table 5. Students considering Gallaudet University or National Technical Institute for the Deaf by type of high school attended

	Public Schools		Residential Schools		Other	
	N	%	N	%	N	%
No	38	63%	12	43%	2	50%
Yes	21	35%	16	57%	1	25%
No Response	1	2%	0	0%	1	25%
Total	60	100%	28	100%	4	100%

Subjects were asked their reasons for attending the specific college they had chosen. They responded with a variety of answers. For the sample as a

whole, the majority of subjects reported that they wanted to be in both hearing and deaf worlds in their chosen colleges. Most of the Golden West deaf subjects' reasons concerned living close to school and wanting to be with both hearing and deaf students. For the Ohlone College sample, being enrolled with deaf friends was listed as the main reason. Most of the CSUN deaf subjects said that a major factor in coming to the university was a desire to associate with both hearing and deaf students. CSUN deaf subjects said parents wanted them to go to this university and being close to home was an important factor.

Job Status

Section D of the survey was entitled "Your Job" and was designed to find out whether or not the subjects were working and going to school at the same time. Subjects were asked whether or not they were working, and if so, whether the job was related to a career goal or financial need. For the whole sample, 64% of the subjects were not employed. Out of the 36% who were employed, 58% cited the need for financial support, while 42% said their job was related to a career goal (See Tables 6 and 7).

At Golden West College, 64% of the subjects said that they were not employed. Of the few who were working, most listed the need for financial support rather than a job related to a career goal. At Ohlone College, 71% of the subjects were not employed. Again, of the few who were working, most listed the need for financial support rather than a job related to a career goal. At CSUN, as was the case with the other two groups, more subjects were unemployed than employed. Of those who did have a job, most worked fewer than ten hours a week. A difference between the CSUN group and the others was that of the 14

employed subjects, 57% saw their jobs as being related to career goals rather than need.

Table 6. Subjects who work while attending college

	Total Sample	
	N	%
No	59	64%
Yes	33	36%

Table 7. Reasons given for working among subjects who work

	Total Sample	
	N	%
Job related to career goal	14	42%
Job to support yourself	19	58%

College Services

Section E of the survey was entitled "Your College" and was designed to find out how much the deaf subjects knew about their college support services and to what extent they used the services. Other questions in this section were designed to find out how much social involvement students had with other deaf and/or hearing students. The support services mentioned in this section were: notetaking, interpreting, tutoring, personal counseling, and academic advising. Deaf subjects were asked to identify which support services were available to them, how often they were used, and how they rated the support services. A separate question asked about the activities that deaf subjects were involved in on campus and whether they were involved in extra-curricular activities with other

deaf and/or hearing students at their college or in their local community. Finally, subjects were asked about social activities involving hearing students and deaf students on campus.

At Golden West College, all of the services listed on the survey (notetaking, interpreting, tutoring, personal counseling and academic advising) were in fact available. However, a significant percentage of the deaf students in this sample was not aware that all services were available (See Figures 8 and 9). The service that most deaf subjects were unaware of was tutoring. This was also the service used least. Most of the deaf subjects who used the tutoring service rated it as either "good" or "O.K." No one rated it "very poor." None of the services were rated "very poor" by any of the deaf subjects. The most heavily used services were notetaking and interpreting. At Ohlone College, notetaking appeared to be the support service of which the deaf subjects were least aware. For Ohlone College deaf subjects, interpreting and academic advising were the services most utilized. Least used services were notetaking and tutoring.

At CSUN, the deaf subjects seemed to be much more aware of the support services available at their college. Most of the services were used by most of the deaf subjects at CSUN. In addition, most of the services were rated as very good or good in quality. The lowest level of satisfaction appeared to be with the tutoring services. Interpreting was rated slightly higher than personal counseling or notetaking services.

For the sample as a whole, it was found that interpreting was the service used most and also given the highest ratings (See Figures 8 and 9). Tutoring was the service used the least often and was given generally lower ratings (Table 8). As for interpreting service, it has appeared that the three colleges are

Figure 8. Students' awareness of availability of support services at three different colleges

Figure 9. Overall rating of services

meeting the students' needs and there are sufficient interpreters on all campuses. As for tutoring service, it has appeared that it needs to be improved on and the college students need to be more aware that this service is available for their use.

Table 8. Usage of support services

GWC				
	N	S	A	NR
Notetaking	0%	50%	32%	18%
Interpreting	0%	43%	43%	14%
Tutoring	11%	29%	7%	53%
Personal Counseling	11%	50%	11%	28%
Academic Counseling	4%	39%	11%	46%

OHLONE				
	N	S	A	NR
Notetaking	3%	24%	0%	73%
Interpreting	14%	45%	10%	31%
Tutoring	31%	17%	0%	52%
Personal Counseling	18%	34%	14%	34%
Academic Counseling	7%	41%	14%	38%

CSUN				
	N	S	A	NR
Notetaking	0%	71%	26%	3%
Interpreting	9%	46%	40%	5%
Tutoring	17%	71%	0%	12%
Personal Counseling	9%	51%	14%	26%
Academic Counseling	9%	86%	0%	5%

Legend	
N	= Never
S	= Sometimes
A	= All the time
NR	= No response

For the sample as a whole, subjects were asked if they were involved in activities with other deaf students (and also hearing students) at their colleges or in the local community. Fifty percent of respondents reported involvement with

other deaf students and 23% with hearing students. The results suggests that there is a low frequency of interaction between deaf and hearing students in these three mainstreamed colleges (See Figure 10). The Golden West subjects were evenly divided between those who participated in activities with other deaf students and those who did not. The Deaf Club, Silent Rustlers, volleyball, and basketball were listed as the most frequent extra-curricular activities. At Golden West College, only a few deaf subjects stated that they participated in activities with hearing students. At Ohlone College, the deaf subjects participated in sports, class offices, Task Force for Deaf students, and Ohlone Deaf International Club. Several deaf subjects who answered the question about participation in extracurricular activities with hearing students stated that they were not involved in many of the activities.

Seventy-seven percent of the CSUN subjects reported participation in extra-curricular activities on the Northridge campus. Most of them also reported weekly participation in these activities. In addition to activities for deaf subjects, mainstreamed activities such as involvement in sports, the Big Brother Program, and homecoming planning were listed. However, most of their non-classroom involvement in campus affairs was with other deaf students. Only 29% were engaged in extracurricular activities with hearing students.

Demographic Data

Section F of the survey was entitled "Personal Information" and was designed to gather information about age, gender, marital status, race, cause of deafness, and parents. Other questions in this section dealt with the subjects' college standing and preferred mode of communication. Subjects were asked to

Figure 10. Participation in activities at three different colleges

list what their class level was according to the number of credits they had earned. They were also asked how many years they had been in college. They were then asked to rate certain factors that may have influenced their decision to attend the college in which they were presently enrolled. If they planned on staying in this college, they were asked what their reasons for doing so were. On the other hand, if they were thinking about leaving this college, they were asked what would be the major reason for doing so and what would it take for them to be convinced to stay on in the program.

Of the total sample of 92 deaf students who served as subjects in this survey, the average age was 21. Fifty-one of the deaf subjects were males and 41 were females. Only two of the 92 were married and one was divorced. The cause of deafness was listed as unknown for approximately 47% of the subjects. Rubella was the cause for about 20% of the subjects. The other causes listed consisted mainly of various illnesses with high fevers and one accident. The large majority of subjects did not have a deaf parent. Of the 92 deaf subjects, only three had deaf mothers and two had deaf fathers. Fifty-four percent of the subjects were white, 17% Hispanic, 12% Asian, and nine percent black (See Table 9). A majority were in their first two years of college (freshmen) or were about to graduate (seniors). (See Table 10). For the sample as a whole, the preferred mode of communication was ASL (48%), followed by PSE (32%).

In answer to the question "What year are you in college?" and "How many years have you been attending?" of the total sample, 28% reported attending college four years or more, which is also followed by 27% for one year of college. The reason for the number of freshmen and sophomores being so large is that the community college is a two-year program while there was only one four-year

Table 9. Demographic information for total sample of 92 deaf subjects

Age	Total Sample	
	N	%
18	5	5%
19	10	11%
20	13	14%
21	22	24%
22	12	13%
23	8	9%
24	18	20%
NR	4	4%

Cause of deafness	Total Sample	
	N	%
Unknown	43	47%
Rubella	18	20%
Illness	26	28%
Accident	1	1%
Other	4	4%
NR	0	0%

Gender	Total Sample	
	N	%
Male	51	55%
Female	41	45%

Marital Status	Total Sample	
	N	%
Married	2	2%
Single	89	97%
Divorced	1	1%

Race	Total Sample	
	N	%
Hispanic	16	17%
Black	8	9%
Asian American	11	12%
White	50	54%
Other	7	8%
NR	0	0%

university represented in the sample. At Golden West, the deaf students were divided approximately in halves, as 15 were freshmen and 13 were sophomores. Concerning length of attendance at Golden West College, ten of those surveyed had attended college for one year, while eight said that they had attended four or more years of college. The other ten deaf subjects had attended two or three years of college (See Table 11).

Twelve of the Ohlone College respondents were freshmen, 12 were sophomores and five did not answer the survey question. Concerning length of attendance at Ohlone College, eight of those surveyed had attended college for one year, while 17 said they had attended two or three years. The other four had been in attendance four or more years (See Table 10).

Table 10. Year in college

	Total Sample	
	N	%
Freshman	37	40%
Sophomore	30	33%
Junior	3	3%
Senior	16	17%
No response	6	7%

Table 11. Years of college attendance

	GWC		OHLONE		CSUN		TOTAL SAMPLE	
	N	%	N	%	N	%	N	%
1	10	36%	8	28%	7	20%	25	27%
2	4	14%	12	41%	5	14%	21	23%
3	6	21%	5	17%	6	17%	17	18%
4 or more	8	29%	2	7%	16	46%	26	28%
No response	0	0%	2	7%	1	3%	3	3%
Total	28	100%	29	100%	35	100%	92	100%

In the CSUN sample (the only four-year institution in the study), almost half were seniors. The next largest representation was from the freshman class. Only a few of the deaf subjects who answered the questionnaire at CSUN were sophomores or juniors. As to length of attendance at CSUN 16 had been in school for four years or more while seven had attended for only one year. The remaining 11 had been attending for two to three years (See Table 10).

For the sample as a whole, 48% of the subjects listed the use of American Sign Language as their preferred mode of communication while 32% preferred Pidgin Signed English and seven percent preferred Signing Exact English. Sixteen of the subjects from Golden West listed the use of American Sign Language, while six listed Pidgin Signed English with only two using Signing Exact English as their preferred mode of communication. Most of the Ohlone College subjects stated that the American Sign Language was their preferred mode of communication. No one at Ohlone selected Signing Exact English. Nearly half of the CSUN deaf subjects listed Pidgin Signed English as their preferred mode of communication in contrast to the two community college samples. Seven reported American Sign Language as their preferred communication mode. Four listed Signing Exact English. One student reported speaking skills and one said that he/she was learning ASL at CSUN (See Figure 11). These results reflect the fact that the CSUN sample was the most mainstreamed in high school as 33 out of 35 deaf subjects attended public high schools.

All subjects were asked to rate the factors that influenced them to attend their particular college and stay in that college. Of the total sample, 62% reported the reason for staying in that college was that "the interpreters/support

Figure 11. Preferred mode of communication

services are good." The next two top reasons were "there are many activities for deaf students" and "I can afford it." The Golden West deaf subjects chose "low tuition cost" and an "excellent program for your major" as the most influential factors. The most often selected reason for remaining at Golden West College was the quality of the support services available. All of the other factors listed appeared to be nearly as important, however. The most frequently cited reason for leaving Golden West was to transfer to a four- year university. Several deaf subjects remarked that if GWC were a four-year school, they would stay (See Table 12).

Table 12. Reasons for remaining at present college

Note: Percentages do not add to 100% because subjects could select more than one alternative

	GWC		OHLONE		CSUN		TOTAL SAMPLE	
	N	%	N	%	N	%	N	%
A	16	57%	14	48%	27	77%	57	62%
B	12	43%	13	45%	12	34%	37	40%
C	11	39%	14	48%	14	40%	39	42%
D	12	43%	10	34%	21	60%	43	47%
E	11	39%	10	34%	16	46%	37	40%
F	3	11%	5	17%	9	26%	17	18%
NR	1	4%	2	7%	2	6%	5	5%

A = the interpreters/support services are good

B = the teachers are sensitive to deaf students' needs

C = I can afford it

D = there are many activities for deaf students

E = the hearing people here are friendly

NR = no response

When the factors which influenced attendance at Ohlone College were analyzed, "cost" was rated as having the least influence. Attendance of friends and a high school teacher's encouragement were listed as the most influential.

The top three rated reasons for staying at Ohlone were “I can afford it,” “the teachers are sensitive to deaf students’ needs” and “the interpreters/support services are good” in descending order. The least important reasons for staying in college were “there are many activities for deaf students” and “the hearing people here are friendly” (See Table 11).

The deaf subjects listed the cost of the institution and the fact that friends were attending the same college as low factors in their decision to select CSUN for attendance. The most important reason for attending CSUN was due to their parents’ encouragement. The next most important factor was the quality of the program available for their intended major. The third leading factor was the availability of a variety of activities for deaf students. The least cited reason was the sensitivity of the teachers to the needs of deaf students. However, it must be remembered that ten people did list this item as a positive factor in remaining at CSUN. Most of the deaf subjects planned to graduate from CSUN. A number expressed a desire for a graduate degree.

Problems/Issues

Section G of the survey was entitled “Problems/Issues” and was designed to find out what particular problems deaf subjects were experiencing in college. The list of problems and issues included: money for tuition, money for expenses, relationships with deaf students, relationships with hearing students, participating in college/social activities, tutoring, communication with professors, and communication with interpreters. Subjects were asked to rate each problem or issue on a scale from zero (no problem), to three (a big problem).

For the sample as a whole, money for expenses seemed to be the biggest problem, while communication with interpreters posed the least problem (See Table 13). Most subjects, however, did not rate any of the issues as much of a problem. It seems that as a group, these deaf students report very few problems.

Table 13. Ratings of problem areas

Ratings of problem areas

(0 = no problem; 1 = a small problem; 2 = somewhat of a problem; 3 = a big problem)

	Total Sample Average Rating
a) money for tuition	0.4
b) money for expenses	1.0
c) relationships with deaf student	0.6
d) relationships with hearing students	0.6
e) participating in college/social activities	0.6
f) tutoring	0.4
g) communication with professors	0.7
h) communication with interpreters	0.3

At Golden West College, among the potential problem areas, communication with interpreters was the smallest problem. Each rating was weighted and averaged by the number of respondents. The biggest problem seemed to be money for expenses closely followed by relationships with other deaf students. At Ohlone College, none of the Ohlone deaf subjects rated any of the possible problems as "a big problem." Participation in social activities and money for expenses were most frequently listed as somewhat of a problem.

Communication with interpreters was seen as the least important of the problems listed.

At CSUN, most of the possible problem areas listed on the survey were rated as "no problem" by the majority of the Northridge deaf subjects completing the survey. Money for expenses was cited as a big problem for five of the 35 deaf subjects and somewhat of a problem for eight of these deaf subjects. Tutoring was generally regarded as "a small problem."

Summary

At the beginning of this study, two hypotheses were set forth. The researcher expected to find that 1) deaf students who had more contact with deaf adult educational staff members would have more information about college programs for the deaf than students in more mainstreamed programs who had less contact with deaf adults, and that 2) neither group receives indicate sufficient information early enough to make informed decisions. The results of the survey indicated that hearing parents, not deaf teachers, were the major influence in college decisions. In addition, a majority of the deaf subjects reported receiving college information during or before their sophomore year in high school.

Important findings in this present study are: the relatively low influence of deaf role models; the fact that few deaf students have deaf parents; the fact that most subjects learned about college programs early in their high school careers; and the fact that parents have the most influence on their deaf children's desire for a college education.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of the present study was to explore the factors which influence deaf subjects to attend and remain in college through graduation. Surveys were used to collect data from deaf students at three mainstreamed colleges. Of 105 surveys distributed, 92 were returned. The survey included questions concerning high school background, influential persons, knowledge of college options, college experiences, and satisfaction with college services.

Two hypotheses were tested: (1) that deaf students who had more contact with deaf adult staff members at the high school level would have more information about college programs for the deaf than students in more mainstreamed programs who had less contact with deaf adults, and (2) that neither group receives sufficient college information early enough to make informed decisions.

When all of the responses by students at all three of the schools were totaled, the person who was by far the most influential in the decision to attend college was a family member. However, the Golden West sample named friends or classmates as being slightly more influential than family members. The CSUN group selected a family member as most influential in a much larger percentage than either of the other colleges. For all three groups, parents and counselors were the most helpful with college plans.

Woodrick and Petty's (1988) study suggested that guidance counselors and teachers had the major responsibility for helping high school deaf students

explore their educational options for postsecondary education. In contrast, the present study suggests that family members (usually parents) tend to be the most influential factor in deaf students' exploration of educational options. The results indicated that, for the most part, hearing parents, not deaf teachers, were the major influence in college decisions. This finding replicates that of Quintana (1982) at CSUN in which 62.9% of mothers and 51.9% of fathers were cited as impressing the value of a good education on their young adult children.

A majority of the subjects in the present study report receiving college information during or before their sophomore year in high school. There is a significant percentage of students in the sample that did not get college information until their junior year in high school or later. This suggests there is still a need to make sure all students receive appropriate information early enough for it to make a difference. When asked to explain why they decided to go to college, most of the deaf subjects made statements concerning the value of a good education in general terms. Other results indicate that a large majority of the postsecondary deaf subjects felt counselors and parents were particularly helpful in actual planning for college. Of the four groups mentioned in this item (parents, counselors, deaf adults, and teachers) deaf adult role models in the community had much less influence than any of the other three groups. The results suggest a need for deaf adults to take a more active role in the lives of deaf young people by keeping involved in the community and the schools. Teachers, as deaf role models, have a particularly important

responsibility to share their expertise with their deaf students. Information such as how they received college information, planned their college years, contacted the right sources about a particular major, studied for placement exams, and so forth can be crucial.

Although more than half of the sample reported never considering attendance at Gallaudet University or National Technical Institute for the Deaf, students who attended state secondary schools for the deaf were more likely to consider application to Gallaudet than students who attended mainstreamed high schools. These results suggest that deaf high school students are more likely to consider application to Gallaudet and other non-mainstream colleges when their exposure to deaf classmates, deaf friends, deaf relatives, and deaf staff members is more concentrated. Students from residential schools were more likely to know about Gallaudet and NTID than those from mainstreamed schools. Gallaudet University has become the heart of the U.S. Deaf Culture and an important element of the Deaf Community. Students who are mainstreamed in high school may well feel less identification with the Deaf Community.

The students surveyed were asked about their nonacademic activities with hearing and deaf students on campus. The majority of subjects at the two junior colleges reported that they were not involved in any activities with other deaf students. In contrast, 77% of the CSUN students responding to the survey reported participation in extra-curricular activities with other deaf students. It

should be noted that most of the CSUN sample were seniors. Since they had been in college longer and had progressed toward a four-year degree, they had a longer time period in which to participate and perhaps a stronger motivation. Perhaps the community colleges do not offer attractive nonacademic activities for deaf students, or perhaps these particular deaf students maintained their own interests off-campus. The results suggest that the longer a student remains in college, the more likely they are to participate in extra-curricular activities with other deaf students.

More students from mainstreamed high schools use PSE versus ASL than those from residential schools. This could also affect their communication with hearing students. In the Deaf Culture, ASL is the primary language and so is most used in the residential schools. In mainstream schools, English is more emphasized and so PSE is often the preferred sign language.

The social barriers to deaf children and adults continue to be enormous. Very few hearing persons know sign language and mutually understood communication is a prerequisite to any interpersonal relationship. This may be due to a barrier in communication and to the fact that with many other deaf students at a college, it is less necessary to form friendships with hearing students. It is easier to avoid the difficulties of attempting communication with hearing students.

For the sample as a whole, 23% reported involvement in campus activities with hearing students. There was no difference in this type of

interaction between students who had previously attended schools for the deaf and those who had been enrolled in mainstream high schools. The overall results do suggest, however, that lack of involvement in campus activities with hearing students is a common problem. Deaf students often have strong bonds to the Deaf Community with which they share common values and language. These bonds may interfere with deaf students' ability to take advantage of the mainstream culture.

Eight potential problem areas for deaf college students (money for tuition, money for expenses, relationships with deaf students, relationships with hearing students, participation in social activities, tutoring, communication with professors, communication with interpreters) were examined on the questionnaire. Deaf subjects were asked to rate to what extent, if any, each area was a problem for them. No area was cited as being a particularly big problem for a majority of the respondents. No one listed tutoring as a major problem. Only three students felt money for tuition was a major problem. Money for expenses and for participation in social activities were the areas most seen as problems by subjects at all three colleges sampled. They were also mentioned most by subjects who attended high schools for the deaf. These results suggest that although many deaf students are receiving supplementary income from families or the government, they still do not have much to spend on expenses or participation in social activities. Inadequate funds and lack of time

may be additional explanations for deaf students' low levels of participation in extra-curricular activities.

It may be noteworthy that at all three schools surveyed, there were many more deaf students without jobs than those who were employed. This is no longer the case for hearing students in many colleges. Walter (1991) commented that there were not enough deaf students working in addition to their studies to accurately judge how they were integrating into the mainstream job market. At the two community colleges in this sample, those who were employed tended to have jobs which were not related to their career goals. At CSUN, a few more held career related jobs than did not. Since many of the CSUN students responding were seniors, career related jobs would probably be more available to them.

There were a number of surprises in the results of this survey. What was especially surprising to this researcher was the low influence of deaf role models from the community. A surprisingly low number of the deaf subjects had a deaf parent. A higher percentage of the deaf subjects had attended a mainstreamed high school than was expected. The deaf subjects seem to have been more influenced by their parents and friends, which shows that in this respect, the deaf students are very like hearing students.

Many deaf subjects learned about college programs for the deaf early in their high school careers. This would seem to indicate that opportunities for a college education are being communicated better than had been hypothesized.

Further Research

Further attempts need to be made to isolate factors which influence deaf students' choices concerning college or university education. The parental influence is recognized as a very strong factor in this study and this needs to be assessed into new areas. Some areas not addressed by the current study which might be considered are: 1) the relation between the level of education or occupation of the parents of deaf students and the students' college choices; 2) the relation between deaf students' parents' socioeconomic level and their college aspirations; 3) why the hearing parents of deaf students seem to be so much more influential as role models than deaf adult teachers and counselors; 4) whether deaf students in mainstream versus segregated colleges have different attitudes and experiences; 5) what majors are being chosen by deaf students; 6) deaf students' career maturity; and 7) whether the size of the deaf student population relative to the hearing population has an effect on the experiences and satisfaction of deaf students.

In terms of improvements to the current study's design, a larger sample with a more nearly equal number of students from high schools for the deaf and mainstream high schools might have yielded more generalizable results and comparisons between the two groups. The number of students in the current sample who attended schools for the deaf was only half the number of mainstreamed subjects. Conclusions drawn about possible differences between the two groups must be interpreted with caution.

As students with handicapping conditions become better and better integrated into mainstream American society, it behooves teachers, counselors, and advisors of all kinds to keep themselves informed about the needs of special populations and the opportunities that are opening up everyday. The current research looked at the experiences and needs of a sample of 92 deaf students in three California colleges. Results indicated that these students generally were informed about college opportunities before their sophomore year in high school, but that those most influential in their planning were parents rather than teachers or counselors. This suggests efforts to increase the college attendance rate of deaf students might well be directed at parents, as well as the students and their counselors and teachers.

Other results point to the relative isolation of deaf students on mainstream college campuses and suggest that in addition to the services (like interpretation and tutoring) normally provided by colleges for deaf students, some sort of social counseling or activity services might be beneficial.

Finally, while it seems clear that deaf students who are currently in college had sufficient motivation and counseling to get them there, there are many more young deaf adults who are not in college and so who are precluded from many mainstream opportunities and careers. A great deal more research needs to be done to determine how best to encourage higher proportions of young adults with various handicaps to enter college and participate in the mainstream.

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APPENDIX A

September 24, 1991

Dear (),

As you recall in our conversation last month, you agreed to administer survey to your students. The survey are now ready!

I appreciate your taking the time to administer this survey. This research may benefit future deaf college students. I am excited to receive the completed surveys so I may find out what factors have influenced your students.

Their names will not be needed, as the answers are to be kept confidential. All I need is their answers to the survey. Perhaps their answers on the survey will help the future deaf college students.

Enclosed are directions on how to administer this survey to your students. Please let me know if you have questions regarding this matter. I can be reached at (510) 797-3427 during the evenings.

I will be glad to share the results with you after the research is complete. I will send it to you at your college.

Thank you,

Brenda Call

Directions:

1. Deaf students must be currently registered at this college.
2. If students do not understand questions on the survey, you may clarify them at the time.
3. The survey takes approximately half an hour. The pilot study was done to investigate its timing and content.
4. Enclosed are 30 surveys to be filled out by students. There are five extras if needed.
5. Please return completed surveys by U.S. Mail Express. I will immediately reimburse you for the expense. Please try to complete administering the surveys by October 11, 1991.
Thank you!

APPENDIX B

September 24, 1991

Dear Student,

Hello! My name is Brenda Call. I am a deaf graduate student attending San Jose State University.

I am doing a research on deaf college students. The purpose of this research is to find out what influences deaf college students like you to go to college and stay in college.

I appreciate your taking the time out to fill out this survey. This research may benefit future deaf college students. I am excited to receive your survey back so I may find out what factors have influenced you.

Your name will not be needed as the survey results are confidential. All I need is your answers to the survey. Perhaps your answers on the survey will help future deaf college students.

I am happy to share the results with you after the research is complete. I will send the results to your administrator at your college. You can expect the results in two months.

Thank you,

Brenda Call

Survey of Deaf College Students

A. YOUR HIGH SCHOOL

- 1) For each high school you attended, please give information in each category below.

High School Name & City (fill in)	No. years attended (circle one)	Kind of School (circle one)	What % of classes were you with hearing students ? (circle one)
	1 2 3 4	Deaf School Hearing School	0% 25% 50% 100%
	1 2 3 4	Deaf School Hearing School	0% 25% 50% 100%
	1 2 3 4	Deaf School Hearing School	0% 25% 50% 100%

B. THE PERSONS WHO INFLUENCED YOU

- 1) During high school, whose encouragement most influenced you to go to college?

(Check only one)

- ___ a) a deaf adult (role model in the Deaf Community)
 ___ b) a teacher
 ___ c) a family member: (please specify i.e. father/mother) _____
 ___ d) a friend or classmate
 ___ e) a school counselor
 ___ f) other (who?) _____

- 2) What reasons or information did this person(s) give that helped you decide on going to a college? (e.g. information about college services, expectation of better jobs,...)

C. COLLEGE AWARENESS and PLANNING

- 1) When did you first learn about colleges for deaf students? (i.e. Gallaudet University, National Technical Institute for the Deaf) (circle one)
- a) before high school
 - b) Freshman year in high school
 - c) Sophomore year in high school
 - d) Junior year in high school
 - e) Senior year in high school
 - f) after I graduated from high school
- 2) When did you first learn about mainstream colleges with support services for deaf students ? (e.g. Golden West College, Ohlone College, CSUN) (circle one)
- a) before high school
 - b) Freshman year in high school
 - c) Sophomore year in high school
 - d) Junior year in high school
 - e) Senior year in high school
 - f) after I graduated from high school
- 3) **How** did you learn about colleges for the deaf and colleges with support services? I learned from: (Check **all** that are true for you)
- ___ a) a high school teacher
 - ___ b) a high school counselor
 - ___ c) my parents
 - ___ d) my deaf friends
 - ___ e) catalogues in the library
 - ___ f) catalogues that I sent away for
 - ___ g) other: _____

4) What are your reasons for attending college?

(Check **all** that are true for you) Please rank your reasons for attending college from 1 - most important reason to 6 - least important reason.

		Ranking:
☐	a) I need a degree for the job I want	____
☐	b) My parents want me to go	____
☐	c) My friends and I agreed to go to college together	____
☐	d) My sweetheart is going to college	____
☐	e) A college education will help me know more	____
☐	f) Other: _____	____

5) Who helped you with your college plans? (Check **all** that are true for you)

- ☐ a) no one
☐ b) my parents
☐ c) my counselor
☐ d) a Deaf adult
☐ e) a teacher
☐ f) other: _____

6) Did you ever think about going to Gallaudet University or National Technical Institute for the Deaf?

- a) No
 b) Yes If yes, why? _____

7) Why did you decide to go to this college where there are both deaf and hearing students?

D. YOUR JOB

1) Are you working now?

- a) no
b) yes

If yes, kind of job: _____

How many hours each week do you work? (Check one)

- _____ fewer than 10 hours a week
 _____ 10 to 20 hours a week
 _____ 20 to 30 hours a week
 _____ 30 hours or more

2) If you are working, is your job related to your career goal or are you working mostly to support yourself? (Circle one)

- a) career goal
b) support myself

E. YOUR COLLEGE

1) At your college, which services are available and which have you used?

Service	Available (yes or no) (circle one)	how often used this year (circle one)	Rating of services (circle one)
A) notetaking	Yes No	Never Some of my classes All of my classes	Very Good Good Ok Poor Very Poor
B) Interpreting	Yes No	Never Some of my classes All of my classes	Very Good Good Ok Poor Very Poor
C) tutoring	Yes No	Never Some of my classes All of my classes	Very Good Good Ok Poor Very Poor
D) personal counseling	Yes No	Never 1-3 times a semester more than 3 times a semester	Very Good Good Ok Poor Very Poor
E) academic advising	Yes No	Never 1-3 times a semester more than 3 times a semester	Very Good Good Ok Poor Very Poor

2) Are you involved in activities with other **deaf** students at your college or in the local community? (e.g. SBG, Deaf Club, Sports,...)

- a) No
b) Yes

If yes, list activities: (fill in)	How often? (circle one)
1)	at least once a week or more at least once a month or more at least 2-5 times a year less than twice a year
2)	at least once a week or more at least once a month or more at least 2-5 times a year less than twice a year

3) Are you involved in activities with **hearing** students at your college?
(e.g. sports, Student Body Government, cheerleading, ...)

- a) No
b) Yes

If yes, list activities: (fill in)	How often? (circle one)
1)	at least once a week or more at least once a month or more at least 2-5 times a year less than twice a year
2)	at least once a week or more at least once a month or more at least 2-5 times a year less than twice a year

- 5) Please rate the following factors according to their influence on your decision to **attend this college**. Use a scale that goes from zero (0) no influence to three (3) very strong influence.

	<i>no influence</i>	<i>a little influence</i>	<i>some influence</i>	<i>a lot of influence</i>
a) excellent program for your major	0	1	2	3
b) friends and/or classmates from high school are attending	0	1	2	3
c) cost	0	1	2	3
d) parents' encouragement	0	1	2	3
e) high school teacher's encouragement	0	1	2	3
f) other: _____	0	1	2	3

- 6) If you plan on **staying** at this college, what are the reasons? (Check all that are true for you)

- ☐ a) the interpreters/support services are good
☐ b) the teachers are sensitive to deaf students' needs
☐ c) I can afford it
☐ d) there are many activities for deaf students
☐ e) the hearing people here are friendly
☐ f) other: _____

- 7) If you are thinking about **leaving** this college, what is your major reason and what would it take to convince you to stay?

G. PROBLEMS/ISSUES

- 1) How much of a problem is **each** of these for you?

	<i>no problem</i>	<i>a small problem</i>	<i>somewhat of a problem</i>	<i>a big problem</i>
a) money for tuition	0	1	2	3
b) money for expenses	0	1	2	3
c) relationships with deaf students	0	1	2	3
d) relationships with hearing students	0	1	2	3
e) participating in college/social activities (e.g. intramural sports, SBG, cheerleading, dances...)	0	1	2	3
f) tutoring	0	1	2	3
g) communication with professors	0	1	2	3
h) communication with interpreters	0	1	2	3