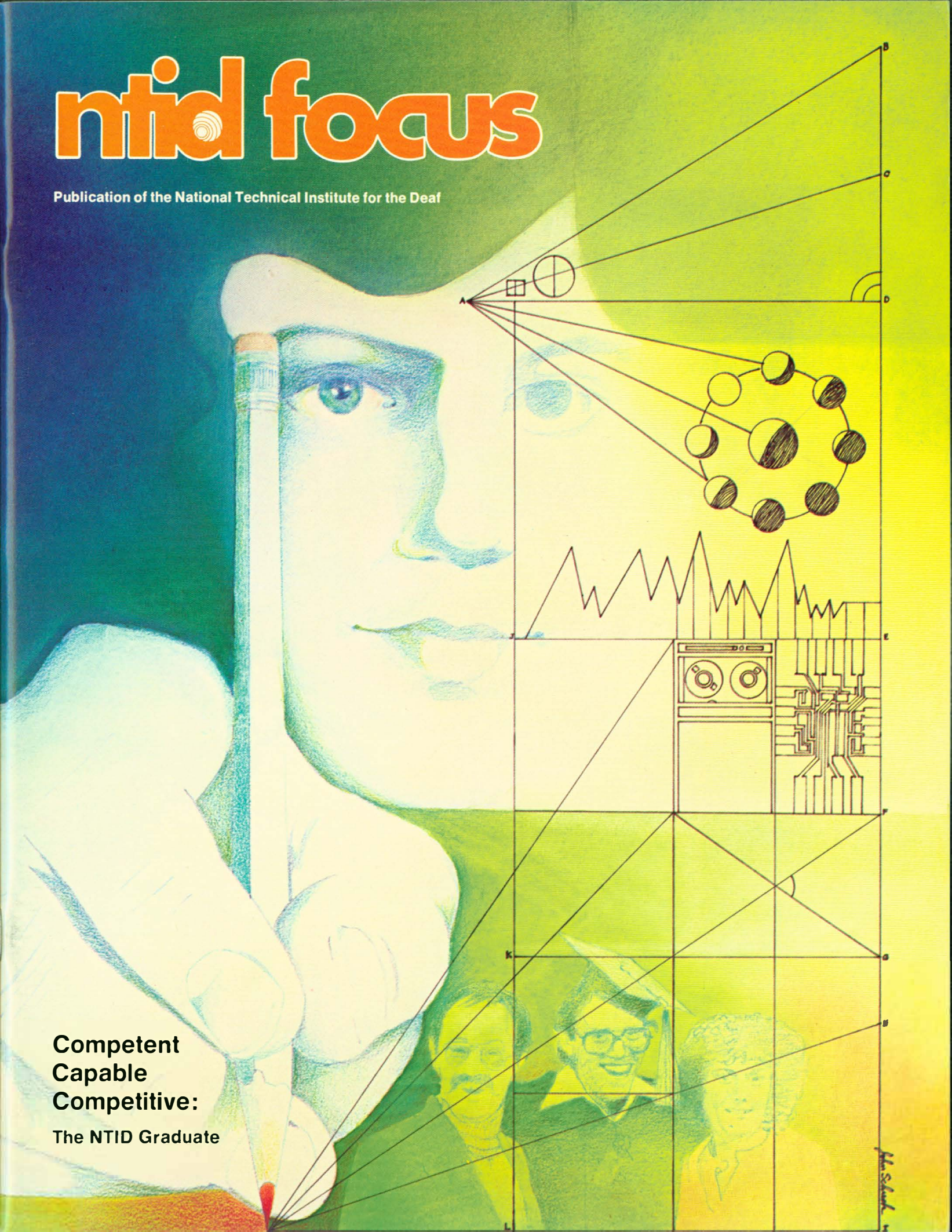


ntid focus

Publication of the National Technical Institute for the Deaf



**Competent
Capable
Competitive:**
The NTID Graduate

M. S. ...

An Overview

Employment development (fostering good relationships with potential employers of NTID graduates) and career placement (finding the best match between employers and NTID graduates) are two important NTID aims and the themes of this issue of Focus.

These two processes take on even greater significance when considered in connection with our graduates' real-world future and other NTID goals.

NTID's current graduates' most productive years will extend beyond the year 2000, and those who come to study after them will live and work well into the 21st century. If we are to be guided by trends, we must recognize the present as a time of challenge, when we must intensify our determination and efforts to prepare young deaf people for future independent living in an increasingly complex world.

The pace at which change has occurred during the past 25 years is expected to accelerate even more in the future; the demands on adults' coping abilities are likely to intensify; and problem-solving situations will multiply in association with concerns such as individual rights, common good, authority, welfare, loyalty, work, ethics and leisure.

In the context of our graduates' real-world future, the value of NTID—with its three-fold purpose of 1) service to students, 2) research and 3) training—will become even more evident.

Employment development and placement have been and will continue to be key objectives in serving our students. We have been particularly successful in achieving these goals since the outset of our efforts, and one reason for this success may be that we have recognized employment development and career placement as a part of a broad process continuum that we call "career development." This process of gathering ideas and forming opinions about careers begins before students enter NTID, and it continues throughout their working lives. As details of this issue point out, while students are at NTID they are participants in only a brief but intensive stage of the lifelong career development process.

Much remains to be learned about how to prevent unnecessary pitfalls that may undermine reliable career preparation. Hence, we view research as a major thrust in NTID's overall efforts.

Research is significant to employment development and placement in terms of: a) application of findings to secondary and elementary education; b) NTID's curriculum planning; and c) sharpening our own approaches to future employment development and placement activities. For example, research can provide us with indicators concerning: results of our education and training approaches to career preparation; the success of our graduates at the employment entry point; and their subsequent success over time.

NTID's training and information dissemination functions also support a wide range of institute activities, including employment development and placement. Through training and information dissemination, NTID can share what it learns, thus making innovation and advancement in teaching, learning and communications skill development available to other post-secondary, secondary and elementary educators and to other professionals dealing with deaf persons. Training and information programs can also help employers do a better job of adapting the work environment to the deaf employee.

Successful outcomes of all these activities substantially benefit deaf people throughout the nation—whether or not they have been students at NTID. As NTID gains more experience and maturity, it can improve and refine these functions and processes even further, and the result will be one of great personal achievement on the part of each deaf person.

Moreover, society as a whole also benefits importantly from these interrelated activities. Society gains particularly from the contributions of independent, self-supporting, self-respecting citizens who have overcome the threat of a long-term dependency status.



Dr. Robert Frisina

National Technical Institute for the Deaf

NTID is the only national technical college for the deaf.

It is **national** in the sense that it was created by the federal government and was designed to provide educational opportunities for qualified students from every state in the nation.

It is **technical** because it trains students for careers in technological areas.

It is a **college** because it provides educational opportunities in a post-secondary environment.

It is **for the deaf** in that it serves people with substantial hearing impairments. Also, in order to teach this special clientele, curriculum and classes have to be designed and/or adapted with the special needs of the deaf in mind.

NTID was created because the deaf population has been underemployed or unemployed historically. It was clear that educational opportunities for the deaf were needed in technical fields; and many people felt that, if given specialized training, the deaf could succeed in many technical careers.

NTID is:

a **public law**—89-36 to be exact. It was established by an Act of Congress and is funded through the U.S. Department of Health, Education and Welfare.

located in Rochester, New York, on the 1,300-acre campus of Rochester Institute of Technology.

part of RIT. It is one of the nine colleges of RIT, just like the College of Business or the College of Engineering.

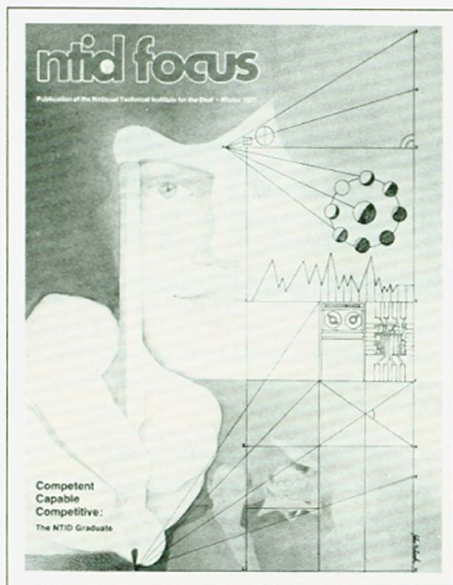
unique. Having NTID as part of RIT is the first effort to educate large numbers of deaf students within a college campus planned primarily for hearing students. It is the only one of its kind nationally or internationally.

young. It was established in 1965, and after several years of planning, programs began in 1968.

growing. The first group of 71 students enrolled at NTID in the academic year 1968-69. The 1976-77 average full time enrollment of 740 students will represent almost every state in the nation.

exciting. NTID is reversing major trends for the employment of the deaf. To date, 95 percent of NTID's graduates seeking employment have found jobs. Ninety-four percent have been hired in jobs at a level equal to their training; and 84 percent have been hired in business and industry.

searching, creative and changing. Nothing keeps a place more alive and dynamic than the energy and spirit of faculty, staff and students who are able to be creative and imaginative.



Artist John Schreck, an RIT graduate, presents his impressions of the "competent, capable, competitive" NTID graduate.

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Career Placement

An interview with Vic Maguran

Focus magazine recently interviewed the director of NTID's Department for Career Opportunities, Vic Maguran.

Prior to joining NTID in 1971, he was supervisor of education and training for Ford Motor Company and a part-time instructor at Henry Ford Community College, Dearborn, Mich. Mr. Maguran uses his insight and knowledge of business and industry in supervising NTID operations in: career placement; the development of employment opportunities for the deaf nationwide; and occupational research. He also supervises the student recruitment and admissions activities at NTID.

He is a graduate of Florida Atlantic University, where he earned his bachelor's degree in personnel management and his master's degree in human behavior.

What is the traditional employment history of the deaf in the United States?

At the turn of the century in the United States, jobs called for workers to provide physical labor or to be trained in a trade or a semi-skilled occupation. Deaf people were found working in mills, foundries and other similar industries. Deaf people were carpenters, shoemakers, seamstresses, farmers, cooks, etc. Skills for these jobs were passed down from generation to generation or taught mainly through an apprenticeship system. This type of labor pattern existed through the 1930's, and it wasn't until the end of the 1940's that things began to change in the labor market.

During the last 20 or 30 years, there have been some dramatic changes in the composition of manpower in the U.S.

For example, of the 22,000 jobs that were listed in the "Dictionary of Occupational Titles" in 1965, 6,000 of them were new since 1959. In addition, 8,000 jobs that existed in 1965 are pretty well extinct today.

Deaf people were very much caught up in this whirlwind of change and were profoundly affected by the impact of technology on our society.

Technology created the need for thousands of new career areas in which the deaf as well as others among the general population were not being trained to participate. The employment outlook for deaf people in these new technological career areas was, at best, minimal.

"Placement is an activity that permeates NTID's entire educational system."

How does the National Technical Institute for the Deaf (NTID) fit into this historical trend?

Research done in the late fifties and early sixties indicated that if no program were designed to train deaf workers in technological careers, the employment outlook for deaf persons (based on the career areas in which they were then clustered) would be approximately 70 per cent unemployment by the 1980's.

NTID was created in response to this significantly large problem. It was felt that deaf persons could succeed in professional and semi-professional technical fields if they had specialized training.

So, in 1965 NTID became a reality, with the passage of Public Law 89-36.

What is NTID's philosophy of placement?

NTID is unique, I think, in its placement philosophy.

All areas of the organization are committed to the career development process which ultimately prepares each student for placement. Career development, in reality, begins at the pre-admissions stage, before a student gets to NTID. Whether formally or informally, the student is gathering information and developing attitudes and preferences about specific career areas.

Career development as a formalized process begins when a student enters NTID and trains for a career, followed by some specific experiences at the actual job placement stage.

We have found, too, that career development does not stop here. Career enhancement is a life-long, ongoing process that is influenced by skills and philosophies developed here at NTID.

We do not look at placement, then, from the perspective of its being some discreet service activity that goes into action at the end of a student's educational program. Nor do we think it is an activity of any solitary individual. Placement is an activity that permeates NTID's entire educational system and is the result of a great team effort, with the student as primary team leader. Placement of students into useful and satisfying careers is NTID's mission.

The point is, that there cannot be a central placement activity unless the whole career development process pervades the entire organization. NTID has to be arranged in such a way that the individual components within the organization have meaningful linkages which truly facilitate the placement objective. That is one aspect of our philosophy.

“NTID's relationship with employers has always been businesslike and professional.”

If you look at that group of activities that typically end up matching a student and an employer, our philosophy is to work cooperatively with employers to do anything that is reasonable to minimize the risk that employers may take in hiring a deaf person. It also means that we will do everything we can to enhance the employment potential of the deaf person on the job. That's essentially the philosophy under which we are operating.

How is the Department for Career Opportunities (DCO) organized with respect to job placement?

DCO impacts on students in the pre-admissions and admissions process and then later in job placement. The three functions of the general job placement activity are employment development, career or job placement, and occupational research. It is important to differentiate between employment development and career placement.

Employment development is exploration. Employment development specialists are the explorers. They are the people who are going out doing the groundbreaking kinds of activities with employers who know little, if anything, about the programs at NTID or deafness in general. So employment development centers on the activity of working with an employer, but not for any kind of immediate return. What we are looking for is a long-term relationship to systematically analyze the possibility, probability and compatibility of a specific job

environment being able to host a graduate of NTID comfortably.

When the time comes for actual **career placement**, the student enters the picture. Hopefully employment development would have done its work sufficiently so the employment opportunities specialists can come in at this point and become the liaison between that company and NTID.

Occupational research covers the entire system in terms of gathering information about the kinds of occupational areas on which we should be focusing, and it also takes a look at the degree to which we are successful in matching students to employers in our placements. This kind of research is, of course, fed back into the technical programs to keep them viable.

How do other areas within NTID impact on a student's employment potential?

Only if each of the educational components of NTID is sensitive to the broad goal of employment or career development, will NTID be successful.

Our academic people have to be aware of the fact that skills and job environments are constantly changing in the outside world, and only if they are able to introduce those changes in their classrooms will we be successful.

If our communication people are aware of the kinds of communication skills needed in a variety of occupational environments, we will be effective.

If our curriculum development people are aware of the skills and needs of business and industry, we will be preparing our students properly. Every area within NTID impacts very specifically on each student's employment potential.

“Deaf people have been caught up in a whirlwind of change and are profoundly affected by the impact of technology in our society.”

What is NTID's philosophy of employer relations?

NTID's relationship with employers has always been businesslike and professional. We have acted as consultants to them. Our attitude has always been one of trying to work out the best solution to the problem, regardless of the results. If the answer turns out to be that the deaf employee would not be suitable for a particular area, then that is appropriate because it not only helps us, it helps the employer and the student in the long run.

“NTID has made some gigantic strides in placement.”

How will NTID continue to meet its challenges in placement?

I think NTID has faced challenges in employment of the deaf in new careers by being completely realistic in its approach.

It is important to note that of the multitude of challenges we have faced and will continue to face, we will be able to meet some in the immediate future, and quite frankly some are going to be with us for years to come. We have to admit that NTID does not have all the answers to all of the questions that relate to training deaf students, nor do we fully understand all of the implications of deafness in relation to employment. Consequently, we are going to be limited in the amount of service that we can provide to both students and employers.

I do think, however, that we are moving in the right direction; that the direction for the last ten years has been positive, has been right. We have made some gigantic strides, but I think we have a good deal more to learn and a long way to go.

In the years I've been with NTID, I have had the opportunity to look at other programs for the deaf as well as the hearing, and I think that, objectively, NTID is a leader in the field. We lead the pack when it comes to doing the kind of work to prepare young deaf persons to earn a living and live a life.

I think NTID has three major challenges to face:

1. NTID must continue to demonstrate leadership, commitment and creativity in meeting its goals. It cannot become complacent or fragmented as an organization.
2. Our students must continue to understand their roles in reversing the course of history as it pertains to deaf employment. They must be willing to be knowledgeable and active participants in the pioneering effort by taking the fullest advantage of their educational experiences at NTID, by grasping the employment opportunities as they become available and by understanding the need to become good productive examples in the work environment.
3. While we have developed some very successful working relationships with prospective employers nationwide, we need to encourage positive-thinking employers to continue to step forward and join with us in solving the many issues that the deaf will face with respect to successful employment.

(continued)

Occupational Preparation

(continued from page 3)

How can employers benefit from hiring an NTID graduate?

Hiring an NTID graduate means that an employer becomes part of an ongoing dynamic process of development that concludes with a successful work experience. Employers are becoming more aware that everything that NTID does is related to preparing a worker for a special job in a special career environment. Employers can obviously benefit from this kind of philosophy. They also benefit by working with experienced NTID career placement people who can identify with the complex social and economic issues facing employers.

From a pragmatic perspective, employers benefit by receiving in-depth job related information on potential deaf employees *before* a hiring decision is made, by receiving assistance to locate the right job for the right person, by *not* having pressure exerted if a job is *not* available, and finally by receiving help and guidance in the process of assimilation if a job *is* found. Most of all, employers benefit by having a worker, who, in all probability, will advance the goals of the organization.

Perhaps employers will achieve some degree of personal satisfaction in knowing that they are part of a pioneering effort to insure that deaf people secure parity with their hearing counterparts—but most importantly they benefit by having an employee who is trained to get the job done.

“It was felt that deaf persons could succeed in professional and semiprofessional technical fields if they had specialized training.”

Career development at NTID is an evolutionary process that includes a multitude of educational and occupational experiences which facilitate “earning a living and living a life.”

Included in this process are several stages which relate directly to enhancing employment skills. These stages (grouped under the term ‘occupational preparation’ for ease of reference) include skill development, work experience, skill refinement, and job entry.

The primary goal of occupational preparation at NTID is “to provide each student with particular technical skills required for entry level positions in fields for which they are training. It also provides the personal and social skills which are required of all working persons so that they may appropriately interact with peers and supervisors.” states Richard Elliott, coordinator for employment opportunities at NTID.

Before a student can experience any of these stages of career development, career programs must be established which complement the needs of business and industry. This is done by competent NTID professional and research teams who ascertain the appropriateness of various careers for the deaf population.

These teams select curriculum on the basis of data and feedback which demonstrate long range technical potential and appropriate communication requirements for deaf persons. Programs offered at NTID then undergo continual evaluation and revision to ensure effective adaptation to constantly changing work environments.

Curriculum Advisory Groups (CAG) provide input into this curriculum selection process. NTID sets up CAGs for each area of study that the Institute offers and the groups include members of business and industry who review curriculum and forecast technological employment trends. In this way, industry has a say in the kinds of skills being taught to future employees.

Skill Development

Once the program has been established, NTID believes that what happens in the classroom must be tested by simulating the work environment.

Academic theory is tested in laboratories and workshops where actual hands-on experiences are a prerequisite. Faculty members, many of whom are veterans of business and industry, train students in the latest techniques by using up-to-date equipment. Sensitivities to the work environment and routines, to peer and supervisory relationships, and to pressures and expectations of industry are all an integral part of the learning environment at NTID.

Work Experience

A student can integrate academic learning and actual work experience through a cooperative (co-op) learning situation in the field.

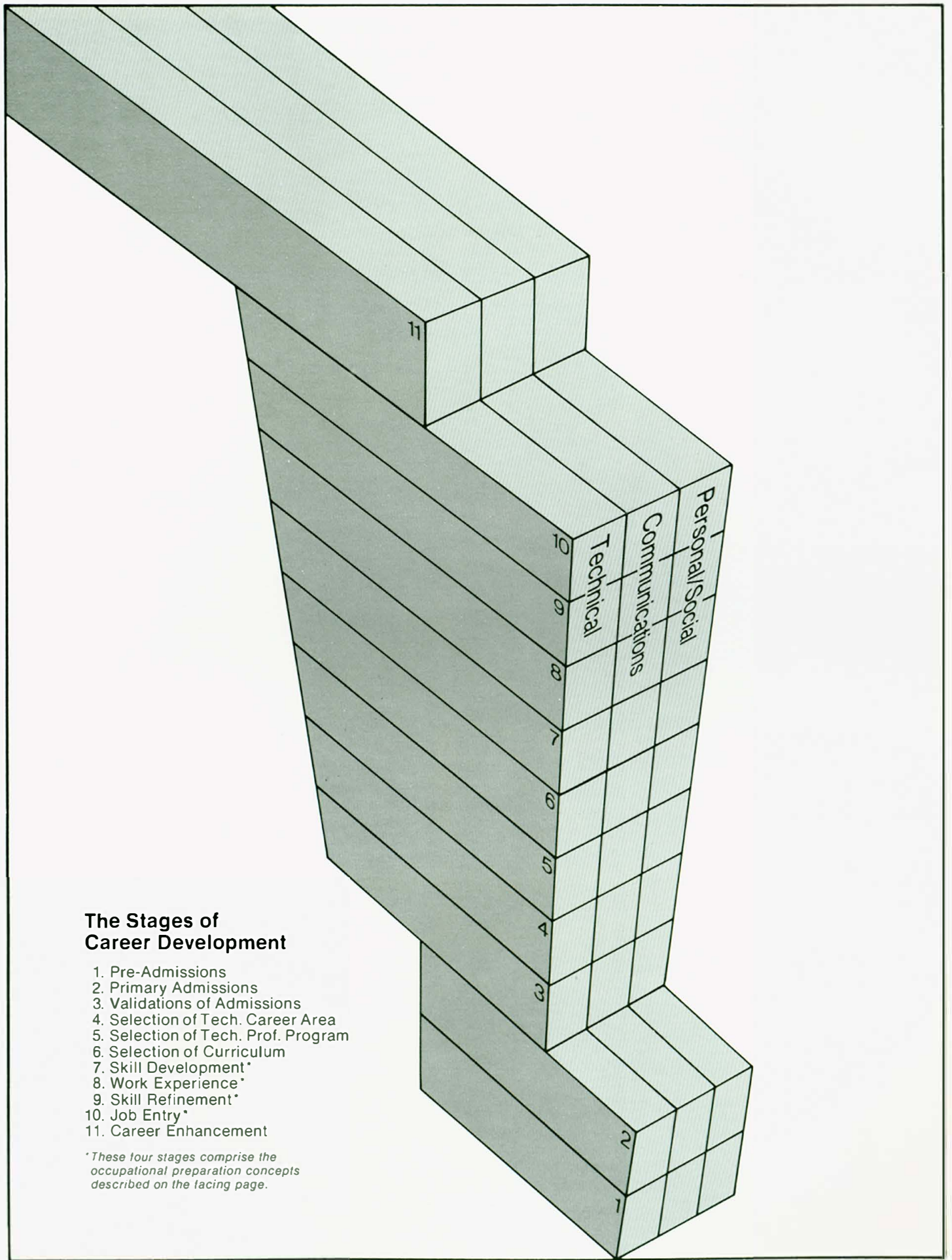
Many of NTID’s 33 programs include co-op, which gives students an even broader exposure to the job scene. This experience also provides employers with the opportunity to observe first-hand the employment capabilities of a deaf person before making a permanent commitment to employing that worker.

Skill Refinement

Skill refinement refers to utilizing evaluative data of student performance in the co-op/work experience situation to refine technical, personal, social and communication competence in the classroom.

Job Entry

During their academic experience, NTID assigns a career development counselor and a communications counselor to each student. When it comes time to find a job, an employment opportunities specialist relies upon input from these counselors to supply the employer with supplemental data pertaining to technical expertise, communication skills, and social and personal adeptness. NTID’s Department for Career Opportunities compiles the information into an extensive profile and adds it to the resumé. This service provides an employer with a realistic, in-depth summary of a potential employee.



The Stages of Career Development

- 1. Pre-Admissions
- 2. Primary Admissions
- 3. Validations of Admissions
- 4. Selection of Tech. Career Area
- 5. Selection of Tech. Prof. Program
- 6. Selection of Curriculum
- 7. Skill Development*
- 8. Work Experience*
- 9. Skill Refinement*
- 10. Job Entry*
- 11. Career Enhancement

**These four stages comprise the occupational preparation concepts described on the facing page.*



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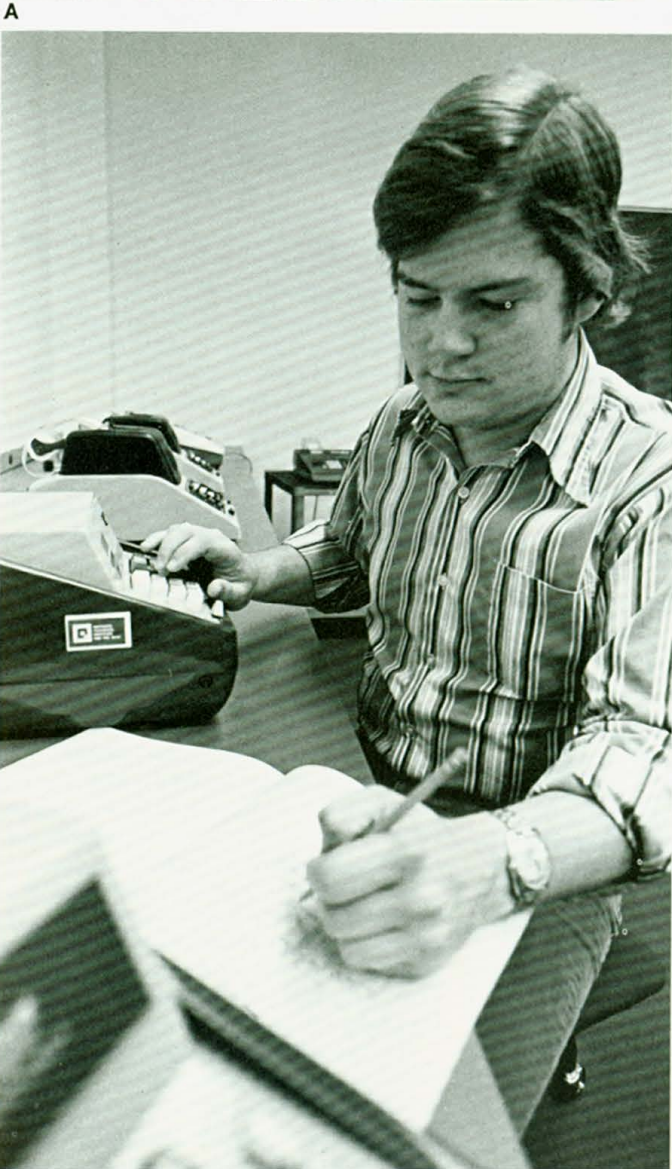


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A Look at NTID

(Clockwise) A. A technical science instructor gives pointers to one of his biology students. B. Working with students on an individual basis in engineering technologies. C. Social service careers allow students to expand themselves while helping others. D. Business technologies prepare students for careers in accounting, data processing, and office practice and procedures. E. Applied photography courses lead to jobs in commercial photo labs, advertising agencies, newspapers or magazines. F. Applied art courses include simulated presentations to clients.



D

C

Typically Untypical Faculty

Almost everything at NTID is creative, innovative and unique. And so are the faculty. A majority of the technical education instructors had years of experience in business and industry before they joined NTID. Here are just a few of them.

Daniel Tessoni



Daniel Tessoni is one of those people who likes to follow hunches and pursue ideals. And that's what brought him to NTID where he is working as an accounting instructor in the Business Technologies department.

Dan began his professional career as a public accountant for the Rochester (N.Y.) office of Touche Ross & Co. The company is one of the 'big eight' international accounting firms.

Dan was there less than a year when he was drafted into the U.S. Army. The Army gave him an opportunity to travel and also provided him with his first taste of teaching. Dan taught accounting to Viet Nam servicemen for the University of Maryland's Southeast Asian division.

"I really enjoyed teaching, but needless to say, my students found it difficult to concentrate on accounting," Dan says.

Following his discharge from the Army, Dan went to work for another one of the 'big eight' accounting firms, Coopers and Lybrand, Rochester, N.Y.

After two years as an auditor in that firm, Dan's thoughts turned to teaching again. He heard about NTID from a friend, and undaunted by the circumstance of his first teaching job in Viet Nam, Dan applied.

"I felt I could offer a practical approach to teaching accounting principles because of my background, and I also felt that I would be gaining an insight into a world I had never known before," Dan explains.

Dan's major responsibility is to teach a full load each quarter and to give input into career counseling sessions.

"The job is a tremendous challenge. I'm extremely impressed by the high degree of motivation in the students, which has been a chief source of reward for me. I see NTID as not only serving the deaf college student, but also as a way to impact upon new ways of improving teaching techniques for younger deaf people.

"NTID is part of an ideal that appeals to me, and that's why I'm here."

Tom Connolly



Tom Connolly is a thoughtful man—a man who savors the aroma of a crackling fire on a cold winter day or an evening at home with his wife and two daughters while he refinishes antique furniture.

Tom Connolly is a man of unusual compassion who values individuality and who shies away from lumping deaf people into stereotypic groups.

He manages to combine these qualities—his softspoken quietness and sensitivity to people—in his job as a career counselor and acting chairperson for the College of Business Support Team.

A 1961 graduate of RIT's College of Business, Tom held jobs in retailing and sales prior to his deciding to earn a master's degree in deaf education from Canisius College, Buffalo, N.Y.

Nine years ago Tom walked back onto the RIT campus as one of the first NTID staff members. "I have longevity if nothing else," he says with a grin.

His main responsibilities are to "coordinate the support team efforts in interpreting, tutoring and notetaking, and to offer career and personal counseling help for the 30 deaf students who are cross-registered into the College of Business."

To keep in touch with business and industry, Tom also coordinates the co-op work experiences for his deaf students with the aid of Dr. Arlan Travis, director of the College of Business co-op program.

He also acts as a liaison for Jan Lockhart, NTID employment opportunities specialist who places the business majors in permanent positions.

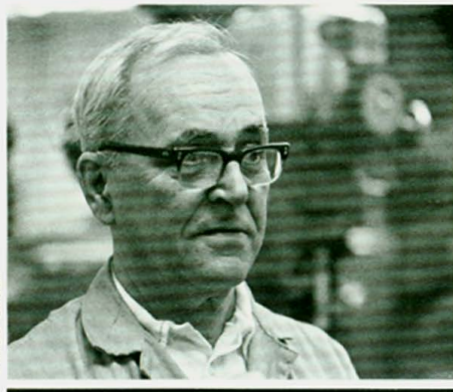
A comfortable person to be with, Tom's easy-going manner makes him a favorite with his students.

"As acting chairperson, I feel a certain amount of personal contact is necessary to keep up with the students' needs and feelings. Therefore I like to keep an 'open door' policy with my staff and students." This results in seeing about three or four students per day.

"I like to get to know all my students as individuals and to be able to identify their strengths and weaknesses," he says.

After devoting about one-third of his life to counseling and placing deaf students in productive careers, Tom's commitment to deaf education is well established.

"I know that I'll always be in deaf education. I enjoy seeing the growth process occur from the time students enter as freshmen until they graduate as technically competent men and women."



Vince Stout

"I try to give my students positive reinforcement and let them know I'm there if they ever need anyone to talk to. It's very difficult to put your arm around them and give them a swift boot in the rear end at the same time," says Vince Stout, instructor in the Engineering Technologies department.

When students say that Vince is a tough teacher, they usually do so with a smile and the knowledge of how 'soft' he really is. Vince maintains his tough stance "because the world out there is tough, and they must be prepared to cope with life." But he usually tempers his toughness with genuine concern and interest.

Vince left a high paying job to come to NTID in 1973 and says he has never regretted his decision. For more than 30 years he worked in a number of machine shops in the Rochester area. Working 'on the bench' he gained a reputation for quality work and earned many awards for the patents and modifications he developed. From bench work he progressed to a supervisory capacity and eventually assumed a role in training and teaching.

Vince says he finally realized that it was the people he was involved with who really added the joy to his life, and not a specific job. While he worked at General Motors' Rochester Products Division, he taught union-sponsored high school equivalency programs through the city school district. He tutored foreign students in English and math in night school and taught classes in machine tool operation at Edison Technical High School in Rochester.

As he shares stories and laughs about some of the people he has taught and worked with, it is clear that sharing himself and his knowledge is as much a pleasure for him as it is for his students.

Vince cares about his students. He cares enough about them to make sure that they get the best training from him that they can. He cares enough about them to have put himself through an eye-opening teaching effectiveness program "in which you have to pick out your own faults and the results can be devastating to your ego," he says.

"When I first came to NTID and participated in the new staff training program I was excited, and still am, about learning how to teach better and how to express more of what I know. Our students must be approached individually—preconceived ideas about their abilities don't work. They have individual communication abilities, skill aptitudes and social competencies. Learning how to relate to their individuality is part of the whole teaching process at NTID."



Betty Toney

Betty Toney may as well wear a big neon sign saying "social work is my thing!" She loves talking about the

field, the program at RIT, and the many deaf graduates she has nurtured and weaned.

"When I first came to NTID in 1972, everything was brand new. RIT's social work program was only a year old, and I stepped in to advise and counsel 17 deaf students who were social work majors," recalls the associate education specialist.

Betty's role since those beginnings has broadened to include some teaching, supervising a seminar, scheduling, arranging for support services, coordinating field work in conjunction with RIT, along with maintaining general liaison with the RIT social work faculty. "Our support team really works as an integral part of the RIT program. We are not just doing our own thing with deaf students. They go through the same rigors as their hearing peers, but we are there to assist them."

One of Betty's biggest responsibilities occurs during the Summer Vestibule Program when new students do career sampling. "We take all the interested students and put them in a special course which concentrates on reading and writing skills. This serves as a further evaluation measure for career advisement because social work courses are so heavily language based.

"I love what I do," Betty says, "because it combines my interest and enjoyment of people with my experiences and skills in social work." Betty earned her master's degree in social work from the University of California at Berkeley, after which she spent four years in child welfare work in Contra Costa County in that state. Then, for eight and one-half years she worked at a small private agency in San Francisco, with several different age groups of the deaf population.

"I've been out there, and I still keep in touch. I know that this field is wide open for deaf graduates. Agencies are crying for social workers who can deal with deaf clientele, and who better than the deaf themselves?"

Betty's greatest satisfaction and enjoyment come from the success stories of 'her' graduates. "They are some of the deaf leaders of the future, if not now. Wherever they go, they are making history. They've had to have so much perseverance to get where they are, they're bound to be 'stars'," Betty says proudly.

(continued)



Milt Nudo

Milt Nudo confesses that luck alone was responsible for his career choice. "I had just completed my military service with the Marines, and I needed a job. A friend of mine told me that printing was an open field, so I took it from there."

That decision has led Milt on a steady course of advancement into the printing field. Milt worked as a pressman at a Rochester printing firm for nine years and after two years of study at Rochester Institute of Technology, he joined the faculty of RIT's Graphic Arts Research Center (GARC). A unique facility which acts as an interface between academic programs and the commercial world, GARC gave Milt the opportunity to develop his skills in production, get involved in research and testing, and hold seminars and demonstrations.

Milt decided to get more education through RIT's continuing education program and is now an adjunct faculty member, teaching one course per quarter and taking classes when he can.

"While I was working at GARC, I started seeing deaf students around the lab areas. To tell you the truth, I didn't even know what NTID was, but I got interested—one of my service buddies had had deaf parents. So when I learned they were establishing a printing program, I thought maybe NTID could use my talents," Milt explains.

That was four years ago. Now in his new role as practicum supervisor in NTID's printing technology program, Milt uses his talents in layout and paste-up; photo composition; process camera; and offset press work and bindery. "The curriculum is changing," notes Milt. "We are introducing a competency-based approach, which allows each student to go at his own pace. As practicum supervisor, I work with all of the students in all of the labs. Then I give feedback to the instructors so they can deal with the problems or strengths."

"It really makes me feel good when I know that what I'm doing is giving a kid a way to make a living—a career," Milt says with pride.



Leoba Schneider

Leoba (Lee) Schneider is part of the history of NTID. She joined the nucleus faculty in 1969 and began researching science/health fields that the deaf could feasibly enter, something which she still does in her current role as curriculum development specialist for Technical Science.

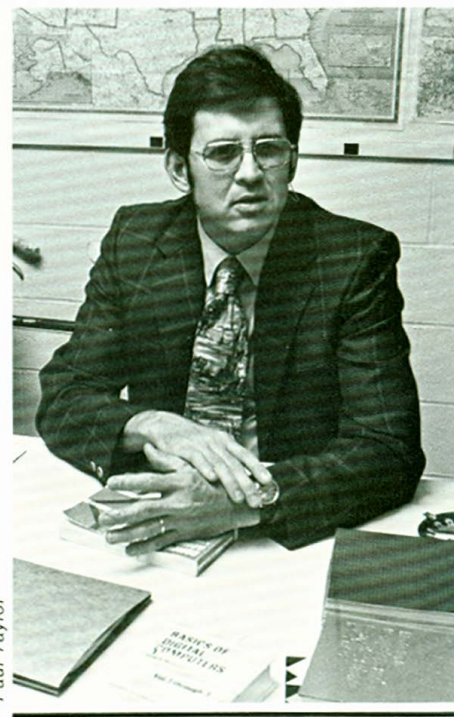
"I really grew up with NTID," Lee reflects. "Sometimes the growing pains were awful, but the rewards of maturity make up for it."

NTID's current medical laboratory technology programs are a direct result of Lee's efforts, as are the science labs in the Academic Building that simulate real-world work environments. "I helped to plan the labs and choose the equipment. It was all so exciting and challenging," she recalls.

Exciting challenges are not new to Lee. After earning a bachelor's degree in chemistry, she became a medical technologist. "a fairly open and new field that many years ago," she jokingly explains. "I got my master's in biology at Notre Dame University (Ind.) and did post-graduate work in pathology at Ohio State. But I really wanted to start working."

Lee's work experience is broad and serves as a constant reference base for her work at NTID. She began as a chief technologist in a hospital in Indiana, advancing to a teaching supervisor in Memphis, Tenn., at St. Joseph's Hospital. Eventually she became coordinator of laboratories at St. Margaret Hospital back in Hammond, Ind. She has also worked in several other hospital labs and has had two years of secondary school science teaching experience in Missouri.

"I'm always open for something new and better," Lee explains. "In fact, my latest love is evaluating and designing an environmental planning program possibility in Technical Science. We've got to keep pace with the times!"



Paul Taylor

When asked about the effect his deafness has had on his life, Paul L. Taylor doesn't hesitate and begins quoting Lewis Carroll:

"... It takes all the running you can do to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!"

That extra running enabled Paul to earn a bachelor's degree in chemical engineering from Georgia Institute of Technology, Atlanta, Ga., and a master's degree in engineering analysis and operations research from Washington University, St. Louis, Mo.

He is one of only a handful of deaf engineers in this country and is a registered professional engineer in the states of Missouri and New York.

As chairperson of the College of Engineering and Institute College Support Team for NTID, Paul brings a wide range of technical knowledge and experiences from his previous positions; he was a senior process engineer with Monsanto Industrial Chemical Company and an engineer with McDonnell-Douglas Aircraft Company.

Paul is responsible for the overall management of the support team, which provides interpreting, notetaking, and tutorial services to some 40 deaf students who are studying toward their baccalaureate degrees in various technical areas in engineering.

In addition, he is aware of his influence as a role model for deaf students and has taken it upon himself to involve his students in professional engineering societies in Rochester.

"I try to stress the fact that an engineer deals with people at all levels. Technical competence is not enough. You must be able to communicate on a technical and a human level. I want my students to be well-rounded individuals, and I try to support them in their efforts to achieve their goals."



Edward Cain

Edward Cain's life has always been filled with test tubes, chemicals and bunsen burners. "It's always been science for me, from the beginning," recalls Ed, an associate educational specialist in NTID's Support Team for the College of Science.

Ed earned his bachelor's degree from Harpur College, SUNY at Binghamton (N.Y.) and his doctorate in chemistry at Syracuse University, where he was a lab supervisor and teaching assistant.

"After all those years of school, I finally got a job as a biochemist in a hospital lab, analyzing blood. But after a few years, I moved from blood to sewage analyses. Sounds awful, I know, but I really liked the environmental control aspects of what I was doing." Ed explains. Ed worked as a chemist for O'Brien and Gere Consulting Engineers for three years and then joined NTID in 1974.

"I had met some deaf people socially, and I was fascinated with the whole communication thing. I took a night course in sign language and psychology of deafness, and I finally ended up doing some interpreting. It all just seemed to fall in place."

Ed combines his science skills and interest in deafness as he works with cross-registered science students. "One of the most enjoyable things I do is teach a class of both hearing and deaf students. Anything I learn about teaching deaf students can usually apply to my hearing students." In addition, Ed spends a great deal of time tutoring and keeping up with the profession.

"There are a lot of exciting things going on in the College of Science. We have a learning center for both deaf and hearing students, where we use material with audio /scripts. Things are definitely 'happening' here!"



Patrick Coyle

Patrick Coyle started his career in the optical industry as a messenger boy for Bausch and Lomb when he was sixteen. For the next 37 years he gained experience in all areas of optics including dispensing, lab work, sales, and finally 18 years of branch management.

Pat, who is now the coordinator of NTID's optical finishing technology (OFT) program, became interested in NTID when he was asked to be a member of the Curriculum Advisory Group (CAG). The CAG is composed of members of business and industry who meet periodically to review curricula to keep NTID programs up to date with industrial changes.

Although Pat had never taught on a formal basis, he did have experience training workers on the job. "This job gives me the opportunity to develop the skills of young people, rather than trying to knock bad habits out of older workers. I try to start them off on the right foot," he explains.

Pat enjoys his work and says even the problems don't bother him. "In industry I can't remember having three good days in a row. I've been climbing mountains for so long that I feel problems are part of any job. Of course, I will admit there are days I talk to myself all the way home and all the way back the next day."

When asked why, after almost 40 years in industry, he decided to go into teaching, Pat just smiles and says, "It's not as if I changed horses in midstream. I just took the same horse to another barn. I'm still involved with the optical field. My teaching approach comes from my experience in industry—I know what our students must know to meet the job requirements. There are times in class when I've had to lay it on the line and tell a student that if I were a manager, I wouldn't hire him or her. Then I explain my reasons, and I think they realize I know what I'm talking about because I usually see an improvement in performance," he says.

 EASTMAN KODAK

3M  XEROX  IBM

CORNING GLASS 

 LOCKHEED AT&T

GENERAL ELECTRIC

US NAVY  LITTON

 WESTINGHOUSE

PRENTICE HALL 

MOBIL OIL  SINGER

IRS  HUSS BAUSCH

AND LOMB  BLUE

CROSS  GODDARD

SPACE CENTER GTE

FORD POLAROID 

By successfully educating young deaf persons in technical careers and placing them in the mainstream of American work life NTID is reversing history as it relates to the deaf employment situation.

NTID's career development is the system through which students participate in a comprehensive series of educational and occupational experiences. In addition to building students' technical skills, the process of career development includes counseling, personal development and career development programs which occur prior to actual placement. All of these programs focus on: helping deaf students identify and utilize their abilities and potential; providing experiences that shift the major responsibility and initiative for decisions to the students; and assisting students in acquiring necessary information about themselves and their future environment.

Successful placement is also dependent upon a comprehensive system for developing employment opportunities. This system, called employment development, fosters good relationships with potential employers of NTID graduates. It insures that the deaf have access to suitable career opportunities which will provide satisfaction and success, commensurate with their abilities, potential and expectations.

The Department for Career Opportunities' (DCO) approach to employment development begins with research and planning that includes: analyses of various geographic target areas in the United States; analyses of economic and labor market situations both nationally and regionally; long-range economic projections for various communities; and analyses of geographic areas with respect to their potential drawing power, services, and attitudes toward the deaf.

The persons responsible for this planning and its implementation are the employment development specialists who make up the employment development team. NTID's three team representatives are Rich Giandana, Tony Finks and Julie Altavela. This employment development team, along with the employment opportunities specialists and the occupational research team, perform the comprehensive placement function at NTID.

After gathering the basic economic and geographic information mentioned, DCO's employment development team then begins to identify prospective employers in a community who they feel may react positively to deaf employees. Again they analyze and

Employment Development

Cultivating Career Opportunities

collect more data regarding the company's organization and decision-making channels, identify key personnel and assess the company's attitudes concerning the handicapped.

DCO's system of gathering and analyzing this information serves a two-fold purpose:

1. It enables NTID to maintain liaisons with business, industry, government, employment agencies and various other public and private groups which affect the labor force in any given community.
2. It enables NTID to maintain a familiarity with current trends and needs of business, industry, the professions and other possible sources of employment for deaf students. This familiarity also keeps NTID programs up to date on employment trends and needs.

If all the data collected indicate the employer would offer a deaf person a good career choice, the employment development specialists make initial contact, and through tact, timing, and diplomacy, they try to secure a commitment from the company, which will enable them to investigate further its potential for deaf employment.

Vic Maguran, director of the Department for Career Opportunities, feels that NTID's approach to working with business and industry must be completely businesslike and professional.

"Employers must perceive the employment development team as competent business consultants who can provide a unique service to both the deaf person and the employer's organization. The approach must be 'asset'-centered rather than 'liability'-centered. No employment development unit can change years of attitudes overnight. Compromise and negotiation are essential to employment development," he says.

"The goal of the employment development team is to secure a

sincere commitment from the organization to re-examine its organizational assumptions, attitudes and practices regarding employment of the deaf. Hopefully the results will lead to new careers commensurate with the abilities and the expectations of the clients we are serving," Maguran maintains.

With the goal to create career opportunities appropriate for deaf individuals, the employment development team thoroughly analyzes the job environment. Research includes determining the skills and knowledge that are required to perform the job, the psychological climate of the job, job mobility, and communication requirements. At the same time NTID provides company officials with detailed information about the Institute's training and career development programs to determine the compatibility between the employer's needs and a potential employee's skills.

If there are any discrepancies in compatibility, the employment development team will then propose modifications, in either the job situation or in the training and development programs. Changes may include recommending a cooperative work experience prior to graduation or substituting one course for another. On the employer's side, some modifications could include revising certain selection requirements, such as written employment tests and recommending or restructuring certain jobs, such as transferring a deaf person's telephone answering tasks.

The employment development team also provides other support services to the company and the potential deaf employee through coaching, counseling and advising. Personnel workers, supervisors and line managers are key people who will work most closely with the deaf employee. It is important to secure their complete understanding and to reduce any anxiety they may feel in working with the deaf person.

After the actual placement, the employment development team remains available for any additional support and advice the company or deaf worker needs. In addition, DCO has initiated a comprehensive program of feedback and evaluation (see page 19) which is designed to insure that both curricula and other programs are meeting employer and deaf workers' needs, and to determine if additional support to students, deaf workers, or employers is necessary.



National Strategies

NTID's efforts to create and expand employment opportunities for the deaf nationwide include two major strategies—regional employment seminars and individual liaisons with large national corporations.

Regional Employment Seminars

Two years ago, NTID was virtually unknown to most of the employment sector in the regions of Philadelphia, Chicago and St. Louis. Today, as a result of the Department for Career Opportunities' (DCO) regional employment seminars, many firms in these cities now recognize NTID as a source of well-trained, dependable and productive future employees. A fourth seminar was held in Denver, Col., but the statistics in this story apply only to the other three seminars.

In addition, the DCO staff now has familiarity with the labor markets, patterns of economic influence and high employment potential firms in these three cities, which will assist NTID in placing its graduates in these regions.

Regional employment seminars were designed primarily to:

- Inform employers in a particular region about the capabilities of technically trained deaf persons
- Acquaint these employers with NTID as a unique educational institution which is making significant advances in the training and employment of deaf persons
- Create an awareness of NTID as a prime resource for employment needs and consultation on deafness
- Increase opportunities for these employers to consider trained deaf persons as potential employees
- Establish a base of employers who would be influential in promoting employment opportunities for the deaf in their metropolitan areas.

Since past experience has shown that many NTID graduates tended to return to their hometown regions for employment, cities which represented a large proportion of the present NTID enrollment were considered by DCO as possible sites for the seminars. Other important factors which DCO considered in selecting seminar cities included the presence of a broad base of technical employment prospects, an interest on the part of NTID students in moving to a particular area after graduation, as well as the presence of an active deaf community which could be supportive of the social needs of the NTID graduates.

With these factors in mind and with the overall consideration that regional seminar cities should offer good employment prospects for NTID graduates, DCO chose the cities of Philadelphia, Chicago and St. Louis for the first phase of the project.

To accomplish the goals of the seminars, DCO invited major employers in these areas to a local presentation which introduced them to NTID and to the employment capabilities of the deaf. A few months after the initial presentation, DCO staff made follow-up visits to interested firms.

During these company visits DCO staff:

- met with general management, personnel, and supervisory representatives
- toured a wide variety of offices, plants, and laboratories
- analyzed job environments from the perspective of their appropriate employment potential for NTID graduates

- developed an inventory of company information pertaining to organizational structure and decision-making channels, attitudes toward hiring disadvantaged workers, hiring standards and procedures, training and promotion requirements, and appropriate contacts for NTID placement purposes.

As a result of these visits, DCO has greatly expanded its knowledge of the employment scene in these regions, as well as its understanding of similar kinds of industries nationwide.

Because this project was intended to serve a large forecasted influx of NTID graduates who would be filtering into these regions over a long period of time, the overall success of the seminar project must be measured on a long-term basis. However, since April 1975, when the first seminar was held in Philadelphia, several results indicate the effectiveness of this approach to link NTID to business, industry, government and various other public and private groups—all of which should be able to enhance employment opportunities for NTID graduates.

Among those outcomes to be considered are the following:

Increased employer contacts—At the three seminars, DCO made contact with 83 firms and 102 employer representatives.

Increased other contacts—Non-employer representatives attending the seminars included 22 deaf educators, 13 vocational rehabilitation counselors, and 24 persons from various deaf-related organizations.

Increased corporate contacts—To date, DCO staff have visited and made in-house presentations at 57 of the firms attending the seminars. Among those firms visited are major corporations such as Du Pont, Exxon, Prudential Insurance, Sperry-Univac, Sun Oil, Scott Paper, IBM, RCA, Westinghouse, Bell & Howell, Motorola, Sears, United Airlines, McDonnell-Douglas, Anheuser-Busch, and Southwestern Bell Telephone Company.

Expanded nationwide contacts—Some corporate offices which were visited have been instrumental in communicating the NTID message to their branches in other cities. This has given DCO more flexibility in selectively matching NTID students to available jobs in these other cities. It has also refined the placement process to help reduce the amount of time spent in contacting employers, not only in Philadelphia, Chicago and St. Louis, but in other cities as well.

Increased NTID placement opportunities—As of August 1976, DCO had placed a number of NTID students at several firms contacted through the regional seminar project. In addition, many regional firms have indicated an interest in considering NTID students for their present and future job openings.

Considering the extensive activities often required to place an NTID student, DCO now has established a viable and personal employer communication network in these regions. This network should continue to enhance employment opportunities for NTID students.

Individual Liaison with Large National Corporations

As the number of NTID graduates continues to increase, it has become feasible to develop liaisons with large national corporations with multiple facilities.

In January 1975, representatives of DCO and the United States Steel Corporation (USS) began working closely together to help ensure the

successful placement of NTID students at USS. This involvement has been one of NTID's most extensive and comprehensive contacts with a major corporation. A great deal of mutual preparation and information sharing has occurred between NTID and USS. Through these interactions both organizations have learned a great deal about the employment of deaf persons. This has been a significant undertaking that should assist NTID in its continuing work with USS, as well as with other corporations. At the present time five NTID students are working in cooperative education employment situations at several divisions of USS in Pittsburgh.

NTID has also initiated similar liaisons with American Telegraph and Telephone Company, Mobil Oil Corporation, GTE, IBM, General Electric, Eastman Kodak, Xerox Corporation and 3M.

All of these corporate relationships generated by DCO between major industry and NTID have begun to have a significant impact on career opportunities for deaf persons.



The United States Steel Corporation sent representatives to NTID to learn about its philosophy, goals and programs. Visiting the Math Learning Center are (left to right) R. A. Holan, general manager of Administrative Services, Engineering and Research Division; D. R. Curran, manager of Personnel Services, Finance Division; and R. J. Zucco, general manager, Data Processing and Services, talking to Marvin Sachs, Math Learning Center coordinator. Another representative from U.S. Steel involved in the visit was John Frey, coordinator of College Relations.

Career Placement

Behind the Scenes

Employment opportunities specialists are the "behind the scenes" people who make career placement a reality. They work hard to facilitate successful matches between graduates and employers.



Dick Elliott came to NTID with a background in industrial/labor relations and the conviction that, "I wanted to serve people who needed special help."

At NTID Dick coordinates the work of four employment opportunities specialists who work with students and employers, trying to fit the right student to the right job.

Dick earned his bachelor's degree in industrial and labor relations from Cornell University, Ithaca, N.Y. He then worked for nine years in industrial relations with General Motors Corporation (GM).

At GM he says he gained insight into the nature of the areas that make up a large organization—sales, service, manufacturing, management, engineering, and maintenance.

"After five years of helping iron out labor/industry problems, I decided I really wanted to be doing something to help people on a more personal, human level."

That something turned out to be coordinating an educational program for the Industrial Management Council (IMC) of Rochester. The IMC offered training programs and job services to disadvantaged young persons. One facet of the IMC, called Operation Young Adult, was a program which encouraged high school students to stay in and complete their high school program by showing them how education could help them get a better job.

"My involvement with this program gave me an experience developing job opportunities for these students with local industries. The students would go to school half of the time and work the other half, giving them a taste of the work environment and a glimpse into aspects of a job they could reach for if they finished their high school education," he explains.

The most exciting part of that job was being able to work directly with the students, Dick says, and when the opportunity to pursue a similar program at NTID opened up, he took it without hesitation.

"Having worked in industry I appreciate the challenge of trying to convince an employer to take on an applicant who has the skills, but perhaps doesn't have the exact qualities the employer originally expected," he says.

Being concerned with the total aspect of NTID's placement activities, Dick sees himself becoming more involved in finding ways of making placement activities more effective and efficient "so that as the numbers of graduates increase we will be able to handle them." "But," he points out, "while we are concerned with effectiveness and efficiency, we still don't want to lose our personalized approach to placement. For me, helping young deaf people find a better future for themselves is a very fulfilling experience."



When Janice Lockhart contacts an employer regarding a business graduate or co-op student, she not only describes the student she has in mind for that position,

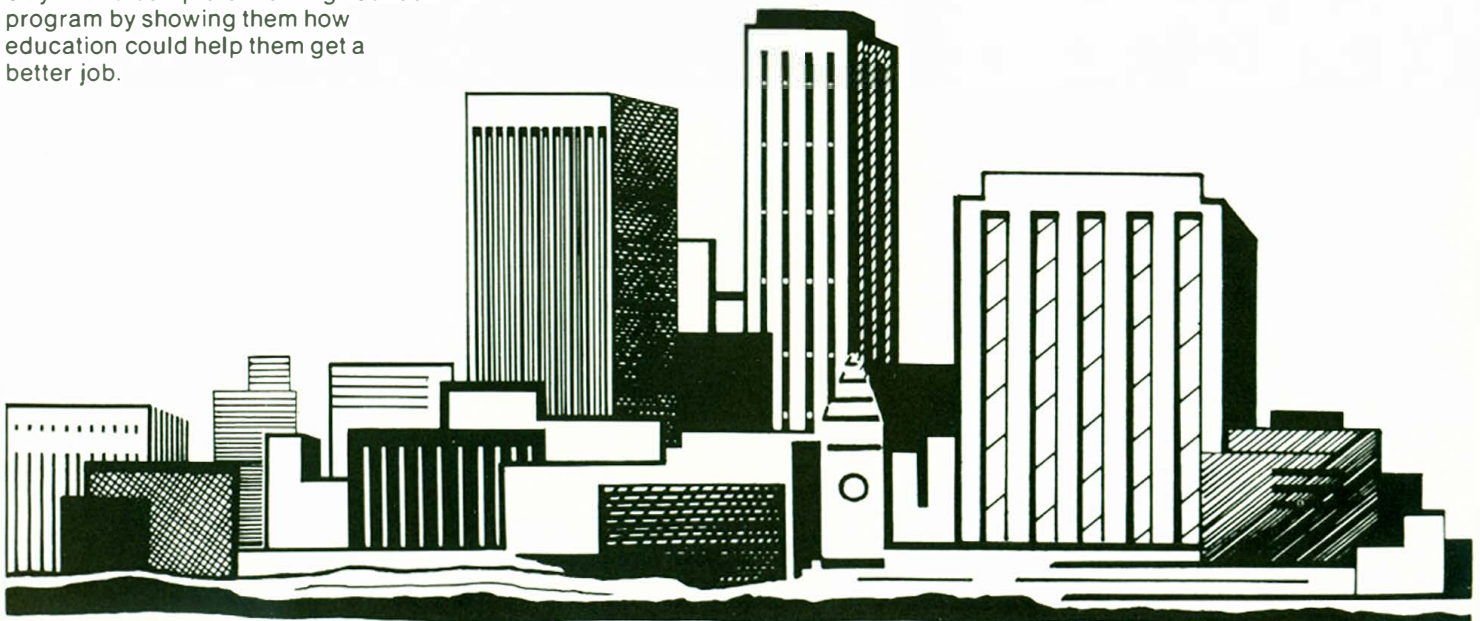
but also tries to open possible inroads for other students who are coming up for the next quarter. She might even mention the possibility of an alumnus who is interested in that particular company.

"We try not to let the companies we've contacted forget about us. We keep placing co-ops or graduates into those positions because the groundwork has been laid," she says.

Jan is an employment opportunities specialist who is responsible for the business students at NTID, all of whom get a chance to go on a co-op/work experience sometime during their academic career.

"Many of the students are apprehensive about their first work situation, as anyone would be. After the co-op, they usually come back to school with a more precise career goal.

"I can do it", that's the feeling we want to get across. If a student is shy, we try to place that student into a position where people aren't as pressured, preferably a smaller company, which can be used as a stepping-stone to a more challenging job later," she says.



"It is important to build up students' self-image. If they have never worked before and go into a high pressured company and fail, chances are it wasn't anyone's fault—the student just wasn't ready to handle that particular situation."

Jan keeps in touch with what is going on in the business world by visiting placements on the job. "In this way I can fill the needs of industries and keep abreast of changing business trends," she explains.

Jan came to NTID in 1974 and is aware of the inroads NTID has made throughout the United States regarding the job scene. "Our name is known among many firms nationally. When I first came to NTID, I'd call a company in the Midwest and they'd invariably say 'Who?' Now that we are gaining a reputation with the national companies, it has already helped increase ease of placement."

Jan agrees that most of the individual placements have been very successful. "That isn't to say that we haven't had some problems. If a company does have a consistent problem and calls to ask for advice, I tell them to treat the person as any other employee. Our students shouldn't be treated any differently than the rest of the company employees, or tension might develop among the other workers. Usually, however, if we are made aware of a problem, and we treat it early enough, we have a chance to salvage the situation and the employee," she says.

Jan's placement success can be attributed in part to her wide variety of job experiences prior to NTID. She served as a management trainee for the National Shawmut Bank, Boston, Mass.; was in charge of wage and benefits in the Personnel Office at Houghton Mifflin, Boston; and also worked as co-coordinator of a health care program for the Red Feather community agency in Pittsburgh, Pa.

Jan attended Syracuse University where she earned her undergraduate degree in business and attended the Harvard-Radcliffe Business School.



specialist at NTID.

"The hardest part about making an initial employer contact is getting past the secretary who guards the door," grins Tom Maxey, employment opportunities

"Once I get past that hurdle, I can begin to introduce myself and explain why I called. How the employer then responds is the key to whether or not the company will accept one of our students for employment," Tom explains.

Tom came to NTID in 1974 with a background as an on-the-job training specialist with the Urban League of Rochester, N.Y., and a senior residential counselor for the Rochester School for the Deaf where his major responsibility was to develop after-school programs which were an extension of classroom-related experiences.

Tom combined both his interest in deafness and his placement experience when he joined NTID. He currently places students in the science technologies area for co-op/work experience and permanent employment.

"The greatest quality I give to my job is that I know what it's like to be a member of a minority. I feel I have a special insight into what barriers deaf students must go through to find jobs. Attitudes play a big part in opening the door. I've found that 'Joe Public' is really misinformed when it comes to deafness. Sensitizing employers to how deaf people can be contributing workers in their company is a vital part of my job," Tom explains.

"But once I make the initial employer contact and set up an interview, the students sell their own skills. What I'm here for is just to help them get a foot in the door.

"Frankly, it's great to be able to place graduates because of their technical abilities. I never use the approach that they're handicapped—just that they're capable."



Quiet enthusiasm best describes Greg Connor's approach to being an employment opportunities specialist for visual communications students.

"If I can help potential graduates understand themselves through clarification of goals, I'm halfway there in placing them." Greg explains.

Greg is a business graduate of Syracuse University (N.Y.) with a major in personnel relations. Before joining NTID, he spent six years as a production supervisor for General Foods Corporation in Avon, N.Y. "I'm really thankful for that experience." Greg reflects. "I knew it wasn't my career choice for life, but it did help sort out what I knew I *didn't* want to do."

What Greg *does* want to do is help students make informed job choices, facilitating the right match between employer and employee. "I know the difficulty of decision-making and the frustration of being locked up in a job that is not quite right for you," Greg comments. "That's why I chose the placement area."

Greg's interest in sports is what led him to NTID. He had never met a deaf person before he stepped on RIT's football field as assistant coach on a part-time basis. "I met twin deaf students who were fabulously gifted athletes. What potential! I guess I was intrigued. Then when I saw this particular job opening, I decided to try it. I've been here two years now, and I love what I'm doing."

Greg likes to start meeting with potential graduates at least six months before they leave NTID. This gives him plenty of time to get input from career counselors, to know the students, and to make employer contacts. "Hopefully, through the career development process, students already have their job goals set. But I am here to help them define in what state they want to work; if they want a large metropolitan or suburban area; if they want to work in a large corporation or a small independent company, etc. I'm not saying that I can ever get the perfect match, but I always do my best to make sure that decisions are well considered."





Occupational Research

by Dr. David L. Passmore

Introduction

NTID's occupational research section investigates the national employment outlook for NTID graduates and also examines graduates' status in the labor force.

The results of this research are used to help plan and improve NTID curricula.

Past, current, and future NTID students—as well as the deaf education community and government agencies—will benefit from such research.

The occupational research section is located within NTID's Department for Career Opportunities—the same department accountable for recruitment, admissions, job placement and job development. Dr. David Lynn Passmore, research associate, and Kathleen Martin, research assistant, are responsible for occupational research.

Employment Outlook Research Program

The occupational research section's Employment Outlook Research program addresses itself to questions such as:

- In the future, will employers actually need workers in careers for which NTID offers technical and professional education programs?
- Which types of industries will need workers?
- In what regions of the country will the greatest demand be?
- Will there be keen competition for jobs in a student's chosen career?
- Can graduates expect to make an adequate amount of money in the career they have selected?
- Will graduates be required to have occupational licenses or certain kinds of special skills before they are hired?

The occupational researchers, through the Employment Outlook Research program, tackle each one of these and similar questions in specific career areas.

For example, research is being conducted into the need and possibility for a cooperative Gallaudet/NTID library technical assistant training program at NTID. The researchers have also examined the labor market to determine employers' demand for graduates of the accounting curriculum.

Currently, the employment outlook for graduates of the social work program is under study.

The success of the Employment Outlook Research program depends upon input from NTID faculty, students, and curriculum advisory groups (comprised of representatives from specific technical career areas who are currently in business and industry). In addition, NTID occupational researchers have developed close ties with the U.S. Department of Labor, National Center for Educational Statistics, and other government agencies which provide NTID with accurate employment information.

NTID uses all the information from its Employment Outlook Research program to help verify that its curricula are meeting society's human resource needs. This same information can also assist in the career decision-making of NTID students, as well as deaf students in other programs around the country.

The Graduate Feedback System

The Graduate Feedback System, another aspect of occupational research, seeks to determine answers to questions such as:

Are NTID graduates employed?

- What is the employment status of NTID graduates?
- Where and for whom do they work?
- What do they do?
- How satisfied are they with their work?
- Have they earned any promotions or advancements?
- How much money do they make, and is it adequate for their basic needs?
- Are employers satisfied with the technical, personal, social and communication skills of NTID graduates?

Are there some NTID graduates who are unemployed?

- If they are—that is, if they are not currently working but are actively seeking employment—what methods are they using to find a new job?
- How long have they remained unemployed?
- What are the reasons for unemployment?

Searching the past . . .
Evaluating the present . . .
Predicting the future . . .

Are there some graduates out of the labor force by choice?

- If they are not working or are not looking for work, what are they doing?
- Are they attending schools?
- Have they become homemakers?
- Are they discouraged from seeking work because they feel employers have misconceptions about deaf persons?
- Do they know how to search for a job?
- Do their skills fail to match employers' needs?

The Graduate Feedback System is currently based upon graduate responses to questionnaires one year after initially obtaining a job. Similar questionnaires are mailed to the employer of an NTID graduate one year after the initial placement.

Prior questionnaires were evaluated to be too difficult and too frequent, so the occupational researchers have designed a shorter, more manageable questionnaire to be mailed on a yearly basis, beginning January 1977.

It is essential that all graduates and employers respond to this new questionnaire because the employment information collected will be used to improve curricula for future NTID students. Also, the information collected will help describe NTID's impacts on the employment conditions of deaf persons for the deaf educational community, the U.S. Congress, and other interested publics.

Summary

Is there life after college for NTID students? Is it and will it be productive and successful? NTID, and especially occupational research, is committed to do its best to answer these questions for all NTID graduates.

Occupational researchers plan to provide written summaries of the status of all graduate feedback participants so that individual grads can compare themselves to their peers. In no case will information about any individual NTID graduate be published; the occupational research section is sensitive to the need for privacy and confidentiality.

Graduates Get Around

Statistics recording NTID placements are constantly shifting as new students graduate and their labor force status changes each quarter.

Where have NTID's graduates gone? What kinds of jobs do they have? Are they using their technical skills?

These are all questions which are being answered by the NTID's Department of Career Opportunities as it tracks the grads once they begin employment. The following data addresses itself to these questions.

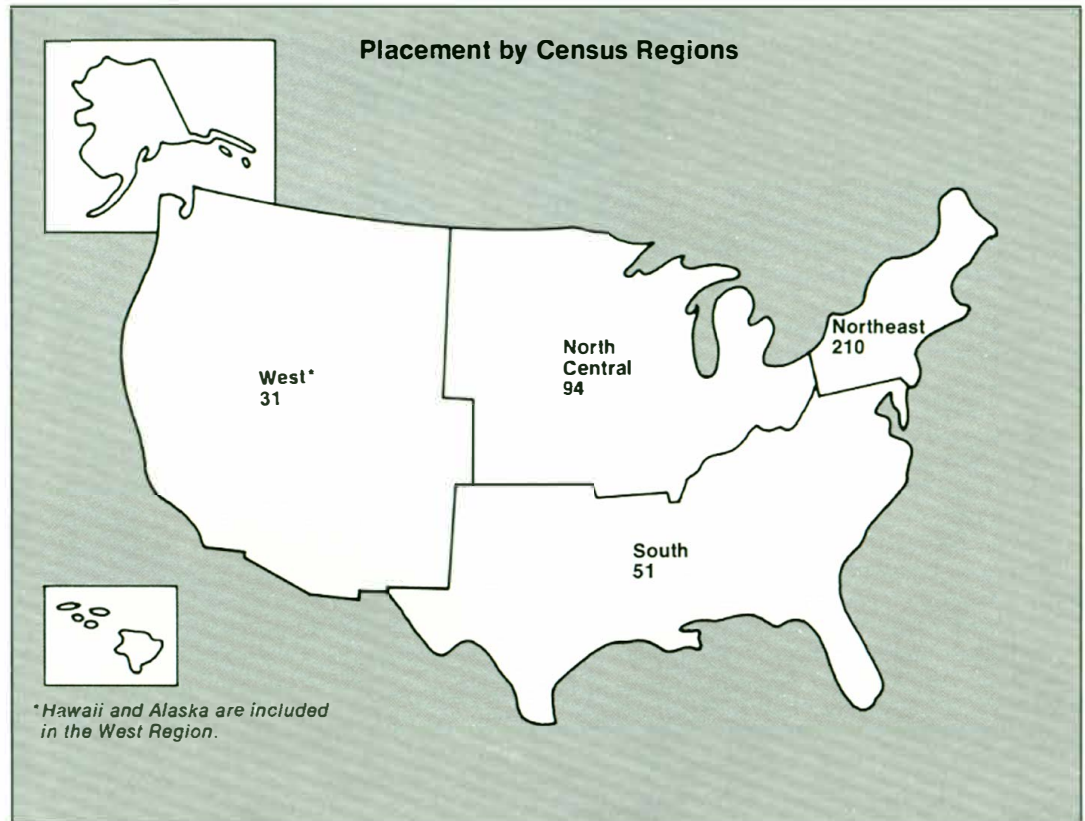
As of a report generated at the end of the 1976 fall quarter, NTID had 528 graduates, 386 of whom entered the labor force and secured jobs after graduation. Of the 386, 93 percent found jobs commensurate with their major and degree level. Industry employed the majority of these grads—80.3 percent; government ranked second with 12.2 percent; and 7.5 percent were employed in education. Of the remaining 142 graduates, 93 went on to receive higher education, 17 are seeking employment, 15 are homemakers, 9 are not seeking employment because of personal reasons, and 8 are temporarily not seeking employment.

Of the total 528 program completers as of September, 1976, the following degrees were granted:

Degree	Number	Percent
Special Certificate	3	5.5%
Diploma	173	32.8%
Associate's	238	45.1%
Bachelor's	83	16.6%
Master's	5	
Total	528	100.0%

Where did the 386 graduates go to work? The following is a geographic breakdown of where the graduates found jobs. Program completers were placed in 36 different states within the U.S.

- Northeast—210 placements
- North Central—94 placements
- South—51 placements
- West—31 placements



Jobs of NTID graduates: The following is a representative sampling of initial jobs held by graduates, and the companies which hired them.

Business Technologies

(certificate, diploma, associate's degrees)

Office Practice and Procedures
MT/ST operator—Eastman Kodak Co.
Accounting clerk—Blue Cross/
Blue Shield
Clerk typist—U. S. Navy

Accounting Technologies
Junior accountant—Honeywell
Assistant accountant—A.C.F. Industries
Statistician clerk—Kemper Insurance

Data Processing
Computer operator—U.S. Army
Data processing machine operator—
Xerox
Programmer/analyst—Chemtron

College of Business and Institute College (bachelor's degrees)
Tax agent—Internal Revenue Service
Management trainee—National Bank of Alaska
Systems analyst—Goddard Space Center
Research adjustment examiner—
Internal Revenue Service
Computer programmer—Anheuser-
Busch

Engineering Technologies

(certificate, diploma, associate's degrees)

Architectural Technology
Forms draftsman—IBM Corp.
Draftsman—Corning Glass Works

Industrial Drafting

Junior draftsman—Stone and Webster Corp.
Draftsman/designer—Singer Co.

Architectural Drafting

Assistant draftsman—Sandia Laboratories
Blue print operator—Otis Elevator Corp.

Electro Mechanical Technology

Electro-mechanical technician—
Bausch and Lomb
Electronic technician—Emerson Electric Corp.

Manufacturing Processes

Machine operator—Litton
Machine operator—McDonnell-Douglas
Turret lathe operator—General Electric

Civil Technology

Draftsman—Seclye, Stevenson, Value, and Knecht, Inc.

College of Engineering and Institute College

(bachelor's degrees)
Electrical engineer—U.S. Navy
Industrial engineer—General Railway Signal
Mechanical design engineer—Fluidyne Engineering Corp.
Electronic technician—American Electronics Lab
Digital development technician—
Westinghouse

Technical Science

(certificate, diploma, associate's degrees)

Medical laboratory technician
Medical record technician
Histology technician
Hospital labs in California, Connecticut, Florida, Illinois, Kansas, New Jersey, New York, Pennsylvania, and West Virginia.

College of Science

(bachelor's degrees)
Medical lab technician—Metropolitan Life Insurance Co.
General medical technologist—
Wenatchee Valley Clinic
Graduate student—Gallaudet College

Visual Communications Technologies

(certificate, diploma, associate's degrees)

Applied Art

Display coordinator—Lerner Shops
Layout and mechanical artist—
Prentice Hall Publishing
Display designer—Lane Bryant

Photography

Quality control technician—Perfection Photo Co.
Photo media technician—Ford Motor Co.
Film stripper—Berkey Film
Photo finisher—Polaroid

Printing

Pressman—Interstate Printing Corp.
Printer—Sezgram
Lithographer—U.S. Geological Survey

Fine and Applied Arts/Graphic Arts and Photography (bachelor's degrees)
Art teacher—Rome School for the Deaf
Technical illustrator—Lockheed
Artist/designer—Sarah Coventry

Social Services

College of General Studies (bachelor's degree level)

Social Work Program

Social worker—St. Mary's School for the Deaf
Educator's aide—Illinois Children's Hospital
Parent inreactor—Chicago School District
Graduate students—New York University and De Paul Law School



Career Outlook

The following is based on information from the 1976-77 *Occupational Outlook Handbook*, published by the Department of Labor, Bureau of Labor Statistics, Division of Employment Outlook.

NTID programs must look to the future, focusing upon employment needs which will insure job placement success for its graduates.

According to the most recent Bureau of Labor statistics, job growth through the mid-1980's is expected to be greater in the *service-producing industries* than in the goods-producing industries, assuming that current social, technological and scientific trends (including values placed on work, education, income and leisure) will continue.

The major factors underlying growth in the services include: population growth; increasing urbanization, with its accompanying need for more city services; rising incomes; and higher living standards, which are accompanied by a demand for improved services such as health and education.

Government employment has grown faster than any other industry division and will continue to be a major source of new jobs through the mid-1980's. Most of the growth will occur in state and local agencies; while at the Federal level, employment will grow more slowly than the average.

As industries continue to grow, changes will take place in the nation's occupational structure. Jobs will become more complex and specialized, offering an even greater number of occupational choices to persons planning a career.

There will be a growing demand for workers to perform *research and development*, to provide *health and social services*, and to process the increasing amount of paperwork throughout all types of enterprises.

Clerical workers are expected to be the fastest growing occupational group

during the 1977-1985 period, increasing by about one-third. Included in this category are workers who operate computers and office machines, keep records, take dictation and type. The demand will be strong for those qualified to handle jobs created by electronic data processing operations.

Employers are increasingly demanding better trained workers to operate complicated machinery. Use of new materials and the complexity of equipment are making greater technical knowledge a requirement. Because of this, specific occupational training such as that obtained through apprenticeships, junior and community colleges and post-secondary facilities is becoming more and more important to young people preparing for successful careers.



Communication

What's It All About?

How will I communicate with a deaf employee? How will a deaf worker communicate with supervisors and co-workers? These are just two questions frequently asked by employers regarding communication with a deaf worker.

Communicating with a deaf person is not necessarily hard or easy. There are no standardized lists of words, phrases or sentences that can always be understood.

Intelligence, personality, age of onset of deafness, language background, listening skills, lipreading and speech abilities all vary with each deaf person, just as the personalities and skills of every person vary.

So every deaf person will

communicate in a different way. Some will use speech only; some will use a combination of sign language, fingerspelling and speech; some will write; some will use body language and facial expression to supplement their interactions. In any case a deaf person will usually use every possible way to convey an idea to another person.

In turn, a hearing person has to experiment and use any and all of the above ways to communicate with a deaf person. The important thing is not *how* ideas or feelings are exchanged, but that they are *communicated*.

In addition, many employers also want to know about the communication preparation students received at NTID, especially in terms of a specific deaf graduate they may be considering.

The following will point out: the communication preparation at NTID; the job placement aspect of communication skills evaluation; common misconceptions about deafness; and specific communication

tips for employers, supervisors or co-workers.

Communication Preparation

NTID stresses communication skill development as part of the career development of each student. The basic goal of the Division of Communication Programs is to help each individual student achieve those communication skills necessary for success in the academic environment, on the job as well as in the community, according to Dr. Paul H. Thayn, director of the Division.

The departments of Speech Pathology, Audiology, Manual Language, English and the Experimental Educational Theatre program each offer courses and programs designed to enhance the communication capabilities of each student.

NTID evaluates students' expressive and receptive communication skills at the beginning of their college careers. The result of this evaluation is a

comprehensive communication profile for each student. The communication profile measures each student's ability in such areas as speechreading, hearing discrimination, manual reception, simultaneous reception, reading comprehension, speech intelligibility, writing intelligibility and non-verbal kinetic intelligibility.

Using the communication profile as a tool, communication counselors work with students to develop a plan in which the students work to improve their weaker skills and refine those in which they are strong.

As with NTID's career programs in general, communication programs are effective because they are relevant to individual student needs. In speechreading courses, for example, students practice understanding the speech of others by reading their lips and facial movements on exercises which utilize technical vocabulary. An accounting major would practice speechreading vocabulary relevant to accounting or business. Students practice with videotaped exercises using self-instruction techniques. Besides technical vocabulary, they also practice speechreading vocabulary and phrases related to job etiquette and social behavior on the job.

Communication Skills Evaluation at Job Placement

When NTID students near graduation their communication counselors meet with them to discuss their final communication skill summary. All the information regarding a student's communication abilities are presented to potential employers along with any special recommendations the communication counselors have regarding certain communication abilities of the student or special environmental considerations that may be needed.

The employment opportunities specialists use the communication information provided by the communication counselors to work with employers. The employment opportunities specialists also remain available to employers as resources for questions or suggestions to help make the student's transition to work life as smooth as possible.

Misconceptions

The following is designed to clarify several common misconceptions. It is hoped that such knowledge will enable people to approach a deaf person as individually as anyone else.

1. "Deaf persons' speech is difficult to understand." The speech intelligibility of deaf persons varies greatly from one deaf person to the next. Many deaf persons have speech that seems difficult to understand at



first, but many employers have found that after working with the person for awhile, his or her speech becomes easier to understand.

2. "Deaf persons are mute." Deaf persons are not "mute." Deaf persons have normal vocal organs. Some deaf persons choose not to use their voices if they think that they are difficult to understand or have inappropriate pitch or volume. Terms such as "deaf and dumb" or "deaf-mute" are outdated and considered offensive by most deaf persons.
3. "Deaf persons can read lips." Speechreading or lipreading is a skill that some deaf persons are good at; others have difficulty mastering such a talent. While good speechreading skill can help in communication, only about 26-30 per cent of speech is visible on the lips, and even the best speechreaders can't speechread everything that is said.
4. "People who have unusual sounding speech are mentally impaired." There is absolutely no correlation between deaf persons' speech abilities and their intelligence.
5. "Deaf persons are not distracted when they work in a noisy environment." Most deaf persons have some residual hearing, and if they wear hearing aids they may be even more sensitive to sounds and vibrations than some hearing persons. The *right* deaf person can often handle a noisy job, but it is wrong to think *any* deaf person can work in such a situation.
6. "Deaf persons can't use the telephone." Some deaf persons have enough residual hearing or have developed the speech skills necessary to use the telephone. Special telecommunication aids have been developed for hearing-impaired and deaf persons.

Communication Tips

Many employers of NTID graduates have asked about certain tips they can use to ensure the most complete communication possible between the deaf worker and supervisors or co-workers.

In addition to understanding the uniqueness of each deaf person's skills in all aspects of communication (see page 22), there are a few specific techniques that can be helpful.

One-to-One Communication

1. It is important to have the deaf person's attention before speaking. Since deaf people can't hear the usual call to attention, they may need a tap on the shoulder, a wave or other visual signal to gain attention.
2. Speak slowly and clearly; but exaggeration and overemphasis of words distort lip movements, making speechreading more difficult. Speechreading is a skill not all deaf persons have. Only about 26-30 per cent of speech is visible on the lips, and even the best speechreaders can't read everything.
3. Look directly at the person while speaking. Even a slight turn of the head can obscure the deaf person's vision. Other distracting factors affecting communication include moustaches obscuring the lips, habits such as smoking, pencil-chewing and putting hands in front of the face.
4. Don't be embarrassed about communicating via paper and pencil. Getting the message across is more important than the medium used.
5. Try to maintain eye contact with the deaf person. Eye contact helps convey the feeling of direct communication. If an interpreter is present, continue to talk directly to the deaf person who can turn to the interpreter if the need arises.
6. Try to re-phrase a thought rather than repeating the same words. Sometimes a group of lip movements is difficult to speechread. If the person doesn't understand you, try to re-state the sentence.
7. Pantomime, body language, and facial expression are important factors in communicating.



Tap on shoulder to get attention.



Wave a hand to gain visual contact.



Look directly while speaking.



Use a written message if needed.



Talk directly to the deaf person, not the interpreter.



Use body language and facial expression.

Group Situations and Meetings

1. The deaf person should be seated to the best advantage. This usually means a seat near the front where the deaf person can see the face of the speaker.
2. Try to avoid standing in front of a light source, such as a window.
3. A brief outline or script printouts would aid the deaf person to follow a lecture, movie, or filmstrip. This can be provided in advance or accompanied by special lighting.
4. In a training situation, try to provide new vocabulary in advance. It is almost impossible to speechread words that are unfamiliar.
5. Visual aids can be a tremendous help to deaf persons. Vision is a deaf person's primary channel to receive information. Making full use of overhead projectors, chalk boards, films, diagrams, charts and other media can be helpful.
6. Try to avoid unnecessary pacing and speaking while writing on the chalkboard or lecturing. It is difficult to speechread a person in motion and impossible from the side or behind.
7. Slowing the pace of communication often helps to facilitate understanding. Many speakers tend to talk too fast. Try to allow a little extra time for the deaf person to assimilate the information and respond.
8. When vital information is presented, make sure the deaf person is not left out. Write out any changes in meeting times, special assignments, additional instructions. Allow extra time when pointing out the location of materials, referring to manuals and other media, since the deaf person must look, then return attention for further instruction.
9. Questions or statements from the back of the room should be repeated. Deaf persons are cut off from whatever is not in their visual area. Since it is often necessary to know the question in order to fully understand the answer, questions or statements should be repeated.

Debbie Werner

Deborah Werner, a 1973 graduate of NTID, uses her training in anatomy, physiology, medical record science and medical terminology in her job as a medical record technician at Millard Fillmore Hospital, Buffalo, N.Y.

She works in the Medical Record Department under the supervision of Janet Stemper, medical record administrator. Debbie's specialty is coding, using the HICDA method (Hospital—International Classification of Disease Adapted).

First, Debbie checks the index book for the tabular listing of the disease codes; next she assigns appropriate numbers to them; and then she transfers this information to an input tape sheet for the computer.

When Debbie has a question, Ms. Stemper writes notes about each problem. Debbie keeps all of the notes for future reference. She says, "Just in case I run across the same problem again, I'll know how to solve it without asking."

Deafness hasn't deterred her determination to do a good job nor her ambition to get ahead. The hospital originally hired Debbie as a medical records clerk in February 1975 on a temporary basis. Six months later, she earned a promotion to a records technician position which was a grade-level jump of four steps.

"Her primary asset is her intelligence," says Ms. Stemper. "Debbie is very receptive, and I only have to give her instructions once. She works in an office with a number of other people, and her ability to concentrate amidst all the office activity is another plus," she adds.

Ms. Stemper explains that she has benefited from her experience training Debbie. "I've learned that if I write notes to reinforce what I've said when I train hearing employees, I'm able to communicate my meaning better."

Since she's been at the hospital, Debbie has also had experience in training other new employees about the basics of medical records clerk responsibilities.

"Although Debbie appears to be a bit on the quiet side at first, her friendly smile and warm personality make her fun to be with," says Ms. Stemper. Two of Debbie's co-workers became so interested in communicating with her that they learned sign language.



Janet Stemper (left), Debbie's supervisor, discusses a new technical term.



the reporter

MILLARD FILLMORE HOSPITAL
October, 1976



This feature, originally written for another NTID publication, was reprinted by the Reporter, an in-house magazine for Millard Fillmore Hospital in Buffalo, N.Y. We present it as another story of NTID's graduates' success.

Co-worker Mary Daugherty is Debbie's self-appointed interpreter at staff meetings, and Jenny Mazur, a senior clerk, took a ten-week course at St. Mary's School for the Deaf, Buffalo (N.Y.), so that she could get to know Debbie better.

When she is not at work, Debbie is a sports enthusiast. She has become the star catcher on the department's softball team and has joined a bowling and volleyball team with other deaf friends.

Celebration!

A chorus of revelers, using a variety of ceremonial masks, special lighting and media effects and a musical score by Harvey Schmidt and words by Tom Jones, entertained audiences for the NTID Theatre's production of "Celebration."

"Celebration" is just that—a celebration of the return of spring after the winter, of love conquering hate, of good over evil. Jones' and Schmidt's story traces the adventures of the innocent young boy, Orphan, as

he is manipulated by the evil Potemkin, and battles the jaded Mr. Rich for the love of Angel, who is torn between Rich's wealth and Orphan's love.

NTID Theatre's production combined hearing and deaf performers and blended music, sign language, mime and dance in an entertaining way to appeal to both deaf and hearing persons in the audience.

Marjorie Pratt, director of "Celebration," explained that students made more than 90 ceremonial masks

(designed by NTID art instructors C. T. Ferguson and Judith Zerbe) to use in the show.

In addition, P. Gibson Ralph designed a dramatic set and lighting and Robert Pratt coordinated lighting and special effects. A multi-media presentation designed by NTID art instructor Mike Krembel heightened the dramatic effect of the production.



Ed Kelly, as the young boy Orphan, arrives in the "big city."



Mike Lamitola, Smithtown, N.Y., plays Potemkin, the master puppeteer.



Yvonne Vuksich, San Jose, Calif., is Angel, an innocent Goldigger.



Harry Woosley, Jr., Louisville, Ky., as Mr. Rich, pines for the love of Angel.



Mike Lamitola (left) and Ed Kelly rehearse a scene.



Ed Kelly (center), Darien, Wisc., tries to resist temptations.

Robert Frisina Becomes RIT Senior Vice President

Expanded role includes Institutional Advancement, NTID and other RIT national relationships.

Dr. Robert Frisina, director of NTID since 1967, has been named senior vice president of Rochester Institute of Technology (RIT), where NTID is located.

In announcing the appointment, Richard E. Eisenhart, chairman of the RIT Board of Trustees, said that this action by the trustees was based upon the recommendation of Institute President Paul A. Miller. According to Mr. Eisenhart, Dr. Frisina's primary responsibilities in the new post will be to formulate policy, plan and direct RIT's Institutional Advancement program.

The Institutional Advancement function includes all activities associated with the present and future growth and development of RIT's educational programs, financial and human resources. The function also includes leadership in the Institute's relationships with its significant regional, state, national and international publics.

In this connection, Dr. Frisina will continue to be responsible for NTID's relationships with the federal government and related constituencies. Dr. Miller pointed out that these efforts are expected to facilitate "a further merging of NTID's purposes with those of the whole of RIT."

Commenting on the appointment, Dr. Miller said, "Dr. Frisina's outstanding leadership abilities will play a major role in helping this institution complete its planning for the future and in implementing new organizing principles that will carry RIT into important new phases of growth and development."

In addition to serving as vice president of the Institute and director of NTID for the past 10 years, Dr. Frisina has also been executive officer of the Institute's Public Affairs Division and chairman of the trustee's Institutional Advancement Commission.

An internationally recognized educator, Dr. Frisina is a consultant to the U.S. Office of Education and is frequently called upon to provide advice to agencies such as the U.S. Social and Rehabilitation Service, the National Institute of Health and a

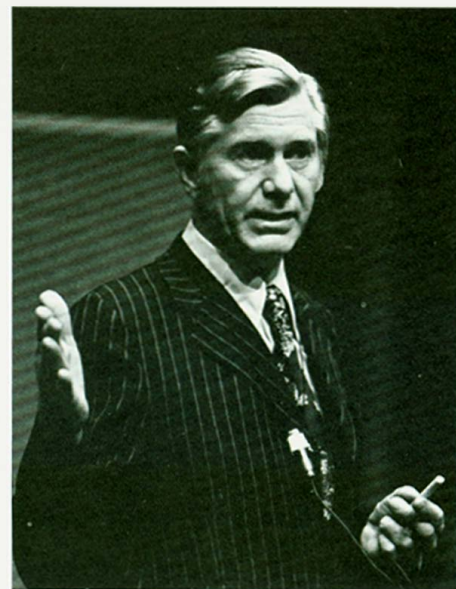


number of state education departments throughout the nation. He is a director of the Alexander Graham Bell Association for the Deaf; the Rochester School for the Deaf; and the Council on Education of the Deaf; and is former treasurer of the Conference of Executives of American Schools for the Deaf.

He also serves in an advisory capacity to the White House Conference on the Handicapped; the Steering Committee for the New York State Conference on the Handicapped; the American Speech and Hearing Association (Fellow, 1966); the Convention of American Instructors of the Deaf; the Cosmos Club of Washington, D.C.; the Council for Exceptional Children; and Rotary International.

Prior to joining NTID and RIT in 1967, he was dean of the Graduate School of Gallaudet College, Washington, D.C. Previously he served as an UNESCO expert with the Department of Education in Hong Kong; chief clinician at Northwestern University in Evanston, Ill., and an instructor at the Missouri School for the Deaf in Fulton, Mo.

Dr. Frisina earned his Ph.D. in audiology from Northwestern University and his master's degree from Gallaudet. He did his undergraduate work at Westminster College in Fulton, Mo.



Dr. Daniel Ling on Campus

Dr. Daniel Ling, professor of Aural Rehabilitation at McGill University, Montreal, Canada, spoke to the NTID staff recently on "Speech and Auditory Training for the Hearing Impaired." Dr. Ling's background includes classroom teaching and administration in schools for the deaf, as well as direction of speech and hearing services for hearing-impaired adults. He is also author of the recently published book "Speech and the Hearing-Impaired Child: Theory and Practice."



Victor Fuchs (left) and Dr. Jack Clarco

Educational Materials Task Force Meets at NTID

Victor Fuchs (left), assistant director for the National Center on Educational Media and Materials for the Handicapped at Ohio State University, Columbus, and Dr. Jack Clarco, associate dean, Division of Technical Assistance Programs at NTID, discuss marketing strategies for educational products during a recent special task force meeting on marketing and distribution of educational and research materials for the hearing impaired. The meeting was co-sponsored and chaired by Dr. Robert Stepp, project director for Specialized Office for the Deaf and Hard of Hearing (S2), Lincoln, Neb. Other participants included NTID staff members, representatives from Gallaudet College, Washington, D.C.; Captioned Films and Telecommunication Division, Bureau of Education of the Handicapped, Health, Education and Welfare, Washington, D.C.; Technical Vocational Institute, St. Paul, Minn.; the Educational Media Corporation, Annandale, Va.; The National Audio-Visual Center, Washington, D.C.; and Specialized Office for Materials Distribution (S4), Bloomington, Ind.



Ecologist Lectures to Science Students

Anne LaBastille, a noted ecologist, visited NTID recently and lectured to both deaf and hearing students, giving a slide presentation on her ecology work in Central America. The presentation highlighted her National Geographic expedition to Guatemala, where she studied and made recommendations to the government concerning a bird species' possible extinction. Ms. LaBastille makes her home in the Adirondack Mountains of New York and has chronicled her experiences in her recently published book entitled "Woodswoman."



John Wiley Jones Symposium

NTID Research Audiologist Dr. Diane Castle introduces guest lecturer Dr. T. F. W. Embleton, senior research officer of the National Research Council of Canada, to the audience at the second annual John Wiley Jones Lectureship and Symposium held recently at Rochester Institute of Technology as one of NTID's bicentennial events. Built around the theme, "Our Environment of Sound," the symposium was co-sponsored by the College of Science and NTID. Dr. Embleton lectured on "Noise Control from the Ancient Past to the Near Future." Other seminars examined the physics of sound, sound processing, noise damage to the ear, sound measurement techniques, noise pollution, architectural acoustics and communications problems. Prominent lecturers included Dr. John C. Webster, NTID research associate; Dr. Juergen Tonndorf, Columbia University; Dr. Barbara Bohne and Dr. Ira Hirsch, Washington University.

For further information contact:



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