

William E. Castle

An Overview

n 1965 the members of Congress were persuaded that for too long the deal members of our society had been either unemployed or underemployed.

They were told by the deal community, by parents of the deal, by educators of the deal, and by vocational rehabilitation counselors for the deal that something had to be done to make a difference. Their response was to pass the National Technical Institute for the Deal Act, which President Johnson signed into law in June of that same year.

As that act of Congress has unfolded with the establishment of the National Technical Institute for the Deaf (NTID) at the Rochester Institute of Technology (RIT) in Rochester, N.Y., dramatic inroads have been made toward the solution of the problem. In 12 years' time, RIT through NTID has served over 2,600 deaf students, educating them in a broad array of technical studies which carefully prepare them for the incumbent work world and providing them with a host of opportunities for developing stronger personal, social, and communication skills. Of the 987 deaf graduates from RIT, 98 percent have been placed in jobs within six months of graduation, with most of them placed at the time of graduation, 95 percent have been placed in jobs commensurate with their training.

More than 82 percent of the NTID graduates from RIT who are employed have been employed by business and industry. Such fields as engineering, engineering technologies, paramedical services, social work, business management, accounting, communications design, data processing, computer science, media production, applied art, and photographic technologies suddenly find themselves with more and more deaf employees. The doors of such corporations as Xerox, Kodak, U.S. Steel, the American Canning Company, Ford Motor, General Motors, IBM, Bausch & Lomb, and American Telephone and Telegraph have suddenly opened for more ready employment of the deaf. Hospitals, medical laboratories, and social service centers across the nation find themselves with more qualified deaf workers. These are new phenomena that have all occurred in the 1970's not just for deaf graduates from RIT through NTID, but for deaf people in general; and not just because of NTID at RIT, but largely so.

Two other phenomena that merit attention in this brief statement are that 1) 77 percent of the NTID graduates from RIT are white collar workers in contrast to 27 percent of the deaf population overall (Schein and Delk. 1974) and 50 percent of the general population; and 2) the dynamics of the 1970's have helped more and more deaf persons become more productive citizens, which, in one format, reflects more taxpayers and fewer welfare recipients. Another way of considering the latter phenomenon, at least with respect to deaf persons who graduate from RIT through NTID, is that the average graduate will repay the federal government, in today's dollars, two and one half times the cost of the education that has been provided. That is as it should be, and that is what was foreseen by the deaf, their parents, and their educators in 1965 when they supported the establishment of an NTID.

Filliam E. Castle

Dr. William E. Castle Vice President of Rochester Institute of Technology Director of National Technical Institute for the Deaf

National Technical Institute for the Deaf

The National Technical Institute for the Deaf (NTID) at Rochester Institute of Technology (RIT) represents the first effort to educate large numbers of deaf students within a college campus planned primarily for hearing students. Unique in the world, NTID is a vital part of RIT's 1,300-acre campus in suburban Rochester, N.Y.

"We want RIT students to be wellrounded individuals," says RIT President M. Richard Rose, "Having a unique institution like NTID on campus really enriches an RIT education. We all become more complete persons by having the deaf and hearing students working together, side by side. We develop an appreciation for a whole different set of life expectations and begin to see ourselves and our environment in new ways. In our more reflective moments, we have the opportunity to think of the career potential that deaf students had before NTID and the career potential that they have now. We at RIT get a sense of satisfaction and fulfillment out of knowing we have a part in that change."

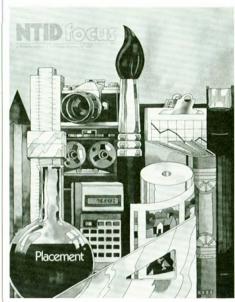
NTID at RIT provides educational opportunities for qualified students from every state in the nation and, through educational outreach, publications and related services, serves deaf persons throughout the world. In order to do so, curriculum and classes have been designed and adapted to meet the needs of deaf persons.

Established by an Act of Congress and funded through the U.S. Department of Education, NTID conducts research to understand better the role of deafness in education and employment and to develop innovative teaching techniques.



RIT President M. Richard Rose

NTD GOCUS



At NTID, technical programs of study prepare students for careers in business, computer science, engineering technologies, applied science/allied health, fine and applied arts, printing, photography, media production and social services. Cover illustration by John Edens.

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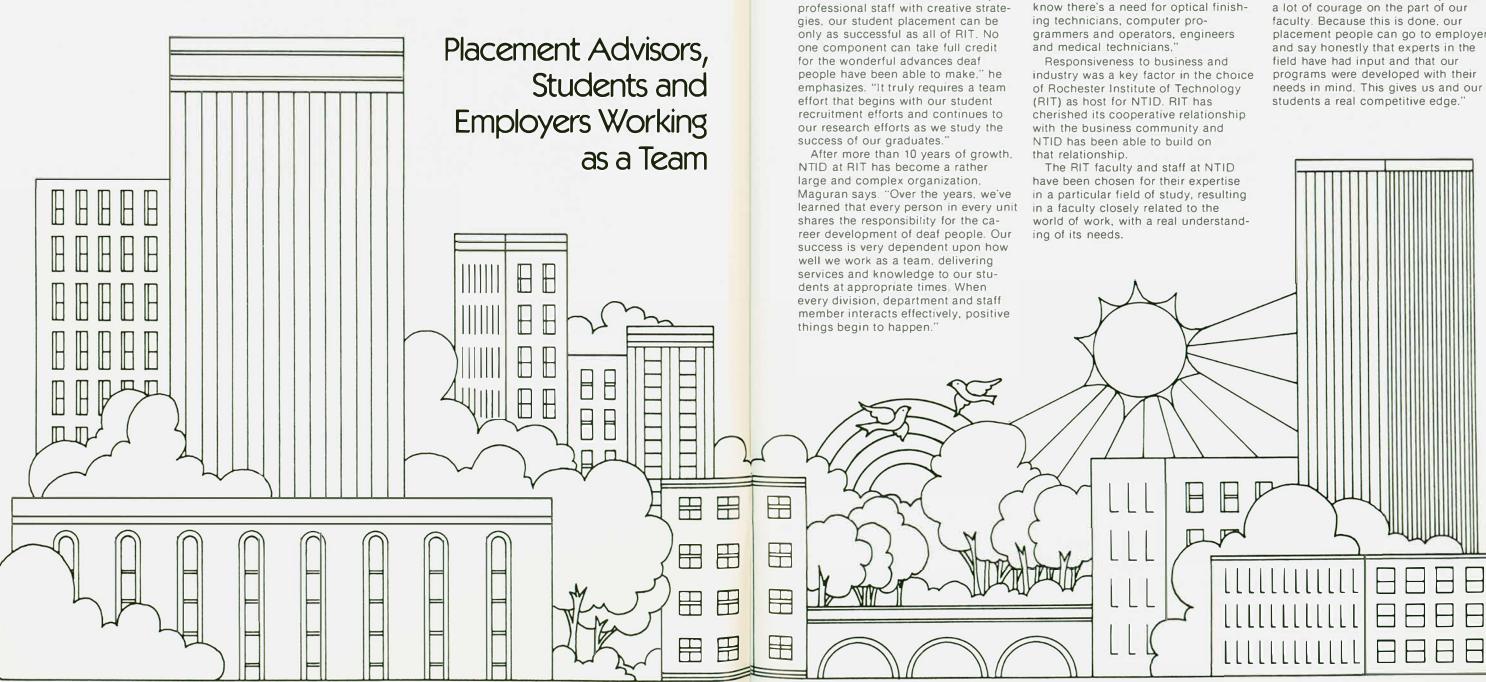
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Employment Opportunities



ID at RIT has made a significant impact on the career development of deaf people during the past decade, says Vic Maguran, director of career opportunities and professional development. "Today we're seeing deaf people distinguish themselves in areas that many people never thought possible-aerospace, law, medicine-areas that require intensive comprehensive, technical and professional training,

NTID's cumulative placement figure is 98 percent, but Maguran is quick to point out that his department cannot take full credit for this accomplish-

"While we have an extraordinary

Maguran points out that placement begins even before a deaf student arrives at RIT. Student recruiters work continually with deaf high school students, their parents, school administrators and guidance counselors in order to help students decide whether or not RIT fits logically into

Once accepted, the student becomes immersed in a career-oriented program which, according to Maguran, is the most important part of the placement process. "NTID's program responds to the needs of the marketplace for highly trained technicians who can do a wide variety of tasks. We don't worry about turning out students with skills they can't use. We

"We are living in one of the most rapidly changing technological eras in the history of man," Maguran says. "and unless our programs are in tune with these changes, they can become outdated very rapidly. Our faculty and staff are committed to keeping NTID coursework up-to-date. One way this is accomplished is through work with advisory groups of representatives from business and industry.

"We bring in people from all over the country, lay out our programs. and ask for their assessment and evaluation." Maguran continues. "Are we on the right track? Are we giving students the skills they'll need on the job? What changes should be made? This continual scrutiny takes a lot of courage on the part of our placement people can go to employers For the employment of deaf students, it's crucial that NTID at RIT be well understood by business and industry. Although Maguran had little experience with deafness when he first came to RIT to serve NTID students, he was experienced in industrial relations and understood the structure and dynamics of the modern organization. He understood the subtle process involved in hiring, the power structure, decision-making and influence within companies.

"We always approach employers with the attitude, 'We want to work in partnership with you. We want to work with you in a consultative role,' and that made us different," Maguran explains. "We assure employers that we will work with them before the first deaf person is hired, as well as after, to minimize the risk to both the employer and the employee."

Specific changes towards which RIT employment specialists for NTID work are employer attitudes, assumptions and hiring practices as they pertain to deaf people. These placement specialists work closely with employers to insure a proper employment fit and make it clear they are available to help solve problems as they arise. This is important, not just for the first deaf person to fill a position, but for all the others who follow.

The placement process for the NTID students of RIT is divided into two separate areas of responsibility: employer development and actual placement activity.

"The employer development people are the pathfinders," Maguran says. "They slowly, patiently and systematically work with employers to help them understand the implications of deafness in the work environment. This is done without resume in hand, without exerting any force, without asking any favors.

"They work with the company, explaining what it would mean to hire a deaf person and what modifications or changes might be necessary. They talk with supervisors and peers, explaining the psychological implications of introducing a deaf person into the work setting. How does a deaf person feel in this situation? How does the hearing person feel?"

When the employer has been sufficiently oriented to deafness, job placement personnel can become involved. At RIT, the placement of deaf students is more of a teaching experience than a service. Students are taught how to look for a job, whom to contact, how to dress and how to present themselves.

"We want to instill self-confidence in our students," Maguran adds, "We



Victor J. Maguran

want them to feel secure enough in their abilities that they can look for jobs anywhere in this country."

One part of the placement process still needing attention is follow-up. As Maguran sees it, the greatest challenge in the coming years will be keeping track of every deaf graduate.

"Without complete data on the graduates, we don't know how mobile they are or what kinds of success or lack of success they are experiencing on the job," he explains. "We must know, much more precisely, just how they are doing. To accomplish this, an extensive new graduate questionnaire focusing on communication, social and employment information has been devised.

"Even with a 98 percent placement record, our job is not done," Maguran admits, "and questions continue to surface. We're confident about the competence of the deaf students when they leave RIT, but what about their skills in a few years? In this era of rapid change, when do they begin to lose the ability to do the job? When do their skills become obsolete? And if they do, how does NTID at RIT help? Or does it? We must create an attitude among RIT's deaf students that learning is a lifelong proposition, and that they have a lifelong responsibility to upgrade their own skills. We must make them understand they may have to change jobs—even careers—a number of times during their 30 to 40 years of productive working life:

RIT's continuing education efforts for the deaf and certain NTID re-

search are directed towards employers to help them formulate guidelines for training deaf adults on the job.

Placement personnel concerned with NTID students also must be aware of legislation concerned with hiring the handicapped. While the law says that reasonable accommodation must be made for deaf people, the fact is that no one is sure just what constitutes "reasonable accommodation," Maguran says.

"We still don't know what we have to do to modify or revise jobs to best meet the needs of deaf workers and we must find out. One way to do this is with people like Bob Menchel. He is a deaf person who has been with Xerox for 14 years as a physicist and is now with NTID at RIT as an occupational analyst for deaf students," Maguran continues. "His job is to work with companies, look at jobs available, and decide whether or not a deaf person could perform them. He must then decide how jobs could be changed or modified.

"Our students are getting jobs because they have the skills needed, not because they are deaf," Maguran stresses. "Recent legislation certainly has had a positive impact on hiring practices, but we had a 95 percent record before the legislation. However, the job is only half done. There is a great deal more to know, a great deal more to accomplish. And the future looks very exciting."

Lynne Williams

Facts and Figures

he 98 percent cumulative placement total is only part of the placement story for the NTID students at RIT. In the 12 years since it accepted its first deaf students. RIT has reversed a national pattern of unemployment and underemployment of deaf people.

Back in 1957, Gallaudet College reported that, at that time, the greatest number of deaf college graduates were entering the educational field. Fifty percent of employed deaf people were working at schools for the deaf, with only seven percent in technical and professional careers. Another sector employing large numbers of deaf people was the government.

The experience for RIT's deaf graduates however is now quite different. Through 1979, 82 percent of its graduates have found jobs in business and industry, 12 percent in government, and a scant six percent in education.

"We're glad to see these figures," comments Deborah Veatch, manager of employment opportunities, "They mean our students are becoming more competitive."

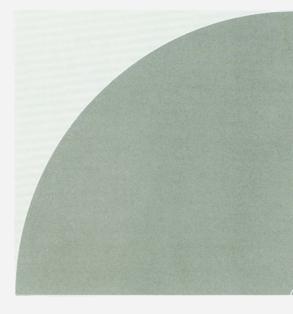
The placement advisors for the NTID students of RIT also encourage greater geographic mobility among graduates, urging them to consider work in metropolitan areas that offer the strongest employment opportunities. If they are willing to move to new places, their chances of finding worthwhile and productive jobs are greatly enhanced.

To evaluate placement efforts and trends, the Employment Opportunities Office of NTID at RIT divides students into two groups, those available for employment and those not.

"Historically, 80 percent of the NTID graduates from RIT have chosen to go directly into the labor market. That's 792 out of the 987 graduates. We derive the employment percentage of 98 percent from that 80 percent," Mrs. Veatch explains. "This means that only 12 students who are available for work are still unemployed."

Of the 98 percent who are employed, 95 percent are in jobs commensurate with their education and training.

More than three quarters of RIT's deaf graduates who do not enter the labor market decide to pursue further education, with many staying at RIT for advanced degrees.



Status of Program Completers Entering the Labor Force

98% Employed

2% Unemployed



Graduates by Sector of Employment

82.5% Business/Industry
(includes hospitals and other health care facilities)

11.7% Government

5.8% Education

Status of Program Completers Not Entering the Labor Force

(Cumulative N = 195)

76% Attending School (45% RIT 55% Other Schools)

10% Homemakers

7% Idle Permanently

5% Unknown

Idle Temporarily

Placement Strategies Students Learn Job-Seeking Skills

he employment specialists of the Employment Opportunities Office of NTID at RIT give students the training and guidance they need to develop lasting job-seeking skills. It's the students themselves who land challenging positions.

The employment specialists of NTID at RIT teach such skills, much the same as professors teach technical skills, except the end result isn't an A or B. It's a paycheck and often a start to a rewarding career. Deborah Veatch, manager of employment opportunities, is a leader in helping RIT deaf students become skilled job-

"In the last couple of years, we've begun to help students learn job-seeking skills so that they can have a lifelong set of skills," Ms. Veatch explains. "The intent is that they'll be able to use those skills from the time they look for co-op jobs to when they want to change jobs in the future.'

The RIT employment specialists for NTID students believe that placement is a final stage of RIT's career development process. This career development process helps students develop technical, communication and personal/social skills in the classroom and through co-operative work experiences. Permanent placement is a major goal of the process

"The students learn while they're here and we believe when it's time for placement, they still need to learn," Ms. Veatch adds.

Each employment specialist receives a forecast of prospective graduates for fall, winter, spring and summer quarters from the technical departments to which they're assigned. Once a group is identified, the specialist arranges to teach these students job-seeking skills either in a classroom or one-to-one situation. Instruction begins at least two quarters before graduation.





Deborah Veatch, manager of employment opportunities, discusses placement strategies for NTID students with Victor Maguran, director of career opportunities and professional development.

"We try to teach students in groups because group dynamics help them learn better," Ms. Veatch points out. "They ask each other questions and hear the answers."

A comprehensive placement manual provides the curriculum for these informal classes. An easy-to-use workbook, it also provides the core curriculum for "Job Search Process," a more formal, credited course taught by the Employment Opportunities staff.

A four-page flow chart that helps students see the job search process is featured in an early chapter on students' responsibilities. "The chart is a big help with fall quarter students who used to say, 'I'm not graduating until spring. Why do I need to start now?'" Ms. Veatch explains.

"A student can follow this chart and actually see that these activities— writing resumés and letters of introduction and identifying the right companies—need a commitment of time. It's not an easy process."

Later chapters deal with decision-making, as well as development of resumés and letters of introduction. Because of their handicap, many deaf students have difficulties with written English. Employment specialists at NTID teach special writing exercises to help students overcome those difficulties.

RIT's deaf students offer employers something more than letters of introduction and resumés. There's an extra page attached to the resumé that describes each student's technical and communication skills.

"Employers find this information very helpful," Ms. Veatch says. "Our frank assessment of technical and communication skills often turns them on. Our employment specialists prepare these assessments by collecting data from the technical and communication departments of NTID and the other colleges of RIT."

Students research companies for which they'd like to work in the NTID Employment Information Center, a job information library which maintains directories for business, industry and government in each state and most major cities.

"We advise deaf students to send at least 50 letters of introduction to the companies they've identified in their geographic preference," Ms. Veatch says. "They don't send letters to just the personnel manager, either. They always try to address specific contacts they've found in the resource center."

Finally, the employment specialists help deaf students become familiar with interview situations and a variety of job application forms. Then the stage is set for these students to go

through the interview process and secure their first jobs.

The placement strategy of teaching deaf students life-long skills in job-seeking apparently works.

"We had one student from Portland, Me., who said, I'm going to California to get a job.'" Ms. Veatch recalls, "He was a one-year certificate student in data processing looking for entry level computer operator jobs. He also was determined to find a job in California. I asked him, 'How are you going to get there?' He said, 'I'm taking a Greyhound bus.'"

Ms. Veatch helped Robert Cavellaro contact the Charter Bank of London while he was still a student at RIT. Bank officials asked him to contact them when he arrived in San Francisco. Robert arrived in San Francisco by Greyhound bus after graduation, stayed at a motel, and contacted a deaf self-help organization that helped him set up an interview at the bank. Once bank officials called NTID at RIT for a reference check and more information about his technical skills, Robert had a job as a entry level computer operator—in California.

Stephen Dingman



Deaf students match their resumés with their targeted employers in the Employment Information Center.



The "resumé game" is a "fun" exercise that helps teach deaf students job-seeking skills.



IT's employment specialists for NTID students take special care to match more than 900 students with employers nationwide.

Deborah Veatch

"Helping hearing impaired students secure meaningful employment is exciting," says Deborah Veatch, manager of employment opportunities. Ms. Veatch, who was a career counselor and employment specialist at NTID for four years, supervises the work of four employment specialists, a coordinator for co-op development and placement, two co-op specialists and a placement aide.

"RIT has a reputation for placing technically skilled students who have the ability to work well with others," Ms. Veatch points out. "Employers hire the NTID students of RIT because they're qualified, not because they're deaf."

As manager, Ms. Veatch determines the direction that placement activities take. "As we move into a decade with an unsettled economy, our placement

activities must focus on increasingly creative job search strategies," she says. "We must also keep a close watch on technological, industrial and economic trends in order to provide our students with the most up-to-date, meaningful information on which they can base their employment decisions."

Debbie Veatch came to RIT with a background in vocational/career development counseling. She worked at the Massachusetts Rehabilitation Commission as a counselor for three years, providing job placement services to deaf and other physically disabled persons.

A native of Massachusetts, she graduated from Suffolk University with a major in psychology. She holds two master's degrees: one in rehabilitation counseling from Assumption College and another in career information from RIT.

Richard Elliott

For Richard Elliott, coordinator for cooperative (co-op) development and placement, the satisfaction comes "from feeling you've really had a part in helping students get to the point where they can survive independently

Dick Elliott came to RIT in 1972 with experience in industrial/labor relations including nine years with General

management, engineering and maintenance.

"After years of helping to iron out labor/industrial problems, I decided I wanted a change," he recalls. That change involved coordinating an educational program. Operation Young Adults, for the Industrial Management Council (IMC) of Rochester, N.Y.

"The most rewarding part of that job was being able to assist those young people in their job development. When the opportunity to pursue a similar program at RIT for deaf students opened up, I jumped at it," he says.

As coordinator of co-op since 1977, Elliott directs the efforts of two co-op specialists. The team places more than 300 students each year in jobs with business, industry and government.

Elliott holds a bachelor's degree in industrial/labor relations from Cornell University and a master's in business technologies from RIT.

Paul Seidel, co-op specialist, attributes employer interest in the co-op program to the high level of technical education that students get at RIT.

Seidel helps more than 125 students locate co-op work experiences nationwide in a variety of fields-business occupations, science, engineering, optical finishing and bio-medical pho-



Coordinator for Co-op Development and Placement Richard Elliott (ctr.) directs the efforts of two co-op specialists.



Paul Seidel, co-op placement specialist, assists over 125 students in locating co-op work experiences.

tography. He teaches classes in the job search process and confers with students to explore different kinds of co-op work experiences.

"I came to RIT because it's a national center for the education of deaf people." he says. "People are doing innovative things here and I wanted to be a part of that excitement."

He began work at RIT in 1979 after two years with retarded adults at AI Sigl Center's Association for Retarded Citizens and five years at the Association for the Blind, both in Rochester, N.Y.

Seidel holds a bachelor's degree in agricultural economics from Cornell University and a master's degree in education from the University of Rochester.

Dennis Grange

Dennis Grange, co-op placement specialist, recently sampled printing technology as a first year student would. "I wanted to learn what printing students actually do and that was the best way," he explains.

Grange, who has worked at Eastman Kodak Co. for two years, began working in placement at NTID in early 1979. He now places more than 125 data processing and printing students in co-op education/work experience jobs throughout the country.

"By using interview simulations, we help students improve their communication skills and make them feel more



Manager Deborah Veatch (second from rt.) discusses career placement activities with Margaret Brophy, placement aide, and Dennis Grange, co-op specialist.

confident in real interviewing situations," he says. Like the other specialists. Grange teaches interviewing techniques, writing resumes, preparing cover letters and other job search methods.

After receiving a bachelor's degree in history from St. John Fisher College, he went to the University of Georgia where he received a master's degree in education. He was director of student activities at Berry College for two years.

Lynne Morley

"Sometimes employers aren't sure whether hearing impaired means total deafness or limited hearing," explains Lynne Morley, employment opportunities specialist for students in NTID's business careers program at RIT. "Even though most people don't have a clear understanding of deafness, they're sensitive and willing to begin to understand it."

Before joining the staff of Employment Opportunities in September 1979, Ms. Morley taught two years in NTID's business careers program at RIT. This includes data processing and business occupations. "It's exciting to place some of the students I've taught," she says. "I've developed a special kind of relationship with them so it's especially rewarding to help them find permanent jobs."

After six years of coordinating the legal secretarial program and teaching business at Cape Cod Com-

munity College, Ms. Morley decided to make a change—a change that led her to RIT.

She received her bachelor's and master's degrees in business education from the State University of New York at Albany.

Anthony Finks

"I remember helping place an electromechanical technician who is profoundly deaf," recalls Anthony Finks,
employment opportunities specialist.
"Because the young man is deaf, his
employer told him he wouldn't be able
to complete a volume control test
which was part of his job responsibility. Our graduate worked with one
of the engineers during his free time
and hooked up a scope so he could
test the part visually. The employer
called me and asked. Do you have
any more students like him?"

Tony Finks, who has been placing students since 1974, has many similar stories. He is responsible for helping engineering, accounting, business administration and computer science students find permanent jobs.

"I try to become acquainted with the students as soon as they begin their first year," says Finks. "Even though they have concerns at first, they graduate as self-assured individuals ready to perform effectively on the job."

The career path which led Finks to RIT included work at Chemical Bank in New York City and Xerox Corp. in

Rochester, N.Y. He holds a bachelor's degree in philosophy from St. Bonaventure University.

Margaret Bechtold

Assisting art and visual communications students who are deaf in their search for permanent employment since December 1979, Employment Opportunities Specialist Margaret Bechtold says it's extremely rewarding to see the face of a student who's holding a job offer.

"I hope to help students secure rewarding and meaningful first jobs, but more importantly. I hope they make some exciting discoveries about the working world," she says.

Before coming to RIT, Ms. Bechtold worked for two years at the Al Sigl Center's Association for Retarded Citizens, helping place retarded adults in meaningful jobs. She holds a bachelor's degree in psychology from the State University College at Oswego.

Kenneth Saperstone

Saturday is the only day on which Kenneth Saperstone, employment opportunities specialist, can get busy social work students who are deaf together for a pre-employment training workshop.

"I look at their faces and listen to their dialogue and I know my Saturday mornings are really worthwhile," he says. Since 1977, Saperstone has been helping social work, as well as science, medical records, medical laboratory and optical finishing students



Employment Opportunities Specialist Anthony Finks discusses resume writing with preengineering students.



Margaret Brophy (standing), placement aide, helps a junior in photography, Nancy Currell, use the resources in the Employment Information Center.

find permanent jobs after graduation

He teaches the job search process—how to select companies, write resumés, interview effectively and relate to people in different situations. "With the preparation our students have, they can compete successfully against anyone," he says.

Before coming to RIT, Saperstone was placement specialist at Rochester Jobs for two years. He received a bachelor's and master's degree in education from Arizona State University.

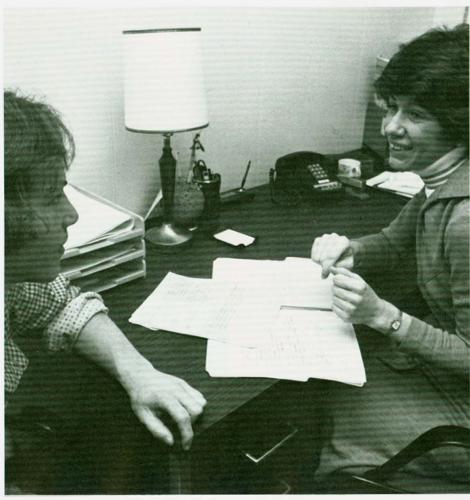
Margaret Brophy

"I'm enjoying the challenge of creating a functional and important center where students can come to receive help," says Margaret Brophy, placement aide, Since January 1980. Ms. Brophy has been helping students use the employment-related resource materials in the Employment Information Center. She assists them in their job searches, as they research company information in preparation for either cooperative work experiences or permanent jobs.

Ms. Brophy supports the efforts of six employment specialists as they assist deaf students with job search needs. "I'm working with a vibrant group of employment specialists," she adds.

She has a bachelor's degree in English from Nazareth College of Rochester.

Cynthia McGill



Employment Opportunities Specialist Lynne Morley says, "It's exciting placing some of the same students I've taught."



Employment Opportunities Specialist Kenneth Saperstone helps a senior in medical record technology, Gena Gilreath, plan for work after graduation.



Margaret Bechtold, employment opportunities specialist, answers questions for a prospective employer

hile the enthusiasm to hire deaf people continues to spread through large companies like IBM, AT&T, Eastman Kodak, U.S. Steel, General Motors, Xerox and Boeing, many smaller organizations also are having tremendous success with deaf people.

"Companies like Duffens Optical (Topeka), Globe Engineering (Chicago), Clough Associates (Albany) and St. Mary's of Nazareth Hospital (Chicago) are constantly telling us how happy they are with the people we've helped place there," says Kathleen Martin, manager of the National Center on Employment of the Deaf (NCED) of NTID at RIT. "It's a remarkable trend that we think will have a positive impact on deaf people all over the country. We're glad to help make it happen."

Helping to "make it happen" is the responsibility of NCED, a recent expansion of placement and employer development services regarding deafness. NCED performs five major functions: employer development, career matching, training, continuing education and information services.

Employer development, Ms. Martin explains, is "a systematic, targeted, marketing process which moves potential employers of deaf RIT students, graduates and other qualified deaf persons from a stage of awareness to acceptance of the idea of hiring a qualified deaf person."

Several strategies are used to meet this goal. Employment seminars conducted across the country give potential employers information about deafness, its implications for the work environment, RIT programs and the skills of deaf students and graduates. On-Campus Development, covering the same kind of information, is tailored to the needs of the individual



Victor Maguran, director of career opportunities and professional development. discusses the new career matching system with Kathleen Martin, manager of the National Center on Employment of the Deaf.

employer and leads directly to On-Campus Recruiting, Another strategy, Job Analysis, paves the way for deaf persons to gain positions in which there has been no history of a deaf employee. The fifth strategy, Corporate Account Development, is a more sophisticated combination of the other four.

NCED has launched the nation's first career matching system for deaf persons in an effort to link their abilities with employers' needs. The system has already begun with information on scores of employers interested in hiring skilled deaf people. The next step will be to include names and job qualifications of deaf people who are seeking employment opportunities. When an information processing system matches the needs of the deaf applicant and the employer, materials regarding the applicant will be sent to the employer, who has the option of

contacting the candidates.

NCED provides training to both professionals working with deaf persons in employment and employers themselves. One will focus on providing skills in selecting, approaching and preparing employers for deaf employees. Employer training will provide in-depth instruction on the implications of deafness in the work environ-

Continuing education takes "a twopronged approach to the challenge of keeping graduates competent and competitive," Ms. Martin says. While making graduates more aware of their need for continuing education and more able to gain access to it, the program answers employers' questions on the implications of deafness for employment.

In addition to compiling a literature review, information services is conducting a media search related to the employment of deaf people.

"Through these efforts, we intend to avoid duplication of currently available materials, yet upgrade and expand the literature and media in order to strengthen the entire field of deaf education and employment of deaf people," Ms. Martin explains.

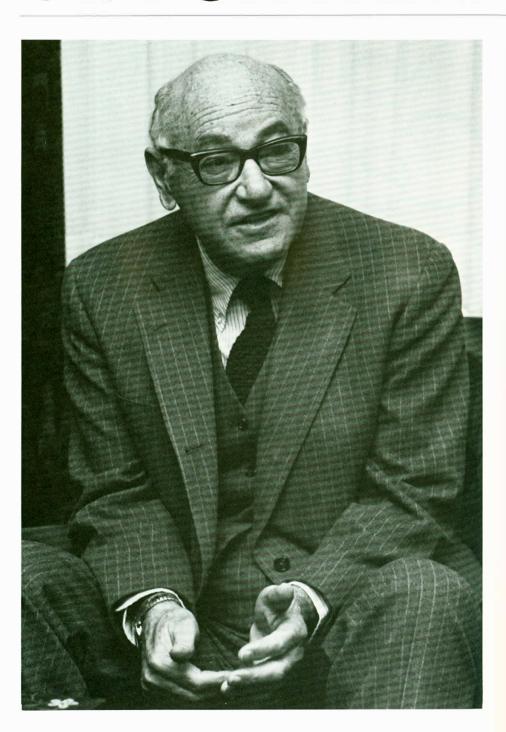
"The creation of NCED is one of the most exciting programs to emerge at NTID," she concludes. "Not only will its activities be of benefit to deaf RIT students and graduates, but also to other post secondary program completers and ultimately to all deaf people."

National Center on Employment of the Deaf

Helping to "Make It Happen"

Richard

Siverman and NTD "A Youthful Exuberance"



thout the slightest hesitation, National Advisory Group (NAG) Chairman S. Richard Silverman points to RIT's "remarkable" placement record of deaf students as the most tangible evidence that the mission of NTID is being accomplished.

Sipping coffee before a recent NAG meeting. Dr. Silverman gives his own interpretation of that mission—"to provide opportunities to deaf persons who have the ability and motivation to become part of the world of employment, particularly technological employment. They should have the training and education to accommodate the continually changing requirements of the world of technology. To put it simply," he pauses, "NTID's mission is to give deaf persons the opportunity to be all they are able and want to be."

After its placement record, Dr. Silverman describes "a more intuitive, subjective level of evidence" that the mission of NTID is being met by RIT. "NTID has opened a world for deaf persons which, if not heretofore closed to them, had at least been difficult for them to reach. In the process. it has created an understanding of the capabilities of deaf persons on the part of business, industry and government."

RIT is part of that world, he says. and deaf students at NTID should be working towards higher aspirations, pursuing further study at RIT and taking advantage of its faculty expertise.

"By doing this," he explains, "they'll be mixing with the world of hearing people and that, after all, is what industry is like. In the process, both the deaf and hearing people will learn to understand each other better."

With his eyes twinkling a little, Dr. Silverman lists some of the things

that NTID at RIT seems to be doing so right. Behind excellent leadership, he cites its "posture of reducing insularity

"We do not approach employers with the plea, 'Please help the handicapped.' Instead, we show them our students' skills and say, 'Here's what our graduates can do for you.' It's a rational, appeal.

"And too," he continues, "NTID at RIT has a faculty and staff drawn from outside the specialty of deaf education. That staff has what I call a-a-" he reaches for a word, "a youthful exuberance, almost an obsession with achieving and selfexamination. A rational optimism."

Even at 69 years, Dr. Silverman has some of that "youthful exuberance" himself. In addition to NAG, he serves on RIT's Board of Trustees. His involvement with NTID at RIT goes back to the 60's, to the days when NTID was just an idea. He was among those on the federal committee charged with setting up guidelines for NTID and choosing its site, in fact.

It was important, he recalls, that NTID become part of a technical institute such as RIT to avoid duplication of programs. "Such an institution would also give deaf students an opportunity to learn what the hearing world is like," he adds.

It was also important that the host institution provide support services. he continues, and its faculty and staff respond positively to the special needs of deaf people. And lastly, the committee wanted the host institution to be in an industrial environment, congenial to the career opportunities that NTID's graduates would seek.

"There was something about RIT," Dr. Silverman muses, "a special character and tradition. And too, Rochester itself had appeal."

The challenges that NTID faces

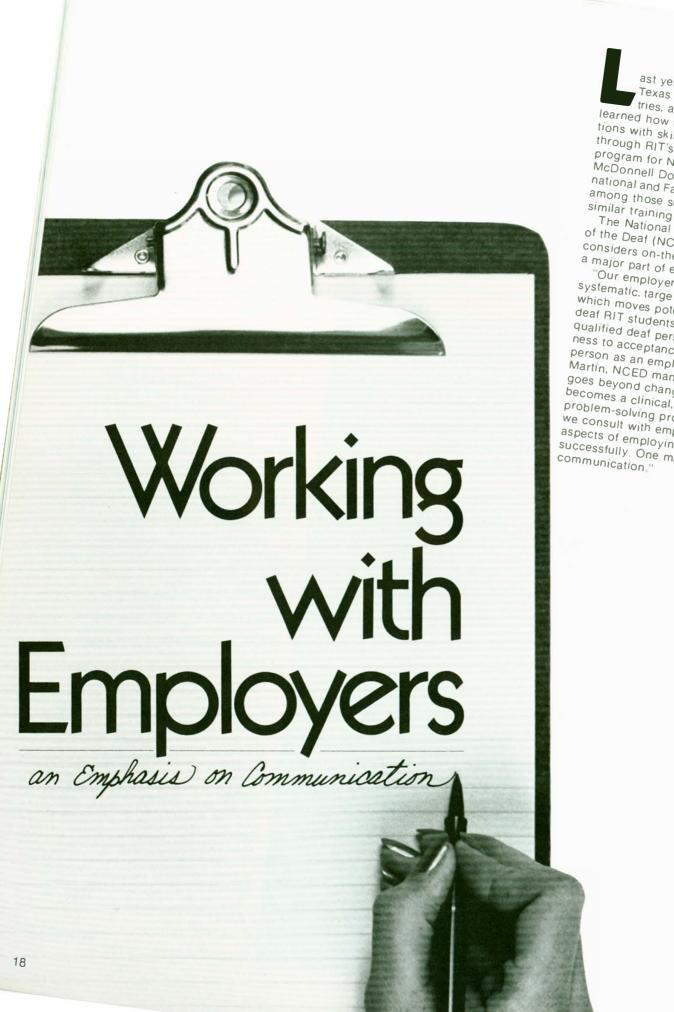
have intensified since it opened its doors 12 years ago, Dr. Silverman feels, and in order to keep meeting its goals. NTID at RIT must reach out beyond the campus; continue to do what it's doing but do it better; and keep current with opportunities. Deaf RIT students must have technical skills, he explains, but they must also be able to "learn to learn"—to accommodate change. Moreover, he says, "RIT must create a sense of independence on the part of its deaf and hearing students an independence that will help them long after they've graduated."

Now director emeritus of the Central Institute for the Deaf in St. Louis, Mo.. Dr. Silverman has been professor of audiology at Washington University since 1949. His other professional services have included consultation on problems of deafness to the U.S. Secretary of War; consultation on audiology with the U.S. Air Force, membership on the Board of the American Hearing Society and the Advisory Council on Handicapped Children.

Dr. Silverman has served as president of the American Speech and Hearing Association, the Alexander Graham Bell Association for the Deaf and the Council on Education of the Deaf, and is now a member of the Royal Society of Medicine. He was an honorary fellow of the American College of Dentists, and a member of the Board of Fellows of Gallaudet College. His articles related to deafness have been published in more than 20 professional journals.

He holds an A.B. degree from Cornell University and M.S. and Ph.D. from Washington University. He has lectured throughout the U.S., Latin America, India, Japan and Australia.

Susan Watson



ast year, managers from Ford, tries, and Hewlett Packard learned how to improve communications with skilled deaf employees program for NTID. American Cannational and Fairchild Test Systems are similar training this year.

The National Center on Employment of the Deaf (NCED) of NTID at RIT considers on-the-job communications a major part of employer development.

Systematic. targeted marketing process systematic. targeted marketing process which moves potential employers of deaf RIT students, graduates and other ness to acceptance of a qualified deaf person as an employee," says Kathleen Martin, NCED manager. Our program becomes a clinical, analytical and problem-solving process through which aspects of employing deaf people communication."

On-campus or in-house employer development presentations at NTID focus on the special communication characteristics of deaf people. At these presentations, managers receive practical communication tips they can use in one-to-one and group situations.

"When we bring employers to RIT, we try very hard to make them feel comfortable with deaf people," says Robert Menchel, employment opportunities analyst. Menchel is a senior physicist on a two-year loan from Xerox who happens to be deaf.

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He joins Employer Development Specialist Robert Conway to form a unique employer development team at NTID. "We tell employers about a deaf person's patience with someone who's trying to communicate with him," Conway says. "Employers can improve communications with their deaf employees by being completely honest when they don't understand.

"When I talk with Bob Menchel," he explains, "and I don't understand him. I'll stop him and have him back up until we both understand.

He recommends writing the message down if a deaf employee's speech is difficult to understand. "And don't worry about the written language—the grammatical structure," he adds. "It will probably be different from what you're used to, but that doesn't mean the understanding isn't there."

There is no need to tell employers that communications with deaf employees will be easier than it is—or worse than it is. Each graduate from RIT through NTID has a different communications background and the employer development program gives employers a background in deafness and its effect on communications, as well as a chance to meet deaf people.

Conway is a role model with which employers can identify. "I explain my background of 20-plus years in industrial purchasing and sales management," he says. "In all that time, I met one deaf person. That was in an interviewing situation where we ended up writing for the most part. She happened to be an RIT graduate in computer science.

"I found it very easy to communicate on a one-to-one basis. She explained how I could best communicate with her, which was to speak slowly without changing my speech pattern, and to write when necessary. So that's what we did, although I was nervous at first."

To help employers overcome that initial nervousness, employer development presentations are tailored to the employer's time limits and needs. A day-long presentation includes an



The job development presentation for Rockwell International was so tailored that Joan Mlekush, equal employment opportunity officer, could learn about deafness in the morning and interview deaf students in the afternoon.

introduction to NTID, its relationship with RIT, and an introduction to deafness; the personal/social aspects of deafness; a tour of NTID and other parts of RIT; communication skills and training; technical departments and majors; the co-op program and permanent placement; and the role of NCED.

Recently, a new recruiter from Rockwell International participated in employer development in the morning and interviewed deaf RIT students for jobs in the afternoon. "That kind of visit is typical," Conway says.

"Each employer who recruits deaf students is prepared thoroughly for the interviewing experience," Ms. Martin stresses. "Since many have never interviewed a deaf person before, this preparation is designed to make the opportunity as successful as possible for both the employer and the deaf student." In addition to oncampus presentations, employer development specialists such as Conway and Menchel are sent for in-house presentations on communications and other subjects of interest to employers.

NTID at RIT also reaches employers through its general information packets. The packet contains facts about RIT, its hearing and deaf graduates, the employer development program and career areas such as civil and electromechanical technology. In addition, employers learn about deaf people through several fact sheets: Communications: What's It All About; The Meaning of Deafness; Misconceptions About Deaf People; and Telephone Equipment for the Deaf.

Once employers learn a little about deafness and communicating with deaf people, they often discover that deaf RIT students work as hard as the employer to enhance on-the-job communications.

"We shouldn't put all the responsibility on the employer," Menchel emphasizes. "We tell the deaf person not to pretend to understand instructions when he really doesn't. He has to say, 'I don't understand that. Maybe we should write it down.'

"I think it's important for deaf employees to be able to interact with other people, to listen and understand their co-worker's point of view," he adds. "Deaf employees should have a friendly outlook."

The required personal/social courses of NTID at RIT and the fact that deaf students study and live on a campus with 8,000 hearing students helps deaf graduates interact with their co-workers.

Communication barriers crumble with a little effort from both employer and employee, Conway explains. "At IBM, for example, they had a little welcome ceremony and introduced themselves to the deaf RIT graduate," Conway recalls. "People wore name tags for three or four days until the new employee became more familiar with the new names and faces.

"So we encourage the buddy system. And of course, if you put the same theory into practice with a hearing employee, you're going to have a much happier atmosphere."

Stephen Dingman

Cooperative Work Experience

Benefiting Employer and Employee



Co-op Placements, Summer 1979

75% Business/Industry

17% Government

8% Education

IT's deaf students integrate academic learning with actual work experience in cooperative ("co-op") learning situations throughout the country in business, industry, education and government. Many of the academic programs at NTID include one to five co-op experiences, usually 10 weeks long, which give students exposure to their job field.

"Co-op confirms what students learn in the classroom." says Richard Elliott, coordinator of RIT's co-op development and placement for deaf students. "It also shows them what additional skills they need for a permanent job."

The co-op experience for Ellen Jones, an RIT sophomore majoring in NTID's program in office practice and procedures, has been a "fantastic learning experience," she says. The third deaf RIT co-op student at the Veterans Administration Medical Center in Wilkes-Barre, Pa., she is responsible for typing reports, correspondence and procedure manuals.

"Ellen's ability to communicate and get along with people is great. She's a terrific worker." says Donna Roache, secretary to the chief of medicine and Ellen's supervisor. "I'm learning as much from her as she's learning from us. I'm going to request that she return here for her other co-op work experience."

"Mrs. Roache is an excellent supervisor and a good friend," says Ellen. "She's attended several Wilkes-Barre Society for the Deaf Club meetings and basketball games with me."

Another deaf co-op student. David Okel, has completed three co-op work blocks at the Naval Sea Systems Command in Washington, D.C. David, a senior majoring in the mechanical engineering program of RIT's College of Engineering, is "eager to learn, energetic and a very desirable employee," says Robert Weir, head of the submarine high performance ships section and one of David's former supervisors.

In three co-op blocks, David helped prepare reports on the weight and stability of submarines, develop and write programs for the design of submarine propellers, and prepare line drawings of surface ships.



Co-op for Ellen Jones, a sophomore majoring in NTID's office practice and procedures program at RIT, is "a fantastic learning experience."

"As part of a team, David had certain tasks to complete. His performance on the tasks was just as important as anyone else's," says Gary Jones, a naval architect and one of his supervisors, "His handicap has not hindered his outstanding performance."

"David's been every bit as capable as the hearing trainees we've had," he continues. "We've already recommended that he be hired after graduation."

As in the case of David Okel, the co-op experience often gives the employer an opportunity to observe the capabilities of a hearing impaired person before deciding to employ that worker permanently.

"When the co-ops are good work experiences for the students and employers, they sometimes develop into permanent jobs," says Elliott. "However, our primary concern is that our students have excellent experiences which are mutually beneficial to them and the employers."

Cynthia McGill

Employer Evaluation



Technical Competence

68% Good or Better

29% Fair

3% Unsatisfactory



Quality of Work (accuracy and thoroughness)

79% Meets or exceeds standards

20% Usually meets standards (needs some checking)

Below standard (needs constant checking)



Understanding Instructions

85% Average or Better

15% More than Average Instruction Required

These charts represent an analysis of the first 80 job performance evaluations returned by employers for students on cooperative work experiences in the summer 1979.

Commitment to the Deaf

ames Shinosky, a deaf RIT student who worked last summer in the packaging engineering department at International Business Machines (IBM) in San Jose, Calif., says his co-workers gave him some great on-the-job experience, but he gave them an experience with deafness that they're not likely to forget.

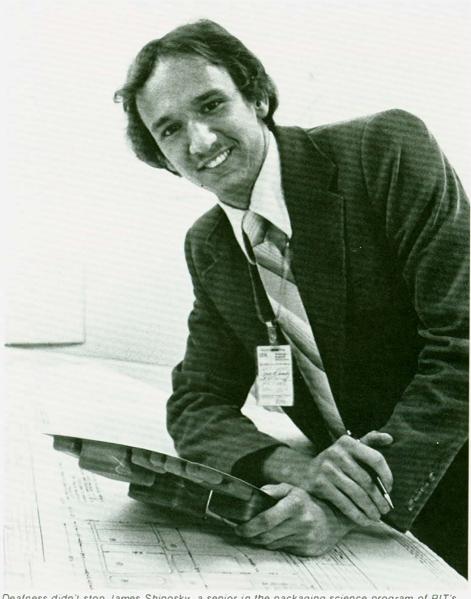
"By the end of the summer, my co-workers realized that deafness does not stop me or any qualified deaf person from getting the job accomplished thoroughly and accurately," Jim says. "My major contribution to IBM was my technical preparation."

Through its commitment to the deaf, IBM is demonstrating that deaf people can make major contributions to business and industry in technical

and professional positions.

"Deafness is a handicap that is poorly understood," says Dr. Steven L. Jamison, an IBM personnel consultant, "and IBM's efforts reflect our concern that it be better understood. We are continuing to expand the career options for deaf people as well as educate employees about this invisible handicap."

IBM's long-standing involvement with the deaf is reflected in its Work-Experience Program, providing cooperative "co-op" summer experiences for the NTID students of RIT and other deaf college students in their career areas. Currently, IBM is sharing its expertise by sending an employee through its Faculty Loan Program to teach deaf RIT students for one year. The company has also provided support through promotion of the National Center on Employment of the Deaf, established recently within NTID at RIT.



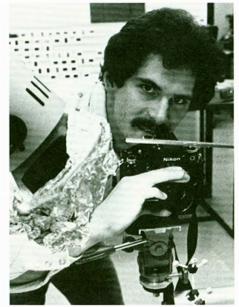
Deafness didn't stop James Shinosky, a senior in the packaging science program of RIT's Institute College, from getting the job done.



Dr Steven L. Jamison, an IBM personnel consultant, set up the program that helps deal college students find a place in the business world.



Debra Ernest, a sophomore in data processing, "sometimes learned faster than hearing employees,"



Kenneth Rankin, a deal sophomore in photographic science of RIT's College of Graphic Arts and Photography, provides support to IBM photographers in San Jose.

Work-Experience Program

The IBM Work-Experience Program for deaf college students began in 1974, largely as a result of the efforts of Dr. Jamison, now its administrator. Richard S. Elliott, RIT's coordinator for NTID co-op development and placement, works with Dr. Jamison in placing deaf RIT students in the IBM program for cooperative education experiences...

The purpose is to provide deaf students with real work experiences in the careers for which they are preparing and to acquaint potential employers with their abilities. Initially, the program provided only computer-related work experiences, but it has expanded now to include many other disciplines relevant to IBM divisions.

Each spring, Dr. Jamison interviews interested students at various colleges. Qualifications are matched with summer jobs at IBM locations throughout the country.

"Often, students will make the initial contact with IBM," Elliott says. "Sometimes, it's the student who triggers an IBM location's interest in becoming a part of this program." Students who accept the job offers are paid as pre-professional, temporary employees and are reimbursed for relocation expenses. "We give a special orientation on deafness to IBM managers involved," Dr. Jamison adds.

This past summer, IBM hired 22 deaf RIT students in "good, challenging positions," says Elliott.

Jim Shinosky

1979 was Jim Shinosky's second summer with IBM's packaging engineering department. He is a senior and the first deaf student major in RIT's packaging science program.

"The major contribution Jim made over the summer was the number of packaging problems he solved for us," says Will Perry, his manager. "He's an excellent draftsman and an intelligent, creative person."

Felece Gelb

"In addition to a variety of accounting and administrative assignments, I had the opportunity to talk with many IBM people about their career paths," recalls Felece Gelb, a senior majoring in accounting. "I learned a great deal about a company like IBM and also discovered my career goal. It will be challenging and exciting to be an accountant/computer programmer."

Charles Bogan, controller for the IBM Santa Teresa laboratory and Felece's manager said, "I had some reservations about how this program with deaf students would work. By the end of the summer, I learned that it works very well, largely because of the interest and capabilities of the students."

Kenneth Rankin

Providing support to photographers in processing and printing was exciting for Kenneth Rankin, a sophomore majoring in photographic science who worked in San Jose.

"IBM's involvement with the colleges is superb," says Carl Miller, manager of graphic design and photography where Ken was assigned. "The ability to work with students, whether they are deaf or not, and help develop their abilities is an exciting experience."

Debra Earnest

Debra Earnest, a sophomore majoring in data processing, was responsible for operating printers, tapes and disks at IBM's computer center in San Jose. Although she feels she learned a lot from the experience, she also says she taught her co-workers something too.

"During my first week, they didn't quite know how to approach me," she said. "They hesitated to talk with me. The more they worked around me, the more eager they became to learn sign language and the easier it was to work together."

James Johnson, manager of computer operations, remarked, "Debra is a quick learner. I felt honored having her work here."



Stanley Chee, a deaf senior in the computer science program of RIT's Institute College, finds his projects challenging and exciting.



NTID's Data Processing Chairperson Donald Beil (standing) and Wilson Wong tackle a project in the student computer center of NTID at RIT.

Stanley Chee

A senior in computer science, Stanley Chee "was able to obtain results very shortly after joining our group" says his manager, Barbara Grace of IBM's text processing development at the Santa Teresa lab.

"The project I found most challenging was modifying the interface between the user and the system for a new editor program." Stanley notes.

National Center on Employment of the Deaf

IBM President John R. Opel helped promote the opening of the National Center on Employment of the Deaf (NCED) of NTID in December 1978. Today, the center concentrates on employer development, career matching, training, information services and continuing education. Opel, a former member of RIT's National Advisory Group for NTID, shares RIT's concern for the successful employment of all qualified deaf people.

"John Opel's efforts helped the center begin what has been an exciting first year," says Kathleen Martin, NCED manager. "Even though the center is very young, the response to our programs from vocational rehabilitation personnel, employers and deaf people is extremely positive."

Faculty Loan Program

Another program reflecting IBM's involvement in and commitment to education is its Faculty Loan Program. which began in 1971. One of IBM's affirmative action programs, "it helps IBM exercise the responsibility we have to the communities we serve," says Jack Steers, program manager.

Through this program, Dr. Wilson Wong joined the RIT faculty this year on a one-year loan from IBM's Office Products Division Headquarters in New Jersey. Dr. Wong, manager of customer engineering education, teaches management and data processing to deaf students in the business careers division of NTID.

Most of the program's participants are assigned to minority, rather than deaf, institutions. Dr. Wong is the second to be assigned to an institution serving deaf students and the first to be assigned to NTID at RIT.

Last summer, Dr. Wong came to RIT to attend sign language classes, orientation, and other activities to become familiar with NTID and teaching the deaf. During the academic year, he has been teaching eight to 10 class hours and participating in a research project.

In the classroom, Dr. Wong uses sign language and speaks to students who lip-read. "I wish I could speak faster with my hands," he says. "My NTID experience at RIT is very stimulating. I'm probably learning as much as the students."

"Because of Wilson's experience as an IBM manager, he is contributing a great deal as an instructor for the 'Fundamentals of Management' course," says Donald Beil, chairperson of the data processing department of NTID. "Having him here is just like having a management consultant on staff. It's terrific."

Dr. Wong joined IBM in 1970 after completing his doctoral dissertation through an IBM funded fellowship. He has served as manager of customer engineering education for 10 years, responsible for training and the training packages for IBM customer engineers throughout the country.

While he is sharing his experiences as a manager, NTID shares its 12-year experience as an institute for the deaf at RIT with him. "I hope to be well informed on deaf education when I return to IBM," Dr. Wong says.

"When our employees return to IBM from teaching at educational institutions, they are richer individuals," Jack Steers comments. "When you teach, you learn."

IBM is making good on its commitment to expanded career opportunities for the deaf.

"The problems of the handicapped have come into focus and commitment to solutions to those problems are well underway," concludes Dr. Jamison.

Cynthia McGill

for a Day

ex Carlson, program analyst for NOAA/National Marine Fisheries Service in Seattle, Wash., startled his fellow employees recently when he appeared suddenly unable to hear them—even with the help of a "hearing aid."

The same thing happened in another part of Seattle—to Stan Moffett, handicapped placement administrator for the Boeing Co.

What these two employers experienced wasn't an unexplained epidemic of deafness in the Seattle area. To better understand the problems and frustrations of deaf persons, both agreed to be fitted with special devices that produced "white noise"—an uncomfortable sound that blocked out most normal sounds and made them virtually deaf for the day.

Why were they deaf? To prepare for a special seminar on employment of the deaf conducted jointly by NTID at RIT and Seattle Community College (SCC).

Their experiences on the job that day reflected the frustrations and problems with which deaf people deal daily.

The first reaction Carlson noted was that some people tended to laugh about the experiment. "But once people knew I was serious, they relied on notes to me for communication, even though they found it a little difficult to feel comfortable with me. One person even told me later that he purposely avoided me so he wouldn't have a communication problem."

These are a few of the issues that can surface when an employer con-

siders hiring a deaf person. Employment experts from SCC and NTID at RIT were at the Seattle employment seminar to answer questions and show employers the benefits of hiring deaf persons.

Carlson also found that, even though he knew he could talk to other people, he found himself slipping into the practice of writing notes instead of trying to talk. "My colleague, Randy Cross, had to remind me that I could still talk



Stan Moffett, Boeing placement specialist, is litted with a device to create a temporary hearing impairment.

"I also found I was talking very loudly and quite a few people asked me to keep my voice down. I just smiled and said, 'Sorry, I'm only trying to hear.' A few people also tended to avoid me when they found out I couldn't hear. I guess that's normal, too."

During the experiment, Carlson found himself associating with other hearing-impaired people.

"I felt very frustrated when I dealt with people who had to resort to writing," he admitted. "I kept thinking, 'Hurry up. What are you trying to tell me?' I found I didn't have much patience in dealing with them. I felt the same frustrations deaf people feel.

"I also found that when I went to lunch, I couldn't follow conversations easily, and so I withdrew from them. The wall of silence really spreads."

Moffett says the experience interfered with his normal telephone work. "Forty or 50 percent of my time is spent on the phone," he says, "and that created a problem. I really relied on help from my support person and she helped me understand what people were saying through notes and careful speech. I found I could understand much of what people were saying if they looked at me directly, but when they looked away or covered their mouths with their hands, I found it hard to understand them. In effect, I became a lip reader. I realized I had my eyes riveted on people's lips.'

Moffett was also on the receiving end of the frustration some hearing people experience when they first encounter a deaf person. "People were used to dealing with me daily, and we were all extremely busy. Some people were really impatient with me and reacted in ways such as, 'We've got work to do here and you're making a fool of yourself. Let's get busy.'"

Moffett thinks this reaction is typical of people who haven't been around deaf people before. "Most people think you have to write notes all the time, and that's not true. It took me four weeks to convince one supervisor there wouldn't be a communication

problem with a deaf employee he was considering for his department. Once I convinced him to give the deaf person a chance, he was pleased. I checked back with him the first day the deaf person was on the job and asked how it was going. His face lit up and he said, 'No problem at all!'"

William Repp



Wearing the special device that simulates deafness, NOAA Program Analyst Tex Carlson tries to communicate in sign language with Rita Valencia, a hearing impaired budget clerk.

Seattle Employers Learn Advantages of Hiring Deaf People

he nation's first seminar on employment of the deaf conducted jointly by NTID at RIT and Seattle Community College (SCC) was held in Seattle, Wash., last fall. More than 50 employers participated. Roger Merritt, then director of the National Alliance of Business (NAB) in Seattle, was extremely proud to be associated with the two educational institutions.

"Both NTID and SCC have made outstanding contributions nationally in helping deaf persons achieve career success in the competitive job market," he said. "This seminar was the first step toward helping Seattlearea employers better understand the implications and advantages of hiring deaf persons."

Kathleen Martin, manager for NTID's National Center on Employment of the Deaf (NCED) at RIT, said the half-day seminar featured several thought-provoking presentations.

"We introduced area business to the excellent training provided to deaf persons by SCC and NTID at RIT," she said. "And we also helped employers understand what it's like to be deaf."

Faculty with a Hair

embers of RIT's faculty for NTID are special, as reflected in their commitment to the goal of preparing deaf students for successful and productive lives in their future jobs, in their families and in their communities. They are competent, dynamic, creative and dedicated to the challenge of providing the highest quality education to post secondary hearing impaired students.

Faculty members are continually engaged in curriculum and course modification to ensure that their instruction stays on target with the goals established for NTID at RIT. The success of their efforts requires a spirit of professional cooperation that is evident in the free exchange of ideas among teachers, researchers and individuals responsible for development of instruction. Most of technical education faculty of NTID had years of experience in business and industry before joining RIT. Meet a few of them.

William "Hank" Wallace

"Rewards come in many ways when teaching deaf students." says William "Hank" Wallace, an RIT instructor in NTID's business occupations department. "A satisfying and rewarding feeling occurs every time I see expressions on students' faces letting me know they understand a particularly difficult concept."

The career path which led Wallace to NTID at RIT included working for a public accounting firm, teaching accounting at Berkshire Community College, and working at a mortgage banking firm.

In 1976, he joined the RIT faculty for NTID. "I heard of an opening here for an accounting teacher. Even though I didn't have sign language skills, I decided to apply." he says. "I'm extremely glad I did because the faculty here are very dedicated and hard working.

"Since we've added data entry to the business occupations curriculum, we feel we're preparing students even more to keep pace with the computerized age," he says, "I'm excited and, more importantly, our students are interested in learning data entry. They're a great group of students."

Harry Lang

Deaf since age 15, Harry Lang is an RIT assistant professor of physics for NTID. He has been teaching physics to deaf students since April 1970. During the past four years, he also has been instructing hearing students. Every academic quarter, hearing students from RIT's College of Science have the option of enrolling in NTID's Physics Learning Center where he teaches.

"My heart's in my teaching," Lang says. "The past 10 years with NTID at RIT have been extremely rewarding and I hope to be here a few more decades."

Lang is so unpretentious with his students and colleagues, they would never know that he has appeared in *International Who's Who in Education*, served on numerous national and local science committees for the handicapped, and written several publications and many conference papers.

He holds a doctoral degree in science curriculum and teaching from the University of Rochester and is the first deaf person to complete a doctoral program at that university.

Marilyn G. Fowler

Marilyn G. Fowler, a registered record administrator, is an RIT assistant professor and the director of NTID's medical record technology program (MRT). She organized the MRT program in October 1970 and four months later, the first five students enrolled.

Originally from Wisconsin, Ms. Fowler worked at the Milwaukee County Hospital for three years as an assistant medical record administrator in the coding area. From there, she went to Appleton Memorial Hospital in Wisconsin where she was head of the medical record department for eight years.

"In 1970, I noticed an ad in a publication for an instructor for NTID's MRT program at RIT," she recalls. "What initially started out as a simple inquiry about the ad turned into a rewarding and challenging job."

With an assistant teacher, Ms.
Fowler instructs and updates the program's curriculum and places the students in cooperative work experience jobs in medical facilities all over the country. The MRT program received accreditation in 1978.

Robert Keiffer

"NTID has taught me to be a teacher," says Robert Keiffer, an RIT assistant professor in the civil technology program of NTID. "The assistance that I've received from NTID's curriculum development and media production staff has influenced my style of instruction."

Prior to coming to RIT, Keiffer worked for the New York State Department of Transportation as an assistant civil engineer. "My supervisor at the department knew that I was looking for a career change and was aware of my interest in teaching," he says. "He showed me an advertisement for a position at NTID in civil technology.

"I'm glad I responded to that ad," says Keiffer. "The civil tech program here is tough, but the students are highly motivated and really 'turn on,' as they say, to this exciting field."

Keiffer, who comes from a family of engineers, received his bachelor's and master's degrees in civil technology from Clarkson College of Technology and Syracuse University, respectively.

Cynthia McGill



"Hank" Wallace, instructor, teaches business procedures to deaf students.



Assistant Professor Harry Lang instructs Maria Ritz, an industrial drafting technology freshman, in the principles of electricity.



Director Marilyn Fowler teaches the medical record technology students coding of diseases.



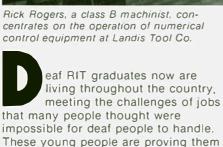
Robert Keiffer, assistant professor, instructs deaf students in highway design.

RIT's Deaf Graduates

Doing the "Impossible"



Rick Rogers, a class B machinist, con-



Rick Rogers

wrong.

Rick Rogers, who graduated in 1976 with a diploma in manufacturing processes, credits NTID at RIT for preparing him to be a machinist.

"The Institute did an outstanding job in preparing me to operate numerical control equipment," says Rick. "NTID's concentration in this area is evidence of its technical achievement and advancement, especially as industry increases its use of this equipment."

Since 1976, Rick has been employed with Litton/Twin City Tool, a division of Landis Tool Co. in Olathe, Kan. He began working there a few days after graduation as a Class C machinist and has since been promoted to a Class B machinist.



Barbara Anderson, a correspondence secretary at Xerox Corp., uses the Xerox 800 Electronic Typing System.

Barbara Anderson

Barbara Anderson's recent promotion has convinced her that she has the potential to move up, despite her deafness.

Barbara, a 1978 office practice and procedures graduate from RIT through NTID, is a correspondence secretary in Xerox Corp.'s Reprographic Technology Group Control-a word processing center-in Webster, N.Y.

She began her career at Xerox as a summer cooperative work student, and became a full-time employee a few months after earning her associate's degree. Shirley Tichenor, supervisor of administrative processing systems, admits her group had some initial concerns.

"We had never worked with a deaf person before," she says, "and we were all anxious about how we would cope with her handicap. Our concerns were quickly abandoned, though, and we were all at ease with her.

"Barbara looks for challenges," Shirley continues. "She is a very diligent, enthusiastic, highly motivated individual who is always eager to do a good job."



Jim DeBee (left) discusses new equipment for a television studio with a colleague at New River Community College.

James DeBee

James DeBee, the first media production technology graduate of RIT through NTID, is now a media specialist at New River Community College in Dublin, Va. Having earned an associate's degree in 1979, he is now responsible for developing brochures, video tapes and audio visual materials for instructional purposes in the college's Hearing Impaired Center.

"Since I'm the only deaf staff member, I'm asked sometimes to counsel deaf students and teach staff and faculty about deafness," Jim says. They're receptive and sensitive."

Judith Noble, coordinator for the center, is glad to have "an outstanding worker like Jim who understands the needs of the deaf."

"I no longer think of him as deaf or hearing impaired," adds Ms. Noble. "He's a highly skilled technician who is competent and conscientious in carrying out his responsibilities. He's so enthusiastic and motivated that his realm of influence and assistance does not end in the audio visual department."

Howard Mann

Career Education at RIT

ackpacks and jeans are put aside in favor of briefcases and pinstriped suits. Eyes nervously scan resumés, looking for that inconspicuous typo. Feet tap restlessly.

The scene is the Office of Central Placement Services (CPS) at RIT, as more than 500 companies come to the Rochester campus this year to interview seniors for that all-important first job. Although typical of college placement offices across the country, the scene at RIT reflects an unusually successful placement record.

About 80 percent of recent graduates from RIT are either employed or in graduate school, reports Judith Vollmer-Miller, director of CPS. Stressing the difficulty in getting really accurate statistics, Ms. Vollmer-Miller says without any hesitation that employer interest in RIT is "fantastic" and that RIT's national visibility is "tremendous." RIT is visited by companies from virtually all 50 states, she points out, with new ones coming all the time

Although placement is perhaps the most visible, it is only one of four elements of "career education" at RIT, says Dennis C. Nystrom, dean of career education at RIT.

"Career education goes way beyond that first job," he says, "It looks at the whole person, the whole career life. It prepares a person for a life of work, addressing issues such as the relationship between work and family."

As part of career education, Dr. Nystrom emphasizes "multiple career planning," urging both students and alumni to make several plans at once. Such planning allows flexibility, he explains, and "the enabling skills" required to make difficult career decisions.

Placement, what Dr. Nystrom calls "the bottom line" of career education, offers six services to RIT students. In addition to the On-Campus Recruiting, CPS offers Individual Counseling in which specific job-search strategies are explored and refined. There are



Dennis C. Nystrom

also Group Sessions. In these workshops or seminars, students learn how to use CPS services, how to write resumés, how to interview effectively, and how to establish realistic career goals.

A fourth service of CPS is the Job Listing. Position vacancies are categorized by majors and maintained in notebooks which are available in CPS to anyone. In the last year alone, about 3,400 job openings were posted, in addition to those presented by on-campus recruiters.

Brochures and annual reports in the Career and Employment Library provide information for students researching companies or firms before interviews. The Recommendation/Credential Service maintains comments from individuals which can be released to potential employers as references with the students' permission.

In addition to permanent placement, CPS services all part-time and summer work placement, on and off campus. It also administers five cooperative ("co-op") work programs: Engineering, School of Engineering Technologies, School of Computer Science and

Technology, School of Printing and the Department of Packaging Science.

Although CPS offers these services to all RIT students, both hearing and deaf, Ms. Vollmer-Miller quickly points out that, for deaf students, certain special services are provided by NTID. For example, NTID provides interpreters for interviews as necessary and spends extra time preparing students for interviews and preparing employers for deafness. Just as it does with other RIT students, the co-op work experience often results in many job offers for deaf students upon graduation.

The second element of career education at RIT, after placement, is "experiential-learning." In addition to co-op, experiential learning at RIT includes apprenticeships, field experiences, internships, simulation/practicums and part-time employment.

There are 3,500 students on co-op alone at RIT this year. Research has shown that about 40 percent of the co-op students stay with their co-op employer after graduation. Besides often leading to a permanent job. Dr. Nystrom points out that co-op gives students a chance to explore their career field and make decisions based on the realities of work.

Career and academic advising, the third element of career education at RIT, has been "a big success for us," Dr. Nystrom reports. Students make personal and professional academic plans, with this "portfolio system" varying from college to college. The plan becomes a learning experience, Dr. Nystrom stresses, because it puts the responsibility on the student. The student initiates and maintains the plan, while drawing from faculty expertise for guidance.

The fourth element of career education at RIT is research. In this area, Dr. Nystrom is intent upon refining the data collection system for both students and alumni, looking at employment potential and analyzing opportunities.

Miscellaneous

RIT and U of R Launch Graduate Program for Teaching the Deaf

unique new graduate program to prepare educational specialists for teaching the deaf will be introduced this fall by NTID at RIT and the Graduate School of Education and Human Development of the University of Rochester (U of R).

This will be the first program in New York State to offer a master's degree sponsored by two institutions. The pioneering program is expected to attract students from throughout the nation and have a substantial impact on the teaching of the deaf. It will be based at the U of R.

The new program, which has been approved by the New York State Department of Education, is designed to improve the quality of education and services for the deaf by preparing professionals who will work in secondary schools serving deaf students or serve as instructional leaders working with colleagues to enrich and upgrade the quality of education for deaf persons.

In announcing the joint program, Dr. William E. Castle, director of NTID and vice president of RIT, and Provost Richard D. O'Brien of the U of R said there is a "critical lack of professionals adequately prepared to work with deaf students at the secondary school level," adding that the two sponsors are "uniquely qualified to collaborate on a major educational effort in this important field."

NTID, the world's largest technical college for the deaf, is nationally and internationally recognized as the first institution anywhere to educate large numbers of deaf students within a college campus planned primarily for hearing students. In addition to the academic programs based within NTID, RIT's 950 deaf students also

are able to benefit from nearly 200 other technical and professional courses of study offered by RIT's other nine colleges.

The U of R's Graduate School of Education and Human Development already offers master's and doctoral degrees in a number of educational specialities and has for many years carried on programs of teacher preparation with the university's College of Arts and Science in the humanities, social sciences and natural sciences

Graduates of the joint program will receive a master of science in education degree from the U of R, co-sponsored by RIT through NTID. They will be professionally qualified to work with the deaf at the secondary school level in:

- teaching deaf and normally hearing students in such areas as English, mathematics, science and social studies:
- managing special educational services such as tutoring, notetaking and interpreting;
- serving as consultants on the education of deaf persons to schools that are "mainstreaming" deaf students into regular school systems.

Graduates of the program will be

eligible for provisional certification from New York State as teachers of the normally hearing, for grades 7 through 12, in one or more academic areas. They also will be eligible for provisional state certification for teaching deaf and hearing impaired students from nursery through 12th grade levels.

The program is intended to attract recent liberal arts graduates with majors in academic subjects, as well as current secondary school educators interested in teaching the handicapped in "mainstream" schools.

Individuals with bachelor's degrees normally will require three to five semesters of study, depending upon their qualifications. Admission will be open to both hearing and hearing impaired applicants.

Planning for the new program has been underway for the past two and a half years with the aid of a grant from the Bureau of Education for the Handicapped of the U.S. Department of Education.

Information on the program may be obtained from Dr. Kenneth Nash, Director, Joint Educational Specialists Program, 439 Lattimore Hall, University of Rochester, Rochester, N.Y. 14627.



(Left to right) Dr. Kenneth Nash, director of the Joint Educational Specialists Program, Dr. William Clark, associate dean for the University of Rochester Graduate School of Education and Humanities Development, and Dr. William Lowe, chairman of the Center for the Study of Curriculum and Teaching at the U of R.

Sociology Class Explores Amish Country

hirty-three deaf students in an introduction to sociology class in the College of General Studies at RIT put down their textbooks for the real thing to visit Mennonite and Amish communities near Lancaster, Pa. in February.

"Most of the students had never heard of the Amish and Mennonites before," says Julie Cammeron, the course's instructor. "It was a real eye-opener—particularly when we compared our cultural values with those of the Amish."

Ms. Cammeron's class voted to visit Amish country because they wanted to learn about cultural differences.

"I was fascinated with the Amish way of life—their simplicity," says John Murgel, a third-year social work major from Cleveland, Ohio. "They don't believe in television, running water in their homes, electricity or automobiles."

The Amish live much the same as their ancestors did 100 years ago. Instead of using electricity, they rely on wind and water to power their farms. The different kinds of horse-drawn buggies, an Amish trademark, and their uses caught students' interests.

"Dating couples are only allowed to use open carriages, while a married couple can use a closed carriage," John explains.

"The Amish feel their lives are normal and the rest of the world is abnormal," adds Mark Pryor of Western Springs, III.

The students were divided into five groups and stayed overnight with five Mennonite families. Some families were hearing and some deaf.

"The Mennonites are a little more flexible about their way of life than the Amish," John Murgel notes. "They allow television, electricity, modern homes with running water and cars."

A number of students observed that Mennonite families were basically "like us" except for their fundamental beliefs. "If the Bible doesn't say to do something, they don't do it," John explains.

Additional cultural differences emerged. "People in Amish and Mennonite families look up to their elders, while in our society, there's much more of an emphasis on young people," Mark points out.

Other students noticed differences in daily living styles. "They don't believe in dancing," explains Laura Gray of Indianapolis, Ind. Another student, Rick Baca of Santa Fe, N.M., adds, "They live very plain lives. The children spend much of their free time reading books. They watch television, but only educational television programs like Sesame Street."

There were three children in the household where Rick stayed. During the evening, the children would each sit in a chair and read a book. "They only looked up and spoke to us after we had spoken to them first," he says.

Vernon Davis, a career development counselor, says the visit was more than a comparison of cultures for him. Davis, who taught 20 years ago at the Pennsylvania School for the Deaf in Philadelphia, met with several former students who are now adults. "It was great to see what they've done with their lives," Davis says.

His former students' technical training was in metal working, shoe repair, printing and power sewing. "That's all the technical training that was available for deaf people 20 to 25 years ago," Davis adds.

It was the Mennonites' turn to be curious about the deaf students when the discussion turned to RIT and new opportunities for deaf students. They were amazed to learn of the technical training that's available now," Davis says. "We learned a lot and they learned a lot from us."

The giving spirit of the Mennonites and Amish communities had a lasting impression for Ms. Cammeron and her students. "They live what they believe," she says. "Their values are humility, simplicity, love, family, community spirit, helping others and giving. They're such open, giving people with no thought of anything in return."

Sociology class members were invited to a community-style Sunday lunch after attending deaf Mennonite Church services in Pennsylvania's Amish country.

Stephen Dingman

For further information contact:



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