

Rochester Institute of Technology  
National Technical Institute for the Deaf

# Annual Report



# 2010

December 31, 2010

The Honorable Arne Duncan  
Secretary of Education  
U.S. Department of Education  
400 Maryland Avenue, S.W.  
Washington, DC 20202

Dear Secretary Duncan:

NTID's Annual Report 2010 fulfills the requirement of the Education of the Deaf Act that the National Technical Institute for the Deaf, a college of Rochester Institute of Technology (RIT/NTID), "... shall prepare and submit an annual report to the Secretary..."

We are pleased to present this report, our 44<sup>th</sup>, for it provides a summary of activities undertaken at RIT/NTID during Fiscal Year 2010.

For the fourth year in a row, NTID has increased our enrollment, now totaling 1,521 students, the largest enrollment in our history. New students continue to be attracted to NTID because of the excellence of our academic programs, and more students are continuing their studies at NTID thanks to both the focus on student retention by faculty and staff and the determination and persistence of the students we serve. We graduated a record 306 students in FY 2010 and found that 90 percent of our FY 2009 graduates were employed this year in spite of the current national economic climate. Indeed, we are well positioned to improve on our successes with the launch of our new strategic plan, *Strategic Decisions 2020: Shaping NTID's Future Through Innovation*, developed over the past year.

The successes we and our students and graduates have achieved are the result of the support we receive from you and so many others in the federal government. Our identity as an educational institution rests on those you have charged us to serve, and our mission statement continues to be the driving force behind all that we do:

*To provide deaf and hard-of-hearing students with outstanding state-of-the-art technical and professional education programs, complemented by a strong liberal arts and sciences curriculum, that prepare them to live and work in the mainstream of a rapidly changing global community and enhance their lifelong learning. Secondly, NTID prepares professionals to work in fields related to deafness; undertakes a program of applied research designed to enhance the social, economic and educational accommodation of deaf people; and shares its knowledge and expertise through outreach and other information dissemination programs.*

This report is also available in full to the general public at:

[www.ntid.rit.edu/media/annual\\_report2010.pdf](http://www.ntid.rit.edu/media/annual_report2010.pdf)

The RIT/NTID community, including students, faculty, staff and friends, are appreciative of the guidance and support you and the Department of Education continue to provide NTID.

With warm regards,



William Destler, Ph.D.  
President, RIT



James J. DeCaro, Ph.D.  
Professor & Dean Emeritus  
Interim President, NTID  
Interim Vice President and Dean, RIT



## Cover Photos

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### **NTID Commencement Ceremony**

The front cover photo was taken in May 2010 during NTID's commencement ceremony; it shows Adriana Gaylord, of Houston, Texas, giving a speech to her fellow graduates. Gaylord graduated with an associate degree in Computer Integrated Machining Technology and was selected as one of NTID's delegates to the larger RIT commencement ceremony.

While a student, Gaylord held leadership positions with the Society of Hispanic Professional Engineers, the Hispanic Deaf Club and the Department of Engineering Studies Engineering Club. She has worked at the Corpus Christi Army Depot in Corpus Christi, Texas. Gaylord currently is pursuing a BS in Manufacturing Engineering Technology at RIT.

### **RIT Convocation for New Students and Families**

The back cover photo was taken in September 2010 during RIT's Convocation for New Students and Families; it shows RIT Student Government President and past NTID Student Congress President Greg Pollock, of Pittsburgh, Pa., welcoming new students and families to RIT.

Pollock is currently pursuing his BS in Professional and Technical Communication. He served on the NTID President search committee, and in October 2010, was one of four NTID students invited to participate in a session of Dow Chemical Co.'s Senior Management Potential Program in Midland, Mich.



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**RIT/NTID graduates pose with RITchie, RIT's tiger mascot, in NTID's Student Development Center.**

## **Note of Explanation**

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This Annual Report notes activities and accomplishments throughout Fiscal Year 2010 (10/01/09-09/30/10), corresponding primarily to Academic Year 2009-10. References to Fiscal Year 2011 correspond to characteristics and accomplishments as of fall quarter Academic Year 2010-2011.

# NTID FY 2010 Annual Report

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## Mission Statement

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*The primary mission of the National Technical Institute for the Deaf is to provide deaf students with outstanding state-of-the-art technical and professional education programs, complemented by a strong arts and sciences curriculum, that prepare them to live and work in the mainstream of a rapidly changing global community and enhance their lifelong learning.*

*Secondarily, NTID prepares professionals to work in fields related to deafness; undertakes a program of applied research designed to enhance the social, economic and educational accommodation of deaf people; and shares its knowledge and expertise through outreach and other information dissemination programs.*

# National Technical Institute for the Deaf – At a Glance

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## Character

World's first and largest technological college for students who are deaf or hard-of-hearing. One of eight colleges of Rochester Institute of Technology, a privately endowed, coeducational university that is student-centered and career-focused.

## Primary Mission

To provide deaf and hard-of-hearing students with outstanding state-of-the-art technical and professional education programs, complemented by a strong arts and sciences curriculum, that prepare them to live and work in the mainstream of a rapidly changing global community and enhance their lifelong learning.

## History

Formally established in 1965 through an Act of Congress (PL89-36). Began operation in 1967 at RIT, with first students in 1968. RIT was founded in 1829.

## Location

Western New York, in suburban Rochester.

## RIT Campus

More than 1,300 acres, 243 buildings (5.6 million square feet).

## Enrollment

Total of 1,521 students enrolled as of fall 2010. Undergraduate: 1,263 deaf and hard-of-hearing students, 147 hearing students (enrolled in ASL-English Interpretation program). Graduate: 111 students (71 hearing, deaf and hard-of-hearing in the Master of Science program in Secondary Education of Students Who Are Deaf or Hard-of-Hearing and 40 deaf and hard-of-hearing in the other colleges of RIT). These students study and reside on a campus that includes 17,206 students studying at the associate, baccalaureate, master's and doctoral levels.

## Male/Female Ratio

50 percent male; 50 percent female.

## Diversity

Of the 1,521 students enrolled, 28.4 percent are minority students and 2.7 percent are international students, representing 17 different countries.

## Residence Life

Most undergraduates live in campus residence halls, apartments and townhouses. On-campus fraternities, sororities and special-interest houses also are available.

## RIT Campus Activities

Major social events and activities are sponsored by the College Activities Board, Residence Halls Association, sororities, fraternities and special interest clubs of many kinds. There are more than 175 student organizations on campus. NTID's Student Life Team also sponsors a variety of co-curricular educational programs.

## RIT Campus Technology

Extensive wireless computer access, smart classrooms with state-of-the-art computers and multimedia-based technologies, microcomputer labs, computer graphics and computer-aided drafting labs, microelectronics and computer engineering facilities, digital printing presses, a laser optics lab, robotics program, a distance learning/access demonstration lab and fully networked residence halls equipped with strobe lights and telephone amplifiers.

## Research

Integrated research program of national and international prominence, focusing on teaching and learning; access, support services, and related technology; communication in personal, learning, and working environments and enrollment management.

## Cooperative Education

In keeping with a career education focus, most RIT/NTID degree programs require students to complete at least one cooperative work assignment for experience in their chosen profession before graduation.

## Post-Graduation Employment

Over the past five years, 93 percent of deaf and hard-of-hearing graduates who have chosen to enter the labor market have obtained jobs in business, industry, government, education and other fields.

## Communication/Support

NTID instructors use a variety of communication strategies while teaching, including sign language, spoken language, finger spelling, printed/visual aids and Web-based instructional materials. Support and access services for classes throughout the other colleges of RIT include notetakers, tutors, real-time captioning services and the largest interpreting staff for a college program in the United States.

## Annual Expenses 2010-2011

for Undergraduate/U.S. Citizens

Tuition	\$ 10,719
Room	\$ 5,862
Board	\$ 4,182
<u>Fees</u>	<u>\$ 753</u>
Total	\$ 21,516

## Financial Aid

A combination of institutional grants and scholarships, federal and state grants, private scholarships and Vocational Rehabilitation are available to students. Average aid per domestic student in FY 2010 is \$10,496, not including loans or federal work study.

## Academic Year

A quarter system divides the calendar year into four 11-week terms, beginning with fall quarter in September. Traditional academic year runs three quarters, from September through May.

## Degree Programs

Students enrolled at NTID can earn associate degrees in more than 30 accredited programs. Qualified deaf and hard-of-hearing students also can earn bachelor's or master's degrees in more than 200 programs offered by RIT's other colleges: Applied Science and Technology, Business, Computing and Information Sciences, Engineering, Imaging Arts and Sciences, Liberal Arts and Science.

## Annual Highlights

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Here are a few noteworthy accomplishments and statistics for the past year:

- NTID's record enrollment – 1,521 students for fall 2010
- NTID's record number of student co-op experiences – 281 in FY 2010
- NTID's record number of degrees granted – 306 in FY 2010
- NTID's record number of bachelor's degrees granted – 143 in FY 2010
- NTID's record number of students with cochlear implants – 305 in fall 2010 (almost 23% of students who are deaf or hard-of-hearing)
- Ninety percent (89.52%) employment rate for FY 2009 graduates, not including MSSE and ASL-English Interpretation graduates
- One hundred percent (100%) employment rate for FY 2010 MSSE and ASL-English Interpretation graduates
- NTID's record number of participants in NTID pre-college outreach programs: FutureQuest, National Science Fair, and TechGirlz Camp
- Real-time captioning and interpreting services were in strong demand in FY 2010, with staff providing 19,493 hours of captioning and 116,782 hours of interpreting – the highest ever.
- NTID completed the successful implementation of *Strategic Vision 2010* and developed a strategic plan for the next 10 years, *Strategic Decisions 2020: Shaping NTID's Future Through Innovation*.
- NTID co-hosted, with The Nippon Foundation of Japan and PEN-International, its sixth international symposium, *Technology and Deaf Education: Exploring Instructional and Access Technologies*. A total of 289 teachers, administrators, technologists and researchers representing 17 countries attended.
- The *NTID Innovation Forum* in April helped inspire the submission of 92 Innovation Grant proposals by students, staff and faculty in three categories: innovative instruction/student services projects, innovative scholarship/research projects and professional growth plans.
- *Imagine RIT: Innovation and Creativity Festival* attracted more than 32,000 people and featured presentations by NTID's Laboratory Science Technology students, NTID Electric Bike Club, C-Print<sup>®</sup> staff, NTID student inventors and more.
- PEPNet-Northeast produced three live webcasts to national audiences on online accessible media, resources for itinerant teachers of students who are deaf or hard-of-hearing, and access issues for individuals with cochlear implants in educational and employment settings.

## Executive Summary

<b>New Registrations</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
Admissions (Deaf and Hard-of-Hearing Students Only)					
Applications	819	939	1,000	966	983
Acceptances	450	522	594	521	526
Registrations	341	377	396	341	351
Other New Registrations					
AAS/BS ASL-English Interpretation	41	34	36	52*	57**
MS in Secondary Education	28	27	24	30	27
<b>Total New Registrations</b>	<b>410</b>	<b>438</b>	<b>456</b>	<b>423</b>	<b>435</b>
<b>Enrollment (Deaf and Hard-of-Hearing Students Only)</b>					
Sub-Baccalaureate Programs					
Career-Focused Programs	N/A	450	501	485	488
Transfer Associate/Pre-Baccalaureate	N/A	113	138	150	168
<b>Subtotal Sub-Baccalaureate</b>	<b>503</b>	<b>563</b>	<b>639</b>	<b>635</b>	<b>656</b>
Baccalaureate Programs at RIT	439	443	451	478	495
Graduate Programs at RIT	47	51	48	38	40
<b>Subtotal Baccalaureate and Graduate at RIT</b>	<b>486</b>	<b>494</b>	<b>499</b>	<b>516</b>	<b>535</b>
Career Exploration Studies	75	97	122	124	112
<b>Subtotal Deaf and Hard-of-Hearing Students Only</b>	<b>1,064</b>	<b>1,154</b>	<b>1,260</b>	<b>1,275</b>	<b>1,303</b>
Other Enrollments					
Educational Interpreting	130	130	135	138*	147**
MS in Secondary Education***	56	59	55	61	71
<b>Subtotal Other</b>	<b>186</b>	<b>189</b>	<b>190</b>	<b>199</b>	<b>218</b>
<b>Total Enrollment</b>	<b>1,250</b>	<b>1,343</b>	<b>1,450</b>	<b>1,474</b>	<b>1,521</b>

\* There are an additional three students who are double-majors, with one major in NTID and another in a different college of RIT.

\*\* There is an additional student who is a double-major, with one major in NTID and another in a different college of RIT.

\*\*\* Included from FY 2007 to date are non-matriculated students (between four and 15 per year) taking courses offered by the Master of Science program in Secondary Education, but who are part of a grant-supported joint program between NTID and Nazareth College of Rochester to train speech pathologists to work with deaf and hard-of-hearing persons.

## Executive Summary (continued)

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Withdrawn (All Students)	16%	16%	14%	15%	14%
<b>Graduates</b>					
Total Degrees Granted	292	251	286	284	306
<i>Degree Level</i>					
Certificate	11	10	9	7	12
Diploma	1	2	2	1	1
Associate (AOS)	42	43	33	35	42
Associate (AS/AAS)	67	45	61	73	74
Associate (Interpreting)	22	26	10	0	2
Bachelor's (Interpreting)	6	10	18	34	31
Bachelor's	98	78	108	89	112
Master's	19	14	12	22	14
Master's (MSSE)	26	23	33	23	18
<b>Post-Graduation Employment</b>					
Post-Graduation Employment	103	112	102	94	N/A*
Post-Graduation Employment Rate	95%	95%	90%	90%	N/A*
<i>By Sector of the Economy</i>					
Business and Industry	60%	63%	71%	59%	N/A*
Education	30%	29%	20%	21%	N/A*
Government	10%	8%	9%	20%	N/A*
Cooperative Work Experiences	233	272	255	262	281
<b>Access/Support Services</b>					
Notetaking Hours	57,478	59,466	65,851	63,291	63,620
Tutoring Hours	15,103	15,045	15,271	17,636	18,236
Interpreting Hours	107,257	110,840	114,233	109,618	116,782
Real-Time Captioning Hours	9,350	15,440	16,722	18,168	19,493

\* Post-graduation employment numbers reflect status as of one year following graduation; placement numbers for September 1, 2009 through August 31, 2010 graduates will be reported next year.



## Executive Summary (continued)

Outreach (Number of External Participants)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
C-Print®	31	7	14	0	7
Deaf Initiative in Technology	90	88	71	64	88
Digital Arts, Film and Animation	*	*	54	64	62
Explore Your Future	183	253	235	196	217
FutureQuest	*	*	46	96	128
Interpreter Training**	93	97	92	37	74
Math Competition	*	*	55	98	61
National Center on Employment	836	958	692	577	521
National Science Fair	*	*	54	62	66
Notetaker Training	201	261	318	223	346
Project Fast Forward	*	*	66	86	87
SpiRIT Writing Contest	*	*	35	42	31
Steps to Success	*	*	14	20	23
TechGirlz Camp	*	*	21	32	41

Financial Aid (Domestic Students)					
Grant-in-Aid	\$1,200,874	\$1,306,250	\$1,169,113	\$1,415,786	\$1,174,944
Vocational Rehabilitation	5,587,915	6,257,424	7,383,519	8,192,636	8,377,642
Pell Grants	1,212,809	1,241,903	1,450,715	1,839,938	2,781,909
State Grants	493,302	536,811	547,755	549,382	548,863
Federal Loans	2,982,676	3,274,300	3,663,544	4,060,757	5,394,370
Scholarships and Other	1,177,959	1,523,423	1,789,895	2,165,910	2,147,416
<b>Total Financial Aid</b>	<b>\$12,655,535</b>	<b>\$14,140,111</b>	<b>\$16,004,541</b>	<b>\$18,224,409</b>	<b>\$20,425,144</b>
<b>Average Aid per Domestic Student (Excluding Loans)***</b>	<b>\$8,114</b>	<b>\$9,537</b>	<b>\$9,537</b>	<b>\$10,031</b>	<b>\$10,496</b>

\* Data not available.

\*\* Students supported by grants from the New York State Board of Regents, State Education Department, Vocational and Educational Services for Individuals with Disabilities, awarded to RIT/NTID and the Monroe County #1 Board of Cooperative Education Services of Rochester, N.Y.

\*\*\* Total financial aid, less loans, divided by domestic student enrollment.

## Executive Summary (continued)

Domestic Student Rates*	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Tuition	\$8,559	\$9,153	\$9,801	\$10,233	\$10,719
Room	5,034	5,211	5,421	5,583	5,862
Board	3,714	3,843	3,960	4,059	4,182
Fees	642	669	702	717	753
<b>Total</b>	<b>\$17,949</b>	<b>\$18,876</b>	<b>\$19,884</b>	<b>\$20,592</b>	<b>\$21,516</b>

### Fundraising Activity

Cash to Endowment and Restricted Funds	\$2,840,116	\$2,527,289	\$2,085,697	\$2,602,401	**
Equipment and Software	124,052	254,191	87,660	94,100	**
Federal Funds Matched***	\$828,000	\$1,200,000	\$784,000	\$1,102,800	**

*Shana, of Hawaii, celebrates her graduation with her mother, Gail, of Centralia, Wash.*



\* Per the Education of the Deaf Act, international students pay differing tuition rates, depending on whether they are from a developing or developed country. Their charges for room, board and fees are the same as for domestic students.

\*\* Information not yet available.

\*\*\* There is no longer a separate appropriation for the Matching Endowment Program. Any monies matched must be funded through operating funds efficiencies.



## The Education of the Deaf Act



NTID was created by Public Law 89-36, now part of the Education of the Deaf Act.

## Reporting Requirements of the Education of the Deaf Act and the Agreement with RIT

This section includes, verbatim, the section of the Education of the Deaf Act (EDA) that applies to reporting requirements for the National Technical Institute for the Deaf. The material below in brackets provides cross-references, indicating sections of this report that reflect NTID compliance

with these EDA provisions. In addition, reporting on inventions is included below based on a requirement of the Agreement with RIT.

NOTE: Where “...” appear, sections of the EDA that do not apply to NTID have been removed.

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### Reports for the EDA

The ... Board of Trustees or other governing body of the institution of higher education with which the Secretary has an agreement [RIT] under section 4332 of this title shall prepare and submit an annual report to the Secretary, and to the Committee on Education and Labor of the House of Representatives and the Committee on Labor and Human Resources of the Senate, not later than 100 days after the end of each fiscal year, which shall include the following: [This *Annual Report* meets this requirement.]

- (1) The number of students during the preceding academic year who enrolled and whether these were first-time enrollments, who graduated, who found employment, or who left without completing a program of study, reported under each of the programs ... of NTID. [Refer to the Executive Summary section.]
- (2) For the preceding academic year, and to the extent possible, the following data on individuals who are deaf and from minority backgrounds and who are students (at all educational levels) or employees:
  - (A) The number of students enrolled full- and part-time. [Refer to the Academic Programs and Diversity and Pluralism sections.]
  - (B) The number of these students who completed or graduated from each of the educational programs. [Refer to the Persistence, Graduation and Employment, and Diversity and Pluralism sections.]
  - (C) The disposition of these students upon graduation/completion on the date that is one year after the date of graduation or completion of programs at NTID ... in comparison to students from non-minority backgrounds. [Refer to the Persistence, Graduation and Employment, and Diversity and Pluralism sections.]
  - (D) The number of students needing and receiving support services (such as tutoring and counseling) at all educational levels. [Refer to the Student Support Services section.]
  - (E) The number of recruitment activities by type and location for all educational levels. [Refer to the Outreach section of the Executive Summary.]
  - (F) Employment openings/vacancies and grade level/type of job and number of these individuals that applied and that were hired. [Refer to the Diversity and Pluralism section.]
  - (G) ...
- (3) (A) A summary of the annual audited financial statements and auditor's report ... as required under section 4353 of this title. [The audit of RIT is provided to the Secretary, as is a separate schedule for NTID.]

## Education of the Deaf Act (continued)

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- (B) A summary of the annual audited financial statements and auditor's report of NTID programs and activities of this title, and such supplementary schedules presenting financial information for NTID for the end of the federal fiscal year as determined by the Secretary. [The audit of RIT is provided to the Secretary, as is a separate schedule for NTID.]
- (4) For the preceding fiscal year, a statement showing the receipts of ... NTID and from what federal sources, and a statement showing the expenditures ... by function, activity, and administrative and academic unit. [Refer to the Financial Operations section.]
- (5) A statement showing the use of funds (both corpus and income) provided by the Federal Endowment Program under section 4357 of this title. [Refer to the External Funding section.]
- (6) A statement showing how such Endowment Program funds are invested, what the gains or losses (both realized and unrealized) on such investments were for the most recent fiscal year, and what changes were made in investments during that year. [Refer to the External Funding section.]
- (7) Such additional information as the Secretary may consider necessary. [We respond on a regular basis to requests for additional information from staff of the U.S. Department of Education.]

### **Agreement with RIT: Certification Regarding Inventions**

The *Agreement for Establishment and Operation of the National Technical Institute for the Deaf Between the Secretary of Health, Education, and Welfare and Rochester Institute of Technology (RIT) (1966)* requires annual disclosure of any inventions developed during the year or a certification that no inventions were made during the applicable period. NTID hereby certifies that no inventions were made during the year covered by this Annual Report. [In addition, refer to the Innovation and Creativity section.]



## Performance Indicators



**Mark, an Accounting Technology student from Pembroke, Mass., receives instructional support from Business Studies faculty member Tracy Magin.**



## Performance Indicators

Performance indicators are critical elements of the Congressionally mandated Government Performance and Results Act (GPRA), which requires the Department of Education to

measure the performance of all entities within its oversight receiving federal funds. There are four objectives, each with several measures to track performance.

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### Objective 1 of 4

**Provide deaf, hard-of-hearing and hearing students in undergraduate and professional studies with outstanding state-of-the-art technical and professional education programs, complemented by a strong arts and sciences curriculum and supplemented with appropriate student support services.**

Though not related directly to required performance indicators, the table below reports an overview the total enrollment for the National Technical Institute for the Deaf (NTID), which includes:

- Deaf and hard-of-hearing sub-baccalaureate students
- Deaf and hard-of-hearing baccalaureate students
- Baccalaureate students in the ASL-English Interpretation program
- Deaf and hard-of-hearing graduate students enrolled in colleges of RIT other than NTID
- Deaf, hard-of-hearing, and hearing students in NTID's Master of Science program in Secondary Education of Students who are Deaf or Hard-of-Hearing (MSSE).

Fiscal Year	Total Enrollment
1998	1,205
1999	1,278
2000	1,220
2001	1,219
2002	1,238
2003	1,231
2004	1,270
2005	1,281
2006	1,256
2007	1,250
2008	1,343
2009	1,450
2010	1,474
2011	1,521

## Performance Indicators (continued)

### Measure 1.1 of 3: The number of NTID-supported deaf and hard-of-hearing undergraduates (desired direction: increase)

Fiscal Year	Target	Number (or date expected)	Status
1997		1,069	Measure Not In Place
1998		1,085	Measure Not In Place
1999	1,080	1,135	Target Exceeded
2000	1,080	1,084	Target Exceeded
2001	1,080	1,089	Target Exceeded
2002	1,080	1,121	Target Exceeded
2003	1,080	1,093	Target Exceeded
2004	1,080	1,064	Target Not Met
2005	1,080	1,055	Target Not Met
2006	1,080	1,013	Target Not Met
2007	1,080	1,017	Made Progress From Prior Year
2008	1,045	1,103	Target Exceeded
2009	1,045	1,212	Target Exceeded
2010	1,045	1,237	Target Exceeded
2011	1,045	1,263	Target Exceeded
2012	1,045	(October 2011)	Pending

**Source.** National Technical Institute for the Deaf, Registrar Office records

**Frequency of Data Collection.** Annual

**Data Quality.** Enrollment data does not include part-time students or non-degree-seeking students, with the exception of students who are part-time taking their final courses for completion of their degrees.

**Target Context.** For FY 2011, the target for the number of undergraduates enrolled at NTID remained the same as the prior three fiscal years.

**Explanation.** Below is a table showing the number of undergraduate students who are deaf or hard-of-hearing who were enrolled in baccalaureate programs at RIT and in sub-baccalaureate programs at NTID.

Fiscal Year	Baccalaureate	Sub-Baccalaureate	Total
2001	447	642	1,089
2002	440	681	1,121
2003	449	644	1,093
2004	434	630	1,064
2005	427	628	1,055
2006	438	575	1,013
2007	439	578	1,017
2008	443	660	1,103
2009	451	761	1,212
2010	478	759	1,237
2011	495	768	1,263

## Performance Indicators (continued)

As seen from the table on the previous page, NTID has increased the undergraduate enrollment of students who are deaf or hard-of-hearing from 1,237 students during FY 2010 to 1,263 students in FY 2011, a 2 percent increase. Baccalaureate students account for most of this growth, increasing by 17 students, while sub-baccalaureate students increased by nine students.

### Measure 1.2 of 3: The number of students enrolled in NTID's ASL-English Interpretation program (desired direction: increase)

Fiscal Year	Target	Number (or date expected)	Status
1997		72	Measure Not In Place
1998		84	Measure Not In Place
1999	100	93	Made Progress From Prior Year
2000	100	77	Target Not Met
2001	100	75	Target Not Met
2002	100	53	Target Not Met
2003	100	65	Made Progress From Prior Year
2004	100	92	Made Progress From Prior Year
2005	100	100	Target Met
2006	100	116	Target Exceeded
2007	100	130	Target Exceeded
2008	100	130	Target Exceeded
2009	100	135	Target Exceeded
2010	100	138	Target Exceeded
2011	120	147	Target Exceeded
2012	120	(October 2011)	Pending

**Source.** National Technical Institute for the Deaf, Registrar Office records

**Frequency of Data Collection.** Annual

**Data Quality.** Enrollment data for students in the ASL-English Interpretation program does not include part-time students or non-degree-seeking students, with the exception of those students who are part-time taking their final courses toward completion of their degrees.

**Target Context.** Enrollment in this program has increased from 72 students in FY 1997 to its highest level to date of 147 students in FY 2011. It should be noted that there is one additional ASL-English Interpretation student who is a double major within another college at RIT. Because of the way our computer systems track double-majors, those individuals are not credited to NTID, but are shown in non-NTID enrollments. We have decided not to count this student here or elsewhere as an NTID student, but we do in fact have 148, not 147, individuals in this program.

NTID has reported that the ASL-English Interpretation program receives more applicants than the program is able to accept. We allowed this program to expand in FY 2009 to help meet the increasing demand for qualified interpreters. As a result of the expansion, the target increased to 120 students for FY 2011.

## Performance Indicators (continued)

**Measure 1.3 of 3: The number of students enrolled in NTID's Master of Science program in Secondary Education of Students Who are Deaf or Hard-of-Hearing (MSSE) as well as deaf and hard-of-hearing students pursuing graduate degrees in other RIT colleges (desired direction: increase)**

Fiscal Year	Target	Number (or date expected)	Status
1997		32	Measure Not In Place
1998		36	Measure Not In Place
1999	50	50	Target Met
2000	50	59	Target Exceeded
2001	50	55	Target Exceeded
2002	75	60	Made Progress From Prior Year
2003	75	73	Made Progress From Prior Year
2004	75	114	Target Exceeded
2005	90	126	Target Exceeded
2006	120	127	Target Exceeded
2007	120	101	Target Not Met
2008	105	110	Target Exceeded
2009	105	103	Target Not Met
2010	105	99	Target Not Met
2011	105	111	Target Exceeded
2012	105	(October 2011)	Pending

**Source.** National Technical Institute for the Deaf, Registrar Office records

**Frequency of Data Collection.** Annual

**Data Quality.** Enrollment data does not include part-time students or non-degree-seeking students, with the exception of those students who are part-time taking their final courses toward completion of their degrees.

**Target Context.** In the FY 2008 Performance Plan, the target for the number of students enrolled in NTID's MSSE program, as well as students pursuing graduate degrees in the other colleges of RIT, was reduced from 120 students to 105 students.

From FY 2004 until FY 2006, NTID and Nazareth College fulfilled the terms of an agreement for a group of Nazareth College Speech Pathology students to attend several classes at NTID each year. The 34 Nazareth College students who attended classes at NTID were included in the enrollment totals for those three years. With the termination of the program, enrollment of MSSE and other graduate students declined, but were still above pre-FY 2004 levels.

## Performance Indicators (continued)

### Objective 2 of 4

#### Maximize the number of students successfully completing a program of study.

The measures included in this objective are changing this year. The measures that were known as 2.2, 2.4, 2.6, and 2.8 have been removed. In its recent communication with NTID, the Department of Education asked NTID to include data for the ASL-English Interpretation students in the calculations of the persistence and graduation rates of sub-baccalaureate and baccalaureate students for FY 2009 and future years. Disaggregated data was also requested. As a result, measures 2.1, 2.3, 2.5, and 2.7 now include the aggregated data (e.g., 2.1) and the disaggregated data (e.g., 2.1A and 2.1B). Previously, only the data in 2.1A, 2.3A, 2.5A, and 2.7A were reported to the department, as measures 2.1, 2.3, 2.5, and 2.7, respectively.

Unlike other data reported in performance indicator objectives, the data in Objective 2 is reported to the Integrated Postsecondary Education Data System (IPEDS) using its April timeline. Therefore, FY 2010 data will be reported in April 2011.

**Measure 2.1 of 12: The percentage of first-time, full-time, degree-seeking sub-baccalaureate students who were in their first year of postsecondary enrollment in the previous year and who are enrolled in the current year, including students enrolled in NTID's ASL-English Interpretation program (desired direction: increase)**

Fiscal Year	Target	Percentage	Status
2008		75.5*	Target Not In Place
2009		71.9*	Target Not In Place

**Measure 2.1A of 12: The percentage of first-time, full-time, degree-seeking sub-baccalaureate students who were in their first year of postsecondary enrollment in the previous year and who are enrolled in the current year, not including students enrolled in NTID's ASL-English Interpretation program (desired direction: increase)**

Fiscal Year	Target	Percentage (or date expected)	Status
2004		72	Measure Not In Place
2005		65.6	Measure Not In Place
2006		64.5	Measure Not In Place
2007		72.4	Measure Not In Place
2008	Set a Baseline	75.5	Target Not In Place
2009	Maintain a Baseline	71.9	Target Not In Place
2010	70	(April 2011)	Pending
2011	70	(April 2012)	Pending
2012	70	(April 2013)	Pending

**Measure 2.1B of 12: The percentage of first-time, full-time, degree-seeking sub-baccalaureate students enrolled in NTID's ASL-English Interpretation program who were in their first year of postsecondary enrollment in the previous year and who are enrolled in the current year (desired direction: increase)**

Fiscal Year	Target	Percentage	Status
2008		*	Target Not In Place
2009		*	Target Not In Place

\* There were no first-time, full-time, degree-seeking sub-baccalaureate students enrolled in NTID's ASL-English Interpretation program who were first-year students in fall 2007 (FY 2008) or fall 2008 (FY 2009).

## Performance Indicators (continued)

**Source.** Rochester Institute of Technology, Registrar Office records

**Frequency of Data Collection.** Annual

**Data Quality.** In October 2008, NTID provided data for the first time to the Department of Education on the percentage of first-time, full-time, degree-seeking sub-baccalaureate students who returned for their second year at the institution in fall 2008.

**Target Context.** Comparisons with two-year public and private colleges indicated that two-year public colleges have an average persistence rate of 52.5 percent, and two-year private colleges have a persistence rate of 60.1 percent.

The department proposed that the target for Measure 2.1A be established at 70 percent. In response, NTID noted that the average persistence rate reported for the past five years (FY 2004 – 2008) is 70 percent and concurred that this target was appropriate.

**Explanation.** This measure was added to the FY 2008 Performance Plan and is consistent with the methodology used by IPEDS and other department programs in measuring the persistence of postsecondary students. The persistence rate is the percentage of first-time, full-time, degree-seeking sub-baccalaureate students who were in their first year of enrollment in the previous year and who are enrolled in the current year.

**Measure 2.3 of 12: The percentage of first-time, full-time, degree-seeking baccalaureate students who were in their first year of postsecondary enrollment in the previous year and are enrolled in the current year, including students enrolled in NTID's ASL-English Interpretation program (desired direction: increase)**

Fiscal Year	Target	Percentage	Status
2008		85.9	Target Not In Place
2009		88.0	Target Not In Place

**Measure 2.3A of 12: The percentage of first-time, full-time, degree-seeking baccalaureate students who were in their first year of postsecondary enrollment in the previous year and are enrolled in the current year, not including students enrolled in NTID's ASL-English Interpretation program (desired direction: increase)**

Fiscal Year	Target	Percentage (or date expected)	Status
2004		91.9	Measure Not In Place
2005		82.6	Measure Not In Place
2006		86.3	Measure Not In Place
2007		75.7	Measure Not In Place
2008	Set a Baseline	85.7	Target Not In Place
2009	Maintain a Baseline	87.7	Target Not In Place
2010	85	(April 2011)	Pending
2011	85	(April 2012)	Pending
2012	85	(April 2013)	Pending

## Performance Indicators (continued)

**Measure 2.3B of 12: The percentage of first-time, full-time, degree-seeking baccalaureate students enrolled in NTID's ASL-English Interpretation program who were in their first year of postsecondary enrollment in the previous year and are enrolled in the current year (desired direction: increase)**

Fiscal Year	Target	Percentage	Status
2008		87.5	Target Not In Place
2009		89.5	Target Not In Place

**Source.** Rochester Institute of Technology, Registrar Office records

**Data Quality.** In October 2008, NTID provided data for the first time to the department on the percentage of first-time, full-time, degree-seeking baccalaureate students who returned for their second year at the institution in fall 2008.

**Target Context.** Comparisons with four-year public and private colleges indicate that four-year public colleges have an average persistence rate of 69.9 percent, and four-year private colleges have a persistence rate of 70.6 percent.

The department proposed that the target for Measure 2.3A be established at 85 percent. In response, NTID noted that the average persistence rate reported for the past five years (FY 2004 – 2008) is 84.4 percent and proposed that the target be equal to this average. NTID also noted that the persistence rate varies greatly from year to year, due to the small number of first-time, full-time, degree-seeking baccalaureate students at the institution, which does not include transfer students. The department determined that 85 percent is an appropriate and ambitious target for this measure.

**Explanation.** This measure was added to the FY 2008 Performance Plan and is consistent with the methodology used by IPEDS and other department programs in measuring the persistence of postsecondary students. The persistence rate is the percentage of first-time, full-time, degree-seeking baccalaureate students who were in their first year of enrollment in the previous year and who are enrolled in the current year.

**Measure 2.5 of 12: The percentage of first-time, full-time, degree-seeking sub-baccalaureate students who graduate within 150% of the program-based length of time, including students enrolled in NTID's ASL-English Interpretation program (desired direction: increase)**

Fiscal Year	Target	Percentage	Status
2008		26.9	Target Not In Place
2009		37.4	Target Not In Place

## Performance Indicators (continued)

**Measure 2.5A of 12: The percentage of first-time, full-time, degree-seeking sub-baccalaureate students who graduate within 150% of the program-based length of time, not including students enrolled in NTID's ASL-English Interpretation program (desired direction: increase)**

Fiscal Year	Target	Percentage (or date expected)	Status
2004		25.3	Measure Not In Place
2005		23.3	Measure Not In Place
2006		25.4	Measure Not In Place
2007		25.3	Measure Not In Place
2008	Set a Baseline	29.3	Target Not In Place
2009	Maintain a Baseline	37.8	Target Not In Place
2010	26	(April 2011)	Pending
2011	26	(April 2012)	Pending
2012	27	(April 2013)	Pending

**Measure 2.5B of 12: The percentage of first-time, full-time, degree-seeking sub-baccalaureate students enrolled in NTID's ASL-English Interpretation program who graduate within 150% of the program-based length of time (desired direction: increase)**

Fiscal Year	Target	Percentage	Status
2008		0.0*	Target Not In Place
2009		33.3	Target Not In Place

**Source.** Rochester Institute of Technology, Registrar Office records

**Frequency of Data Collection.** Annual

**Data Quality.** In October 2008, NTID provided data for the first time to the department on the percentage of first-time, full-time, degree-seeking sub-baccalaureate students who graduate within 150 percent of the program-based length of time.

**Target Context.** The department proposed that the target for Measure 2.5A be established at 32 percent. In response, NTID noted that the average graduation rate reported for the past five years (FY 2004 – 2008) is 25.7 percent and proposed that the target be equal to this average. The department determined that 26 percent is an appropriate and ambitious target for FY 2010 and 2011 for this measure. The target will be increased by 1 percent to 27 percent in FY 2012 and subsequent years.

**Explanation.** This measure was added to the FY 2008 Performance Plan and is consistent with the methodology used by IPEDS and other department programs to measure the graduation rate of postsecondary students. Program-based length of time refers to whether the stated program length for sub-baccalaureates is two or three years. The measure will allow the department to obtain data that is comparable with what is being submitted to IPEDS by other institutions on graduation rates.

\* There were only three students included in the ASL-English Interpretation cohort reported for FY 2008. None of these students persisted to graduation, resulting in a rate of 0 percent.



## Performance Indicators (continued)

**Measure 2.7 of 12: The percentage of first-time, full-time, degree-seeking baccalaureate students who graduate within 150% of the program-based length of time, including students enrolled in NTID's ASL-English Interpretation program (desired direction: increase)**

Fiscal Year	Target	Percentage	Status
2008		60.5*	Target Not In Place
2009		62.2*	Target Not In Place

**Measure 2.7A of 12: The percentage of first-time, full-time, degree-seeking baccalaureate students who graduate within 150% of the program-based length of time, not including students enrolled in NTID's ASL-English Interpretation program (desired direction: increase)**

Fiscal Year	Target	Percentage (or date expected)	Status
2004		50.0	Measure Not In Place
2005		62.1	Measure Not In Place
2006		62.9	Measure Not In Place
2007		53.3	Measure Not In Place
2008	Set a Baseline	60.5	Target Not In Place
2009	Maintain a Baseline	62.2	Target Not In Place
2010	60	(April 2011)	Pending
2011	60	(April 2012)	Pending
2012	61	(April 2013)	Pending

**Measure 2.7B of 12: The percentage of first-time, full-time, degree-seeking baccalaureate students enrolled in NTID's ASL-English Interpretation program who graduate within 150% of the program-based length of time (desired direction: increase)**

Fiscal Year	Target	Percentage	Status
2008		*	Target Not In Place
2009		*	Target Not In Place

**Source.** Rochester Institute of Technology, Registrar Office records

**Data Quality.** In October 2008, NTID provided data for the first time to the department on the percentage of first-time, full-time, degree-seeking baccalaureate students who graduate within six years.

**Target Context.** The department proposed that the target for Measure 2.7A be established at 65 percent. In response, NTID noted that the average graduation rate reported for the past five years (FY 2004 – 2008) is 57.8 percent and proposed that the target be equal to this average. The department determined that 60 percent is an appropriate and ambitious target for FY 2010 and 2011 for this measure. The target will be increased by 1 percent to 61 percent for FY 2012 and subsequent years.

**Explanation.** This measure was added in the FY 2008 Performance Plan and is consistent with the methodology used by IPEDS and other department programs to measure the graduation rate of

\* There were no first-time, full-time, degree-seeking baccalaureate students enrolled in NTID's ASL-English Interpretation program in fall 2002 (FY 2003) or fall 2003 (FY 2004).

## Performance Indicators (continued)

baccalaureate postsecondary students who graduate within six years of entry. The measure will allow the department to obtain data that is comparable with what is being submitted to IPEDS by other institutions on graduation rates.

### Objective 3 of 4

#### Improve post-school outcomes.

The source of the data in these measures is a questionnaire given by NTID to its students who are nearing graduation and immediately after graduation. In addition, all graduates receive an initial e-mail contact from NTID during the first quarter after graduation, as well as follow-up letters and phone calls, with the goal of acquiring data for every student who has graduated within the previous year. Questions include the graduate's address, whether the graduate has found or is looking for employment, and whether the graduate is attending college or another postsecondary institution. If the graduate is employed, NTID requests information regarding the employment experience, including type of work, starting date, and salary.

According to the FY 2010 GPRA report submitted by NTID on those who graduated in 2009, a total of 218 students graduated from NTID that year. Valid data existed on 202 graduates and were collected for the FY 2010 report. Of the 202 graduates, 94 students were employed (47%), 80 students were in higher education or training (40%), and 28 students were not employed or in higher education or training (13%). Of the 28 students not employed or in higher education or training, 11 were actively looking for work.

#### Measure 3.1 of 3: The post-school rate of NTID graduates who are in the workforce during their first year after graduation (desired direction: increase)

Graduation Year	Target	Rate (or date expected)	Status
2005		59	Measure Not In Place
2006		52	Measure Not In Place
2007	Set a Baseline	60	Target Not In Place
2008	Set a Baseline	51	Target Not In Place
2009	Maintain a Baseline	47	Target Not In Place
2010	57	(October 2011)	Pending
2011	57	(October 2012)	Pending
2012	57	(October 2013)	Pending

**Source.** National Technical Institute for the Deaf, post-graduation employment records

**Frequency of Data Collection.** Annual

**Target Context.** The average employment rate of 2005, 2006 and 2007 graduates who were employed full-time within one year after graduation is 57%. In FY 2010, the department proposed that the target for this measure be equal to this average. NTID will report the employment rate of its 2010 graduates who are employed within one year after graduation to the department in the next report.

**Explanation.** Originally employment rates were calculated by NTID as the percentage of graduates who are employed among those who choose to pursue employment, following the Bureau of Labor Statistics methodology. In previous years, NTID reported, in comparison with the target of 95 percent, the following percentages of students employed who have chosen to pursue employment:

## Performance Indicators (continued)

Graduation Year	Percentage
1999	94
2000	90
2001	92
2002	89
2003	93
2004	93
2005	95
2006	95
2007	90
2008	90

In FY 2006, the department changed the methodology of calculating employment data, from the percentage of graduates who were employed among those seeking employment, to the percentage of graduates who are employed among all those who graduated from NTID.

**Measure 3.2 of 3: The post-school rate of NTID graduates who are in advanced education or training during their first year after graduation (desired direction: increase)**

Graduation Year	Target	Rate (or date expected)	Status
2005		33	Measure Not In Place
2006	Set a Baseline	42	Target Not In Place
2007	Set a Baseline	30	Target Not In Place
2008	Set a Baseline	39	Target Not In Place
2009	Maintain a Baseline	40	Target Not In Place
2010	35	(October 2011)	Pending
2011	35	(October 2012)	Pending
2012	35	(October 2013)	Pending

**Source.** National Technical Institute for the Deaf, post-graduation employment records

**Frequency of Data Collection.** Annual

**Target Context.** The average participation rate of 2005, 2006 and 2007 graduates who were in advanced education or training full-time within one year after graduation is 35 percent. In FY 2010, the department proposed that the target for this measure be equal to this average. NTID will report the participation rate of its 2010 graduates who are in advanced education or training within one year after graduation to the department in the next report.

**Explanation.** This indicator was added as part of the post-school outcomes to provide a more complete and accurate picture of outcomes for NTID graduates. The measure focuses on graduates who are in advanced education or training during their first year after graduation. Separate measures cover graduates who are in the workforce during their first year after graduation and graduates who are not engaged in either advanced education or training or in the workforce during their first year after graduation.

## Performance Indicators (continued)

**Measure 3.3 of 3: The post-school rate of NTID graduates who are not engaged in either advanced education or training or in the workforce during their first year after graduation (desired direction: decrease)**

Fiscal Year	Target	Rate (or date expected)	Status
2005		8	Measure Not In Place
2006	Set a Baseline	6	Target Not In Place
2007	Set a Baseline	10	Target Not In Place
2008	Set a Baseline	10	Target Not In Place
2009	Maintain a Baseline	13	Target Not In Place
2010	8	(October 2011)	Pending
2011	8	(October 2012)	Pending
2012	8	(October 2013)	Pending

**Source.** National Technical Institute for the Deaf, post-graduation employment records

**Frequency of Data Collection.** Annual

**Target Context.** The average rate of the 2005, 2006 and 2007 graduates, who were neither employed nor in advanced education or training full-time within one year after graduation is 8 percent. In FY 2010, the department proposed that the target for this measure be equal to this average. NTID will report the rate of its FY 2010 graduates who are neither employed or in advanced education or training within one year after graduation to the department in the next report.

**Explanation.** This indicator has been added as part of the post-school outcomes to provide a more complete and accurate picture of outcomes for NTID graduates. The measure focuses on graduates who are not engaged in advanced education or training or in the workforce during their first year after graduation. Other measures cover graduates who are in the workforce during their first year after graduation and graduates who are in either advanced education or training during their first year after graduation.

## Performance Indicators (continued)

### Objective 4 of 4:

Improve the efficiency of operations at NTID as defined by the cost per successful student outcome, where the successful outcome is graduation.

#### Measure 4.1 of 2: Federal cost per NTID graduate (desired direction: decrease)

Fiscal Year	Target	Cost (or date expected)	Status
2003		239,900	Measure Not In Place
2004		206,600	Measure Not In Place
2005		209,800	Measure Not In Place
2006		181,400	Measure Not In Place
2007	Set a Baseline	210,100	Target Not In Place
2008	Maintain a Baseline	188,600	Target Not In Place
2009	Maintain a Baseline	196,300	Target Not In Place
2010	198,100	187,400	Target Exceeded
2011	199,900	(December 2011)	Pending
2012	201,700	(December 2012)	Pending
2013	203,500	(December 2013)	Pending

**Source.** National Technical Institute for the Deaf, Budget Office

**Frequency of Data Collection.** Annual

**Data Quality.** The FY 2010 data on the federal cost per graduate, as reported by NTID, is an average of the cost per graduate from FY 2005 to FY 2010. The federal cost per graduate includes graduates who receive associate, bachelor's and master's degrees from NTID.

**Target Context.** In determining the appropriate target each year for the federal cost per graduate, future inflation must be taken into account, as well as the variation in the number of students who graduate each year from NTID. The department has identified and established targets for FY 2010 and subsequent years.

**Explanation.** This measure is calculated by adding the federal appropriations for the current year and the five preceding years, which is then averaged. The average (from six years of federal appropriations) is divided by the number of graduates in the current year, including sub-baccalaureate, baccalaureate and graduate students. Federal student financial aid, vocational rehabilitation payments, other federal support for students, federal grants and contracts, the Federal Endowment Grant Program tuition, and other private funds received by NTID are not included in this calculation.

## Performance Indicators (continued)

### Measure 4.2 of 2: Total educational cost per NTID graduate (desired direction: decrease)

Fiscal Year	Target	Cost (or date expected)	Status
2003		273,400	Measure Not In Place
2004		239,400	Measure Not In Place
2005		246,100	Measure Not In Place
2006		214,300	Measure Not In Place
2007	Set a Baseline	250,300	Target Not In Place
2008	Maintain a Baseline	226,700	Target Not In Place
2009	Maintain a Baseline	236,400	Target Not In Place
2010	238,500	223,900	Target Exceeded
2011	240,600	(December 2011)	Pending
2012	242,800	(December 2012)	Pending
2013	245,000	(December 2013)	Pending

**Source.** National Technical Institute for the Deaf, Budget Office

**Frequency of Data Collection.** Annual

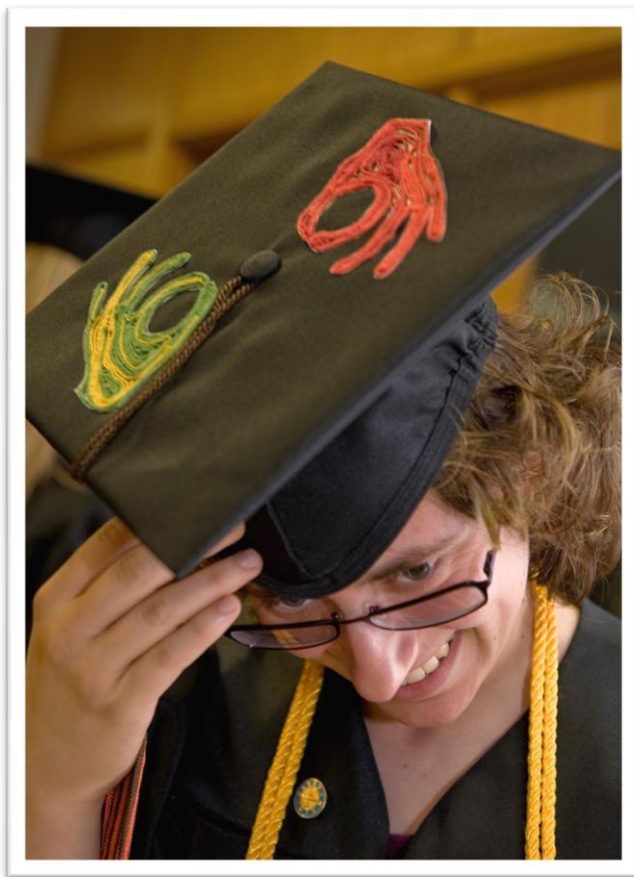
**Data Quality.** The FY 2010 data on the total educational cost per graduate, as reported by NTID, is an average of the cost per graduate from FY 2005 to FY 2010. The total educational cost per graduate includes graduates who receive associate, bachelor's and master's degrees from NTID.

**Target Context.** In determining the appropriate target each year for the total educational cost per graduate, future inflation must be taken into account, as well as the variation in the number of students who graduate each year from NTID. The department has identified and established targets for FY 2010 and subsequent years.

**Explanation.** This measure is calculated by adding the federal appropriations and non-federal funds (tuition, room, board, and fees collected from students) for the current year and the five preceding years, which is then averaged. The average (from six years of federal appropriations and non-federal funds) is divided by the number of graduates in the current year, including sub-baccalaureate, baccalaureate and graduate students. Costs associated with public services, auxiliary enterprises, and construction are excluded from this calculation.



## Strategic Planning



FY 2010 marked the final year for implementation of *Strategic Vision 2010* as well as the completion of the strategic plan for the next 10 years, *Strategic Decisions 2020*.



## Transition from *Strategic Vision 2010* to *Strategic Decisions 2020*

This portion of the annual report incorporates the fifth and final year of accomplishments associated with *Strategic Vision 2010 (SV 2010)*, which was implemented by NTID in February 2005. *SV 2010* contains four main decision areas, each of which is

presented briefly below followed by a list of our accomplishments. This year, *Strategic Decisions 2020 (SD 2020)* was developed with implementation scheduled to begin in FY 2011. The key initiatives of *SD 2020* are also provided below.

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### ***Strategic Vision 2010***

As of February 2010, NTID completed its fifth and final year of implementing *Strategic Vision 2010: Creating Our Future* (February 2005). Goals of this strategic planning/implementation initiative, and highlights of accomplishments, can be summarized according to four primary areas:

- 1. NTID will offer three distinct kinds of degree programs: a) career-focused; b) associate-to-baccalaureate transfer degree programs in collaboration with other colleges of RIT; and c) baccalaureate/master's degrees. Increased emphasis will be given to the latter two kinds of degree programs, with higher percentages of NTID-supported students enrolled at the baccalaureate level or higher. At the same time, NTID would ensure students graduating from career-focused degree programs will be eligible for well-paying technician-level jobs and careers.**

#### *Highlights of Accomplishments Regarding Career-Focused Degree Programs*

- Consolidation of 11 career-focused degree programs to five cluster areas: Arts and Imaging Studies; Business; Engineering Technologies; Computing; and Science.
- Completion, piloting, and implementation of a General Education curriculum designed to enhance skills needed in the workplace, including:
  - i. Communication outcomes related to e-mail etiquette, face-to-face communication, and presentation skills
  - ii. Capstone Course required for graduation revised to focus on both critical thinking, problem solving and communication skills, as well as issues related to workplace or technical areas of study
  - iii. Career English three-course sequence focusing on reading and writing skills required for the workplace
  - iv. Promotion of career-focused degree programs to encourage students and parents to understand and value the career possibilities of these degrees

#### *Highlights of Accomplishments Regarding Associate-to-Baccalaureate Transfer Degree Programs*

- Transfer degree programs (with at least 80 percent of the credits taken at NTID transferable to the other RIT colleges through formal articulation agreements) have been designed and implemented in the following majors:
  - i. Business Studies
    - Completed Associate in Science (AS) in Business with the E. Philip Saunders College of Business
    - Completed AS in Hospitality and Service Management with the College of Applied Science and Technology
    - Completed Associate in Applied Science (AAS) in Administrative Support Technology with the College of Applied Science and Technology, with concentrations in Human Resources Management or Computer Graphics

## **Strategic Vision 2010 (continued)**

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- ii. Engineering Studies
  - Completed AAS in Applied Mechanical Technology with the College of Applied Science and Technology
- iii. Information and Computing Studies
  - Completed AS in Applied Computer Technology with the B. Thomas Golisano College of Computing and Information Sciences
- iv. Laboratory Science Technology
  - Completed AAS in Laboratory Science Technology with the College of Applied Science and Technology
- v. Liberal Studies
  - Completed a new AS in Applied Liberal Studies

### *Highlights of Accomplishments Regarding Baccalaureate/Master's Degree Programs*

- Approval obtained for a BS in ASL-English Interpretation
- Accreditation obtained from the Teacher Education Accreditation Council (TEAC) for the Master of Science program in Secondary Education of Students who are Deaf or Hard-of-Hearing (MSSE)
- Implemented an NTID and College of Liberal Arts Partnership Agreement, greatly increasing the number of sections of American Sign Language (ASL) courses offered through the College of Liberal Arts, establishing a concentration in ASL/Deaf Studies for hearing, deaf and hard-of-hearing students, and a cross-disciplinary minor in Deaf Cultural Studies

## **2. NTID will create formal referral agreements with selected community colleges for students not yet ready for admission to NTID's career-focused programs. NTID also will create an intensive summer English program to boost selected students from career-focused to 2+2 or 2+3 transfer programs.**

### *Highlights of Accomplishments Regarding Community College Partnerships*

- *Strategic Vision 2010* called for NTID to establish a strong referral program with selected community college programs to help students who want to come to NTID, but who are not yet academically ready. This plan has been modified and has become our Community College Referral Program. This program focuses on recruiting deaf and hard-of-hearing students with associate degrees to transfer to RIT baccalaureate programs from partner community colleges.

A coordinator was appointed in December 2007, and from December 2007 to October 2008, this person contacted 40 schools across the United States and visited 33 of them. Written agreements with Austin Community College and Northwestern Connecticut Community College have been developed. A Transfer Advising Worksheet has been mailed to 55 contacts at the schools visited. Community colleges were made aware of RIT's access services in interpreting, notetaking, C-Print<sup>®</sup> and tutoring.

- NTID received funding from the National Science Foundation (NSF) for a planning grant for a Center for Advancing Technological Education of Deaf and Hard-of-Hearing Students (CATED), utilizing the results of the Community College Referral Program, NTID's Deaf Initiative in Technology (DiIT), and NTID's Project Fast Forward. The aim of the planning

grant was the development of paths from high school to community college to a four-year college in advancing deaf and hard-of-hearing students into high technology fields with an emphasis on preparing students for two-year programs leading to technician level employment.

### *Highlights of Accomplishments Regarding Intensive English Bridging Program*

- NTID created an Intensive English Program with full implementation during Academic Year 2008-09. A proposal for an intensive English Bridging Program was prepared, reviewed, developed, piloted and approved – and was implemented in fall 2009. This program serves a high achieving segment of students in career-focused degree programs, repositioning them to enter a transfer associate degree program leading to a baccalaureate degree.

### **3. NTID will expand the array of access services and resources available to NTID-supported students in the other colleges of RIT in response to the changing characteristics of entering students.**

#### *Highlights of Accomplishments Regarding Access Services*

- NTID continues to inclusively accommodate impressive communication diversity among our students, as exemplified by a sampling of recent results from NTID's Language/Communication Background Questionnaire (Academic Year 2009-10):
  - For associate-degree deaf and hard-of-hearing students, when interacting with other deaf and hard-of-hearing students, 53 percent use sign language alone, 12 percent use speech alone, and 34 percent use both sign and speech. When interacting with hearing people, 8 percent use sign language alone, 40 percent use speech alone, and 22 percent use both sign and speech.
  - For baccalaureate-degree deaf and hard-of-hearing students, when interacting with other deaf and hard-of-hearing students, 41 percent use sign language alone, 15 percent use speech alone, and 37 percent use both sign and speech. When interacting with hearing people, 2 percent use sign language alone, 76 percent use speech alone, and 7 percent use both sign and speech.

Most of our students use sign language, spoken language and amplification, and do so with impressive adaptability, depending on with whom they are interacting. It is an adaptability that will serve our students well in their lives and careers beyond RIT, and one that NTID will continue to cultivate as an educational community.

- There continues to be an increase in the number of students who have cochlear implants – from 120 students in fall 2003 to 305 in fall 2010 (see Hearing Assessment and Cochlear Implant Information page).

In coming years NTID expects a continuing increase in the number of students who have used cochlear implants from an early age. Rather than relying on access services that are strictly sign language-based, many of these students rely primarily on text-based translation.

Already we see a growing trend in student demand for such access services. These services – like C-Print<sup>®</sup> – use captionists to type a professor's and classmates' spoken words into a computer, allowing deaf and hard-of-hearing students without sign language skills to read the text on a computer screen for real-time access to classroom instruction.

## Strategic Vision 2010 (continued)

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NTID has responded to the changing needs of deaf and hard-of-hearing students registered in the other colleges of RIT by expanding the array of access services, including speech-to-text captioning services; we continue to make significant improvements in the delivery of access services. Throughout the implementation of *Strategic Vision 2010*, we have:

- Increased the provision of interpreting services by 11 percent, from a total of 99,175 hours in FY 2005 to a total of 116,782 hours in FY 2010; and
- Increased the provision of C-Print real-time captioning services by 43 percent, from a total of 7,485 hours in FY 2005 to a total of 19,493 hours in FY 2010.

In addition to increased provision of access services, as a result of the direction provided by *Strategic Vision 2010*, we also have established two significant Research Centers responsive to the broad topic of access services.

- The Center on Access Technology for Students who are Deaf or Hard-of-Hearing (CAT), continues to address the challenges of utilizing or adapting new access technologies for use in postsecondary education. The center investigates, evaluates and reports on the most effective use of access technologies and accelerates the implementation of best practices within postsecondary deaf education. Its current focus areas are: classroom access technologies, mobile technologies, audio and sound technologies, and training and evaluation services. CAT, over several years, has participated in multiple externally funded projects and submitted additional proposals. (See Research section for more information.)
- The Center for Education Research Partnerships (CERP) establishes and joins research partnerships concerning development and learning among deaf and hard-of-hearing students across the lifespan and in various educational settings. Included in several areas of concentration is research on communication via real-time text as specified in our *Strategic Vision 2010*. Unique features of the center include: an emphasis on research partnerships, considering learning in a variety of settings, serving as an incubator for research ideas and grant proposals, providing seed funding for collaborative activities and obtaining support from external funding. (See Research section for more information.)

#### **4. NTID will develop an Educational Outreach Consortium to improve the education and career development of deaf and hard-of-hearing students. As a first step, the consortium primarily will focus on pre-college audiences of students.**

##### *Highlights of Accomplishments Regarding Educational Outreach Consortium*

As a result of guidance provided by *Strategic Vision 2010*, the Educational Outreach Consortium accomplished a host of outreach initiatives. Summaries are provided below, with extended details provided in the Outreach section of this report.

- **PEPNet-Northeast.** In October 2006, PEPNet-Northeast, formerly the Northeast Technical Assistance Center (NETAC), was awarded a five-year \$5,000,000 grant from the U.S. Department of Education, Office of Special Education Programs. The center is one of four regional centers comprising the Postsecondary Education Programs Network (PEPNet) that assists secondary and postsecondary institutions in more effectively addressing the transition, postsecondary, vocational, technical, continuing and adult education needs of individuals who are deaf or hard-of-hearing.

## Strategic Vision 2010 (continued)

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- **Explore Your Future.** Explore Your Future (EYF) provides a five-day career exploration and evaluation program for deaf and hard-of-hearing students about to enter their junior or senior year of high school.
- **TechGirlz Camp.** TechGirlz Camp is a one-week summer camp program for deaf and hard-of-hearing 7<sup>th</sup>–9<sup>th</sup> grade girls who have a strong interest in science, technology, engineering and math fields (STEM). Students build a personal computer and spend time in the chemistry and manufacturing labs.
- **SpiRIT Writing Contest.** High school students submit multiple writing samples, including an essay or a report written for a school assignment, a creative writing piece and a writing sample of 250 words written specifically for the competition. Over the years, the writing samples have included topics such as physician-assisted suicide, supporting the fight for independence from Great Britain, the Black Death, and should the National Basketball Association have a dress code.
- **Steps to Success.** Deaf and hard-of-hearing African-American, Latino-American and Native-American (AALANA) students attend Steps to Success, a career exploration mini-camp. These students, entering 7<sup>th</sup>, 8<sup>th</sup> or 9<sup>th</sup> grades, explore career options through hands-on experiences using computers, working with robots and doing science experiments. Counselors and technical faculty role models present the program.
- **Digital Arts, Film and Animation Competition.** Students submit projects to compete in the Digital Arts, Film and Animation Competition. Categories include mixed digital media, photo illustration, Web page design, graphic media, 3-D animation, interactive media and film. The winners, accompanied by parents and teachers, came to RIT to attend the awards ceremony.
- **Math Competition.** NTID hosts an annual math competition for deaf and hard-of-hearing middle school students. The competition involves students from schools throughout the country, competing as individuals and teams to solve a variety of mathematical problems within designated time periods. Students in grades 6, 7 and 8 participate. The mission of the nationwide competition is to increase enthusiasm for, and enhance achievement in, middle school mathematics throughout the United States. The materials challenge students' math skills, develop their self-confidence and reward them for their achievements.
- **National Science Fair.** The fair hosts middle school and high school students from around the country who compete for the top honors in the individual middle school, individual high school, and team divisions.
- **Deaf Initiative in Technology.** The Deaf Initiative in Technology (DiiT) project (formerly Deaf Initiative in Information Technology) was established with two continuing grants from the National Science Foundation. During the six years of NSF funding, DiiT focused on the area of information technology. Since the end of NSF funding several years ago, NTID has supported the project, expanding the DiiT model to other disciplines. Faculty members from various departments offer workshops on a wide range of topics during the year. Outside funding also has been acquired to support the annual offerings of DiiT workshops in the Greater Los Angeles area.
- **Project Fast Forward.** Project Fast Forward is a three-year project funded in July 2006 by the Advanced Technological Education program of the National Science Foundation. The project is housed in NTID's Information and Computing Studies Department. The goal of

Project Fast Forward is to increase the number of deaf and hard-of-hearing students who pursue a postsecondary education in a computer-related field by creating a pathway for students to transition from high school to college in the area of information technology (IT). To accomplish this, NTID partners with high schools across the country to offer dual-credit IT courses for deaf and hard-of-hearing students and professional development for teachers and guidance counselors.

### Current Context

Not only with regard to the past five years since *Strategic Vision 2010: Creating Our Future*, but over the last 18 years since *Strategic Plan: An Agenda for Action* in 1992, NTID's evolution as an educational community can be traced along seven vectors:

- Increasing emphasis on graduates achieving baccalaureate-level degrees, while maintaining focus and commitment to quality associate-level degrees leading directly to the workplace;
- Improving the array and level of access services available for students who are deaf or hard-of-hearing students enrolled throughout the other colleges and programs of RIT;
- More seamless articulation among NTID- and RIT-wide academic and student life programs;
- Cultivating an educational community that, in the face of increasing diversity among entering students, values and supports the educational process of students exploring alternative perspectives in developing their own personal, career and cultural identities;
- Increasing emphasis regarding NTID's responsibility for contributing to the preparation of professionals serving individuals who are deaf or hard-of-hearing;
- Increasing emphasis on reaching out to enhance the education and career choices of students who are deaf or hard-of-hearing at middle school, high school and postsecondary levels, as well as adults who are deaf or hard-of-hearing seeking to update their technical skills; and
- Increasing experimentation and advancement in the use of both on-site and remote technologies to support the access and learning of individuals who are deaf or hard-of-hearing.

These vectors have guided us into the world we face today, and have provided context for *Strategic Decisions 2020: Shaping NTID's Future Through Innovation*, NTID's most recent strategic planning initiative, completed in April 2010. Implementation of this strategic plan is now underway in FY 2011; an update will be provided in next year's annual report.

*RIT/NTID students at the Imagine RIT: Innovation and Creativity Festival show young members of the community a few signs in ASL.*



## Strategic Decisions 2020 (continued)

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### Strategic Decisions 2020

*Strategic Decisions 2020* is rooted in our founding mission statement. This statement establishes our institutional responsibility for working with students to develop their academic, career and life-long learning skills as future contributors in a rapidly changing world. It also recognizes our role as a special resource for preparing individuals who are deaf or hard-of-hearing, for conducting applied research in areas critical to the advancement of individuals who are deaf or hard-of-hearing, and for disseminating our cumulative expertise.

*Strategic Decisions 2020* builds on two documents and extensive community feedback. The first document, *Strategic Vision for NTID: Shaping our Future by Embracing Change*, was developed by the Strategic Vision 2020 Committee and submitted in June 2009. The second document was a response to the first, developed by the NTID Administrative Team and disseminated to the NTID community for discussion and feedback in September 2009. *Strategic Decisions 2020* benefits from the respective contributions of both documents, and the community dialogue they engendered.

The strategic planning process was originally expected to be completed by the end of December 2009. However, the timeline for community discussion and feedback was extended at the urging of the Strategic Vision Planning Committee from early December 2009 to February 2010. There was general concern expressed that the community had not been provided ample opportunity to critique the document submitted by the Strategic Vision Committee and the response developed by NTID leadership. As a result, five open forums were conducted; four open to students, staff and faculty and one conducted with staff and faculty only. In addition, three forums were held specifically for students. Attendance at each forum was strong and increased with each successive session. Whatever strengths and credibility characterize *Strategic Decisions 2020* derive from the vitality and quality of this community-wide discourse.

*Strategic Decisions 2020* establishes key initiatives responding to future challenges and shaping future opportunities. The initiatives are organized around six central themes: Students; Program and Curriculum Development; Communication; Access; Faculty/Staff; and Innovation, Scholarship, and Research. Examples of *SD 2020* initiatives include:

- Pursuing enrollment targets and admissions and programming strategies that will result in increasing numbers of our graduates achieving baccalaureate degrees and higher, while maintaining focus and commitment to quality associate-level degree programs leading directly to the workplace;
- Improving services to under-prepared students through working with regional partners to implement intensive summer academic preparation programs in selected high-growth, ethnically diverse areas of the country. Through this initiative, NTID will identify those students demonstrating promise for success in career-focused degree-level programs and beyond, and provide consultation to others regarding postsecondary educational alternatives;
- Expanding NTID's role as a National Resource Center of Excellence regarding the education of deaf and hard-of-hearing students in senior high school (grades 10, 11 and 12) and at the postsecondary level. Components of this identity as a National Resource Center of Excellence will include:
  - Center for Excellence in STEM Education. NTID currently is working to develop an externally funded Center for Excellence in STEM Education for Deaf and Hard-of-Hearing Students. This is an example of making our expertise available nationally and enhancing deaf and hard-of-hearing students' access to STEM fields.

## **Strategic Decisions 2020 (continued)**

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- NTID Research Centers. NTID will organize research resources into Research Centers focused on such strategic areas of research as: Teaching and Learning; Communication; Technology, Access, and Support Services; and Employment and Adaptability to Social Changes and the Global Workplace.
- Outreach Programs. NTID will continue to extend outreach activities to junior and senior high school students who are deaf or hard-of-hearing, many of whom represent AALANA populations, to expand their horizons regarding a college education. We also support other colleges and universities serving students who are deaf or hard-of-hearing, as well as post-college adults who are deaf or hard-of-hearing;
- Enhancing efforts to become a recognized national leader in the exploration, adaptation, testing, and implementation of new technologies to enhance access to, and support of, learning by deaf and hard-of-hearing individuals;
- Enhancing professional development resources and strategies in anticipation of increasing numbers of retirements among staff and faculty, and increasing numbers of new hires; and
- Establishing a center-based model for addressing NTID's strategic research agenda, including support for discipline-based research, fostering the involvement of students in scholarship and innovation, enhancing institutional research, and providing additional space for innovation, scholarship and research.





## Admissions and Enrollment



Throughout the year, NTID's Office of Admissions hosts open house events for prospective students and their families, including academic department meetings, campus tours, residence hall tours, and admissions and financial aid presentations.

## Admissions and Enrollment Highlights

Because deafness is a low-incidence disability, with deaf and hard-of-hearing students widely dispersed throughout the nation, recruiting and admitting qualified students to NTID is always a challenge.

Admission counselors visited 465 schools during the FY 2010 admissions cycle. Visits this year covered 444 high schools, including 156 in the Midwest, 76 in the Southeast, 72 in the Northeast, 61 in New York State and 79 in the West Coast Region. Counselors visited 21 colleges: seven in the West Coast region, seven in the Midwest, one in the Northeast, four in New York State and two in the Southeast region. Admissions participated in six college fairs, including four in the Midwest, one in the Southeast and one in the West Coast region.

The number of new students entering NTID in fall 2010 was 435. The total included 341 deaf and hard-of-hearing freshmen and transfers, 22 first-year deaf and hard-of-hearing graduate students (12 in the Master of Science program in Secondary Education of Students who are Deaf or Hard-of-Hearing [MSSE] and 10 in other RIT master's programs), and 72 first-year hearing students (57 in the ASL-English Interpretation program, and 15 in the MSSE program).

Overall, NTID's applicants increased by 2 percent from last year's 966 to 983 applicants for fall 2010 enrollment. Total enrollment was 1,521 compared to 1,474 for last year. The breakdown of the 1,521 students is as follows:

	Deaf and Hard-of Hearing	Hearing	Total
<b>Undergraduate Programs</b>			
Career Exploration Studies	112	0	112
Career-Focused Associate Programs	488	0	488
Transfer Associate Programs	168	0	168
Baccalaureate (ASL-English Interpretation)	0	147*	147*
Baccalaureate/Master's Programs in Other RIT Colleges	495	0	495
<b>Subtotal NTID Undergraduate Programs</b>	<b>1,263</b>	<b>147</b>	<b>1,410</b>
Graduate Programs at RIT	40	0	40
MSSE Program	29	42	71
<b>Total Enrolled Students</b>	<b>1,332</b>	<b>189</b>	<b>1,521</b>

NTID's student population remains strong in both ethnic and geographic diversity. Minority students represent 34 percent of this year's fall 2010 entering class, compared to 29 percent of the total student body. Minority students have represented approximately 28 to 34 percent of the entering student population over the last five years. Additionally, minority students have represented approximately 24 to 29 percent of the entire student population over the last five years (for more information see the Diversity and Pluralism section). Students come from all over the country with 14 percent from the West, 22 percent from the South, 25 percent from the Midwest, and 39 percent from the Northeast.

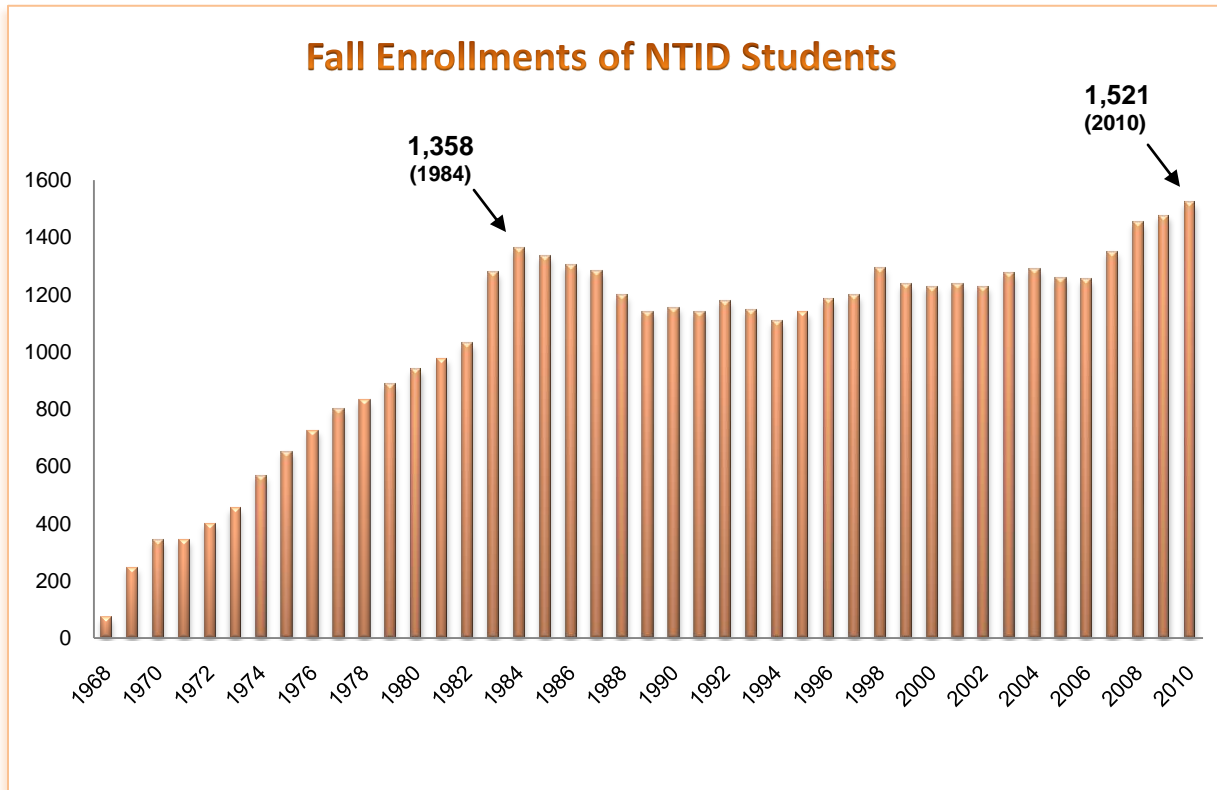
In addition, NTID enrolled 10 new international students. The total number of international students is 41, or 2.7 percent of the entire student population. International students have represented approximately 3 or 4 percent of the entire student population in the last five years.

**In summary, NTID registered 435 new students and is serving a total of 1,521 students.**

\* There is an additional student who is a double-major, with one major in NTID and another in a different college of RIT.

## Admissions and Enrollment Highlights (continued)

NTID's fall 2010 enrollment of 1,521 is the highest enrollment in our history, exceeding our increased enrollments last year. It also exceeds the high enrollments from 1983 to 1988 resulting from the rubella epidemic 20 years earlier in which pregnant mothers who contracted rubella gave birth to increased numbers of deaf children.



## Comparative Admissions Data

Total applications increased by 2 percent from last year. The acceptance rate was 54 percent of applications. Total registrations were 351, achieving a yield rate of 67 percent.

	Deaf and Hard-of-Hearing Freshman and Transfers Number of Students*				
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
<b>Total Applicants</b>	819	939	1,000	966	983
% Increase or Decrease from Previous Year	+7%	+15%	+6%	-3%	+2%
<b>Accepted Applicants</b>	450	522	594	521	526
% Increase or Decrease from Previous Year	+6%	+16%	+14%	-12%	+1%
Acceptance Rate (Percent of Total Applicants)	55%	56%	59%	54%	54%
<b>Registrations</b>	341	377	396	341	351
Yield Rate (Registrations as a Percent of Accepted Applicants)	76%	72%	67%	65%	67%

\* Figures reported include deaf and hard-of-hearing international students, but do not include admissions activity in the ASL-English Interpretation program or the Master of Science program in Secondary Education. Specific data on these students is reported in the section on Academic Programs.

## Summer Vestibule Program

The Summer Vestibule Program (SVP) is a 10-day experience that allows new students to engage in career exploration and decision-making, adjust to college life and assess their academic competencies. Students get hands-on experience and information about various academic programs and majors.

SVP includes a Student/Parent Orientation Weekend designed to give participants an

overview of the program and to familiarize them with NTID and its place on the RIT campus. Informational seminars, awareness workshops and in-depth orientation programs are offered to facilitate student-parent separation and student transition to the college environment.

There were 269 SVP registrants for summer 2010.

	Number of Students*				
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
SVP Students Accepted	354	406	452	409	407
SVP Students Registered at Start of Program	219	254	295	265	269
SVP Students Completing Program	217	253	294	259	268
SVP Students Registered in Academic Programs for Fall Quarter (based on the end of fall registration)	215	253	294	253	263



*RIT/NTID students chat in the Student Development Center.*

\* Figures reported include deaf and hard-of-hearing international students, but do not include admissions activity in the ASL-English Interpretation program or the Master of Science in Secondary Education program. Specific data on these students is reported in the section on Academic Programs.

## Entering Registered Students

Although NTID registers new students in each quarter throughout the academic year, the vast majority enter in the fall, either following the Summer Vestibule Program (SVP) or as fall direct-entry students. SVP is a 10-day orientation and career-sampling program held in August. Students who finish the program become part of the fall entering class.

The remainder of the fall class enters directly into a program because their academic preparation suggests that they do not need the SVP experience.

As of fall 2010, the number of new students in was up 5 percent from the previous fall, from 355 to 373 students.

	Number of Students*				
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Winter (Off-Term)	12	18	20	24	23
Spring (Off-Term)	19	25	18	2	9
Summer (Off-Term)	2	0	0	0	0
<b>Subtotal Off-Term</b>	<b>33</b>	<b>43</b>	<b>38</b>	<b>26</b>	<b>32</b>
Fall (SVP)	215	253	299**	258**	276***
Fall (Direct Entry)	93	81	86	71	65
<b>Subtotal Fall</b>	<b>308</b>	<b>334</b>	<b>385</b>	<b>329</b>	<b>341</b>
<b>Total</b>	<b>341</b>	<b>377</b>	<b>423</b>	<b>355</b>	<b>373</b>

\* Figures reported include deaf and hard-of-hearing undergraduate international students, but do not include deaf graduate students or admissions activity in the ASL-English Interpretation program or the Master of Science program in Secondary Education. Specific data on these students is reported in the section on Academic Programs.

\*\* Includes five re-matriculating students.

\*\*\* Includes 13 re-matriculating students.

## NTID Student Enrollment by Quarter (Deaf and Hard-of-Hearing Students Only)

The enrollment reported reflects only the deaf and hard-of-hearing students in undergraduate programs on the RIT campus or in graduate programs at other RIT colleges. Not included are hearing students enrolled in the ASL-English Interpretation program (147), or deaf,

hard-of-hearing or hearing students enrolled in the Master of Science program in Secondary Education (71). In addition, large numbers of hearing, deaf and hard-of-hearing students access a variety of part-time and non-credit-bearing coursework at NTID throughout the year.

PERIOD COVERED	FALL QUARTER		WINTER QUARTER			SPRING QUARTER			SUMMER QUARTER		SUMMER VESTIBULE PROGRAM	
	A	B	A	B	C	A	B	C	A	B	A	B
FY 91: Oct. 90-Sep. 91	1,105	0.82%	1,048	2.54%	-5.16%	982	1.34%	-6.30%	255	-14.72%	245	-10.58%
FY 92: Oct. 91-Sep. 92	1,086	-1.72%	1,027	-2.00%	-5.43%	991	0.92%	-3.51%	260	1.96%	259	5.71%
FY 93: Oct. 92-Sep. 93	1,130	4.05%	1,058	3.02%	-6.37%	978	-1.31%	-7.56%	251	-3.46%	235	-9.27%
FY 94: Oct. 93-Sep. 94	1,092	-3.36%	1,021	-3.50%	-6.50%	978	0.00%	-4.21%	299	19.12%	196	-16.60%
FY 95: Oct. 94-Sep. 95	1,045	-4.30%	977	-4.31%	-6.51%	900	-7.98%	-7.88%	240	-19.73%	272	38.78%
FY 96: Oct. 95-Sep. 96	1,056	1.05%	968	-0.92%	-8.33%	933	3.67%	-3.62%	194	-19.17%	260	-4.41%
FY 97: Oct. 96-Sep. 97	1,085	2.75%	1,021	5.48%	-5.90%	965	3.43%	-5.48%	187	-3.61%	253	-2.69%
FY 98: Oct. 97-Sep. 98	1,085	0.00%	1,010	-1.08%	-6.91%	960	-0.52%	-4.95%	189	1.07%	241	-4.74%
FY 99: Oct. 98-Sep. 99	1,155	6.45%	1,030	1.98%	-10.82%	976	1.67%	-5.24%	217	14.81%	255	5.81%
FY 00: Oct. 99-Sep. 00	1,107	-4.16%	1,040	0.97%	-6.05%	1009	3.38%	-2.98%	221	1.84%	256	0.39%
FY 01: Oct. 00-Sep. 01	1,113	0.54%	1,045	0.48%	-6.11%	1,017	0.79%	-2.68%	236	6.79%	242	-5.47%
FY 02: Oct. 01-Sep. 02	1,151	3.41%	1,056	1.05%	-8.25%	1,007	-0.98%	-4.64%	224	-5.08%	234	-3.31%
FY 03: Oct. 02-Sep. 03	1,122	-2.52%	1,027	-2.75%	-8.47%	994	-1.29%	-3.21%	228	1.79%	195	-16.67%
FY 04: Oct. 03-Sep. 04	1,109	-1.16%	1,047	1.95%	-5.59%	1,005	1.11%	-4.01%	249	9.21%	168	-13.85%
FY 05: Oct. 04-Sep. 05	1,097	-1.08%	1,029	-1.72%	-6.20%	962	-4.28%	-6.51%	222	-10.84%	190	13.10%
FY 06: Oct. 05-Sep. 06	1,066	-2.83%	988	-3.98%	-7.32%	926	-3.74%	-6.28%	263	18.47%	219	15.26%
FY 07: Oct. 06-Sep. 07	1,064	-0.19%	998	1.01%	-6.20%	963	4.00%	-3.51%	339	28.90%	254	15.98%
FY 08: Oct. 07-Sep. 08	1,154	8.46%	1,099	10.12%	-4.77%	1,040	8.00%	-5.37%	396	16.81%	295	16.14%
FY 09: Oct. 08-Sep. 09	1,260	9.19%	1,216	10.65%	-3.49%	1,155	11.06%	-5.02%	428	8.08%	265	-10.17%
FY 10: Oct. 09-Sep. 10	1,275	1.20%	1,166	-4.11%	-8.55%	1,170	1.90%	0.34%	411	-3.97%	269	1.51%
FY 11: Oct. 10-Sep. 11	1,303	2.20%										

NOTES: Column A = Number of Student Enrollments for the period covered  
 Column B = Percent Change of Enrollment from the same quarter in previous year  
 Column C = Percent Change of Enrollment from the previous quarter



## Percent of Registered Students with Full-Time Status

On average, 95 percent of NTID-supported students are registered full time. At RIT, full-time status is defined as taking at least 12 credit hours in an academic quarter.

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010		
					Number		
					Percent	Full-Time	Total
Career Exploration	97%	99%	99%	99%	100%	112	112
Career-Focused and Transfer Associate Degrees	98%	98%	98%	97%	97%	615	636
Pre-Baccalaureate	100%	100%	97%	100%	100%	16	16
Cross-Registered Baccalaureate and Graduate	95%	92%	91%	93%	93%	481	517
ASL-English Interpretation	89%	91%	91%	93%	97%	143	147
Master of Science in Secondary Education (MSSE)*	91%	85%	73%	75%	80%	57	71
<b>Overall</b>	<b>94%</b>	<b>95%</b>	<b>94%**</b>	<b>94%***</b>	<b>95%</b>	<b>1,424</b>	<b>1,499****</b>

\* Included for FY 2007 and FY 2008 are non-matriculated students (between four and 15, per year) taking courses offered by the Master of Science program in Secondary Education, but who are part of a grant-supported joint program between NTID and Nazareth College of Rochester to train speech pathologists to work with deaf and hard-of-hearing persons.

\*\* Information on full-time status is not available for 24 currently registered students, who are therefore not included.

\*\*\* Information on full-time status is not available for 25 currently registered students, who are therefore not included.

\*\*\*\* Information on full-time status is not available for 22 currently registered students, who are therefore not included.

## International Student Recruitment

This year, applications from international students numbered 63 and, of those, 14 were accepted and nine registered. Canadian students have always represented the largest contingent of international students, but many of them continue to experience a lack of funding resources, which discouraged a number of prospective students from applying or prevented many of those accepted from being able to attend NTID. Students from developing countries

also encounter financial difficulties, and NTID has only limited scholarship dollars to assist them. However, per the Education of the Deaf Act, international students pay differing tuition rates, depending on whether they are from a developing or developed country. Until the situation in Canada changes, and until we obtain additional private scholarship funds, enrollment of international students will continue to be a challenge.

Applicant Continent of Origin	Number of Students*				
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Africa	9	19	9	20	12
Asia	14	10	10	12	10
Australia	0	0	0	0	0
Europe	3	3	2	8	8
North America	28	33	32	29	31
South America	0	0	0	0	2
<b>Total Applicants</b>	<b>54</b>	<b>65</b>	<b>53</b>	<b>69</b>	<b>63</b>
<b>Accepted Applicants</b>	<b>13</b>	<b>11</b>	<b>15</b>	<b>13</b>	<b>14</b>
Acceptance Rate (Percent of Total Applicants)	24%	17%	28%	19%	22%
<b>New Registrations</b>	<b>10</b>	<b>10</b>	<b>7</b>	<b>12</b>	<b>9</b>
Yield Rate (New Registrations as a Percent of Accepted Applicants)	77%	91%	47%	92%	64%
<b>Returning International Students</b>	<b>32</b>	<b>34</b>	<b>31</b>	<b>30</b>	<b>31</b>
<b>Total Enrollment (Returning International Students plus New Registrations)</b>	<b>42</b>	<b>44</b>	<b>38</b>	<b>42</b>	<b>40</b>

\* Figures reported do not include admissions activity in the ASL-English Interpretation program or the Master of Science program in Secondary Education. Specific data on these students is reported in the section on Academic Programs.

## Demographic Characteristics of All Entering Students

The demographic profile of entering students demonstrates little change from last year in most categories as shown below.\*

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
<b>Characteristics of Entering Students</b>					
Gender					
Male	61%	52%	51%	60%	54%
Female	39%	48%	49%	40%	46%
Mean Age at Entry					
	21	21	21	21	21
Parents' Hearing Status					
Both Hearing	92%	85%	92%	85%	86%
Both Deaf	5%	5%	4%	9%	8%
One Hearing/One Deaf	3%	10%	4%	6%	6%
<b>Origin of Entering Students</b>					
United States by Region: 100% of U.S. students distributed across four regions					
West	11%	10%	11%	9%	14%
Midwest	24%	20%	23%	26%	25%
South	19%	23%	22%	22%	22%
Northeast	46%	47%	44%	43%	39%
<b>Distribution of United States and International Students</b>					
United States	96%	97%	97%	96%	96%
International	4%	3%	3%	4%	3%
<b>School Background of Entering Students</b>					
First Time in College	65%	74%	71%	72%	72%
Transfer from Other Colleges	17%	16%	17%	16%	20%
Previously Enrolled at RIT	14%	6%	5%	8%	5%
Graduate Students	4%	4%	7%	4%	3%

\* Figures reported include deaf and hard-of-hearing international students, but do not include admissions activity in the ASL-English Interpretation program or the Master of Science in Secondary Education program. Specific data on these students is reported in the section on Academic Programs.

## Demographic Characteristics of Enrolled International Students Compared to Enrolled U.S. Students

	FY 2011*		
	International	U.S.	Overall
<b>Demographics</b>			
Gender			
Male	68%	55%	56%
Female	33%	45%	44%
<b>Entry Age, All Students</b>			
	25	23	23
<b>Age of Onset of Deafness</b>			
Birth	78%	89%	88%
1 - 3 Years of Age	22%	4%	5%
More than 3 Years of Age	0%	7%	7%
<b>Entry Scores</b>			
Hearing Level (Pure Tone Average) in Better Ear	97.6 dB	92.9 dB	93.0 dB
ACT Composite Score	17.7	17.2	17.2
<b>Program Area</b>			
Career Exploration	8%	9%	9%
Career-Focused Associate Degrees	30%	38%	37%
Transfer Associate Degrees	13%	13%	13%
Other Colleges of RIT Baccalaureate/Master's	50%	41%	41%
<b>FY 2011 Status of Students Enrolled FY 2010</b>			
Still Registered	67%	68%	68%
Withdrawn	12%	15%	15%
Graduated	21%	17%	17%

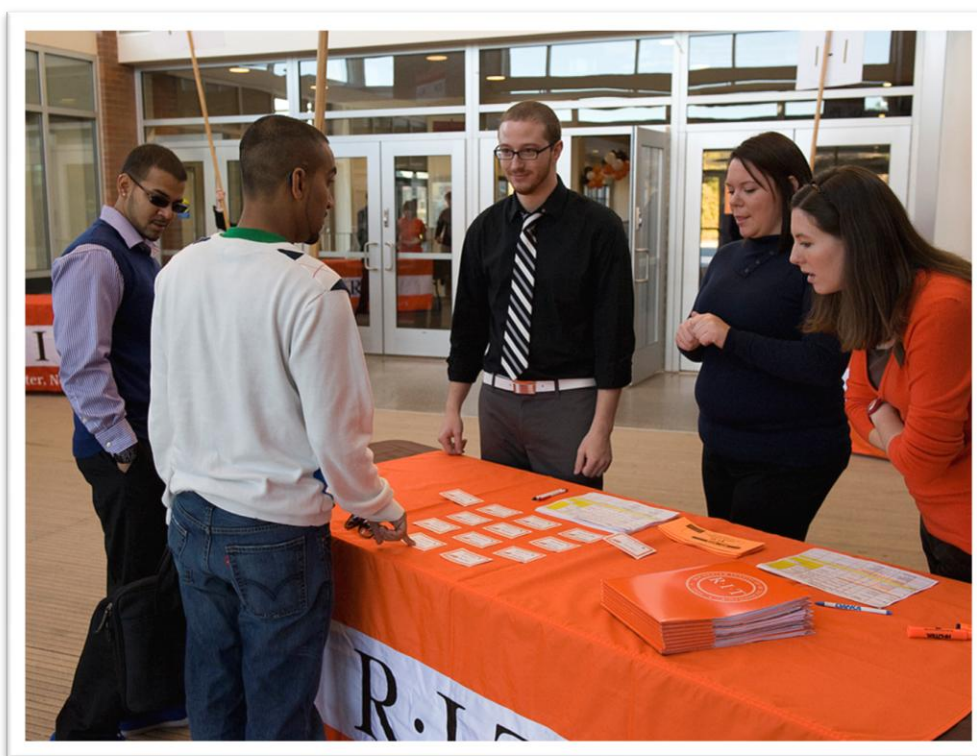
\* Figures reported do not include students in the ASL-English Interpretation program or the Master of Science in Secondary Education program. Specific data on these students is reported in the section on Academic Programs.

## ACT Information on Entering Class (Deaf and Hard-of-Hearing Students Only)

Beginning in 1969, the Stanford Achievement Test (now known as the SAT) was used to evaluate educational achievement for admission to NTID. In 1996, the decision was made to replace the SAT with the American College Test (ACT).

Mean scores for the ACT are presented below. Results indicate that skill levels of entering students were slightly below those of students entering in fall 2009.

American College Test (ACT)*	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
ACT English	13.9	14.8	15.6	15.3	14.5
ACT Reading	16.4	17.3	18.4	18.1	17.0
ACT Mathematics	17.2	17.7	18.1	18.3	17.5
ACT Science Reasoning	18.2	19.0	19.1	19.4	18.7
ACT Composite	16.8	17.5	18.2	17.9	17.2



*Admissions counselors and RIT/NTID graduates David Spiecker of Henrietta, N.Y., and Mich Gerson of South River, N.J., as well as admissions student worker Michelle of Grapevine, Texas, greet prospective students during an open house.*

\* Figures reported include deaf and hard-of-hearing international students, but do not include admissions activity in the ASL-English Interpretation program or the Master of Science in Secondary Education program. Specific data on these students is reported in the section on Academic Programs.

## Academic Skills of Entering Students

The academic preparedness of most entering NTID-supported students is substantially below that of their hearing peers. NTID students directly admitted to one of RIT's other colleges have a mean ACT composite score of 23, and represent 19 percent of NTID's entering class of 2010. The average ACT composite score for students entering transfer associate programs is 19, and represents 18 percent of NTID's entering class. The average ACT composite score for students entering career-exploration programs is 15, and represents 22 percent of NTID's entering class. Lastly, the average ACT composite score for students entering

career-focused associate programs is 15, and represents 41 percent of NTID's entering class. The average ACT composite score of 17 for all entering students is in the range achieved by students entering four-year schools with open admissions standards and many community colleges. By any measure, the majority of these students would not be admissible to the other colleges of RIT, yet many deaf and hard-of-hearing students graduating from baccalaureate/master's programs throughout RIT came through NTID first, which means they graduated in spite of the fact that their entering ACT scores were in the 15-19 range.

<b>Degree Level</b>	<b>Percentage of Deaf and Hard-of-Hearing Students by Degree Level</b>	<b>ACT Composite Mean</b>
Bachelor's in Other RIT Colleges	19%	23
<b>NTID</b>		
Career-Focused Associate Programs	41%	15
Transfer Associate Programs	18%	19
Career Exploration	22%	15
<b>Total*</b>	<b>100%</b>	
<b>Average Score of All Entering Students*</b>		<b>17</b>

\* Includes only undergraduate students. Does not include students enrolled in the ASL-English Interpretation program.

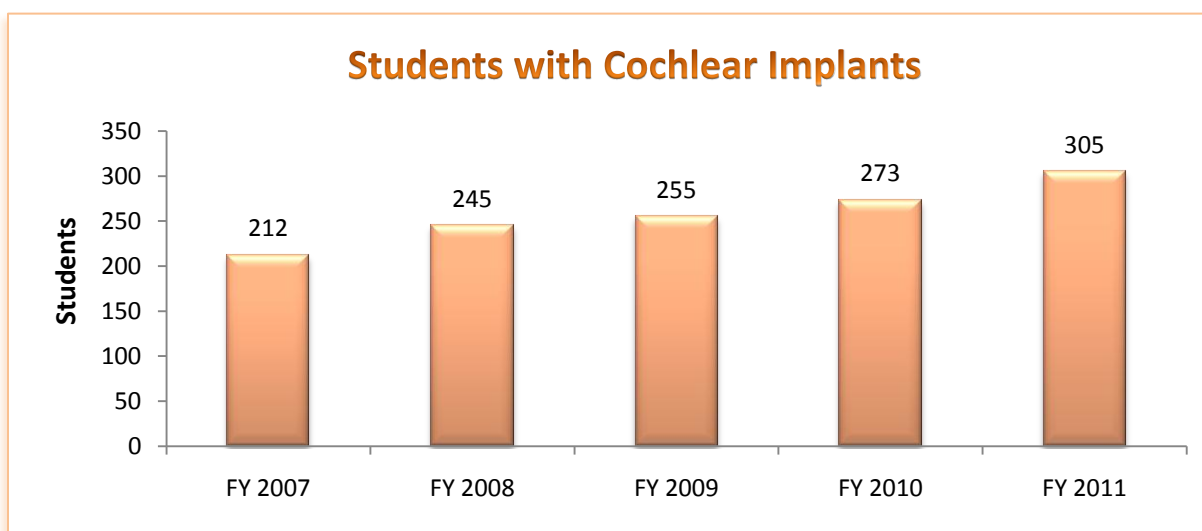
## Hearing Assessment and Cochlear Implant Information

Hearing is measured in units of intensity called decibels (dB) at a variety of frequencies [Hz (cycles per second)]. The hearing level reported here is calculated by taking the arithmetic mean of an individual's responses in dB to pure tones presented at 500 Hz, 1000 Hz and 2000 Hz. Normal hearing is in the range of -10 dB to 20 dB. Moderate hearing loss is defined as having a pure tone average of 40-55 dB, with moderately severe at 56-70 dB, severe at 71-90 dB and profound at 90 dB or more. NTID continues to serve a prelingually, profoundly deaf population whose measured decibel hearing loss over the past five years averages 93.1 dB.

The Communication Studies and Services Department currently has four audiologists trained to provide cochlear implant mapping, consultation and follow-up services. Mapping services are provided to users of cochlear implants from all three current manufacturers. Students sign up for mapping and auditory training services in our new cochlear implant center. This five-room facility is equipped with state-of-the-art computer-based technology, training software and telecommunications devices. A separate area is available where faculty and staff can meet with students to troubleshoot cochlear implant issues and replace some parts of the external equipment.

The number of students with cochlear implants has increased to 305 in fall 2010.

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total Number of Deaf Students*	1,097	1,187	1,284	1,307	1,332
Students with Cochlear Implants	212	245	255	273	305
Percent with Cochlear Implants	19.8%	20.6%	19.9%	20.8%	22.9%
Average Hearing Level in Best Ear of All Deaf Students	93.4 dB	92.6 dB	93.2 dB	93.2 dB	93.0 dB



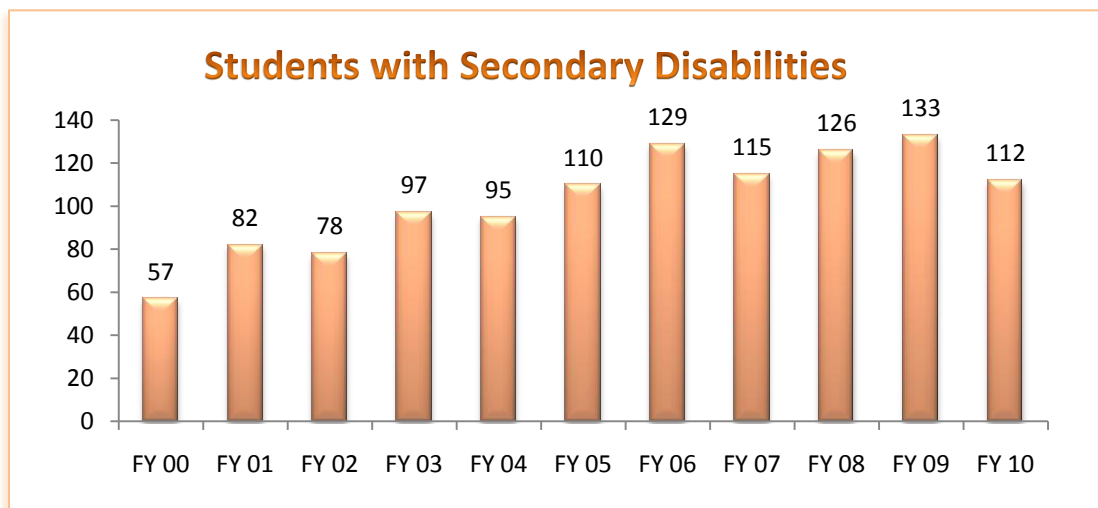
\* This figure includes all deaf and hard-of-hearing students, undergraduate and graduate.

## Students with Secondary Disabilities

NTID is working with significantly increased numbers of students with disabilities in addition to deafness. The table shows the number and percent of NTID-supported undergraduate students eligible to receive services from the RIT Disability Services Office, which serves students “with physical or mental impairments that limit one or more major life activities.” NTID works directly with the RIT Disability Services Office to accommodate these students through services such as notetaking and

extended time to complete assignments. Their services ensure equal access to education based upon legal foundations established by federal law—the Rehabilitation Act of 1973, including Section 504, and the Americans with Disabilities Act of 1990. NTID also has a committee of faculty and staff that focuses on the accommodation of deaf and hard-of-hearing students specifically with visual disabilities, a student population that continues to increase.

Number and Percent of Students Receiving Secondary Disability Services			
Fiscal Year	Total Deaf Students*	Students with Secondary Disabilities	Percent
2000	1,084	57	5%
2001	1,089	82	8%
2002	1,121	78	7%
2003	1,093	97	9%
2004	1,064	95	9%
2005	1,055	110	10%
2006	1,013	129	13%
2007	1,019	115	11%
2008	1,103	126	11%
2009	1,212	133**	11%**
2010	1,237	112	9%



\* This figure includes all undergraduate deaf and hard-of-hearing students.

\*\* Secondary disability numbers for FY 2009 are estimates; these data are not available.



## Origin of Students and Graduates

NTID students enrolled as of fall 2010 come from 48 states. A total of 17 countries are represented among current international students.

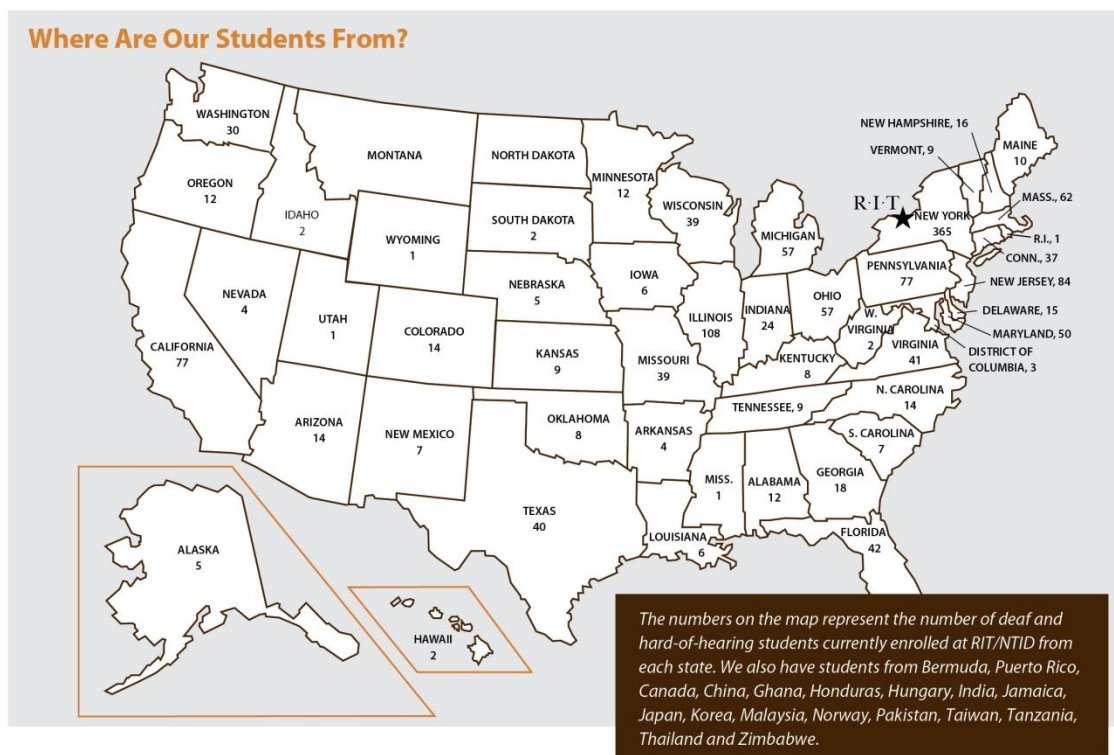
Since NTID began accepting students, we have had students from more than 50 countries and all 50 states.

Home State or U.S. Territory	Number in Student Body FY 2011	Graduates to Date as of Fall 2010	Cumulative Students to Date*
Alabama	12	25	61
Alaska	5	9	23
Arizona	14	28	90
Arkansas	4	28	66
Bermuda	1	1	3
California	77	333	736
Colorado	14	50	109
Connecticut	37	179	361
Delaware	15	25	70
District of Columbia	3	14	36
Florida	42	162	415
Georgia	18	58	157
Guam	0	0	2
Hawaii	2	24	38
Idaho	2	3	16
Illinois	108	373	863
Indiana	24	94	235
Iowa	6	56	107
Kansas	9	42	97
Kentucky	8	41	119
Louisiana	6	51	100
Maine	10	45	108
Maryland	50	150	384
Massachusetts	62	310	639
Michigan	57	256	556
Minnesota	12	95	181
Mississippi	1	5	21
Missouri	39	144	298
Montana	0	7	16
Nebraska	5	35	69
Nevada	4	5	19
New Hampshire	16	47	93
New Jersey	84	330	652
New Mexico	7	20	70
New York	365	1,823	3,794
North Carolina	14	58	134
North Dakota	0	19	34

\* Includes current and withdrawn students and graduates.

## Origin of Students and Graduates (continued)

Home State or U.S. Territory	Number in Student Body FY 2011	Graduates to Date as of Fall 2010	Cumulative Students to Date*
Ohio	57	365	686
Oklahoma	8	15	43
Oregon	12	48	96
Pennsylvania	77	527	1,066
Puerto Rico	2	8	19
Rhode Island	1	39	77
South Carolina	7	21	48
South Dakota	2	11	22
Tennessee	9	43	94
Texas	40	166	425
Utah	1	11	24
Vermont	9	37	81
Virgin Islands	0	1	4
Virginia	41	119	287
Washington	30	59	158
West Virginia	2	30	63
Wisconsin	39	89	222
Wyoming	1	3	6
Other**	10	10	130
<b>Subtotal</b>	<b>1,481</b>	<b>6,547</b>	<b>14,323</b>



\* Includes current and withdrawn students and graduates.

\*\* U.S. citizens living in other countries.

## Origin of Students and Graduates (continued)

Country	Number in Student Body FY 2011	Graduates to Date as of Fall 2010	Cumulative Students to Date*
Australia	0	1	1
Bahamas	0	1	1
Bangladesh	0	0	2
Belgium	0	1	1
Bolivia	0	1	1
Brazil	0	0	1
Bulgaria	0	0	1
Cameroon	0	0	2
Canada	14	158	288
Chad	0	0	1
China	1	3	6
Colombia	0	1	1
Czech Republic	0	1	1
Dominican Republic	0	0	1
Ecuador	0	0	1
Estonia	0	1	2
Ghana	1	4	6
Greece	0	1	2
Honduras	1	0	1
Hong Kong	0	0	1
Hungary	1	0	1
India	7	14	27
Ireland	0	1	2
Jamaica	2	0	5
Japan	1	3	6
Kenya	1	0	1
Korea	1	0	1
Lebanon	0	0	1
Malaysia	2	1	3
Mexico	0	1	3
Nepal	0	1	2
Nigeria	0	1	3
Norway	1	0	2
Pakistan	1	2	4
Philippines	0	2	4
Portugal	0	1	1
Saudi Arabia	0	2	2
Singapore	0	4	4
Somalia	0	0	1
South Africa	0	1	1
Switzerland	0	1	1
Taiwan	1	5	6

\* Includes current and withdrawn students and graduates.

## Origin of Students and Graduates (continued)

Country	Number in Student Body FY 2011	Graduates to Date as of Fall 2010	Cumulative Students to Date*
Tanzania	3	1	5
Thailand	1	5	7
Trinidad and Tobago	0	1	2
Turkey	0	1	1
Uganda	0	1	1
United Kingdom	0	2	3
Venezuela	0	1	1
Zambia	0	0	1
Zimbabwe	1	1	2
Other	0	3	4
<b>Subtotal</b>	<b>40</b>	<b>230</b>	<b>429</b>
<b>Total</b>	<b>1,521</b>	<b>6,777</b>	<b>14,752</b>

As of fall 2010, in the entire student body, NTID has 41 international students enrolled based on visa status.

	Number	Percent
U.S. Students	1,480	97.3%
International Students	41	2.7%
<b>Total</b>	<b>1,521</b>	<b>100.0%</b>

\* Includes current and withdrawn students and graduates.



## Academic Programs



Science, technology, engineering and mathematics are areas of emphasis for RIT/NTID, including academic majors offered within NTID, majors in the other colleges of RIT supported by NTID, pre-college outreach and research.

## Academic Program Highlights

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Academic Affairs has been implementing *Strategic Vision 2010* for the past five years by: 1) establishing key curriculum objectives for career-focused degrees and transfer associate degrees; 2) analyzing the support needs for baccalaureate students; 3) developing a proposal for a community college referral program; and 4) reorganizing Academic Affairs, including development of a long-term staffing plan.

Toward the end of the fiscal year, faculty attention turned also to the curriculum conversion required by the RIT-wide move from the quarter system to semesters by 2013 as well as to initial consideration of *Strategic Decisions 2020*.

### Career-Focused Associate Degrees

*Strategic Vision 2010* called for consolidating career-focused associate degree programs into five cluster areas with 35 percent of NTID students enrolled in these programs. The five areas are Arts and Imaging Studies, Business, Computing, Engineering Technologies and Science. The career-focused degrees within these clusters are designed to lead directly to employment in high-demand technical jobs.

At the beginning of Academic Year (AY) 2010-2011, there were 600 deaf and hard-of-hearing students enrolled in career-focused programs, including students enrolled in AOS and non-transfer AAS degree programs as well as students in Career Exploration Studies.

In 2009-2010, program and curricular revisions were made as we continued to achieve *Strategic Vision 2010* goals.

The Arts & Imaging Studies Department completed a modification of the career-focused program curriculum. The number of concentrations was reduced from four to two: Graphic Design and Graphic Technology/Production, which are designed to better enable students and advisors to prepare for the students' appropriate career path. The Special Topics: Videography II course was offered again and continues to be developed. The former Art & Computer Design and Digital Imaging & Publishing Technology programs graduated the last remaining students and were discontinued. Program review and preparation for the RIT conversion to semesters began in the spring quarter.

The Department of Engineering Studies (DES) enhanced the process for student program selection and expanded the scope of the employment market for Computer-Aided Drafting Technology graduates into construction-related fields. DES began a major curriculum conversion from a quarter to semester model and explored more than 40 skill sets for future potential program niches. During the 2009 Summer Vestibule Program, 10 students were interested in DES engineering-related studies, but were rejected for the program because they did not meet the entry requirements in Math and English. These students were accepted into the NETG – CORE as a pilot, thus allowing them to do remedial work in Engineering Technology, Math and English. This project is considered a technical expansion program for underprepared students with the idea of creating a learning community, or school-within-a-school environment. More than two-thirds of these students eventually matriculated into Engineering Studies.

The Department of Information and Computing Studies conducted a curriculum revision whereby its career-focused degree was modified from six to seven quarters. Two concentrations are now offered: Computer Tech Support, and Network and Cyber Security. The changes were submitted to the New York State Education Department for re-registration.

The Department of Liberal Studies, which houses the developmental English program, introduced its three-course Career English sequence, designed for students preparing to complete an associate degree and go directly into the workplace. The sequence focuses on English literacy skills required in the workplace, and two sections of the first course in the sequence were offered in spring quarter, after phasing out the prior curriculum during fall and winter quarters. For students who need additional preparation before undertaking Career English, a new English B course sequence was developed and approved for initial offering fall quarter 2010. This sequence integrates remedial reading and writing skill improvement with a focus in grammar and vocabulary development.

## Academic Program Highlights (continued)

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The department's Intensive English Bridging course sequence (with one of its instructors, Leslie Bowers, seen here) has been approved and fully implemented and is now in its third year, after being piloted in 2007. The sequence provides students with 20 credits of intensive English language instruction, which is designed to develop the reading and writing skills necessary for acceptance into a two-year transfer associate degree program. This past year saw the addition of a homework lab to provide supplemental support to this group of students in managing and completing the heavy coursework. Results from the past three years of the program (2007-2010) are promising, with 62 percent of the students having completed the sequence with grades of C or better.



The Department of Science and Mathematics created a new course mask to allow students to take Intensive English and move from an AOS to an AAS degree. Piloting the revision is underway. In addition, a Special Topics course, Molecular Biology, was added to the curriculum to improve the biology strand. Based on feedback from the advisory board, new instrumentation was acquired, including a near-infrared spectrophotometer and a total organic carbon analyzer. The former will help with our students who go into industrial, final product and raw materials jobs. The latter will help with our environmental green-career focus.

### Transfer Associate Degrees

One of the signature recommendations of *Strategic Vision 2010* was its call for an array of transfer associate degrees that provide seamless transition to RIT baccalaureate programs, and that carry at least 80 percent transferable credits. Moreover, *Strategic Vision 2010* called for 20 percent of NTID-supported students to be enrolled in transfer associate degree programs by 2010. Because of some confusion with the concept of "transfer" degree, the name of these programs was changed at the end of the fiscal year to "associate+bachelor's" degree programs.

At the beginning of AY 2010-2011, a total of 168 students were enrolled in associate+bachelor's degree (152) and pre-baccalaureate (16) programs. This number is expected to continue to increase as we expand the number of transfer associate degrees available and market them as precursors to RIT baccalaureate programs.

The newest associate+bachelor's degree program is the AS in Applied Liberal Arts, offered by NTID's Department of Liberal Studies (DLS). This program accepted its first students in fall 2009, with an initial enrollment of seven students. By the end of the year, 17 students had joined the program, and the 2010-2011 academic year will see the program's first graduating class. The program prepares students for entry into any of nine baccalaureate majors in RIT's College of Liberal Arts (COLA). An articulation agreement between DLS and COLA ensures that 93 percent of the AS program, or 86 credits, will transfer directly into the baccalaureate program.

In the Business Studies Department, the AS transfer degree program continues to successfully graduate students who are accepted into the Saunders College of Business, and the Administrative Support Technology program has had great success with students transferring to and graduating from the Multidisciplinary Studies Human Resources concentration. Current department numbers show 50 percent of students in AS and BS degrees and 50 percent in AOS/AAS degrees.



## Academic Program Highlights (continued)

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The Information and Computing Studies Department signed three articulation agreements for associate+bachelor's degree programs with the Golisano College of Computing and Information Sciences. These agreements are in the areas of Information Technology, Applied Networking and System Administration, and Information Security and Forensics.

The Science and Mathematics Department worked with the College of Applied Science and Technology to adjust years three and four of its associate+bachelor's degree program mask. Although the department does not have a formal written agreement with the College of Science (COS), it now has a number of students transferring from the associate-level Laboratory Science Technology (LST) program to COS programs in Environmental Science, Chemistry and Biotechnology. There is as yet no agreement on the transferability of 80 percent of LST credits, but the department is continuing to investigate the possibility of doing so. As part of that effort, this year the department continued to test a "bridging" physics course, designed to prepare students who are expecting to take the COS College Physics sequence. The current expectation is to submit a curriculum proposal during AY 2010-2011.

### Support for Baccalaureate Students

*Strategic Vision 2010* called for an increase in the number of deaf and hard-of-hearing students successfully completing baccalaureate degrees in order to increase their ability to compete in the technology job market where the baccalaureate degree often is the degree of choice by employers. One of the major goals of the reorganization of Academic Affairs was to increase the number of faculty available to support baccalaureate students.

At the beginning of AY 2010-2011, 495 students (37 percent of the total deaf and hard-of-hearing student enrollment) were fully matriculated in baccalaureate programs in the other colleges of RIT. NTID faculty and staff provide tutoring, direct instruction, academic advising and counseling for these students. In addition, interpreting, notetaking and C-Print<sup>®</sup> services are offered through NTID's Department of Access Services.

### Strategic Vision 2010 Enrollment Targets

The enrollment targets set in *Strategic Vision 2010* were: 35 percent career-focused programs, 20 percent transfer associate degree programs and 45 percent baccalaureate programs. At the beginning of AY 2010-2011 our enrollment percentages for deaf and hard-of-hearing undergraduates were 48 percent career-focused, 13 percent transfer associate degree and 39 percent baccalaureate programs. We increased enrollments in degree programs, however, the number of underprepared students who eventually enroll in career-focused programs increased at a higher rate. *Strategic Decisions 2020* has established the objective of developing a network of high schools and community colleges to create pathways to postsecondary education. The goal is to strengthen the preparation of deaf and hard-of-hearing students for entering college and reduce the amount of developmental education that NTID must offer.

### Community College Referral Programs

The institute's Community College Transfer Partnership initiative was completed last year. The broad goal of the project was to develop contacts and strengthen ties between NTID and key community colleges that currently serve deaf and hard-of-hearing students. A specific goal was to explore the feasibility of establishing partnerships with key community colleges across the country to establish a pipeline for associate degree graduates to transfer into RIT bachelor's degree programs.

Among its several findings, the project's final report noted that more than half of the deaf and hard-of-hearing students in the 33 community college programs the project coordinator visited are in developmental courses and, as such, are not prepared academically to make the transfer to a four-year institution. The report also noted that, in many cases, program administrators and faculty requested NTID's assistance to improve the delivery of developmental programs and to find the resources to put appropriate access services in place. In view of these findings, the report recommended that NTID

## Academic Program Highlights (continued)

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develop an explicit program of reaching out to a targeted subset of community colleges and proposed that we consider following the growing practice of some of the more innovative community colleges, and devote institutional resources to working with feeder high schools to assist with student preparation for associate degree programs that lead to jobs or continuation to four-year college programs. These findings have been picked up in *Strategic Decisions 2020* where they have taken shape in the new goal of establishing relationships with selected programs across the country to serve pre-college students, with the goal of improving their college readiness. NTID will apply for grant funding to provide assistance to a national network of high schools and community colleges to improve the preparation of deaf and hard-of-hearing students for careers in science, technology, engineering and math fields.

### Calendar Conversion from Semesters to Quarters

RIT announced that it will move from the current quarter system to a semester-based academic calendar starting in the fall of AY 2013-2014. This decision necessitated that a number of initiatives be undertaken during AY 2009-2010. A primary principle in the transition will be to protect all students from any harm during the change from quarters to semesters. Specifically, RIT will ensure that no student suffers any loss of progress toward a degree during the transition; that no student's graduation will be delayed as a result of the change from quarters to semesters; and that no student will see any increase in tuition or fees related to the transition. To ensure that this principle is upheld, every student on campus will be personally advised as part of the transition process.

During spring quarter of AY 2009-2010, all academic programs were screened to determine if they should be converted to semesters or should be more carefully analyzed before making a decision about conversion. The screening for each NTID program included a review of five-year data on enrollment, transfers in and out of the program, graduation rates and totals, employment and continuing in-school rates and totals, as well as enrollment projections and capacity, designated laboratory space and instructional/support costs per graduate. In the end, the decision was made to discontinue the Applied Optical Technology and the Automation Technologies programs. All other programs began discussions about how to convert their programs/courses to a semester system.

NTID faculty and administrators participated on university-wide committees to establish guidelines for program conversion, processes for review of documents and forms for program proposals and course outlines. A Semester Conversion website (<http://www.rit.edu/conversion/>) was established by RIT to house document templates and facilitate communication to students, faculty, staff and other audiences during the conversion process.

RIT established an Academic Program Profile and expectations for Program-Level Outcomes Assessment Plans that all programs will need to adhere to under the semester system. NTID provided funds for summer contracts for faculty to revise program masks and begin work on proposal documents. Course outlines for new and converted semester courses will be written as part of the normal faculty workload during AY 2010-2011. The NTID Curriculum Committee (NCC) doubled in size, mirroring RIT's Intercollegiate Curriculum Committee (ICC) action, to accommodate the increased volume of proposals. NCC established timelines and procedures to ensure that NTID program proposals and courses would be ready for ICC/Graduate Council review at prescribed times during AY 2010-2011, with the goal of submission to New York State Department of Education during summer 2011. Review of all proposals and course outlines will be managed electronically via specific locations within RIT's course management system (myCourses).

The RIT General Education Committee drafted a proposal for a general education framework and graduation requirements for undergraduate students at the baccalaureate, AS and AAS levels. NTID established a committee to draft the general education framework and graduation requirements for students earning AOS degrees. Both committees will finalize their proposals during fall quarter of AY 2010-2011, and the appropriate governance bodies will review and approve the recommendations so that course development/revision can proceed.

## Academic Program Highlights (continued)

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### Outcomes Assessment

Student Learning Outcomes Assessment (OA) data was reported for all NTID academic programs as well as general education and academic support areas for AY 2009-2010. NTID OA plans identify critical outcomes, performance benchmarks, assessment instruments and timelines. All NTID plans have been implemented, including those for new and recently modified programs, and data has been used to inform decisions about courses and/or assessment procedures. Changes to programs or courses based on AY 2008-2009 data yielded positive results in assessments administered this year by three programs. Five programs plan to make curricular changes for next year based on data collected in this assessment cycle. Four programs implemented modified assessment procedures this year and two others plan to utilize different measures next year to more accurately assess student competence in meeting expected skill levels. Two recently added programs have administered some measures, but need additional assessments before determining implications, and one program suspended most of its data collection due to changes in leadership. Five programs reported that criteria were met on all assessed outcomes and will continue to monitor results while taking no action at this time. Specific data and use of results are posted annually online in each program's Outcomes Assessment Plan/Report at <http://www.ntid.rit.edu/president/soa/pages/plan.html>.

Several examples of changes to procedures, programs and/or assessment instruments are illustrative of how outcomes assessment is a meaningful activity at NTID. Arts and Imaging Studies modified their program from three concentrations to two, Graphic Design and Graphic Production, and incorporated print publishing courses in both. They also provided in-service professional development and faculty mentoring to enhance delivery of the Web design course sequence and prepare more students to take the advanced courses and demonstrate competence in assessments conducted in them.

The Accounting Technology program developed and administered a new instrument, the *Student Learning Assessment Test*, but will revise it again for AY 2010-2011. Their goal is to more accurately measure the intended performance criteria related to a student's ability to perform the functions of the accounting cycle for service, merchandising and manufacturing businesses.

The Administrative Support Technology program implemented changes, such as requiring self-analysis worksheets on employment skills, to enhance students' work habits, attitudes and time management abilities. This year, for the first time, 100 percent of the students met the benchmark for demonstrating appropriate interpersonal/human relations skills. They also have more students demonstrating technical skills through completing the Microsoft Office Specialist 2007 certification exams.

The AS in Applied Computer Technology program initiated data collection and exceeded criteria for acceptance of students in a baccalaureate program in the Golisano College of Computing and Information Sciences at RIT. Additionally, the retention and graduation rates for these students is higher than for students who are directly admitted to the BS programs.

The AAS/AOS program in Applied Computer Technology determined that students were performing better than expected on the general technical outcomes, but below expectations on a hands-on exam used to assess skills in the technical concentrations. Further analysis revealed that students have a general weakness in applying Unix commands and relating them to their work in Networking. As a result, Unix will be taught in a more applied way this year.

Criteria were met for all technical skills outcomes in the Computer Integrated Machining Technology program except for producing a machined part within tolerance. Faculty are reviewing skill sets to determine needed curricular modifications that will be implemented in AY 2010-2011.

The Laboratory Science Technology program has worked for several years to strengthen student outcomes in the area of microbiology. The group of students assessed this year is the first to complete a new course (Molecular Biology), and positive results are already seen. For the second straight year, students performed very well in skills related to Volumetric/Instrumental Analysis, which the program's advisory board highlighted as a top priority.

## Academic Program Highlights (continued)

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The Applied Liberal Arts AS program was offered for the first time during AY 2009-2010, but already reported data on student progress through the curriculum. As a result, they have clarified admissions policies for internal and external transfers into the program, which should positively impact suspension risks in the future.

Data from co-op supervisor online evaluations regarding overall student job performance was updated for each academic program in 2009-2010 (N=82). These results, with program ratings pooled by department, indicated a high level of employer satisfaction, with means ranging from 4.17 to 4.47 on a five-point (5=high) scale.

A study was conducted that validated use of co-op supervisor evaluations to assess face-to-face communication of NTID students. Mean ratings, grouped by department, ranged from 4.13 to 4.77, indicating a high level of communication effectiveness in face-to-face situations for co-op students (N=82). Competency in e-mail communication was assessed for the first time this year through procedures implemented in Employment Seminar. Criteria were exceeded and data collection will continue.

The Department of Counseling and Academic Advising revised procedures this year to assess students closer to the time of graduation rather than in their first year. They conducted a focus group that informed the design of a survey used to assess students' understanding of the various roles and responsibilities of the counselor/advisor, the academic chairperson and the students themselves. Results were positive and point toward focusing on incoming students in order to have a positive impact on their understanding of roles and responsibilities by the time of graduation.

Outcomes assessment meetings are held regularly at NTID for the purposes of information dissemination and discussion. At the January 2010 meeting, the NTID Curriculum Resource Associate and RIT Director of Student Learning Outcomes Assessment updated the Academic Affairs Chairs Cabinet (AACC) members on NTID activities as well as initiatives driven by RIT. The university reviewed and selected an Assessment Management System, established a General Education Committee to guide curriculum and assessment activities, and created a Student Learning Outcomes Assessment Office website at <http://www.rit.edu/academicaffairs/outcomes/>. Initiatives proposed by RIT's Student Learning Outcomes Assessment Committee also were shared, including the need for each college to establish a three-year action plan. Ultimately, the AACC agreed to five action items grouped under three goals: to communicate and work with faculty/staff to create an assessment culture; to strengthen links between program outcomes and course level outcomes; and to strengthen links between program proposals and program outcomes. Progress on these action items is underway and was enhanced by the strong attendance of NTID faculty and chairs at a June workshop conducted by the Office of Student Learning Outcomes Assessment. Additionally, the decision of the university to change from quarters to semesters has necessitated a review/revision of all program goals and assessment plans as well as the goals and student learning outcomes addressed and assessed within each course to be offered under the semester system. This will facilitate completion of the established action items.

### **American Sign Language and Interpreting Education (ASLIE)**

ASLIE enrolled 147\* students in the BS program in ASL-English Interpretation as of fall 2010. Due to the continuing effectiveness of the strategic marketing and recruitment plan employed for the past three years at NTID, this number has grown since last year and has once again set a record for being the highest number of interpreting students in the BS program in NTID's history. Interpreting faculty have re-conceptualized and redesigned the interpreting curriculum in response to changing requirements in the interpreting field and increased requests for transfer from two-year programs.

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\* There is one additional student who is a double-major, with the primary program in a different college of RIT and the secondary major in the NTID interpreting program. Also, there are four students whose primary major is interpreting, and they have a secondary major in another college of RIT, e.g. Psychology.

## Academic Program Highlights (continued)

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In AY 2009-2010, the ASL-English Interpretation program graduated 33 students, 16 of whom responded to a Senior Satisfaction Survey. When asked about overall satisfaction with the program, 11 students (69%) indicated agreement; 11 students (69%) indicated they would recommend the program.

Four months after graduation, the 33 students were sent an employment survey. Of the 13 students who responded, 11 (85%) reported being employed in the field of interpreting, one (7.6%) is pursuing a graduate degree and one (7.6%) is looking for employment.

RIT's College of Liberal Arts (COLA) offers ASL courses, coordinated and taught through NTID's ASLIE Department. Last year the department renamed the three courses in the basic ASL sequence to bring the nomenclature into alignment with other foreign language sequences in the college. Thus, ASL I, II and III are now known as Beginning ASL I, II and III. The courses may be taken by RIT students as electives or to fulfill their liberal arts concentration. The requirement for the ASL concentration is to take two language courses, Beginning ASL II and III, and one culture course. This year, the COLA program had an expanding enrollment of 197 in fall quarter, 229 in winter quarter, 259 in spring quarter, and due to high demand and increased popularity, COLA ASL courses offered for the first time during this summer quarter, had a nearly 100 percent enrollment of 35 students, for a grand total of 720 students for the year. The program continues to enjoy exponential enrollment growth, evidenced not only by actual registrations, but also by a continuing influx of requests for more course sections and a more robust and diverse offering of courses.

Last year, the department discontinued its community program leading to a Deaf Studies Certificate. The three initial courses in the program, ASL I, II and III, were retained as stand-alone courses and renamed Introduction to ASL and Deaf Culture I, II and III. The courses are designed for RIT students, faculty and staff, and community members at large interested in a basic introduction to ASL and Deaf culture. In AY 2009-2010, the Introduction to ASL and Deaf Culture program had an enrollment of 48 students. The Faculty Staff Sign Language Education Program (FSSLEP), a program housed in ASLIE, had an enrollment of 527 faculty and staff from NTID and other departments across RIT. ASLIE faculty provided instruction in ASL courses as part of the ASL/Deaf Studies (Department of Cultural and Creative Studies) requirement for 80 students, the Master of Science program in Secondary Education of Students who are Deaf or Hard-of-Hearing for 60 students, and the Provost's Program for 15 RIT faculty and staff. ASLIE faculty continued to provide sign communication assessment and feedback services for RIT/NTID faculty and staff and MSSE students through the Office of Communication Assessment Services (OCAS). Faculty conducted 27 Sign Language Proficiency Interviews (SLPI), 69 SLPI Ratings, 12 SLPI follow-up sessions, six Classroom Sign Language Assessment (CSLA) activities, and one faculty member attended the new team member training session in June 2010.

The Office of the RIT Provost sponsors an annual Provost Summer Intensive American Sign Language and Deaf Culture Experience for selected RIT faculty/staff. The aim of the program is to enhance interactions among deaf and hearing members of the RIT community. Up to 15 RIT faculty/staff, who are not employed within NTID and who represent the various academic and non-academic areas of RIT, are selected each year to participate in this intensive three-week program during the month of June. The focus of the program is to develop basic American Sign Language skills, an introduction to Deaf culture and an introduction to the dynamics of deaf and hearing interactions. The program has enjoyed continuing success and growth in registration since its inception, and is a valued and coveted offering among RIT and NTID faculty and staff.

### Communication Studies and Services (CSS)

The Communication Studies and Services Department (CSS) is comprised of faculty and staff with expertise and training in the areas of communication, speech-language and audiology. Faculty in the department provide credit-bearing instruction to students in areas related to communication in organizational structures, effective teams, interpersonal situations and other community settings. Other areas where direct instruction is provided are Freshman Seminar; ASLIE, where a Cued Speech

## Academic Program Highlights (continued)

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Compliment course is provided to those enrolled in the interpreting education program; and the MSSE program. In these areas, faculty provided 85 credit hours of instruction for 303 students in 2009-2010, with an additional 380 contact hours of communication support to the Job Search Process Course for 129 students.

Audiological and speech-language clinical services were provided to members of the RIT community throughout the 2009-2010 academic year. Faculty and staff provided 3,765 hours of individual speech-language instruction, serving 205 students, and provided 2,665 hours of audiology services to 903 students and others at RIT.

Instruction in NTID's Spoken Language Learning and Practice Lab (SLLPL) includes the use of recent technologies designed to enhance students' spoken communication skills. During the 2009-2010 academic year, the lab served an additional 279 students on a walk-in basis, while the Hearing Aid Shop served 856 members of the RIT community.

CSS also supports students with advisors to the Spoken Communication Club, Ushers Support Group and the Cochlear Implant Club. CSS is also a co-sponsor of a grant from the Department of Education to train master's degree students in Speech-Language Pathology from Nazareth College of Rochester to work with deaf and hard-of-hearing students.

### **Master of Science in Secondary Education of Students who are Deaf or Hard-of-Hearing (MSSE)**

The Master of Science program in Secondary Education of Students who are Deaf or Hard-of-Hearing (MSSE), now in its 16<sup>th</sup> year, graduated 18 students during the 2009-2010 academic year. Six of these MSSE graduates received initial certification from New York State in an academic content area (grades 7-12) and/or in education of students who are deaf or hard-of-hearing (grades K-12). Those who do not have certification either need to take additional NYS teacher certification exams or have chosen to pursue certification from the states where they currently are teaching. Of the 18 graduates, 18 are now teaching in residential schools for the deaf, mainstream programs or teaching American Sign Language in public school programs. Three graduates are employed by NTID; two as instructors and one in the outreach program. One graduate is employed as an ASL instructor at another college. One graduate currently is unemployed, but is actively seeking a teaching position. All graduates received provisional certification from the Council on Education of the Deaf. To date, a total of 223 students have graduated from the program.

For the 2010-2011 academic year, the MSSE program has an enrollment of 71 students, of whom 41 percent are deaf or hard-of-hearing and 10 percent are minority. It is anticipated that up to 23 students will graduate from the program during the 2010-2011 academic year. There are an additional four students who have completed their coursework and hope to finish their capstone projects during this academic year.

The MSSE program has continued to actively recruit students with strong content area backgrounds, especially in science and math through the 4+2 program with RIT's Colleges of Science, Engineering and Liberal Arts as well as RIT's Multidisciplinary Studies program. The specifics related to this program can be found at <http://www.ntid.rit.edu/msse/4plus2.php>.

MSSE is accredited by the Teacher Education Accreditation Council (TEAC), 2007-2012, and has continued to maintain partnership with the State University of New York at Cobleskill to recruit potential students with strong backgrounds in English and social studies.

## Academic Program Highlights (continued)

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### Self-Instruction Lab

The Self-Instruction Lab (SIL), shown here, offers a variety of equipment and resources to support students', faculty, and staff members' signed and spoken language skill development. It serves as an environment for both expressive and receptive practice, offering flexible scheduling to meet learner needs as well as supporting individual learning styles. During AY 2009-2010, students, faculty and staff spent 3,082 hours during 3,307 visits to the SIL. Of the total hours, 1,365 hours were spent using the SIL video production rooms.



### First Year Experiences/Career Exploration Studies and Summer Vestibule Program

First Year Experiences (FYE) programming is designed to maximize first-year student success and persistence. Beginning with NTID's Summer Vestibule Program (SVP), FYE provides an array of courses and co-curricular programs as well as personal/academic counseling designed to help students successfully complete their first year of college. This past summer, 269 students attended SVP and participated in a variety of activities, including career exploration, adjusting to college life programs and course placement assessments. Also housed within FYE, the Career Exploration Studies program (CES) allows students the opportunity to explore technical programs while satisfying necessary core and/or prerequisite coursework. During AY 2009-2010, CES served 124 students, and 80 percent of them were accepted into a major within three quarters.

### NTID Learning Center

The NTID Learning Center (NLC), open seven days a week for a total of 88 hours per week from September through June, provides a variety of resources such as tutoring, computer use, video production, and individual/group study space to support student success. The NLC offers individual and small-group tutoring and studying in Mathematics, English, information and computing studies, Accounting, Interpreting and Spanish. This year, individual students signed up to use the NLC computers 58,977 times for a total of 137,515 hours. This is a 9 percent increase over AY 2008-2009. Since AY 2006-2007, the NLC has loaned laptops to students during the day and overnight. This year, laptops were borrowed 1,906 times, which is a 23 percent increase over AY 2008-2009. The Sprint Relay Experimental Distance Learning/Access Demonstration Lab, also housed within the NLC, hosted 186 class sessions and 69 workshop sessions for a total of 449 hours. The lab supported a variety of activities, including sponsoring the MATHCOUNTS® outreach program, conducting experimental videoconferencing projects, video-capturing classes for archiving and subsequent anytime/anywhere access by students, and supporting research comparing speech-to-text systems. In addition, Classroom #1 and the General Area supported 394 class sessions and 244 workshop/tutoring sessions, totaling 982 hours of use. Lastly, the NLC continued to support the administration of SVP writing tests, the quarterly administration of the LAPT tests and provided a number of tours for incoming freshmen and visitors.

## Enrollment by Degree Programs

In fall 2010, 65 percent of NTID's 1,521 students were enrolled in a broad array of programs within NTID. Thirty-five percent were enrolled in the other seven colleges of RIT, including 40 students in graduate programs. Of the 1,521 students, 1,303 are deaf and hard-of-hearing students in

traditional undergraduate and graduate programs (excluding MSSE and interpreting). Forty-one percent of our deaf and hard-of-hearing students (535) enrolled in traditional undergraduate and graduate programs are partially or fully enrolled in the other colleges of RIT.

		Student Enrollment FY 2011	
		Number of Students	Percentage of Total
<b>NTID</b>			
Career Exploration Studies			
(NCXP)	Career Preparation/Foundation	84	
(NCXU)	Career Exploration Undecided	28	
<b>Subtotal</b>		<b>112</b>	<b>7.4%</b>
Career-Focused and Transfer Associate Degrees			
(NACA)	Applied Computer Technology (AAS)	23	
(NACO)	Applied Computer Technology (AOS)	72	
(NACT)	Applied Computer Technology	26	
(NAIA)	Arts and Imaging Studies	26	
(NAIO)	Arts and Imaging Studies	117	
(NALA)	Applied Liberal Arts (AS)	38	
(NAMA)	Applied Mechanical Technology (AAS)	12	
(NAUA)	Automation Technologies (AAS)	4	
(NAUO)	Automation Technologies (AOS)	11	
(NBBO)	Business Technology (AOS)	71	
(NBNA)	Accounting Technology (AAS)	23	
(NBSA)	Business (AS)	35	
(NCDA)	Computer Aided Drafting Technology (AAS)	8	
(NCDO)	Computer Aided Drafting Technology (AOS)	22	
(NETG)	NTID Engineering Technologies	39	
(NHMA)	Hospitality and Service Management (AS)	5	
(NLSA)	Laboratory Science Technology (AAS)	19	
(NLSO)	Laboratory Science Technology (AOS)	30	
(NMTO)	Computer Integrated Machining Technology (AOS)	28	
(NOTA)	Administrative Support Technology (AAS)	17	
(NTDZ)	NTID General (non-degree, non-matriculated)	14	
<b>Subtotal</b>		<b>640</b>	<b>42.1%</b>



## Enrollment by Degree Programs (continued)

		Student Enrollment FY 2011	
		Number of Students	Percentage of Total
ASL-English Interpretation			
(NITA)	ASL-English Interpretation (AAS)	1	
(NITF)	ASL-English Interpretation (BS)	146*	
<b>Subtotal</b>		<b>147</b>	<b>9.7%</b>
Master of Science in Secondary Education (MSSE)			
(NMSE)	Secondary Education of Students Deaf/HH (MS)	66	
(NORG)	Graduate Teacher (Non-Degree)	5	
<b>Subtotal</b>		<b>71</b>	<b>4.7%</b>
Pre-baccalaureate – Students in NTID			
(NAPE)	Pre-College Engineering Legal Tech	5	
(NAPF)	Pre-College Visual Communication	7	
(NAPL)	Pre-College Liberal Arts	1	
(NAPS)	Pre-College Science	3	
<b>Subtotal</b>		<b>16</b>	<b>1.0%</b>
<b>NTID Subtotal</b>		<b>986</b>	<b>64.9%</b>
<b>Baccalaureate Students in Other RIT Colleges</b>			
College of Applied Science and Technology			
(ICTL)	International Logistics and Transportation (CT)	1	
(IEME)	Environmental Management and Technology	2	
(IEMT)	Environmental Technology and Environmental Health & Safety (EHS) Management	1	
(IMDB)	Applied Arts and Sciences	2	
(IMDF)	Applied Arts and Sciences (Day)	44	
(IPKT)	Packaging Science	8	
(ISMK)	Hospitality and Service Management	17	
(ITFC)	Civil Engineering Technology	11	
(ITFE)	Electrical Engineering Technology	2	
(ITFF)	Manufacturing Engineering Technology	2	
(ITFL)	Electrical/Mechanical Engineering Technology	1	
(ITFM)	Mechanical Engineering Technology	8	
(ITFP)	Computer Engineering Technology	3	
(ITFZ)	Undeclared Engineering Technology	1	
(ITPD)	Mechanical Technology	1	
(ITPE)	Electrical Engineering Technology	1	
<b>Subtotal</b>		<b>105</b>	<b>6.9%</b>

\* There is an additional student who is a double-major, with one major in NTID and another in a different college of RIT.

## Enrollment by Degree Programs (continued)

		Student Enrollment FY 2011	
		Number of Students	Percentage of Total
<b>College of Business</b>			
(BBUA)	Business Administration-Accounting	18	
(BBUF)	Business Administration-Finance	8	
(BBUG)	Business Administration-Management	9	
(BBUI)	Management Information Systems	5	
(BBUM)	Business Administration-Marketing	3	
(BBUT)	Business Administration-International Business	3	
(BBUU)	Business Administration-Undeclared	3	
(BBUZ)	Business Administration-General	1	
(BREP)	Graphic Media Marketing	5	
<b>Subtotal</b>		<b>55</b>	<b>3.6%</b>
<b>College of Science</b>			
(SBIB)	Biology	16	
(SBIT)	Biotechnology	7	
(SBIV)	Environmental Science	6	
(SCHB)	Biochemistry	4	
(SCHC)	Chemistry	1	
(SIMG)	Imaging Science	1	
(SMAM)	Applied Mathematics	8	
(SSBS)	Biomedical Sciences (BS)	17	
(SSEG)	General Science Exploration (ND)	6	
<b>Subtotal</b>		<b>66</b>	<b>4.3%</b>
<b>College of Imaging Arts and Sciences</b>			
(JADA)	Art and Design	3	
(JADC)	Graphic Design	22	
(JADF)	Fine Arts-Studio	6	
(JADI)	Interior Design	7	
(JADL)	Illustration	4	
(JADM)	Medical Illustration	3	
(JADU)	Industrial Design	10	
(JADW)	New Media Design and Imaging	5	
(JPHA)	Professional Photographic Illustration	2	
(JPHB)	Biomedical Photographic Communication	3	
(JPHD)	Professional Photo Illustration-Advertising BFA	7	
(JPHF)	Film and Video	1	
(JPHQ)	Film and Video	6	
(JPHR)	Professional Photo Illustration-Journal	1	
(JPHT)	Imaging and Photographic Technology	1	
(JPHU)	Visual Media	9	
(JPRV)	Graphic Media	1	
(JPRW)	New Media-Publishing	6	
<b>Subtotal</b>		<b>97</b>	<b>6.4%</b>

## Enrollment by Degree Programs (continued)

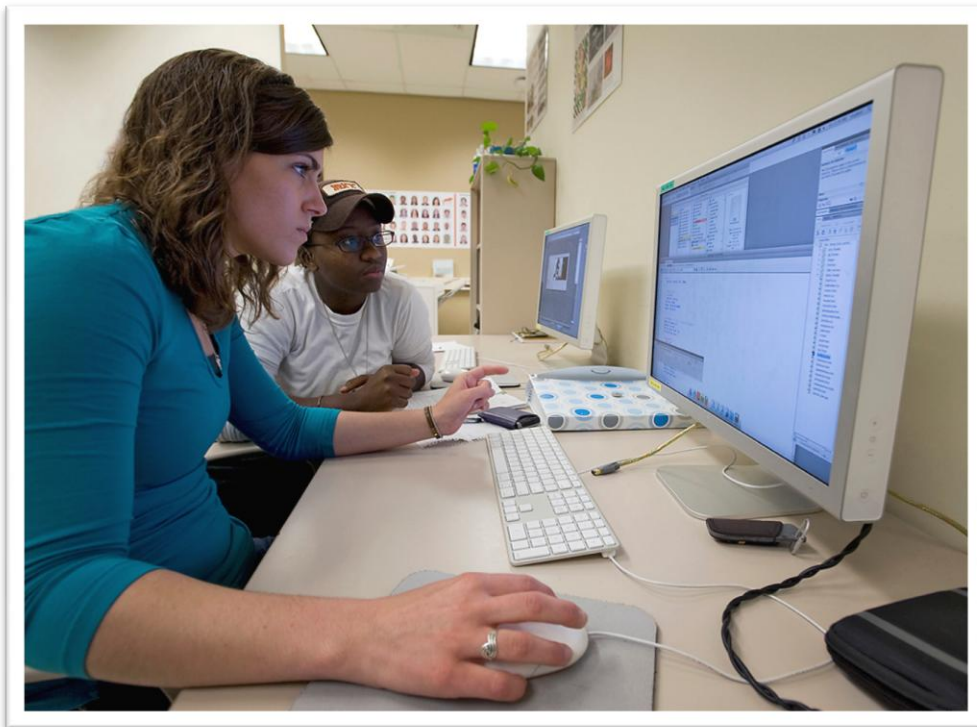
		Student Enrollment FY 2011	
		Number of Students	Percentage of Total
College of Liberal Arts			
(GCJC)	Criminal Justice	19	
(GCRS)	Cultural Resource Studies	1	
(GLAU)	Liberal Arts Exploration	4	
(GPPD)	Public Policy	1	
(GPSY)	Psychology	49	
(GPTA)	Advertising and Public Relations	6	
(GPTC)	Professional and Technical Communication	11	
(GPTJ)	Journalism	2	
(GSSI)	International Studies	5	
(GUCS)	Urban and Community Studies	3	
<b>Subtotal</b>		<b>101</b>	<b>6.6%</b>
(TCRP)	College Restoration Program	1	0.1%
College of Engineering			
(ECME)	Chemical Engineering	1	
(EECC)	Computer Engineering	1	
(EEEE)	Electrical Engineering	2	
(EENG)	Engineering-Undeclared	3	
(EIEI)	Industrial Engineering	1	
(EMEA)	Mechanical Engineering-Aerospace Option	3	
(EMED)	Mechanical Engineering-Bioengineering Options	1	
(EMEE)	Mechanical Engineering	1	
(EMEM)	Mechanical Engineering	4	
(EMEN)	Mechanical Engineering Dual Degree	1	
(EMEV)	Mechanical Engineering-Automotive Option	1	
<b>Subtotal</b>		<b>19</b>	<b>1.2%</b>
College of Computing and Information Sciences			
(VCSG)	Computer Science	8	
(VIGD)	Game Design and Development	2	
(VIGN)	New Media Interactive Development	2	
(VKSF)	Information Technology	16	
(VKSM)	Medical Informatics	3	
(VKSZ)	Information Tech (Even Option)	1	
(VNSA)	Applied Networking and System AD	5	
(VNSF)	Information Security and Forensics	8	
<b>Subtotal</b>		<b>45</b>	<b>3.0%</b>
(WUSP)	University Studies	6	0.4%
<b>Subtotal Baccalaureate Students in Other Colleges</b>		<b>495</b>	<b>32.5%</b>

## Enrollment by Degree Programs (continued)

		Student Enrollment FY 2011	
		Number of Students	Percentage of Total
<b>Graduate Students in Other RIT Colleges</b>			
College of Applied Science and Technology			
(IEMH)	Environmental Health and Safety Management	1	
(IMDM)	Cross-Disciplinary Professional Studies	13	
(ISMC)	Human Resources Development	1	
(ISMM)	Hospitality-Tourism Management	1	
(ITFO)	Telecommunications Engineering Technology (MS)	3	
<b>Subtotal</b>		<b>19</b>	<b>1.2%</b>
College of Business			
(BBUY)	Business Administration (EMBA) Online	1	
<b>Subtotal</b>		<b>1</b>	<b>0.1%</b>
College of Engineering			
(EIAM)	Engineering Management	1	
(EMEN)	Mechanical Engineering-Dual Degree	1	
<b>Subtotal</b>		<b>2</b>	<b>0.1%</b>
College of Imaging Arts and Sciences			
(JADG)	Computer Graphics Design	3	
(JADM)	Medical Illustration	1	
<b>Subtotal</b>		<b>4</b>	<b>0.3%</b>
College of Liberal Arts			
(GBSP)	School Psychology	1	
<b>Subtotal</b>		<b>1</b>	<b>0.1%</b>
College of Science			
(SBIW)	Environmental Science BS/MS	1	
(SMAG)	Industrial and Applied Mathematics	1	
<b>Subtotal</b>		<b>2</b>	<b>0.1%</b>

## Enrollment by Degree Programs (continued)

	Student Enrollment FY 2011	
	Number of Students	Percentage of Total
College of Computing and Information Sciences		
(VCSG) Computer Science	3	
(VKSD) Software Development and Management	1	
(VKSF) Information Technology	3	
(VKSI) Human-Computer Interaction	1	
(VNSM) Networking and System Administration	3	
<b>Subtotal</b>	<b>11</b>	<b>0.7%</b>
<b>Subtotal Graduate Students in Other Colleges</b>	<b>40</b>	<b>2.6%</b>
<b>Total</b>	<b>1,521</b>	<b>100%</b>



*Remy, of Reno, Nev., and Ebony, of St. Louis, Mo., both pursuing BFAs in Graphic Design, collaborate in one of NTID's design labs.*

## Average Class Size by Discipline

The variability in average class size is influenced by the nature of instruction. For example, many programs are laboratory-oriented and use specialized equipment, which limits the number of students who can reasonably be accommodated in a class.

	AY 2009-2010		
	Fall	Winter	Spring
Accounting Technology	9.1	10.0	7.7
American Sign Language	10.7	8.0	7.0
Applied Computer Technology	7.3	6.6	7.9
Arts & Imaging Studies	9.2	7.8	8.4
ASL-English Interpretation	9.2	8.5	8.2
Automation Technologies	5.3	5.0	6.0
Business Technology	7.7	8.3	7.1
Communication Studies and Humanities	10.4	11.9	12.5
Computer-Aided Drafting Technology	8.0	7.0	7.6
Computer Integrated Machining Technology	6.8	4.7	5.4
Deaf Studies	9.0	15.0	11.5
English	10.5	9.8	9.2
Freshman Seminar / Career Exploration	9.5	9.7	9.0
Interdisciplinary Studies	12.3	11.9	11.0
Laboratory Science Technology	10.8	7.9	6.5
Master of Science in Secondary Education	14.2	11.2	21.7
Mathematics	10.3	9.3	8.6
Performing Arts	7.5	8.6	9.0
Science	10.8	10.0	10.6
Social Sciences	13.9	12.2	12.6
<b>Overall Average</b>	<b>9.63</b>	<b>9.17</b>	<b>9.38</b>

## Educational Support: Teaching

In addition to providing academic advisement, tutoring, and notetaking services for deaf and hard-of-hearing students enrolled in the other colleges of RIT, NTID faculty also teach some RIT courses with deaf students enrolled. By providing direct

instruction in these courses as well as advisement and tutoring, faculty members help maximize the benefit students receive to ensure their success in RIT's highly competitive academic environment. Below are the statistics for FY 2010.

	Number of Sections	Number of Students	
		Deaf and Hard-of-Hearing	Hearing
<b>College of Applied Science and Technology</b>			
Management Process	1	1	27
Management Process II	1	2	21
Management Process III	1	1	24
<b>Subtotal</b>	<b>3</b>	<b>4</b>	<b>72</b>
<b>E. Philip Saunders College of Business</b>			
Business Software Applications	1	22	0
<b>Subtotal</b>	<b>1</b>	<b>22</b>	<b>0</b>
<b>B. Thomas Golisano College of Computing and Information Sciences</b>			
Programming for Information Technology II	2	37	27
<b>Subtotal</b>	<b>2</b>	<b>37</b>	<b>27</b>
<b>College of Imaging Arts and Sciences</b>			
Architectural Drawing	1	1	17
Building Codes and Regulations	1	2	19
CADD Applications	1	1	16
Interior Design Business Practice	1	2	18
Interior Design Elective	1	2	21
Senior Project	3	9	0
Survey of Western Art & Architecture	3	39	0
Working Drawings	2	1	19
<b>Subtotal</b>	<b>13</b>	<b>57</b>	<b>110</b>
<b>College of Liberal Arts</b>			
American Sign Language I	20	15	379
American Sign Language II	15	13	155
American Sign Language III	8	7	116
American Sign Language Literature	1	10	4
Arts of Expression: Writing the Discipline	3	37	0
Beginning Spanish I	2	43	0
Beginning Spanish II	2	29	0

## Educational Support: Teaching (continued)

	Number of Sections	Number of Students	
		Deaf and Hard-of-Hearing	Hearing
<b>College of Liberal Arts (continued)</b>			
Beginning Spanish III	1	14	0
Computer Crime	4	15	140
Concepts in Criminal Law	2	11	54
Criminology	1	16	27
Deaf Culture in America	2	32	33
Deaf Literature	1	13	19
Fine Arts: Theatre Arts	2	3	58
Fine Arts: Visual Arts	3	58	0
Foundations of Sociology	5	90	0
History of Deaf Educational Thought	2	40	2
History: Modern America	2	41	0
Introduction to Psychology	7	108	136
Literary and Cultural Studies	3	40	0
Major Issues in Cyber Law	1	3	24
Professional Communication for Business	1	15	0
Scientific Writing	2	28	0
Seminar in Criminal Justice	1	5	19
Senior Project Psychology II	1	1	0
Special Topics: Deaf Art and Cinema	2	35	21
Special Topics: Diversity in Deaf Communication	1	20	11
Special Topics: Linguistics of ASL	1	8	8
Special Topics: Theatre Design	1	3	8
Theatre Production Seminar/Workshop	1	1	21
Written Communication I	12	154	0
Written Communication II	14	177	0
Writing Seminar	14	200	0
<b>Subtotal</b>	<b>138</b>	<b>1,285</b>	<b>1,235</b>
<b>College of Science</b>			
Data Analysis I	2	2	68
Stellar Astronomy Lab	3	3	45
<b>Subtotal</b>	<b>5</b>	<b>5</b>	<b>113</b>
<b>Center for Intercollegiate Athletics and Recreation</b>			
Coaching/Officiating Basketball	1	8	1
Country Line Dancing	1	4	7
Dance/Ballet	2	5	14
Dance/Jazz	1	2	0
Dodgeball	2	14	21
Eating, Body Image and Food	2	4	19
Introduction to Weight Training	1	2	5



## Educational Support: Teaching (continued)

	Number of Sections	Number of Students	
		Deaf and Hard-of-Hearing	Hearing
Kundalini Yoga	3	2	69
Soccer	1	1	9
Spinning	6	20	18
Spirituality and Health	3	12	29
Ultimate Frisbee	2	1	47
Volleyball	1	2	18
Walking for Fitness	2	4	10
<b>Subtotal</b>	<b>28</b>	<b>81</b>	<b>267</b>
<b>Total</b>	<b>190</b>	<b>1,491</b>	<b>1,824</b>

## American Sign Language-English Interpretation Program

The degree programs in ASL-English Interpretation graduated 33 students in 2009-2010, 31 with BS degrees and two with AAS degrees. Fifty-seven new students matriculated into the program in September 2010. Currently, 14 percent of total enrollment are students from ethnic minority

backgrounds. Since its inception, the Department of ASL and Interpreting Education has graduated 618 students. Of that number, 507 have graduated with an AAS degree, 105 with a BS degree, and six with a certificate.

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Applicants	182	170	198	214	206*
Accepted	55	48	52	70	69**
Registrations	41	34	36	52	57***
Enrollment					
AAS	98	5	1	0	0
BS	29	121	134	138	147***
Non-Matriculated	2	2	0	0	0
<b>Total</b>	<b>129</b>	<b>128</b>	<b>135</b>	<b>138</b>	<b>147***</b>
Graduates	36	28	34	33	****
Employment Rate*****	96%	100%	96%	96%	100%

In addition to the interpreting program, ASL and Interpreting Education faculty also provide the following programs.	FY 2010 Enrollment
ASL courses in RIT's College of Liberal Arts (COLA)	720
Faculty/Staff Sign Language Program, open to all RIT and NTID employees	527
ASL courses for deaf students, NTID	80
Master of Science in Secondary Education Program, NTID	60
Intro to ASL and Deaf Culture*****	48
Provost Summer Intensive ASL Experience Program, RIT's Office of the Provost	15

\* There were an additional 10 internal transfer RIT applicants.

\*\* Includes eight Change of Program accepts (internal RIT transfers) and two double major accepts.

\*\*\* Does not include one double-major, with one major in NTID and another in a different college of RIT.

\*\*\*\* FY 2011 graduates will be reported next year.

\*\*\*\*\* Employment rate reflects employment of previous year's graduates.

\*\*\*\*\* The Intro to ASL and Deaf Culture Program consists of three ASL courses offered in the evenings as an orientation to deafness for the Rochester community and interested RIT students. The tuition charged is at the RIT catalog rate.

## Master of Science in Secondary Education of Students Who Are Deaf or Hard-Of-Hearing (MSSE)

The MSSE program is now in its 16<sup>th</sup> year. To date, 223 students have graduated from the program. One hundred percent of the FY 2010 graduates have accepted teaching jobs throughout the state of New York and in New Mexico, South Carolina, California, Arizona, and Minnesota.

To complete the program, each student must successfully complete 94 credit hours, including two student-teaching assignments and a master's project.

In addition to the coursework and other expectations, all full-time students serve as graduate assistants during the quarters they are not student teaching. They work as teaching assistants, program assistants, research assistants or tutors, primarily at NTID.

To recruit students with strong content area backgrounds, especially in science and math, the program has implemented a 4+2 program with the College of Science, the College of Engineering and the College of Liberal Arts as well as the multidisciplinary studies program at RIT. The specifics related to this program can be found at <http://www.ntid.rit.edu/msse/4plus2.php>.

Sixty-one applications for admission for fall 2010 were received. Forty-four were offered admission. Of those, 27 matriculated into the program. For the 2010-2011 academic year the MSSE program has a total enrollment of 71 students; 44 second-year or returning students, and 27 first-year students. Of the 71 matriculated students, 41 percent are deaf or hard-of-hearing, and 10 percent are minority.

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### MSSE Student Data

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Applications	44	46	49	62	61
Acceptances	38	33	37	48	44
New Registrations	28	27	24	30	27
Deaf and Hard-of-Hearing Enrollment	31	31	24	32	29
Total Enrollment*	56	59	55	61	71
Graduates	23	33	23	18	**
Employment Rate***	96%	83%****	93%	91%	100%

\* Included from FY 2007 to date, are non-matriculated students (between four and 15, per year) taking courses offered by the Master of Science program in Secondary Education, but who are part of a grant-supported joint program between NTID and Nazareth College of Rochester to train speech pathologists to work with deaf and hard-of-hearing persons.

\*\* FY 2011 graduates will be reported next year.

\*\*\* Employment rate reflects employment of previous year's graduates.

\*\*\*\* One additional graduate is a full-time student pursuing a graduate degree.

## Cooperative Work Experiences

Cooperative work experience is an integral part of academic programming at NTID. Employment specialists assist students in securing 10-week work experiences that augment their studies. Employment specialists or faculty members visit many students and their supervisors at their workplaces to assess progress and resolve any workplace issues. Most academic programs require from one to three cooperative assignments, which generally add another year to the program length

(totaling three years for associate degree programs and five years for BS degree programs).

During FY 2010:

- 281 students were enrolled in cooperative work experiences;
- 54 academic programs had students on cooperative work experiences; and
- 23 faculty and staff visited 63 students at their job sites during the summer.

	Number of Students Involved in Cooperative Work Experiences*				
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
<b>Sub-Baccalaureate</b>					
NTID Career-Focused and Transfer Associate Degrees	86	92	109	132	123
Percent of Total Co-op Enrollment	37%	34%	43%	50%	44%
<b>Baccalaureate/Master's</b>					
College of Applied Science and Technology	39	46	48	41	46
College of Business	19	30	25	23	33
College of Computing and Information Sciences	27	27	26	35	21
College of Engineering	14	15	15	11	10
College of Imaging Arts and Sciences	10	17	10	5	7
College of Liberal Arts	35	40	16	11	28
College of Science	3	5	6	4	13
Subtotal	147	180	146	130	158
Percent of Total Co-op Enrollment	63%	66%	57%	50%	56%
<b>Total Co-op Enrollment</b>	<b>233</b>	<b>272</b>	<b>255</b>	<b>262</b>	<b>281</b>

\* Totals reported include deaf and hard-of-hearing international students, but do not include students in the ASL-English Interpretation program or the Master of Science program in Secondary Education. Specific data on these students is reported elsewhere in this section.

## Science, Technology, Engineering and Mathematics (STEM) Activities

The National Technical Institute for the Deaf conducts a wide variety of science, technology, engineering and mathematics (STEM) activities, including academic majors offered within NTID

and those supported by NTID in the other colleges of RIT as well as pre-college outreach activities and research activities.

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### STEM Majors Offered at NTID

- All programs within the Engineering Studies Department
- All programs within the Information and Computing Studies Department
- All programs within the Science and Mathematics Department
- Master of Science program in Secondary Education of Students who are Deaf or Hard-of-Hearing (MSSE) offers special scholarships for students interested in math/science disciplines

### Other RIT Colleges Offering STEM Majors

- College of Applied Science and Technology
- B. Thomas Golisano College of Computing and Information Sciences
- Kate Gleason College of Engineering
- College of Science
- College of Imaging Arts and Sciences

### STEM-Related Pre-College Outreach Activities Offered by NTID

- Explore Your Future – Six-day career awareness program for high school sophomores and juniors, offering exposure to careers in computing, engineering, science and other areas
- Math Competition – Event for middle school students
- National Science Fair – For 6<sup>th</sup> to 12<sup>th</sup> grade students interested in science
- Steps to Success – Weekend camp at which 7<sup>th</sup> to 9<sup>th</sup> grade African-American, Latino-American and Native-American (AALANA) students explore career options
- TechGirlz – Week-long camp for 7<sup>th</sup> to 9<sup>th</sup> grade girls interested in careers in science, technology, engineering and math
- Project Fast Forward – Supported by the National Science Foundation (NSF), provides a pathway for deaf and hard-of-hearing students to transition from high school to college by offering computer-related courses that provide both high school and college credit

### Post-College STEM Outreach Activity Offered by NTID

- Deaf Initiative in Technology (DiiT) – Series of workshops providing computer and other training to deaf and hard-of-hearing adults. Roughly 675 deaf and hard-of-hearing professionals have attended 90 DiiT workshops over the past 10 years.

### A Sampling of Research Support for NTID STEM Activities

- *Enrichment: Testing the Concept of a Virtual Alliance for Deaf and Hard-of-Hearing STEM Students at the Postsecondary Level.* Supported by the National Science Foundation.
- *DHH Cyber-Community - Supporting Deaf and Hard-of-Hearing Students in STEM Fields.* Supported by the National Science Foundation, as a sub-award from the University of Washington.
- *Science of Learning Center on Visual Language and Visual Learning.* Supported by the National Science Foundation, as a sub-award from Gallaudet University.
- *Reorganization of Visual Functions after Early Deafness.* Supported by the National Institutes of Health, as a sub-award from the University of Rochester.
- *Cognitive and Metacognitive Foundations of STEM Learning by Deaf Students.* Supported by the National Science Foundation.

## STEM Activities (continued)

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- *Psychological Foundations of Mathematics Performance by Deaf and Hearing Students*. Supported by the National Institutes of Health.
- *Survive and Thrive in College*. Supported by the NYS Education Department.
- *Supporting Women and Underrepresented Deaf Students in Laboratory Science Technology*. Supported by the NYS Education Department.
- *Analyzing the Use of C-Print Mobile Technology in STEM Laboratory Settings Across Multiple Postsecondary Sites*. Supported by the National Science Foundation.
- *Improving Access to STEM Education for Deaf and Hard-of-Hearing Students*. Supported by the National Science Foundation.
- *A Preliminary Investigation of Cisco Technologies and Access Solutions for Deaf and Hard-of-Hearing Individuals One-Year Investigation*. Funded by Cisco.

### A Sampling of STEM-Related Events and Presentations

#### Center for Education Research Partnerships

- *What Works in the Classroom?* Invited presentation to Skaladen Kompensentensenter and Norwegian Ministry of Education, October 2009.
- *What Language in the Classroom?* Invited presentation at the Institute for Deaf Youth – INJS for educators of the deaf and other professionals from throughout the Paris, France, region, October 2009.
- *Educating Deaf Children: What We Know and What We Want to Believe*. Jones Memorial Lecture, University of Alberta and University of Calgary, October 2009.
- *Deaf Children Are Not Hearing Children Who Can't Hear*. Keynote presentation, Educating the Deaf Brain conference, Hasselt, Belgium, November 2009.
- *What We Know and What We Don't Know about Children with Cochlear Implants*. Keynote presentation, Educating the Deaf Brain conference, Hasselt, Belgium, November 2009.
- *Deaf Children and Literacy: Is Literacy Really the Issue?* Moeller Kompetensasenter, Trondheim, Norway.
- *Educating Deaf Children: From Research to Practice and Back Again* - Keynote Address to Asian Conference on Linguistics and Deaf Education, Hong Kong, January 2010.
- *Language, Learning, and Deaf Children: What We Know and What We Don't Know* - Keynote address to the Future of Deaf Education in Ireland conference, February 2010
- *Numerical Approximation and Math Achievement in Deaf Children*, ICED2010, Vancouver.
- *Building Better Classroom Comprehension among Deaf Students*, ICED2010, Vancouver.

#### Center for Access Technology

- *Testing the Concept of a Virtual Alliance for Deaf and Hard of Hearing STEM Students at the Postsecondary Level* - Poster at National Science Foundation Joint Annual Meeting (JAM), Washington, D.C., June 2010.
- *Planning a Virtual Alliance for Deaf and Hard-of-Hearing STEM Students at the Postsecondary Level* - Presentation at Technology and Deaf Education: Exploring Instructional and Access Technologies, June 2010.

### A Sampling of STEM-Related Research Publications

#### Center for Education Research Partnerships

- Enhancing deaf students' learning from sign language and text: Metacognition, modality, and the effectiveness of content scaffolding. *Journal of Deaf Studies and Deaf Education* (in press).
- Approaches to teaching in mainstream and separate postsecondary classrooms. *American Annals of the Deaf* (in press).

## STEM Activities (continued)

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- Deaf and hard-of-hearing students' experiences in mainstream and separate postsecondary education. *Journal of Deaf Studies and Deaf Education*, 15, 358-382 (2010).
- Language and learning in mainstream classrooms. In J. Mole (Ed.), *International Perspectives on Educational Interpreting*, pp. 45-54 (2009). Brassington, UK: Direct Learned Services Ltd.
- Are deaf students' reading challenges really about reading? *American Annals of the Deaf*, 154, 357-370 (2009).

### Center for Access Technology

- *Deaf and hard-of-hearing students in transition: Demographics with an emphasis on STEM education* (2010).
- *Testing the concept of a virtual alliance for postsecondary level STEM students who are deaf and hard-of-hearing: Summary of PEPNet focus groups* (October 2009).
- *Testing the concept of a virtual alliance for postsecondary level STEM students who are deaf and hard-of-hearing: Thematic Notes from the PEPNet Focus Groups* (October 2009).

## Student Support Services



**Applefest, sponsored by the Student Life Team, is an annual celebration of New York's fall apple harvest as well as an introduction to NTID's diverse student clubs and organizations.**



## Student Support Services Highlights

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NTID provides a variety of services to support the college success of deaf and hard-of-hearing students.

- Audiological services include hearing evaluations, hearing aid trials, fittings, cochlear implant mapping and individual listening therapy that focus on the development of receptive communication skills.
- Speech and language services are offered to students who want to enhance their use of spoken English and their general communication competence. Individual and group experiences provide opportunities to improve communication in conversations, group discussions and formal presentations. The Spoken Language Learning and Practice Lab enables students to use computer technology for speech and language analysis and visual feedback.
- Mental health counseling and psychotherapy is provided to deaf, hard-of-hearing and hearing students on campus at the RIT Counseling Center. Mental health counselors fluent in American Sign Language provide services for deaf and hard-of-hearing students. A staff psychiatrist at the Student Health Center is available for consultation or referral as needed. Mental health crisis intervention is available 24 hours a day. In addition to individual counseling and psychotherapy, students can participate in support groups and skill-building groups with counseling center staff throughout the year. In AY 2009-2010, 197 deaf and hard-of-hearing students were seen for these services.
- Personal and career counseling, and academic advising are provided to NTID students. Upon entry, every NTID-supported student has access to a professional counselor who plays an important role in helping students maximize their educational opportunities. Last year, the NTID Counseling Services department provided more than 11,500 hours of career and personal counseling as well as academic advising for students, in addition to teaching 28 sections of courses related to various aspects of college success. This department manages a full-service Career Resource and Testing Center, which provides a number of career assessment tools and resources, including an interactive, computer-based career information system that helps students assess their interests, learning styles and values, and explore a wide range of educational and career options. Counselors also work in collaboration with other service providers on campus to assess student learning competencies and develop educational interventions where appropriate.
- Student Life Team (SLT) continued its tradition in FY 2010 of both challenging and educating our students, providing resources and support for students' successful transitions throughout college and after graduation. SLT's collaborations with NTID's Counseling Services Department, NTID Center on Employment, NTID Student and Academic Services, NTID Academic Affairs and several offices across RIT's Division of Student Affairs ensured that students were provided diverse opportunities to optimize their collegiate experiences. SLT's co-curricular and late night educational programming, afternoon informational workshops, social and cultural programs and club/organization advising are avenues of outreaching and networking with students.
- Center for Intercollegiate Athletics and Recreation (CIAR) – NTID Support provided services that maximized access and success of deaf and hard-of-hearing students engaged in wellness courses, intercollegiate athletics, the Certificate of Excellence Program, intramural and recreation programs. Collaboration and referrals were made with various offices within NTID and RIT to ensure individual students' needs and requests were met. Consultation, mentoring and educational programs were offered to deaf and hard-of-hearing intercollegiate athletes, coaches and teams. Collaboration with the NTID Admissions Office resulted in potential deaf and hard-of-hearing student athletes having the opportunity to meet with an NTID support person and intercollegiate coaches. In AY 2009-2010, NTID had 15 student athletes competing in basketball, lacrosse, soccer, cross country, track and wrestling.
- Financial aid for domestic students was provided in AY 2009-2010 to a total of 989 NTID students in the form of Vocational Rehabilitation, grants-in-aid, federal and state grants, scholarships and federal loans through RIT's Financial Aid Office. This is up from a total of 882 students receiving awards last year. Of this total, 386 received NTID merit scholarships, 49 received RIT merit scholarships,

## Student Support Services Highlights (continued)

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429 received NTID endowed scholarships and 135 students received scholarships from external Funding sources. In addition, the NTID Financial Services Office provided privately funded short-term loans to students who encountered emergency situations.

- Summer Vestibule Program (SVP) is a 10-day orientation program for entering NTID students designed to transition them to college life. In 2010, 269 students went through the orientation program. Assessment tests are given to further evaluate a student's academic placement for English/Math classes. Students who are further evaluating their major are given a variety of career sampling choices. This is an opportunity for students to see if their major is what they expected. If not, they have the chance to enroll in a different major/program. There also is ample opportunity for peer interaction and fun. SVP is always a memorable experience as the students bond and make friends as they begin their collegiate career.
- First Year Experience incorporates a "Freshman Seminar" required for incoming first-year students and designed to further assist them in their transition to RIT/NTID. Twenty-four sections were offered with an average class size of eight. A variety of topics are covered, such as navigating the campus, library resources, Student Information System, conflict resolution, time management, clubs/organizations, study skills, stress management, goal setting, healthy relationships and more. This also is another opportunity for students to connect with their instructor if they have personal/academic struggles and the instructor can act as a resource.
- Career Exploration Studies (CES) is a program that allows career-undecided students the opportunity to explore technical programs while satisfying necessary core and/or prerequisite coursework. During AY 2009-2010, CES served 124 students. Eighty percent of CES students were accepted into a major within three quarters. There were 112 students enrolled in this program in fall 2010.
- Substance and Alcohol Intervention Services for the Deaf (SAISD) provides culturally sensitive, linguistically accessible information on alcohol, tobacco and other drugs, prevention, intervention and case management services to the deaf and hard-of-hearing community at RIT and throughout Rochester and the Monroe County area. SAISD also advocates for and promotes development of a full range of accessible treatment programs for alcohol and other drugs for deaf and hard-of-hearing consumers through the provision of cross-disability short-term technical assistance, consultation and training for professionals. For services from October 2009 to September 2010, SAISD screened 101 students, provided ongoing counseling to 61 students and made 1,324 student contacts in our prevention presentations. Wherever possible, SAISD promotes its successful model to other communities across the state.
- The NTID Learning Center (NLC), open seven days a week for a total of 88 hours per week from September through June, provides a variety of resources such as tutoring, computer use, video production and individual/group study space to support student success. The NLC offers individual and small-group tutoring and studying in Mathematics, English, information and computing studies, accounting, interpreting and Spanish. This year, individual students signed up to use the NLC computers 58,977 times for a total of 137,515 hours. This is a 9 percent increase over AY 2008-2009. Since AY 2006-2007, the NLC has loaned laptops to students during the day and overnight. This year, laptops were borrowed 1,906 times, which is a 23 percent increase over AY 2008-2009. The Sprint Relay Experimental Distance Learning/Access Demonstration Lab, also housed within the NLC, hosted 186 class sessions and 69 workshop sessions for a total of 449 hours. The Sprint Relay Lab supported a variety of activities, including sponsoring the MATHCOUNTS® outreach program, conducting experimental videoconferencing projects, video-capturing classes for archiving and subsequent "anytime/anywhere" access by students, and supporting research comparing speech-to-text systems. In addition, Classroom #1 and the General Area supported 394 class sessions and 244 workshop/tutoring sessions, totaling 982 hours of use. Lastly, the NLC continued to support the administration of SVP writing tests, the quarterly administration of the LAPT tests and provided a number of tours for incoming freshmen and visitors.

## Support Services

NTID faculty provide academic assistance in the form of tutoring and academic advising for all NTID-supported deaf and hard-of-hearing students registered in the other colleges of RIT.

	AY 2009-2010		
	Hours of Service Tutoring/Advising	Class Sections Served	Total Student Registrations
College of Applied Science and Technology (CAST)	*	451	891
College of Imaging Arts and Sciences (CIAS)	1,737	457	968
Saunders College of Business (COB)	2,058*	196	488
Kate Gleason College of Engineering (KGC OE)	1,858*	106	138
College of Liberal Arts (COLA)	3,137	685	2,126
College of Science (COS)	7,195*	529	1,787
Golisano College of Computing and Information Sciences (GCCIS)	2,251*	457	968
<b>Total</b>	<b>18,236</b>	<b>2,881</b>	<b>7,336</b>

\* Hours for CAST are reported under COB, COE, COS and GCCIS.

## Student Access Services



In addition to providing sign language interpreting, real-time captioning and classroom notetaking to support deaf and hard-of-hearing students, NTID is committed to exploring, adapting and implementing new technologies to enhance access for students.

## Student Access Services Highlights

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NTID provides an access services system to meet the needs of a large number of deaf and hard-of-hearing students enrolled in baccalaureate and graduate degree programs in RIT's other colleges as well as students enrolled in NTID programs who take courses in the other colleges of RIT. Access services also are provided for non-academic events and activities throughout the RIT community.

Educational access services that NTID offers for deaf and hard-of-hearing students enrolled in mainstream RIT classes include:

- **Sign language interpreting** provided by 120, as of fall 2010, full-time-equivalent employees—the largest staff of professional interpreters of any college program in the world. Students also may request interpreters for non-academic activities such as athletic events, religious services, student government meetings and guest presentations.
- **Real-time captioning** provided as a real-time access service for students who benefit from English text more than sign language interpreting. A growing staff, numbering 60 captionists as of fall 2010, has trained here in C-Print<sup>®</sup>, a computer-assisted system developed at NTID for transcribing in real time what teachers and students say in class. Real-time captioning also is provided for special events and out-of-class needs.
- **Classroom notetaking services** provided by trained student notetakers whose classroom notes are uploaded onto a website for easy access by deaf and hard-of-hearing students.

Other access services provided to NTID students include:

- **Captioned classroom video materials.** NTID, in conjunction with RIT, provides captioned video materials for use in classrooms.
- **Assistive Listening Systems.** NTID loans FM systems to students who benefit from such systems in classrooms.

NTID also works with each of RIT's colleges to provide the support needed to implement strategies for maximizing access to campus services for deaf students. The Provost's Deaf Access Committee and other groups address the needs of deaf and hard-of-hearing RIT students and ensure that RIT is in full compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act for educational accommodation. The institutional position on accessibility for deaf and hard-of-hearing people includes strategies like the following, for which NTID provides support:

- Sharing responsibility for providing workshops, training and information to assist faculty in the other RIT colleges in effectively teaching deaf and hard-of-hearing students.
- Providing needed training and ensuring that academic and administrative service areas that interact with students have staff with a range of communication skills and strategies (sign language, computer terminal or other written interaction) to communicate effectively with deaf students.
- Ensuring that all audio and visual media produced at RIT are captioned, and that existing materials used in classrooms are captioned whenever possible.
- Encouraging RIT to advocate for the captioning of audio and visual materials, teleconferences and other educational media produced externally to RIT.

NTID was an early innovator in access services, initiating training programs for educational interpreters in the 1970s that have grown from small, short-term certificate-level training into a large baccalaureate degree program. Staff interpreters from these programs and others have built careers at NTID, developing specialized expertise across the diverse technologies of RIT's curriculum. The average tenure of a staff interpreter, as of fall 2010, is greater than 12 years. This experienced resource, and similar expertise developing now in real-time captioning, affords NTID students unparalleled access to the array of educational opportunities RIT provides. Continued innovation and application of new technology to our work promise even better services in years ahead.

## Access Services: Interpreting, Notetaking and Real-Time Captioning

Interpreting, notetaking and real-time captioning services are provided to allow deaf and hard-of-hearing students equal access to information in classes offered by other RIT colleges.

RIT College	Interpreting Hours	Notetaking Hours	Real-Time Captioning Hours	Class Sections Served
College of Applied Science and Technology (CAST)	8,941	5,931	1,584	317
Saunders College of Business (COB)	6,603	4,802	2,018	162
Golisano College of Computing and Information Sciences (GCCIS)	6,300	4,982	1,713	195
Kate Gleason College of Engineering (KGC OE)	2,219	2,202	872	80
College of Imaging Arts and Sciences (CIAS)	14,384	11,039	3,107	361
College of Liberal Arts (COLA)	24,580	16,755	5,362	558
NTID Students with Approved Accommodations*	740	2,837	3	106
College of Science (COS)	18,334	14,870	4,082	468
Other Courses**	3,010	202	236	216
<b>Total Hours</b>	<b>85,111</b>	<b>63,620</b>	<b>18,977</b>	<b>2,463</b>

\* NTID students in associate degree programs who were approved for interpreting and/or notetaking services and/or real-time captioning services due to a secondary disability.

\*\* Courses taught outside listed colleges: First Year Experience, English Learning Center, Physical Education, etc.

## Access Services: Interpreting Services

In-class services include interpreting support in all colleges of RIT as well as student/professor meetings, field trips and other activities when required for credit-bearing courses. Non-class services include student use of interpreting services in student government, other

organizations, judicial proceedings, emergency situations and extra-curricular programs. Administrative use includes support for RIT faculty/staff, visiting dignitaries and speakers targeted mainly for faculty/staff audiences.

FY 2010	In-Class			Non-Class		Administrative		Overall Total	
	Hours	%*	Sections	Activity		Activity			
Fall	25,994	77%	594	6,058	18%	1,623	5%	33,675	100%
Winter	26,706	80%	588	5,424	16%	1,194	4%	33,324	100%
Spring	27,833	76%	586	6,605	18%	2,063	6%	36,501	100%
Summer	4,578	34%	80	6,906	52%	1,798	14%	13,282	100%
<b>FY 2010 Total</b>	<b>85,111</b>	<b>73%</b>	<b>1,848</b>	<b>24,993</b>	<b>21%</b>	<b>6,678</b>	<b>6%</b>	<b>116,782</b>	<b>100%</b>
FY 2004 Total	80,407	82%		12,813	13%	5,300	5%	98,520	100%
FY 2005 Total	82,265	83%		11,349	11%	5,561	6%	99,175	100%
FY 2006 Total**	89,748	84%		12,049	11%	5,460	5%	107,257	100%
FY 2007 Total**	80,417	73%	1,617	23,757	21%	6,666	6%	110,840	100%
FY 2008 Total	84,211	74%	1,869	23,620	21%	6,402	5%	114,233	100%
FY 2009 Total	80,475	73%	1,831	22,616	21%	6,527	6%	109,618	100%

\* Percentages are rounded to the nearest percent.

\*\* The separation of hours between the "In-Class" and "Non-Class Activity" categories was revised from 2006 to 2007, meaning a comparison between the two years is not meaningful.

## Access Services: Real-Time Captioning (C-Print®) Services

In keeping with NTID's *Strategic Vision 2010* and *Strategic Decisions 2020*, an increasing supply of real-time captioning is being made available for those students taking courses in the other RIT colleges. Students who believe they would benefit more from a text-based service may request it instead of sign language interpreting as their means of real-time access. Real-time captioning

is provided via C-Print in classroom situations; these services are provided on occasion for out-of-class activities such as graduation ceremonies.

The growth in the provision of real-time captioning from FY 2004 to FY 2010 below is reflective of our strategic planning.

FY 2010	In-Class			Non-Class		Administrative		Overall Total	
	Hours	%*	Sections	Activity		Activity			
Fall	6,402	98%	224	65	1%	43	1%	6,510	100%
Winter	6,146	99%	208	44	1%	26	0%	6,216	100%
Spring	5,871	99%	164	30	1%	48	1%	5,949	100%
Summer	558	68%	22	64	8%	196	24%	818	100%
<b>FY 2010 Total</b>	<b>18,977</b>	<b>97%</b>	<b>618</b>	<b>203</b>	<b>1%</b>	<b>313</b>	<b>2%</b>	<b>19,493</b>	<b>100%</b>
FY 2004 Total	3,140	100%	82	6	0%	0	0%	3,146	100%
FY 2005 Total	7,325	98%	186	160	2%	0	0%	7,485	100%
FY 2006 Total	9,198	98%	231	150	2%	2	0%	9,350	100%
FY 2007 Total	15,074	98%	426	288	2%	78	0%	15,440	100%
FY 2008 Total	16,186	97%	496	356	2%	180	1%	16,722	100%
FY 2009 Total	17,330	95%	538	255	1%	515	3%	18,168	100%

\* Percentages are rounded to the nearest percent.



## Access Services: Staff Training

NTID Access Services offers interpreter, notetaker and C-Print<sup>®</sup> training to its staff and student employees. Captionists are trained when hired and interpreters have in-service training available. Notetaker training is provided to hearing RIT students hired to take classroom notes for deaf and hard-of-hearing students taking classes in the other colleges of RIT.

Programs	Number Enrolled				
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
In-Service Training for Interpreters*	93	97	92	37	74
Notetaker Training	201	261	318	223	346
C-Print Training	31	7	14	0	7
<b>Total</b>	<b>325</b>	<b>365</b>	<b>424</b>	<b>260</b>	<b>427</b>

\* Eleven shorter workshops were provided to a total audience of 173 staff interpreters in addition to the quarter-long IST courses reported above.

## Persistence, Graduation & Employment



The NTID Center on Employment hosts a job fair each year to connect students with employers. Business and industry continues to be the sector where most NTID graduates find employment.

## Persistence, Graduation, and Employment Highlights

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Preparing deaf and hard-of-hearing students to live and work in the mainstream of society is the primary reason NTID was established in 1965. Prior to 1965, there were few postsecondary educational opportunities for deaf and hard-of-hearing students and virtually none in technical studies. As a result, nearly 85 percent of deaf adults in the early 1960s found themselves in unskilled or semi-skilled jobs.

Today, NTID's highly successful academic programs and services are leading graduates to successful careers in a broad range of fields. Over the past five years, 93 percent of graduates who chose to enter the labor force found employment that is commensurate with the level of their education and training. Figures for 2009 graduates show that 90 percent, or 94 of the 105 students who chose to enter the workforce, found employment.

These statistics reflect the quality of an NTID education and its value. According to a study conducted by NTID with the Social Security Administration (SSA) in 2004, and updated in 2007, male graduates of NTID's sub-baccalaureate programs (diplomas, certificates and associate degrees) earn 43 percent more in their lifetimes than students who withdraw from NTID. As a result, NTID graduates pay more in federal taxes. As the numbers of deaf and hard-of-hearing students in baccalaureate and graduate degrees in other colleges of RIT increase, so too does their potential earning power. Female graduates also do better than females who do not complete degrees, although the earnings differences are not as great as for male graduates. Female graduates earn approximately 25 percent less than their male counterparts earn upon graduation. This fact needs to be viewed in light of the differing career choices made by males and females. For example, in the BS cohorts studied, 69 percent of male graduates have degrees in Business, Science, Applied Science and Technology, and Engineering, while only 40 percent of females graduated in these higher-paying fields. Conversely, 60 percent of females received their BS degrees in Imaging Arts and Liberal Arts, while only 31 percent of males received degrees in these traditionally lower-paying areas. Therefore, a true measure of gender bias, if any, would require matching degree areas among genders, which this study did not undertake. These gender-based patterns and pay differentials are very similar to what is seen in the general U.S. population.\*

We know that quality employment and higher earnings accrue to college graduates. Generally, we also know that students who withdraw fare no better earnings-wise than their peers who never went to college. With this in mind, NTID employs a variety of innovative strategies to improve persistence. All first-year students take Freshman Seminar, which undergoes continuing curriculum revisions to better address the challenges that these students experience. Students who appear to have a higher risk of attrition during their first year are identified and worked with closely. For the second year, NTID requires all first-year students to meet with their academic advisor to review their program requirements, identify courses for the following quarter and review their individual English placement and plans for degree completion.

NTID formed a retention committee dedicated to studying persistence issues and addressing concerns related to this issue from faculty, staff and students. As a result, a peer mentorship program was developed in several of the technical programs to provide a smooth transition for first-year students. Back on Track was a pilot program to provide peer support for students on academic probation. In fall 2009 (FY 2010), NTID started a Step Up program designed to mentor African-American, Latin American, and Native American (AALANA) first-year students in the Career Exploration Studies program. The goal for this program is to provide academic/social support for these students, encourage them to become peer mentors themselves, and improve the persistence rate for AALANA students from their second year of study and beyond.

Persistence is a continuing concern for colleges with "open" or "liberal" admissions policies like NTID. However, the college fares quite well; its overall graduation rate for students entering degree programs more closely approximates the rate in colleges and universities with higher or more "traditional" entrance requirements. Notwithstanding these positive comparisons, NTID continues to work at improving its graduation rate.

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\* U.S. Bureau of Census, Current Population Survey, 1991 – 2002 Annual Demographic Supplement

## Persistence, Graduation, and Employment Highlights (continued)

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For AY 2009-10, RIT/NTID awarded 306 associate, bachelor's and master's degrees as well as diplomas and certificates to students. Of those graduates, 4 percent earned certificates and diplomas, 39 percent earned associate degrees, 47 percent earned bachelor's degrees and 10 percent earned master's degrees. Of the U.S. students, 27 percent of degrees were granted to minority students.

Most of our graduates who choose to enter the labor market, successfully find jobs upon graduation, and most are in jobs commensurate with the level of their academic training. Of those, the majority are employed in business and industry (59%). The 2004 SSA research also showed that our deaf and hard-of-hearing graduates with bachelor's degrees earn 79 percent of what their hearing peers earn (hearing RIT graduates). National statistics indicate that, in general, disabled workers earn only 70 percent of what their non-disabled peers earn. If we add to the equation the fact that a college degree greatly reduces dependency on Supplemental Social Security transfer payments, the reasons for the dedication of NTID faculty and staff to assure that students graduate and succeed is clear.

An NTID Alumni Association Board of Directors was established to support the more than 6,700 RIT/NTID alumni. In the past year, more than 1,900 alumni and guests participated in various alumni activities via 20 alumni chapters, including events in Washington, D.C.; Berlin, Conn.; Los Angeles, Calif.; Chicago, Ill.; Long Island, N.Y.; Boston, Mass.; Centralia, Wa.; and Rochester, N.Y. The NTID Alumni Relations Office, in conjunction with NTID Admissions and NTID Center on Employment, is focused on providing alumni workshops on how to develop strategies for finding employment and advancing in their careers during challenging economic times.



*Abigail (center), a Business Technology major from Brampton, Ontario, hugs recent graduates LaTonya of Chicago, Ill. and Tina of Markham, Ontario.*

## First-Year Persistence Rates

Since there is considerable variability from year to year in terms of persistence rates for entering cohorts of students, NTID monitors and reports annually on persistence using a three-year moving average. The table below presents information about three-year moving averages for NTID-supported undergraduate students entering degree-granting programs since 1999. Thus, the most recent three-year average is reported for the

1,118 students who entered degree programs in the years 2007, 2008 and 2009. Data in the table below indicate that for the most recent three-year period, 79 percent of new students persisted to the second year. This represents one of the highest percentages reported below, resulting from the implementation of a variety of student success strategies. Disaggregated rates can be found on the following page.

First-Year Persistence Rates*			
Three-Year Entry Cohort	Number in Cohort	Number Registering Second Year	Overall Persistence Rate
1999, 2000, 2001	963	738	77%
2000, 2001, 2002	982	743	76%
2001, 2002, 2003	1,009	759	75%
2002, 2003, 2004	1,019	763	75%
2003, 2004, 2005	1,061	798	75%
2004, 2005, 2006	1,046	809	77%
2005, 2006, 2007	986	777	79%
2006, 2007, 2008	1,054	839	80%
2007, 2008, 2009	1,118	885	79%

\* Three-year averages for students registering in degree programs for fall quarter. ASL-English Interpretation and MSSE students are not included.

## Persistence to Graduation for Deaf and Hard-of-Hearing Students

Nationally, four-year public and private colleges' have first-year persistence rates of 68 to 69 percent. This compares to a 79 percent persistence rate for first-year NTID students in a major, across two-year and four-year degrees (74% for two-year; 87% for four-year). Students admitted to NTID have ACT composite scores that are comparable to students in two-year colleges with open or liberal admissions policies; yet, first-year persistence

rates at NTID are comparable with those of institutions admitting students who are far better prepared academically. The table below also indicates that NTID's graduation rates (53% for students admitted into sub-bachelor-level programs and 73% for those in bachelor-level programs) are comparable to public colleges with traditional or selective admission standards.

National and NTID Persistence Rates*		
Colleges	First-Year Persistence Rate	Graduation Rate
<b>Two-Year</b>		
Public (National)	56%	28%
<b>NTID Sub-Baccalaureate**</b>	<b>74%</b>	<b>53%</b>
<b>Four-Year</b>		
Public (National)	68%	40%
Private (National)	69%	55%
<b>Other RIT Colleges (NTID Baccalaureate)</b>	<b>87%</b>	<b>73%</b>

\* Source of National Estimates: National Collegiate Retention & Persistence to Degree Rates, retrieved from [http://www.ACT.org/research/policymakers/pdf/retain\\_2010.pdf](http://www.ACT.org/research/policymakers/pdf/retain_2010.pdf)

\*\* NTID calculates first-year persistence and graduation rates using a three-year moving average.

## Degrees Granted: FY 2006 to FY 2010

During the past five years, NTID has awarded an average of 282 degrees annually. The number for FY 2010 was 306. During this same time frame, the number of students achieving bachelor's and master's degrees has increased. This change is indicative of the demands being made by deaf and hard-of-hearing persons for access to higher-level

programs and NTID's success in shifting its resources to accommodate the increasing numbers of students seeking higher degrees. Of the 306 graduate and undergraduate degrees, diplomas and certificates granted in FY 2010, 76, or 27 percent, were granted to students from minority backgrounds.\*

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Five different degree levels are awarded to deaf and hard-of-hearing graduates of RIT.

### Sub-Baccalaureate Certification

1. An *Associate in Occupational Studies* (AOS) degree requires 57-69 credit hours of technical instruction and permits students to enter their careers directly upon graduation. In addition to completing technical courses satisfactorily, students must complete a specific number of credit hours in English, communication, general education and mathematics.
2. An *Associate in Applied Science* (AAS) degree permits students to enter their careers directly upon graduation, or in many cases, to transfer to upper-division programs in the other colleges of RIT. Completion of this degree requires 57-69 credit hours of technical instruction. In addition to the technical courses, students must complete 20 credit hours through RIT's College of Liberal Arts and other required credit hours as determined by the program of study.
3. The *Associate in Science* (AS) degree is a transfer associate degree for students seeking admission to bachelor-level studies. This degree requires completion of 90-100 credit hours, half of which must be from liberal arts and science; the rest are from technical and professional areas.

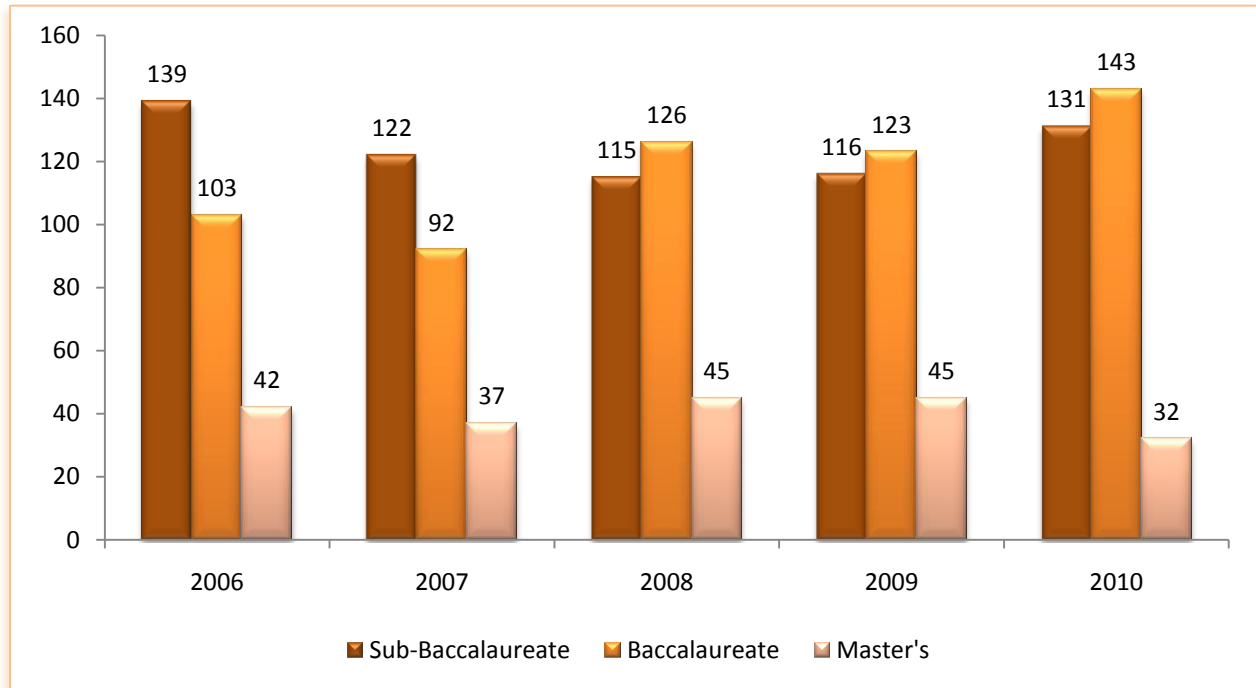
### Bachelor's/Master's Degrees

4. A *bachelor's* degree is awarded to students who complete all required courses to graduate from a four- or five-year program in one of the RIT colleges. A bachelor's degree requires completion of 180-200 credit hours.
5. A *master's* degree indicates that a student has completed a minimum of 45 credit hours beyond the baccalaureate level in any RIT master's degree program.

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\* Minority status is unknown for 24 of these 306 graduates.

## Degrees Granted: FY 2006 to FY 2010 (continued)



	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Sub-Baccalaureate*	47.1%	48.9%	48.6%	40.2%	40.9%
Baccalaureate*	38.2%	36.3%	36.7%	44.1%	43.3%
Master's**	14.7%	14.8%	14.7%	15.7%	15.8%

\* This number includes hearing graduates from the ASL-English Interpretation program.

\*\* This number includes deaf and hard-of-hearing graduates from RIT, as well as deaf, hard-of-hearing and hearing graduates from the MSSE program.



## Graduates by Program Areas

Of all the degrees awarded to NTID students on the RIT campus in FY 2010, 57 percent were through programs offered by NTID and 43 percent through the other seven colleges of RIT. Historically, 68 percent of the degrees have been awarded from NTID and 32 percent from the other RIT colleges. This change is the result of increased demand

by students for entry into bachelor-level programs, better articulation between NTID and RIT curricula and improved and expanded access/support services.

Data on minority status of these graduates appear in the Diversity and Pluralism section.

	FY 2010		CUMULATIVE (FY 1970 – FY 2010)	
	Number of Graduates	Percentage of Graduates	Number of Graduates	Percentage of Graduates
<b>NTID</b>				
Career-Focused and Transfer Associate Degrees	123	40%	4,083	57%
ASL-English Interpretation Bachelor	31	10%	105	1%
ASL-English Interpretation Associate	2	1%	507	7%
ASL-English Interpretation Certificate	0	0%	6	0%
Master of Science in Secondary Education	18	6%	223	3%
<b>Subtotal NTID</b>	<b>174</b>	<b>57%</b>	<b>4,924</b>	<b>68%</b>
<b>Other Colleges of RIT*</b>				
College of Applied Science and Technology	63	20%	575	8%
College of Business	21	7%	334	5%
College of Computing and Information Sciences	9	3%	251	4%
College of Engineering	5	2%	79	1%
College of Imaging Arts and Sciences	21	7%	520	7%
College of Liberal Arts	8	2%	383	5%
College of Science	5	2%	123	2%
<b>Subtotal Other Colleges</b>	<b>132</b>	<b>43%</b>	<b>2,265</b>	<b>32%</b>
<b>Total</b>	<b>306</b>	<b>100%</b>	<b>7,189</b>	<b>100%</b>

\* Includes bachelor's and master's degrees granted by the other colleges of RIT, as well as some associate degrees.

## Time Required to Complete a Degree

With the exception of deaf and hard-of-hearing students directly admitted to an RIT college other than NTID, students who are deaf or hard-of-hearing take a longer time to complete a degree than hearing students. There are many reasons for this, not the least of which is academic preparedness. Deaf and hard-of-hearing students admitted to NTID generally are academically behind their 18- to 19-year-old hearing counterparts. Many enter NTID with ACT composite scores of less than 16 and reading comprehension and language skills between 7<sup>th</sup> and 9<sup>th</sup> grade levels. Therefore, considerable time and effort is devoted to remediation and career exploration. In addition, most programs have between one- and three-quarter requirements for cooperative education experiences (paid employment in field related to study), while some programs require more than three quarters of cooperative education. This extends normal program length by approximately one year; typically, associate degree programs require three years and bachelor's programs require five years.

The table below shows the average number of active quarters and calendar years elapsed between entry and date of degree.

Deaf and hard-of-hearing students who transfer to an RIT baccalaureate program after completing an associate degree take seven years total, on average, to attain a bachelor's degree. Students who start at NTID, primarily because they were initially inadmissible to RIT, who later satisfy the RIT requirements before finishing an NTID associate degree and then transfer, take 5.7 years, on average, to attain a bachelor's degree. Deaf and hard-of-hearing students who directly enter RIT baccalaureate programs graduate in less than five years, on average. What is remarkable about the three baccalaureate cohorts of students is that all deaf and hard-of-hearing students typically have lower entry-level academic skills than do their hearing peers, yet with preparation, support and access services provided by NTID, they are able to enter and graduate from RIT programs at rates similar to their hearing peers.

**Time Required to Complete a Degree:  
Graduates Academic Year 2007, 2008, 2009**

First Degree Category	Number of Students	Average Active Quarters*	Average Calendar Years**
Bachelor's degree (transfer after NTID associate degree)	92	21.5	7.0
Bachelor's degree (transfer from NTID without associate degree)	139	17.4	5.7
Bachelor's degree (direct entry)	86	15.3	4.5
AS/AAS degree	172	13.8	4.8
AOS degree	133	13.0	4.8

\* Does not include quarters when students were withdrawn or on leave of absence.

\*\* Calculated from the day student enters NTID to the day he/she graduates, regardless of withdrawals or leaves of absence.

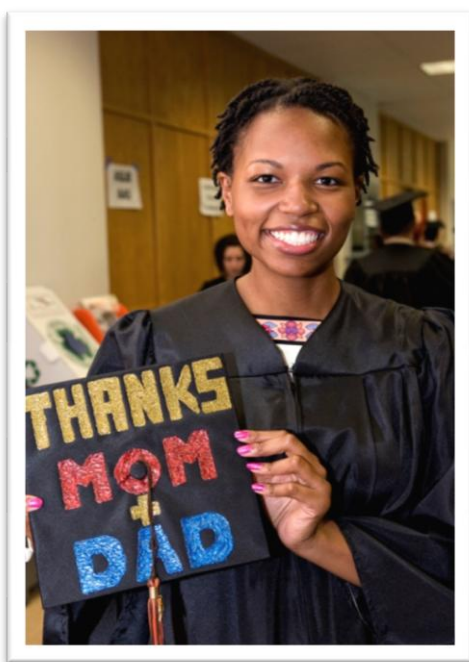
## Origin and Success of Deaf and Hard-of-Hearing Students in Baccalaureate Programs

Historically, 25 percent of deaf and hard-of-hearing students who begin their studies within NTID eventually transfer to one of the other colleges of RIT. The net result of this transfer pattern is that more than half of deaf and hard-of-hearing graduates from RIT baccalaureate programs began their college careers within NTID.

The table below provides baccalaureate graduation rates by point of entry to NTID and RIT.

### Graduation Rates for Deaf and Hard-of-Hearing Students Registered in the Other Colleges of RIT (Cohort Entering 2001 – 2003)\*

	Withdrawn	Bachelor's Degree	Total	Graduation Rate**
Direct Admit to RIT Deaf and Hard-of-Hearing	53	100	153	65%
Transfer from NTID Pre-Baccalaureate Program	9	36	45	80%
Transfer from NTID Associate Degree Program	25	110	135	81%
Deaf and Hard-of-Hearing Students Overall	87	246	333	74%



*Carla, an interpreting graduate from Dumfries, Va., displays her graduation cap with a special message to her parents.*

\* NTID rates report three-year moving averages.

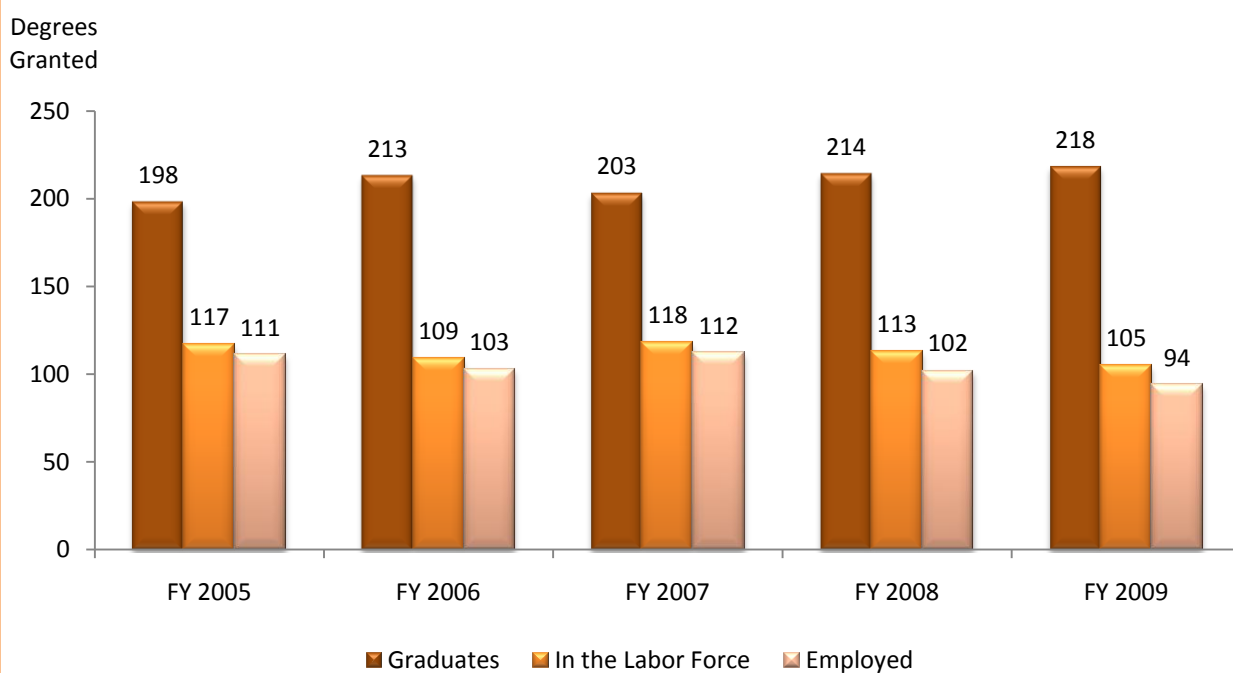
\*\* RIT allows seven years for completion of degree.

## Graduation and Employment for Recent Graduates

Employment rates are calculated using the methodology of the Bureau of Labor Statistics (BLS) in its Current Population Survey (household survey), which provides information on the labor force, employment, and unemployment. As the BLS defines it, “The civilian labor force is the sum of employed and unemployed persons. Those not classified as employed or unemployed are not in the labor force. The unemployment rate is the number unemployed as a percent of the labor force. The labor force participation rate is the labor force as a percent of the population...”

NTID’s labor force is the sum of those graduates who are employed and those who want to be employed. Those who do not want to be employed because they choose to continue to pursue

bachelor’s and master’s degrees at RIT or at some other institution of higher education, or choose to become homemakers, or to be idle temporarily while traveling, etc., are not in the labor force. During FY 2009\*, 218\*\* deaf and hard-of-hearing students graduated, and 105 chose to enter the labor force. Ninety-four were employed, while 11 were unable to find employment. Therefore, 89.52 percent (94/105) found employment. NTID’s employment rate over the past five years as calculated above is 93 percent. Of the 113 remaining graduates from 2009, 80 are continuing their education toward advanced degrees either at RIT or elsewhere, 17 are not looking for employment, and 16 have an unknown status.



\* As of the writing of this report, the employment information for 2010 is incomplete; therefore, we report employment rates of 2009 graduates.

\*\* Students are only counted once in the case of multiple degrees, and the total number of graduates does not include degrees in the ASL-English Interpretation program, the Master of Science program in Secondary Education or any certificates awarded.

## Employment Services for Deaf and Hard-of-Hearing Students and Graduates

Prior to students' cooperative work experiences, NTID's Center on Employment (NCE) offers a Job Search Process course to support student learning about how to organize and conduct job search activities. Students utilize the extensive NCE website and print resources to research prospective employers, identify appropriate employment opportunities and obtain information

about applying for a job and working. During the academic year, employment advisors meet with students at different locations on campus, and reach out to students at different NTID events. Our staff also provide job-seeking advice to students and graduates through e-mail, instant messaging and videophone.

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During FY 2010:

- One-hundred forty-one NTID students were enrolled in 12 sections of Job Search Process.
- NCE personnel provided more than 3,000 hours of student and graduate employment advising.
- Students sought individualized job search assistance at various campus locations.
- Thirty-nine students took advantage of three sessions offered to review and advise on resumes.
- NCE participated in several interactive events each quarter for students, along with other NTID departments and student groups, to inform students about NCE services.
- Employment advisors, faculty, and students traveled to Hawthorne and Yorktown Heights, N.Y. to visit IBM facilities to learn about employment opportunities and the work environment.
- Forty-three deaf and hard-of-hearing students attended three career development workshops.

## Where Recent Graduates Are Working

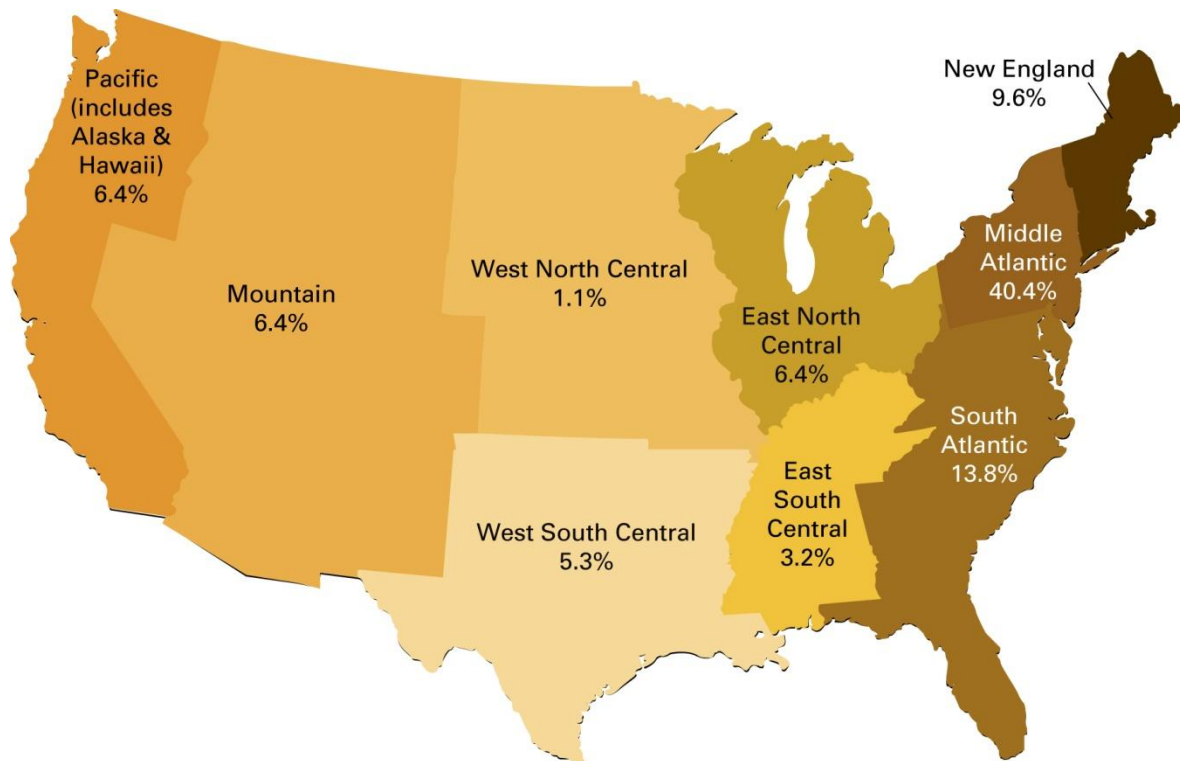
In FY 2009, 18 percent of U.S. NTID graduates accepted jobs in areas near their hometowns in their first jobs after graduation, while 33 percent found employment in the Rochester area and

49 percent in other areas of the country. The majority of graduates are employed in the eastern parts of the country, areas that have been strong sources of applicants for NTID.

Area	Percent of Placed Graduates				
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009*
Rochester	14%	22%	16%	21%	18%
Hometown	31%	29%	33%	29%	33%
Other	55%	49%	51%	50%	49%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

<b>Number of Graduates Placed</b>	<b>111</b>	<b>103</b>	<b>112</b>	<b>102</b>	<b>94</b>
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FY 2009 Graduate Placement by Region\*\*



\* Placement numbers for FY 2010 graduates are incomplete and will be reported next year.

\*\* In addition, 3.2 percent are working in Canada, 1.1 percent are working internationally and 3.1 percent are working in unknown locations.

## Employment by Sector of the Economy

Of the last cohort of graduates tracked for employment, 59 percent have acquired jobs in business and industry, 21 percent in education and 20 percent in government.

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Sector	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009*
Business/Industry	69%	60%	63%	71%	59%
Education/Non-Profit	22%	30%	29%	20%	21%
Government	9%	10%	8%	9%	20%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

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\* Placement numbers for FY 2010 graduates are incomplete and will be reported next year.

## Occupations of Recent Graduates: Entry Status by Labor Category

FY 2009 deaf and hard-of-hearing graduates entered a wide variety of jobs. The following table reports on the occupations of employed alumni using the Standard Occupational Coding system (SOC) used by the U.S. Department of Labor. Occupations are grouped into 22 categories plus military.

Percentages among the various categories are somewhat different than seen in the *FY 2009 Annual Report*. There was substantially more post-graduation employment in the Arts, Design, Entertainment, Sports and Media category – 13.8 percent this year versus 8.8 percent in FY 2009, as

well as employment in Sales, Production, and Community and Social Services. Areas where relatively fewer jobs were reported than last year were in Business and Financial Operations and Office and Administrative Support. Other categories showed equivalent percentages.

Categories for which there was no reported employment this year were: Legal; Healthcare Support; Food Preparation and Serving Related; Construction and Extraction; Installation, Maintenance and Repair; Transportation and Material Moving and the Military.

Occupations of Working 2009 Graduates	%	Sample Job Titles Held by 2009 Graduates within Category
Arts, Design, Entertainment, Sports & Media	13.8%	Graphic Designer, Studio Manager, Contractor, Media Specialist, Photo Assistant, Freelance Graphic Artist
Business & Financial Operations	10.6%	Contract Specialist, Logistic Management Specialist, Accountant, Proposal Analyst
Computer & Mathematical	9.6%	Surveillance Information Analyst, Support Technician, Programmer, Information Technologist, Automation Technician
Office & Administrative Support	9.6%	Accounting Clerk, Technical Specialist, Data Entry Clerk, Bookkeeper, Document Specialist, Human Resources Assistant, Office Clerk
Architecture & Engineering	8.5%	Global Sterile Packaging Engineer, Mechanical Process Engineer, Project Scientist, Field Service Engineer, CAD Operator, Project Manager
Production Occupations	7.5%	Production Floor Associate, Machinist, Digital Operations Coordinator, Optical Finishing Technician
Education, Training & Library	6.4%	Teaching Assistant, Art Teacher, Transition Specialist, Head Volleyball Coach, Lecturer, Faculty, Teacher's Aide
Management	5.3%	Director Project HOPE, Marketing Consultant, Public Relations Assistant, Communication Specialist
Life, Physical & Social Science	4.3%	Packaging Innovation Intern, Chemist, Intern



## Occupations of Recent Graduates: Entry Status (continued)

Occupations of Working 2009 Graduates	%	Sample Job Titles Held by 2009 Graduates within Category
Community & Social Services	4.2%	Life Skills Counselor, Mental Health Technician, Living Well Specialist, Team Minister
Sales & Related Occupations	3.2%	Clerk, Staff
Personal Care & Service	2.1%	Child Care Worker, Personal Assistant Coordinator
Protective Services	1.1%	Police Officer
Building and Grounds Cleaning & Maintenance	1.1%	Housekeeper
Farming, Fishing & Forestry	1.1%	Scale Operator
Healthcare Practitioners and Technical Occupations	1.0%	Safety and Health Inspector
Job Title Not Specified	10.6%	
<b>Total</b>	<b>100%</b>	

## Occupations of Alumni by Gender and Labor Categories

NTID alumni from graduation years 1994 – 2009 were surveyed in 2010. The focus was on two distinct groups: those one to five years from graduation and those six to 15 years from graduation. The gender percentages in each occupational category are of the total sample.

The following table reports on the occupations of employed alumni using the Standard Occupational Coding system (SOC) used by the U.S. Department of Labor. Occupations are grouped into 22 major categories plus military.

Percentages of alumni reporting employment in the occupational categories are essentially the same

as in the 2007 survey with a few exceptions. Twice as many alumni in the 2007 survey reported employment in Arts, Design, Entertainment, Sports & Media. This is primarily due to the exclusion of interpreters in the 2010 survey. This year, the percentage of alumni working in Business & Financial Operations almost doubled compared with the 2007 alumni survey. Also, there were more alumni in Sales and Related, and fewer alumni in Management Occupations.

The shift toward more professional and technical post-graduation employment noted in the 2007 survey seems to be continuing.

Occupations of Working Alumni*	%	Sample Job Titles Held by Alumni within Category
Education, Training & Library		
All	20.4%	Professor, Practicum Coordinator, Science
One to Five	20.4%	Teacher, Itinerant Teacher Assistant, Literacy
Six to 15	20.6%	Instructor, Substitute Teacher
Male	31.2%	
Female	68.8%	
Computer & Mathematical		
All	13.2%	System Administrator, Webmaster, Software
One to Five	12.2%	Developer, Support Technician, Software Test
Six to 15	13.8%	Engineer, Programmer/Analyst, Application
Male	83.3%	Developer
Female	16.7%	
Business & Financial Operations		
All	11.0%	Tax Coordinator, Compliance Specialist, Fraud
One to Five	9.8%	and Loss Analyst, VP Marketing, Deciding Officer
Six to 15	11.7%	
Male	48.0%	
Female	52.0%	
Community & Social Services		
All	9.9%	Advocacy Officer, Case Manager, Clinical
One to Five	7.0%	Coordinator, Independent Living Specialist, Job
Six to 15	11.7%	Coach, Career Consultant, Direct Care Staff
Male	33.3%	
Female	66.7%	
Office & Administrative Support		
All	9.2%	Accounting Technician, Administrative Assistant,
One to Five	8.7%	Inventory Clerk, Receipt Log Clerk, Project
Six to 15	9.6%	Assistant, Rural Letter Carrier, Assistant, Legal
Male	38.1%	Associate, Scheduler Clerk
Female	61.9%	

\* There were several job categories not represented by any of the graduates: Protective Services; Farming, Fishing & Forestry; Construction & Extraction and Military Services.

## Occupations of Alumni by Gender and Labor Categories (continued)

Occupations of Working Alumni*	%	Sample Job Titles Held by Alumni within Category
<b>Arts, Design, Entertainment, Sports &amp; Media</b>		
All	6.2%	Designer, Digital Video Specialist, Exhibit Graphic
One to Five	7.6%	Designer, Industrial Designer, Media Specialist,
Six to 15	5.3%	Interpreter/Transcriptionist
Male	32.2%	
Female	67.8%	
<b>Architecture &amp; Engineering</b>		
All	5.9%	Aerospace Engineer, Machine Designer, Packaging
One to Five	7.6%	Engineer, Senior Enterprise Architect, Test
Six to 15	5.0%	Technician, Transportation Engineer II, Quality
Male	70.4%	Assurance Analyst
Female	29.6%	
<b>Production Occupations</b>		
All	3.7%	Cabinet Maker, Die Builder, Engraving Specialist,
One to Five	1.2%	Typesetter/QC, Optical Technician, CNC
Six to 15	5.3%	Programmer, Machinist
Male	82.4%	
Female	17.6%	
<b>Management</b>		
All	3.1%	Disability Policy Manger, Contracts Administrator,
One to Five	2.9%	President/Owner, Program Control Officer,
Six to 15	3.2%	Executive Director
Male	35.7%	
Female	64.3%	
<b>Sales &amp; Related</b>		
All	3.1%	Customer Service Representative, Customer Service
One to Five	4.6%	Associate, Representative/Beauty Consultant
Six to 15	2.1%	
Male	28.6%	
Female	71.4%	
<b>Healthcare Practitioners &amp; Technical Occupations</b>		
All	2.8%	Emergency Center Medical Coder, Laboratory
One to Five	3.5%	Technician, Discovery Technologist, Registered
Six to 15	2.5%	Dietician, Sonographer
Male	23.1%	
Female	76.9%	

\* There were several job categories not represented by any of the graduates: Protective Services; Farming, Fishing & Forestry; Construction & Extraction and Military Services.

## Occupations of Alumni by Gender and Labor Categories (continued)

Occupations of Working Alumni*	%	Sample Job Titles Held by Alumni within Category
Life, Physical & Social Science		
All	2.6%	Research Assistant, Project Manager, Research Associate, School Psychologist
One to Five	2.3%	
Six to 15	2.5%	
Male	25.0%	
Female	75.0%	
Building and Grounds Cleaning & Maintenance		
All	2.0%	Custodian, Gardener, Bank Cleaner, Environment Support Service, Rest Area Maintenance
One to Five	3.5%	
Six to 15	1.1%	
Male	77.8%	
Female	22.2%	
Personal Care & Service		
All	1.5%	Pit Crew Keeper, Overnight Residential Counselor, Residential Assistant, Coordinator of Student Programming
One to Five	2.3%	
Six to 15	1.1%	
Male	28.6%	
Female	71.4%	
Installation, Maintenance & Repair		
All	1.3%	PC Technician, Trainer/Installer, Field Technician, Support Technician
One to Five	2.3%	
Six to 15	0.7%	
Male	100.0%	
Female	0.0%	
Food Preparation & Serving		
All	1.3%	Food Production Worker, Chef, Busser/Support Staff
One to Five	2.3%	
Six to 15	0.7%	
Male	66.7%	
Female	33.3%	
Legal		
All	1.1%	Legal Assistant, Paralegal Specialist
One to Five	0.0%	
Six to 15	1.8%	
Male	20.0%	
Female	80.0%	

\* There were several job categories not represented by any of the graduates: Protective Services; Farming, Fishing & Forestry; Construction & Extraction and Military Services.

## Occupations of Alumni by Gender and Labor Categories (continued)

Occupations of Working Alumni*	%	Sample Job Titles Held by Alumni within Category
Healthcare Support		
All	0.4%	Massage Therapist, Support Professional
One to Five	0.0%	
Six to 15	0.7%	
Male	0.0%	
Female	100.0%	
Transportation and Material Moving		
All	0.4%	Flight Controls Engineer, Assembly/Shipping
One to Five	0.6%	
Six to 15	0.3%	
Male	100.0%	
Female	0.0%	
Job Title Not Specified		
All	0.7%	
One to Five	1.2%	
Six to 15	0.3%	
Male	33.3%	
Female	66.7%	

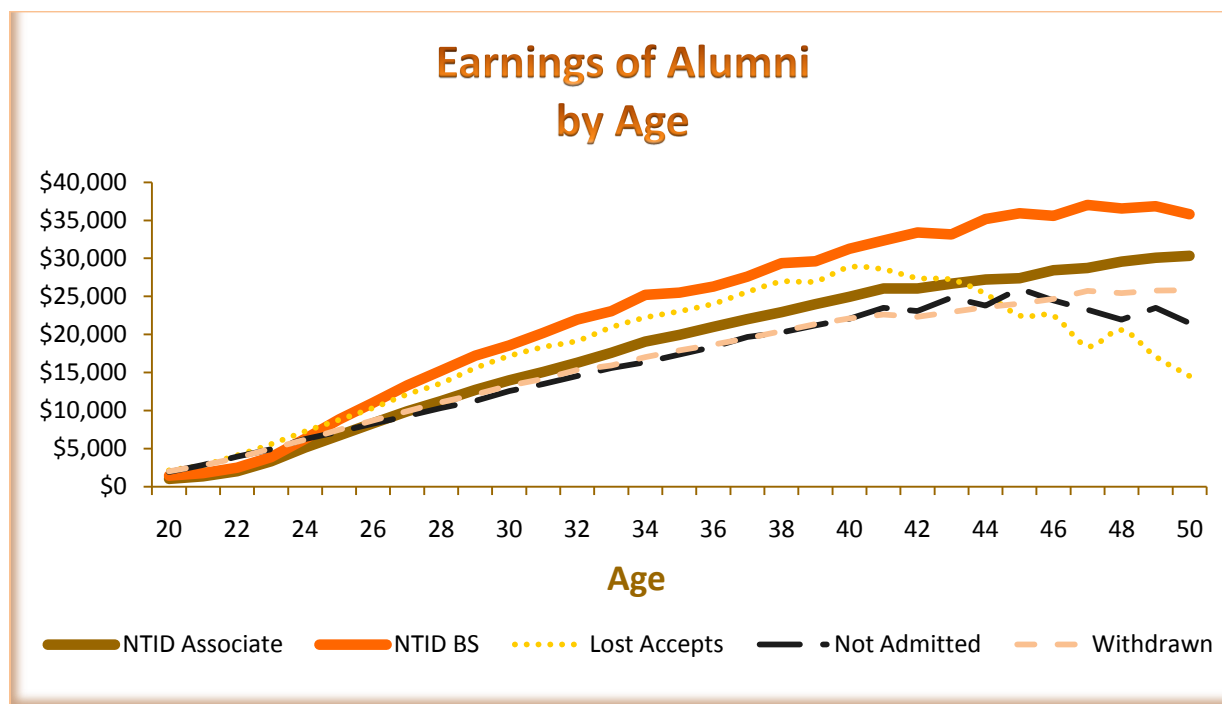
\* There were several job categories not represented by any of the graduates: Protective Services; Farming, Fishing & Forestry; Construction & Extraction and Military Services.

## Ten-Year Labor Force Status and Earnings of Alumni

The figures below represent the changing employment conditions of deaf and hard-of-hearing alumni from age 20 to 50. Data represented in these figures are from a 2007 study with the Social Security Administration and Cornell University. Findings indicate that individual graduates benefit significantly from their education in terms of increased employability and wages over individuals who do not graduate, with the magnitude of the benefit depending in part upon

degree level attained. At age 50, deaf and hard-of-hearing bachelor's degree graduates earn on average \$6,021 more than those with sub-bachelor's degrees; who in turn earn \$3,996 more on average than those who withdraw; who earn close to \$4,329 more than those who are not admitted.

Increased earnings result in greater federal tax contributions.

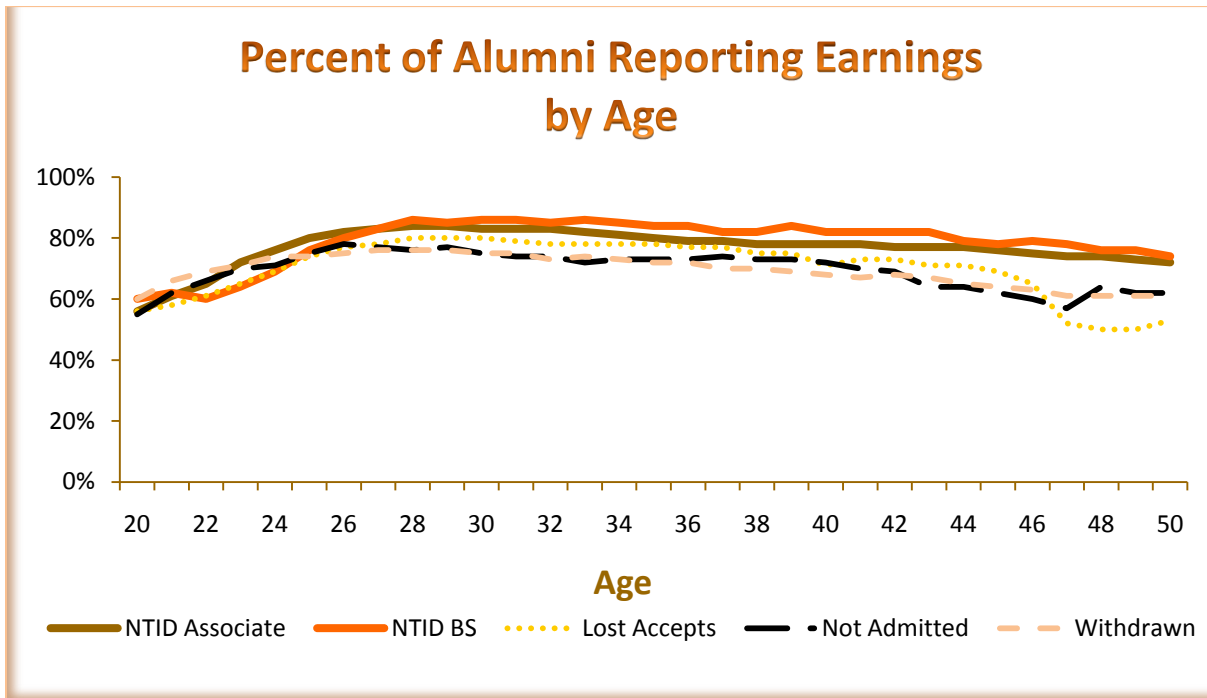


Note: From a 2007 collaborative research study conducted with the Social Security Administration and Cornell University. To accomplish this, NTID forwarded a data file with approximately 13,000 cases to the Social Security Administration. Six study groups were defined by the degree attainment variable: (1) Deaf and hard-of-hearing graduates who completed a bachelor's degree from RIT; (2) Hearing graduates who completed a bachelor's degree from RIT (not shown above); (3) Deaf and hard-of-hearing associate degree earners from NTID; (4) Deaf and hard-of-hearing individuals who attended NTID, but withdrew prior to receiving a degree; (5) Deaf and hard-of-hearing applicants who were accepted to NTID, but chose not to attend (Lost Accepts); and (6) Deaf and hard-of-hearing applicants to NTID who were denied admission.

## Ten-Year Labor Force Status and Earnings of Alumni (continued)

Recent research in collaboration with the Social Security Administration and Cornell University demonstrates the impact that an RIT/NTID education has in producing income for various categories of individuals. Baccalaureate graduates

show the highest percentage generating income at all ages, followed by associate graduates. Withdrawn students and those not admitted have the lowest percentages, respectively, that are generating earnings.

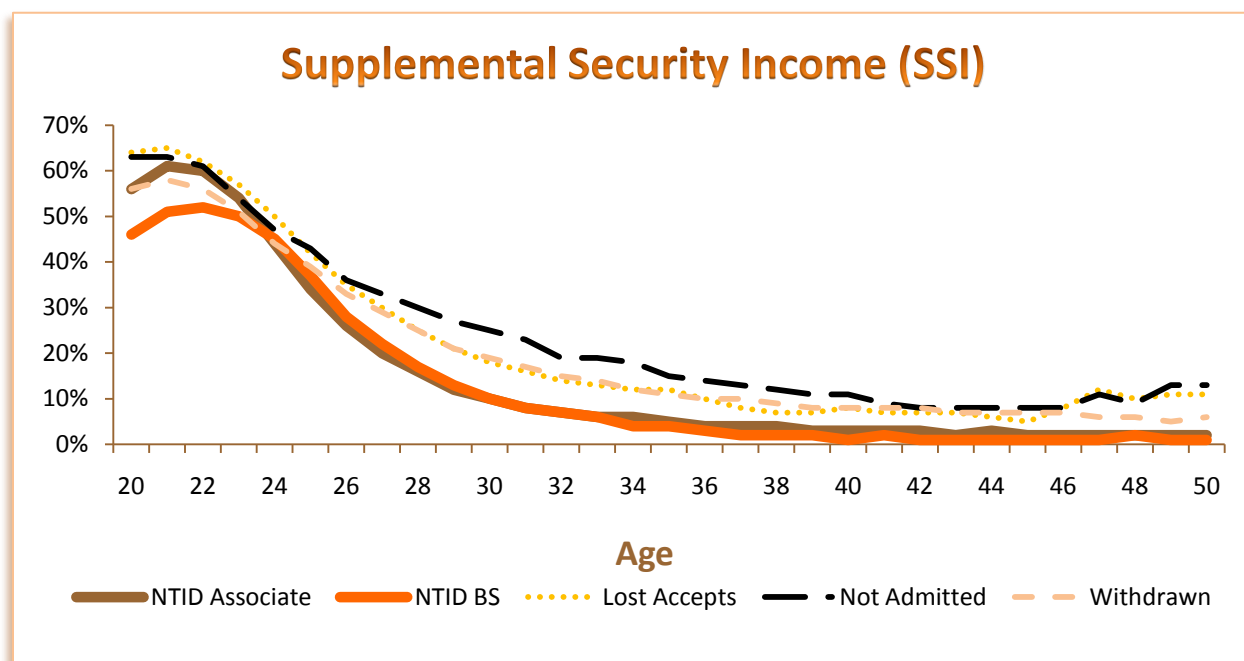


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## Effect of College Graduation on Reduction in SSI and SSDI Payments

Recent research in collaboration with the Social Security Administration and Cornell University shows the role that the completion of a college degree plays in reducing dependence on continuing federal support. These differences exist for both the Supplemental Security Income (SSI) program and the Social Security Disability Insurance (SSDI) program. Completing a degree from RIT/NTID reduces the probability that a deaf

or hard-of-hearing person will collect SSI or SSDI. By age 50, 1 percent of graduates collected SSI, while, on average, 19 percent of individuals who withdrew or have been rejected for admission continued to participate in the SSI program. This reduction is especially noteworthy when one considers that 77.6 percent of students were receiving SSI benefits at age 19.

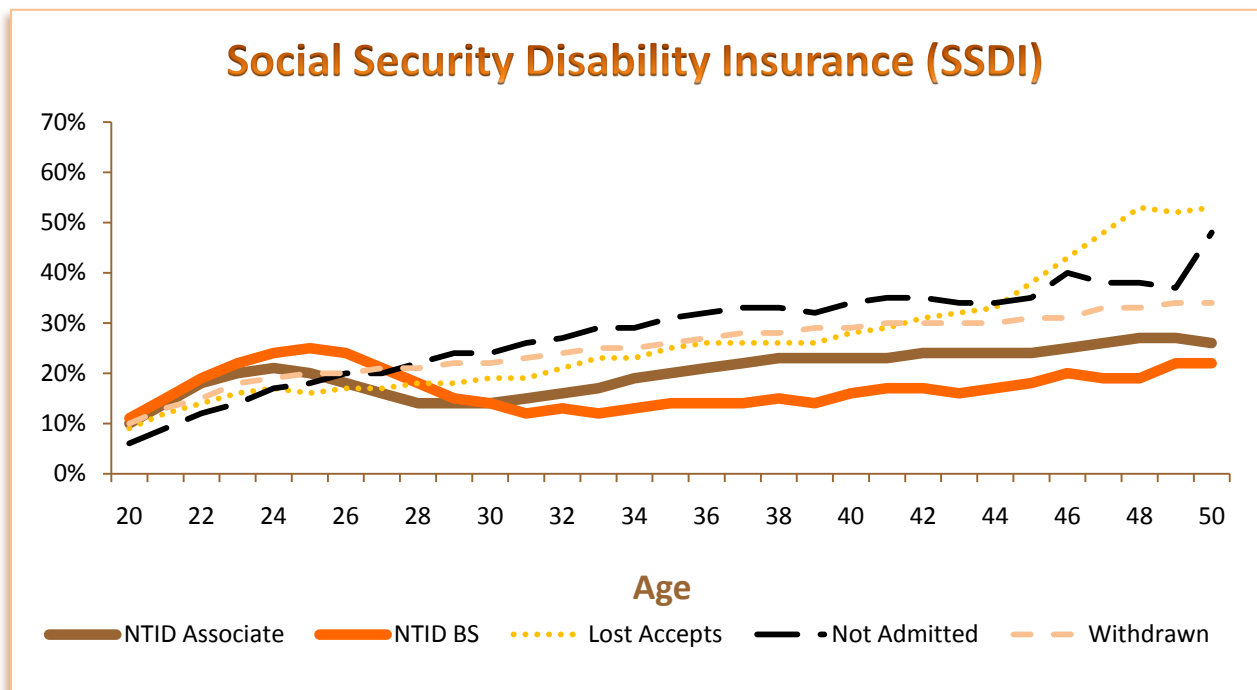


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## Effect of College Graduation on Reduction in SSI and SSDI Payments (continued)

While virtually no one participated in the SSDI program when they were students, by age 50 about 22 percent of graduates with a bachelor's and 26.8 percent of grads with a sub-bachelor's degree were receiving SSDI benefits. These rates compare favorably to 34 percent for non-graduates.



Note: From a 2007 collaborative research study conducted with the Social Security Administration and Cornell University. To accomplish this, NTID forwarded a data file with approximately 13,000 cases to the Social Security Administration. Six study groups were defined by the degree attainment variable: (1) Deaf and hard-of-hearing graduates who completed a bachelor's degree from RIT; (2) Hearing graduates who completed a bachelor's degree from RIT (not shown above); (3) Deaf and hard-of-hearing associate degree earners from NTID; (4) Deaf and hard-of-hearing individuals who attended NTID, but withdrew prior to receiving a degree; (5) Deaf and hard-of-hearing applicants who were accepted to NTID, but chose not to attend (Lost Accepts); and (6) Deaf and hard-of-hearing applicants to NTID who were denied admission.

## Diversity and Pluralism



**The Summer Vestibule Program is a 10-day experience that allows new students to explore careers, adjust to college and assess their competencies. For fall 2010, 119 new minority students enrolled, representing 34 percent of the incoming class.**

## Diversity and Pluralism Highlights

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### Students

Minority students who are deaf or hard-of-hearing are a greater proportion of NTID's potential student pool than in the past. Students who are deaf or hard-of-hearing and from minority backgrounds represent nearly 40 percent of all deaf and hard-of-hearing 18- to 21-year-olds in the United States, as compared to 29 percent in 1982. This demographic shift is reflected in the NTID student body as evidenced by the growth in the percentage of minority students in our total student enrollment: 29 percent this year, as compared with an average of approximately 8 percent in the years prior to 1988.

As of fall 2010, the number of U.S. deaf and hard-of-hearing minority students at NTID is at 359, one of the largest numbers in the past five years. FY 2010 highlights follow:

- Thirty-four percent of the fall entering class are from minority groups. The percentage in the total student body is 29 percent, which is more than triple what it was 17 years ago.
- Graduation rates for the current cohort groups were higher than last year for Hispanic students and lower for Asian students and Black or African-American students.
- First-year persistence rates for the current cohort groups were slightly below the rates reported last year for Hispanic, Asian and Black or African-American students; however, those rates have increased considerably over the last five years.

### Faculty and Staff

In addition to seeking faculty and staff members who are experts in their field and well versed in teaching techniques for deaf and hard-of-hearing students, NTID has undertaken recruitment and persistence strategies to attract and keep qualified minority, deaf and hard-of-hearing and disabled employees. NTID's commitment to nurturing a multicultural community and providing role models for its increasingly diverse student body is positively reflected in the demographic composition of its faculty and staff.

Of 52 employees from ethnic minority populations, 30 are Black or African-American, 10 are Hispanic and 12 are other minorities.

Of our employees with disabilities, 110 out of the 113 are deaf or hard-of-hearing.

Of the 165 employees who have disabilities or are members of a minority group, 145 are in executive, faculty or exempt positions. Note that some individuals count in more than one category.

NTID continues to exercise a strong Affirmative Action posture with respect to external recruitment of faculty and staff, which is reflected in the fact that 27 percent of all hires over the past year were either minority individuals or individuals who have a disability.

NTID's commitment to Affirmative Action and diversity has become an integral component of the institute's plan of work. Department heads and faculty and staff members are making concerted efforts to recruit, hire and retain individuals from these categories.

## Diversity and Pluralism Philosophy

We provide educational programs that prepare graduates to live and work in a changing global community and to enhance their lifelong learning. To succeed in the global workplace, students need to develop a solid understanding of the diversity of

the workplace and possess the knowledge, skills and attributes to thrive in such an environment. The composition of the student body and of the faculty and staff who encounter students needs to reflect that diversity.

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Diversity has become a focus in higher education and, more significantly, in society at large. Diversity adds richness to our educational endeavors, particularly as the college strives for pluralism. Pluralism fosters a society in which members of diverse ethnic, racial, religious and other social groups are able to participate and develop individual traditions within the context of a community. It fosters the contributions and unique assets of each group and of each individual within any group, to become distinguishing features of the larger community.

We prepare young people who are deaf or hard-of-hearing to be ready to enter a global community. With the continuing shifts in national and international demographics, fulfilling this commitment requires that students be prepared to enter a progressively more diverse society and workplace. Students need to develop the willingness, the knowledge and the skills to live and work in such an environment. This is critical if they are to gain the understanding necessary to participate actively in society and contribute in meaningful ways to their own success and that of the community in which they live.

In addition to preparing students to enter society and the workplace, our academic environment must respond to the needs of people who are both deaf or hard-of-hearing and from minority backgrounds. Our commitment to recognize, celebrate and value cultural diversity and individual differences is grounded in the continuing efforts of our country to forge a pluralistic society. It does not arise merely from political pressure or rest solely on public law; instead, it is based on a composite of our mission, on a changing student body and on the changing nature of the world.

We believe an educational institution has a responsibility not only to reflect society, but also to lead in promoting positive change within that society. We have taken to heart that the NTID community must vigorously pursue a course of action that capitalizes on its diversity and continues to promote and nurture pluralism as a central theme.

The significance of diversity is reflected in the statement below from RIT's president in regard to faculty and staff.

*The following guidelines have been established for managers:*

*To recruit, hire and promote for all positions without regard to race, color, national origin, sex, age, marital status, disability, sexual orientation, or status as a disabled veteran or veteran of the wars, including Vietnam.*

- To make placement decisions based solely upon an individual's qualifications for the position.*
- To administer fairly and equally all personnel actions such as compensation, benefits, transfer and sponsored program activities.*
- To provide reasonable accommodations whenever possible in an effort to advance employment for disabled individuals, including veterans.*

*I have a strong personal commitment to equal employment opportunity and expect the support of all faculty and staff in attaining the institute's objective of a balanced and diverse workforce.*

*William W. Destler  
President, RIT*

## Diversity and Pluralism Philosophy (continued)

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Finally, we provide a selected list of functions or activities below to reflect the importance of diversity and pluralism on the RIT campus.

- RIT has a Chief Diversity Officer, whose core mission is to advocate for and advance the concerns and needs of the human, cultural and ethnic diversity of the RIT community. Persistent diligence is given to the specific needs of the underrepresented minority populations on campus. The goal is to increase partnerships that foster greater community understanding and appreciation for one another.
- The President's Commission on Pluralism and Inclusion, established in 1991, is a university-wide committee comprising RIT faculty, staff, students and administrators who regularly consult with RIT's president on issues of diversity. The commission organizes both formal and informal programs and dialogues about the multifaceted aspects of diversity—from celebrating cultural richness to developing interpersonal skills to interact better within the global village.

*Pluralism at RIT celebrates individual differences, as members within the RIT community work together toward the common goal of creating a pluralistic and diverse community. It combines shared values that are incorporated into the vision and mission of the commission, resulting in an enriched RIT organizational culture. The commission promotes appreciation of diverse individuals in spite of differences in race, color, creed, religion, gender, age, national origin, marital status, sexual orientation, gender identity, gender expression, language use and physical ability. Respecting these differences results in a positive change and becomes a key factor for promoting pluralism at RIT.*

*William W. Destler  
President, RIT*

NTID has three representatives on this commission, who also participate on the Community Affairs Committee, Diversity Leadership Committee, and Program Development Committee.

- The newsletter *DIVERSITY PERSPECTIVES* is published quarterly by the Chief Diversity Officer, in conjunction with the RIT President's Commission on Pluralism and Inclusion.
- A Campus Week of Dialogue offers campus members an opportunity to acknowledge, better understand and offer resolution to the important challenges experienced by members of the RIT community. This event engages faculty, staff and students in dialogue that ultimately heightens their sense of awareness and comfort levels, enabling constructive dialogue while addressing difficult issues related to diversity.
- Diversity training is offered regularly through the RIT Center for Professional Development.

## Admissions Activity by Ethnicity

Thirty-eight percent (250) of this year's 923 deaf and hard-of-hearing undergraduate applicants were students from minority backgrounds. The fall 2010 entering class included 111 minority students, who represent 38 percent of the newly admitted students.

	FY 2011*	Percent
<b>Total Applicants</b>	923	
Non-Minority	413	62%
Minority	250	38%
Unknown	260	
<b>Acceptances</b>	505	
Non-Minority	248	61%
Minority	156	39%
Unknown	101	
<b>Registrations</b>	351	
Non-Minority	178	62%
Minority	111	38%
Unknown	62	

*Rosemary, a Hospitality and Service Management student from Sterling Heights, Mich., works a booth at NTID's Applefest with fellow RIT student, Diego.*



\* Figures do not include admissions activity in the ASL-English Interpretation program or the MSSE program. All percentages are of individuals for whom we have data.

## Ethnicity of Entering Students

The FY 2011 entering class included 119 minority students, who represent 34 percent of the entire incoming class.

	FY 2011*	Percent
<b>Deaf and Hard-of-Hearing Undergraduate and Graduate Students</b>		
American Indian or Alaska Native	0	0.0%
Asian	18	6.2%
Black or African-American	35	12.1%
Hispanic of Any Race	52	18.0%
Native Hawaiian or Other Pacific Islander	0	0.0%
White	169	58.5%
Two or More Races	6	2.1%
Non-Resident Alien (International)	9	3.1%
Unknown Race/Ethnicity	62	
Subtotal Minority Deaf and Hard-of-Hearing Undergraduate and Graduate Students	111	38.4%
<b>Subtotal Deaf and Hard-of-Hearing Undergraduate and Graduate Students</b>	<b>351</b>	
	<b>FY 2011</b>	<b>Percent Minority</b>
<b>Other Enrollments</b>		
ASL-English Interpretation	57	19.5%
Master of Science in Secondary Education	27	0.0%
Unknown Race/Ethnicity	24	
<b>Total Minority Enrollments</b>	<b>119</b>	
<b>Total Enrollments</b>	<b>435</b>	
<b>Overall Percent Minority</b>		<b>34.1%</b>

\* Beginning in AY 2010-11, the Department of Education requires that ethnic and racial information be reported in a new way. Due to this change in how ethnic and racial information is captured, historical references have been removed to avoid inaccurate comparisons.

## Ethnicity of Enrolled Students

Minority enrollment at NTID has increased steadily from 8 percent in FY 1988 to 29 percent in FY 2011, nearly four times what it was 23 years ago.

Until FY 2000 the number of international students was limited to 10 percent by a federally mandated cap. As a result of the reauthorization of the Education of the

Deaf Act in 1998, the cap on international students was increased to 15 percent. However, a significant decrease in support from Vocational Rehabilitation in Canada and limited resources of students from other countries have had a negative impact on international enrollment.

	FY 2011*	Percent
<b>Deaf and Hard-of-Hearing Undergraduate and Graduate Students</b>		
American Indian or Alaska Native	9	0.8%
Asian	87	7.6%
Black or African-American	126	11.0%
Hispanic of Any Race	131	11.4%
Native Hawaiian or Other Pacific Islander	0	0.0%
White	747	65.2%
Two or More Races	6	0.5%
Non-Resident Alien (International)	40	3.5%
Unknown Race/Ethnicity	157	
Subtotal Minority Deaf and Hard-of-Hearing Undergraduate and Graduate Students	359	31.3%
<b>Subtotal Deaf and Hard-of-Hearing Undergraduate and Graduate Students</b>	<b>1,303</b>	
	FY 2011	Percent Minority
<b>Other Enrollments</b>		
ASL-English Interpretation	147	13.7%
Master of Science in Secondary Education**	71	10.3%
Unknown Race/Ethnicity	36	
<b>Total Minority Enrollments</b>	<b>382</b>	
<b>Total Enrollments</b>	<b>1,521</b>	
<b>Overall Percent Minority</b>		<b>28.8%</b>

\* Beginning in AY 2010-11, the Department of Education requires that ethnic and racial information be reported in a new way. Due to this change in how ethnic and racial information is captured, historical references have been removed to avoid inaccurate comparisons.

\*\* Includes five non-matriculated students.



## First-Year Student Persistence and Graduation Rates by Diversity Categories\*

NTID enrolls students with diverse backgrounds. This diversity has increased significantly during the past decade with enrollment of increased numbers of ethnic minority and international students as summarized on the previous two pages of this report. However, there are noticeable differences among the various groups in terms of persistence and graduation rates.

### First-Year Persistence Rates for Entering Students\*\* Three-Year Moving Averages

Three-Year Entry Cohort	Black or African-American	Asian	Hispanic of Any Race	Non-Resident Alien (International)	Non-Minority
2002, 2003, 2004	59%	89%	65%	81%	70%
2003, 2004, 2005	68%	86%	68%	84%	75%
2004, 2005, 2006	78%	88%	77%	83%	75%
2005, 2006, 2007	86%	88%	72%	88%	78%
2006, 2007, 2008	85%	89%	76%	89%	78%
2007, 2008, 2009	83%	86%	74%	92%	78%

### Graduation Rates After Seven Years\*\* Three-Year Moving Averages

Three-Year Entry Cohort	Black or African-American	Asian	Hispanic of Any Race	Non-Resident Alien (International)	Non-Minority
1996, 1997, 1998	37%	71%	33%	63%	50%
1997, 1998, 1999	46%	74%	47%	65%	55%
1998, 1999, 2000	53%	76%	43%	60%	57%
1999, 2000, 2001	57%	67%	50%	66%	56%
2000, 2001, 2002	60%	66%	51%	73%	62%
2001, 2002, 2003	53%	60%	52%	76%	62%

\* Figures reported do not include students in the ASL-English Interpretation program or the Master of Science program in Secondary Education. Specific data for those two programs are included on separate pages for those programs.

\*\* Degree cohort analysis

## Graduates by College and Program Areas: Minority Status

This table shows minority student graduates in the academic program areas.

NTID	FY 2010 Number of Graduates				Percentage of Total Graduates
	Minority	Non- Minority	Unknown	Total	
Career-Focused and Transfer Associate Degrees	38	74	11	123	40%
ASL-English Interpretation	*	26	*	33	11%
Master of Science in Secondary Education	*	12	*	18	6%
<b>Other Colleges of RIT**</b>					
College of Applied Science and Technology	19	39	5	63	21%
College of Business	6	15	0	21	7%
College of Computing and Information Sciences	*	8	*	9	3%
College of Engineering	*	*	*	5	1%
College of Imaging Arts and Sciences	*	18	*	21	7%
College of Liberal Arts	*	6	*	8	3%
College of Science	*	*	*	5	1%
<b>Total***</b>	<b>76</b>	<b>206</b>	<b>24</b>	<b>306</b>	<b>100%</b>

\* Frequency counts small and not reported for confidentiality.

\*\* Includes bachelor's and master's degrees granted by the other colleges of RIT, as well as some sub-baccalaureate degrees.

\*\*\* Totals include small counts shown as asterisks (\*), which are not displayed because of confidentiality.

## Affirmative Action Report: Faculty and Staff

NTID continues to emphasize and encourage the hiring, promotion and persistence of women, minorities and individuals with disabilities. Appropriate representation in each category remains a priority for NTID, given the students

we serve and the ever-increasing ethnic diversity we are experiencing in the student body. In the chart below, individuals may appear in more than one category. Minority status was unknown for four faculty and staff members.

FY 2010							
	Total Employees	Female	Black or African-American	Hispanic of Any Race	Other Minority	Deaf and Hard-of-Hearing	Other Disability
<b>Faculty*</b>	203	100	12	**	9	62	0
Percent		49%	7%	**	4%	31%	0%
<b>Exempt Staff*</b>	130	72	9	**	**	32	1
Percent		55%	7%	**	**	25%	1%
Executive/ Administrative Manager*	51	18	**	**	**	15	0
Percent		35%	**	**	**	29%	0%
<b>Non-Exempt Staff</b>							
C-Print®	49	48	**	**	0	0	0
Percent		98%	**	**	0%	0%	0%
<b>Interpreter</b>	127	112	5	**	**	1	1
Percent		88%	4%	**	**	1%	1%
<b>Technical/     Clerical</b>	89	78	6	**	**	15	1
Percent		88%	7%	**	**	17%	1%
<b>Total</b>	<b>598</b>	<b>410</b>	<b>33</b>	<b>15</b>	<b>17</b>	<b>110</b>	<b>3</b>
Percent		<b>69%</b>	<b>17%</b>	<b>3%</b>	<b>3%</b>	<b>18%</b>	<b>1%</b>

\* Of the 51 executive/administrative managers, 20 are included on the faculty line and 31 are included on the exempt staff line. Therefore the numbers in the Executive/Administrative Manager row are not included in the column totals, since they are already included on the faculty or exempt staff lines.

\*\* Frequency counts small and not reported for confidentiality.

## Affirmative Action: Faculty and Staff Applicants

RIT/NTID tracks minority status and gender of applicants via voluntary self-identification. A summary of those data are provided below. RIT/NTID does not solicit, track or maintain disability status on its applicants. Individuals may be counted in more than one category.

### NTID Applicants for Posted Positions September 1, 2009 – August 31, 2010

	Number of Positions Posted	Total Applicants	Number of Applicants by Category					
			Female	Black or African-American	Hispanic of Any Race	Other Minority	Unknown	White Male
Faculty	19	157	64	14	2	22	9	65
Exempt Staff	38	275	140	23	3	26	25	93
Non-Exempt Staff*	26	609	506	61	18	28	35	64
<b>Total</b>	<b>83</b>	<b>1,041</b>	<b>710</b>	<b>98</b>	<b>23</b>	<b>76</b>	<b>69</b>	<b>222</b>

\* Includes technical, clerical, C-Print® captionists and interpreters.

## Affirmative Action: Faculty and Staff Hiring Results

During FY 2010, individuals from an ethnic minority totaled 8 percent of all new hires, disabled individuals totaled 19 percent and women, 73 percent. Individuals may appear in more than one Affirmative Action category. Eight new hires were individuals of unknown ethnicity.

### FY 2010

	Total New Employees	Female	Black or African-American	Hispanic of Any Race	Other Minority	Deaf and Hard-of-Hearing	Other Disability
Faculty	14	8 62%	* *	0 0%	* *	4 31%	0 0%
Exempt Staff	15	7 50%	* *	0 0%	* *	5 36%	0 0%
Executive/ Administrative Manager**	8	4 50%	* *	0 0%	* *	2 25%	0 0%
Non-Exempt Staff							
C-Print®	6	6 100%	* *	0 0%	* *	0 0%	0 0%
Interpreter	8	8 100%	* *	0 0%	* *	0 0%	0 0%
Technical/Clerical	16	9 82%	* *	0 0%	* *	1 10%	0 0%
<b>Total</b>	<b>59</b>	<b>38</b> 73%	<b>2</b> 4%	<b>0</b> 0%	<b>2</b> 4%	<b>10</b> 19%	<b>0</b> 0%

\* Frequency counts small and not reported for confidentiality.

\*\* These individuals are not included in the total of this column since they are all included on the faculty or exempt staff lines.

## Affirmative Action: Faculty and Staff Termination Results

During FY 2010, 11 percent of terminations were individuals from ethnic minorities and 72 percent were women. Eight terminations were individuals of unknown ethnicity. In the chart below, individuals may appear in more than one Affirmative Action category.

FY 2010							
	Total Terminated Employees	Female	Black or African-American	Hispanic of Any Race	Other Minority	Deaf and Hard-of-Hearing	Other Disability
Faculty	14	5	*	0	*	6	0
		36%	*	0%	*	43%	0%
Exempt Staff	13	8	*	0	*	3	0
		62%	*	0%	*	23%	0%
Non-Exempt Staff**	26	25	*	0	*	1	0
		96%	*	0%	*	4%	0%
<b>Total</b>	<b>53</b>	<b>38</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>10</b>	<b>0</b>
		72%	9%	0%	2%	19%	0%

\* Frequency counts small and not reported for confidentiality.

\*\* Includes technical, clerical, C-Print<sup>®</sup> captionists and interpreters.



## Innovation and Creativity



**The *Imagine RIT: Innovation and Creativity Festival* brought more than 32,000 visitors to campus. RideShare, created by NTID interpreter Ben Cavaletto, uses social networking and mapping tools to help students, faculty and staff locate each other and plan shared trips online.**



## Scholarship and Accomplishments

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### Faculty Scholarship

Tenured and tenure-track RIT/NTID faculty engage in scholarship as part of their plans of work. The product of scholarship is most obviously seen in terms of conference presentations, scholarly publications, artistic exhibitions and performances. In FY 2010, NTID faculty were principal investigators on a total of 18 grants, with \$4,294,833 awarded in FY 2010 to support areas that include discipline-based research, instructional development, STEM education, career development workshops, conferences, and new access technologies.

During the 2009-2010 academic year, faculty gave presentations at more than 25 professional conferences, including the following:

- the International Congress on Education of the Deaf (ICED), Vancouver;
- the International Conference of Education, Research, and Innovation, Madrid, Spain;
- the International Mental Health and Deafness Conference, Buenos Aires, Argentina;
- the Instructional Technology and Education of the Deaf International Symposium, Rochester, N.Y.;
- Deaf Studies Today, Utah Valley, Utah;
- New York City Deaf Theater Festival;
- Sunstone Symposium, Salt Lake, Utah;
- American Sign Language Teachers Association (ASLTA), Phoenix, Ariz.;
- the New York State Engineering Technology Association Conference, Corning, N.Y.;
- Teachers of English to Speakers of Other Languages (TESOL), Boston, Mass.;
- Southeastern Regional TESOL, Atlanta, Ga.;
- the First Year Experience Conference, Denver, Colo.;
- American Public Health Association, Philadelphia, Pa.;
- American Heart Association, Palm Harbor, Fla.;
- Association on Higher Education and Disability, Denver, Colo.;
- Public Health Education-Prevention Research Centers Conference, Atlanta, Ga.;
- the Inter-Science of Learning Center Conference, Boston, Mass.;
- the Computer Science Education Conference, Milwaukee, Wis.;
- the AHEAD and PEPNet joint conference, Denver, Colo.;
- the American Psychological Society Conference, Boston, Mass.;
- National Registry of Interpreters of the Deaf Conference, Philadelphia, Pa.;
- American Popular Culture Association, Albuquerque, N.M.;
- Conference on College Composition and Communication, San Francisco, Calif.;
- the American Society of Electrical Engineering, Rochester, N.Y.;
- North East Modern Language Association, Boston, Mass.;
- Society for Disability Studies, Philadelphia, Pa.;
- Conference of the Society for the Interdisciplinary Study of Social Images, Colorado Springs, Colo.;
- College English Association, San Antonio, Texas;
- Association of Mathematics Teachers (AMTRA), Rochester, N.Y.;
- MBAA International Conference, Chicago, Ill.;
- National Council of Teachers of Mathematics Eastern Regional Conference, Boston, Mass.;
- Materials Research Society, Boston, Mass.;
- American Chemical Society National Meeting, San Francisco, Calif.;
- Health Literacy Annual Research Conference, Washington D.C.; and
- the American School for the Deaf Outreach Conference, Hartford, Conn.

## Scholarship and Accomplishments (continued)

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Faculty also gave workshops at: PEN International, Rochester, N.Y.; Teaching With Technology Symposium, Ithaca College; University of Louisville; Max Factor, Los Angeles; Bank of New York Mellon Foundation, Pittsburgh; Connecticut Bureau of Rehabilitation Services; Genesee Valley Region Registry of Interpreters for the Deaf; Louisiana Department of Education; Educational Interpreter's Statewide Workshop, Wausau, Wis.; PaTTAN Training Center, Lancaster, Pa.; Finger Lakes Community College, N.Y.; Genesee Community College, N.Y.; University of Rochester; Bloomsburg University, Pa.; Prestonburg, Ky.; Richmond, Ky.; Reynolds Community College, Va.; Colorado School for the Deaf and Blind, Colo.; Canisius College, N.Y.; Alaska State School for the Deaf, Anchorage; Clarke School for the Deaf, Mass.; Asheville Wordfest; and University of Virginia.

In addition to presentations and workshops, faculty scholarship was also published in the form of book chapters and articles in journals such as: *American Annals of the Deaf*; *Language Learning*; *Applied Psycholinguistics*; *International Journal for the History of Mathematics Education*; *Proceedings of the National Academy of Sciences*; *Neuroimage*; *Deaf Studies Digital Journal*; *Dawn Sign Press*; *Oxford Handbook of Deaf Studies, Language, and Education*, Gallaudet University Press; *Journal of Deaf Studies and Deaf Education*; *Assessment Update*; *Reading in a Foreign Language*; *Language Learning*; *Educational Studies in Language and Literature*; *Volta Review*; *Journal of Media and Culture*; *South Atlantic Review*; and others.

Faculty exhibited work at the Arts & Cultural Center for Greater Rochester; Genesee County Council of the Arts, Migrant Center; Gallery r; Ramon Santiago/Gallery 821; Memorial Art Gallery; The Little Theater Gallery; The Arena Art Group; Sonnenberg Gardens in Canandaigua, N.Y.; and the Mansfield (Ohio) ArtCenter. Faculty developed art and made donations to charitable organizations including the AL Sigl Center, Rochester Breast Cancer Awareness, American Cancer Society, Wilmot Cancer Center, and Benches on Parade 2010. One faculty member co-published *The RIT Big Shot: A Commemorative Collection of Photographs*.

### Faculty/Student Scholarship

Increasingly, RIT/NTID faculty are collaborating with their students on scholarship projects. These projects may occur as part of courses required of students at every degree level, for example, at the associate degree level, the capstone course, and at the graduate level. Faculty-student research may be the product of faculty working with small groups of students or of individual student-based projects.

This year, representative capstone course projects included one related to Habitat for Humanity as well as various others in the area of sustainability. A representative selection of scholarly projects undertaken by MSSE students includes: *Behavior Management and Classroom Management*, *Teaching History with Online Reading Support*, *Itinerant Teachers: A Need for More Educational Training*, *The Bilingual Approach to Reading Comprehension*, *A Bridge to Deaf and Multicultural Art in the Art Curriculum*, *Teaching Mathematics to Deaf Students with Autism* and *Tips for Teachers: A Deaf/Hoh Student in Our Classroom*.

A number of undergraduate and graduate students conducted research in the Deaf Studies Laboratory, Department of Research and Teacher Education. This research in cognition and neuropsychology was funded by the National Science Foundation, the National Institutes of Health and the U.S. Department of Education. Eight students contributed to the development of assessment instruments for American Sign Language and studies of visual attention, reading and executive function development in individuals who are deaf or hard-of-hearing.

## **Innovation and Creativity at NTID**

Under the leadership of RIT President William W. Destler, the university is increasing its emphasis on innovation and creativity, both in the curriculum and in other activities across campus. The sampling

of projects below reflects the innovative and creative activities underway within the National Technical Institute for the Deaf.

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### **NTID/RIT Electric Bike Club**

NTID and RIT students work together to build light plug-in electric vehicles designed to incorporate battery, motor and controller innovations with zero point-of-use carbon emissions. Designs for a campus fleet of electric bicycles are being developed. Instrumentation for logging usage, efficiency, longevity and performance are included on the electric bicycles.

### **Laboratory Science Technology (LST) Undergrad Research: Climate Change DOC/phenol**

An alarming trend in drinking water treatment is increasing levels of dissolved organic carbon (DOC) and its phenolic content (DOC/phenol). Both are known precursors to the formation of disinfection byproducts, including the potentially carcinogenic trihalomethanes (THMs), upon chlorination drinking water treatment procedures. To this end, the qualitative and quantitative analysis of DOC/phenol in natural water is crucial to the development of mechanisms to assist in the improvement of accessibility to safe drinking water. This project utilizes fluorescence excitation-emission matrices (EEMs) with parallel factor analysis (PARAFAC) to monitor DOC and its phenolic group content for several different geographical water sources. EEM/PARAFAC techniques have been investigated as a screening tool for drinking water treatment, as well as a tool to characterize a water's DOC profile. This study will inherently begin an active data collection campaign to study rising trends in DOC/phenol levels in natural waters that might be a function of climate change.

### **LST Undergrad Research: Carcinogens in Cigarettes**

The analysis of smoke particulate matter was performed on three different kinds of cigarettes. Cigarette smoke was generated using a custom-made smoking machine. Samples were collected on filter pads and run through a detailed extraction procedure before being analyzed by gas chromatography-mass spectrometry (GC-MS). The analytes of interest are seven suspected carcinogens/polyaromatic hydrocarbons and nicotine. The major developments in this research were the optimization of the GC-MS instrumentation and extraction procedure involving solid phase extraction-based techniques. This work will help researchers understand the deposition of carcinogens in the lungs as the result of smoking.

### **LST Undergrad Research: Energy Transfer**

Understanding quenching mechanisms is crucial to the quantitative and qualitative utilization of fluorescence spectroscopy. In the presence of inner filtering and oxygen quenching, analysis of fluorescence data can be difficult without a proper understanding of these quenching mechanisms. This project involved algorithms for the compensation of inner filter effects and techniques to remediate oxygen quenching as well as the development of a novel fiber optic-based system that simultaneously collects steady-state fluorescence, absorbance and fluorescence lifetime measurements. This instrument aids in the characterization of these quenching mechanisms and moves toward a better understanding of proper protocols to the collection and analysis of fluorescence data.

### **Digital Language Lab for Interpreting Instruction**

The NTID American Sign Language and Interpreting Education Department uses a state-of-the-art digital laboratory for ASL/English interpreting instruction. There are three multimedia labs with 10 stations in each. Each student station is equipped with a computer, camera, headset and microphone, and dual monitors. Each lab is equipped with two digital control racks that connect to a 2TB server, two ceiling-mounted robotic video cameras, a microphone, speakers, a ceiling-mounted video projector, and a separate instructor's station with room controls.

## **Innovation and Creativity at NTID (continued)**

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Interpreting students use digital technology to record their interpreting between American Sign Language and spoken English. The labs allow them to review their work easily and improve their interpreting skills. When they are finished with an assignment, students can save their work to their own digital folder on the server, or they can save it to a USB drive. They also can drop their files into their instructor's digital folder for assessment. The faculty have use of a digital feedback system in their offices that can record faculty comments, which are then synched to the student's original file. The ability to digitally capture, store, and receive video and audio files on the network, enables students and faculty to assess interpreting work immediately. The system provides secure anytime, anywhere access to the files from any computer on the RIT/NTID network or from home.

### **Deaf Initiative in Technology**

Deaf Initiative in Technology (DiiT) offers workshops that provide computer, graphic communication and business-based training for deaf and hard-of-hearing adults. Faculty members from NTID's Information and Computing Studies, Arts and Imaging Studies, Engineering Studies, Business Studies and Liberal Studies Departments offered workshops on a wide range of topics during the 2009-2010 academic year. In addition to providing training for adults, the project supports professional development for faculty and curriculum development for NTID students. To date 675 deaf and hard-of-hearing individuals have attended 90 different DiiT workshops.

### **Cochlear Implant Support**

The number of students at RIT/NTID with cochlear implants has grown exponentially, from 29 students in 1999 to over 300 students in fall 2010. To accommodate the needs of these students, in 2008 NTID added two additional individual sound-dampened therapy rooms to the Cochlear Implant Center. The therapy rooms contain six new computer stations equipped with innovative aural educational software programs and telecommunications equipment that students use to improve their spoken English language recognition.

### **Distance Learning Advances**

Through a grant from The Sprint Foundation that was matched with internal funds, NTID has taken a major step in supporting distance learning for deaf and hard-of-hearing remote learners—those students who are not on campus. A classroom in NTID's Learning Center was converted to The Sprint Relay Experimental Distance Learning/Access Demonstration Lab in summer 2007. The lab is being used as a beta testing site for adapting and evaluating alternative instructional and access technologies in support of remote learners who are deaf or hard-of-hearing. It also provides a forum for information exchange among RIT/NTID faculty, students, instructional designers, technologists, researchers and access service providers. Projects have included the delivery of a joint Web Design course involving students at NTID and in Mumbai, India; joint credit-bearing course, Deaf Theatre History, involving students at NTID and at Gallaudet University; video-capturing of a math course, Integrated Algebra; and in-class exercises for archiving and subsequent anytime, anywhere access by students outside of a classroom.

The lab features desktop computers, wireless laptops, videoconferencing systems and a 3M Ideaboard—a wall-mounted, computer-based display, featuring network capabilities, supporting real-time interactions among remote and onsite learners. This distance-learning tool allows deaf and hard-of-hearing students from anywhere around the world to be part of one classroom.

The innovative adaptation of current and emerging technology promises significant contributions in expanding conventional notions of where, how and with whom learning can happen.

### **Engaging the Millennial Student**

Today's students are technologically savvy because technology has always been a part of their lives—whether it's surfing the Internet, instant messaging, texting or video gaming. Because students are heavily influenced by interactive technology, NTID instructors are finding new ways to integrate it into the

## **Innovation and Creativity at NTID (continued)**

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classroom using a Student Response System (SRS) known as “clickers,” a small wireless unit much like a television remote control with a keypad of letters and numbers. Clickers allow students to respond in class by using the hand-held device that sends their information to a receiver attached to the instructor’s computer. The computer records and displays student responses in real time. These wireless devices transform lectures into interactive learning experiences. Because the SRS gives the students a sense of anonymity, it can make them more eager to respond and promotes active participation and learning. Instructors see the use of clickers generating enthusiasm that leads to greater student engagement and improved learning.

### **Enhancing the Notetaking Support Process: Utilizing Graphic Notes and New Technologies**

In the past 40 years, notetaking has become an integral part of the support provided to deaf and hard-of-hearing students. RIT/NTID faculty and students have been experimenting with innovative enhancements to the traditional notetaking process that show promise for increasing the learning value of notetaking to deaf and hard of hearing students, as well as other students with special needs.

Their experimentation includes alternative enriched notetaking graphics and collaborative support technologies that could lead to greater learner independence. Specific techniques include graphic support technologies (e.g., hand drawn, digital pens, and tablets), new speech-to-text and text-to-speech technologies, digital graphic options (e.g., clipart), and digital camera and cell phone options.

### **Innovative Teacher Education**

A Microteaching course was developed by faculty members in NTID’s Master of Science program in Secondary Education of Students who are Deaf or Hard-of-Hearing (MSSE), in cooperation with the NTID Performing Arts program, and with NTID’s Educational Design Resources Department and the NTID Learning Center providing technical support. The performing arts program provides four or five deaf actors who act out high school student behaviors in mock classroom settings. Two cameras capture both the MSSE teacher-candidate and the actors, and split screen videos are uploaded to the Web, so the teacher-candidates can study and critique their own efforts.

The actors model behavior that the teacher-candidates likely will face in a high school classroom setting: everything from dealing with medical issues, addressing students being unprepared for class or not understanding the class materials, handling students arguing or falling asleep in class, to boundary issues such as a student asking a teacher-candidate to the prom. The course helps teacher-candidates learn how to manage situations before they face them in the teaching world.

Another collaboration with the performing arts program involves the use of a “time machine” to bring back several characters from deaf education history to speak to the teacher-candidates about their lives and work, and implications for teaching deaf and hard-of-hearing students today. Teacher-candidates are able to spend time with the likes of Anne Sullivan Macy or Edward Miner Gallaudet and ask them about their experiences and perspectives.

The need to provide teacher-candidates the opportunity to observe best practices of current teachers in the field resulted in the creation of “VETFLIX”—an online library of videos featuring veteran teachers in their classrooms. The teacher-candidates also are required to observe veteran teachers in live classroom situations and videoconferences are scheduled between these seasoned professionals and teacher-candidates to allow the free flow of ideas and strategies.

### **Speech-to-Text Services**

C-Print® is a real-time captioning system developed at NTID with support from external and internal funding. It’s an access service for students who benefit from a real-time display of English text more than from sign language interpreting. C-Print currently is used by hundreds of postsecondary and secondary programs across the nation that offer services to deaf students and also is used extensively within RIT to

## **Innovation and Creativity at NTID (continued)**

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provide almost 19,000 hours of classroom service per academic year. The system allows captionists to transcribe to text what teachers and students say in class. Research continues, currently focusing on the use of tablet PCs to allow the integration of graphical information along with the text and the use of mobile devices to transmit captioning over a cellular network in non-traditional learning environments (i.e., Smartphones).

### **Online Access Services Request System**

NTID has created a unique online Service Request and Assignment System for providing streamlined access to sign language interpreting and real-time captioning services for students and other requesters. NTID operates the largest sign language interpreting and speech-to-text service organization in the world, including 127 sign language interpreters and 49 real-time captionists. In addition, technology is available that provides unique access services for vision-impaired students.

### **Postsecondary Education Network-International (PEN-International)**

Created in 2001 through grants funded by The Nippon Foundation of Japan, PEN-International is a multinational partnership of colleges and universities worldwide. Its goal is to improve and expand postsecondary education for deaf and hard-of-hearing students around the world by sharing educational technology and conducting faculty development and training, particularly in developing countries.

### **Center for Education Research Partnerships**

The Center for Education Research Partnerships works in research partnerships concerning development and learning among deaf and hard-of-hearing students across the lifespan and in various educational settings. Primary activities include the promotion of collaboration (both nationally and internationally), hosting workshops and building bridges from research to practice—all intended to optimize educational opportunities and success for students who are deaf or hard-of-hearing. This year saw two books published on educating deaf students and two more were accepted for publication (all by Oxford University Press). There are currently collaborations with over a dozen universities and organizations in five countries. In addition, CERP members edit two book series and the leading international journal in deaf education (according to impact factors and subscriptions).

### **Center on Access Technology**

The Center on Access Technology investigates, evaluates and reports on the most effective use of access technologies to accelerate the widespread implementation of best practices within deaf education at the postsecondary level. The center's four areas of focus include: classroom access technologies, mobile technologies, audio and sound technologies of interest to hard-of-hearing persons, and training and evaluation services.

### **CAT Innovation Lab**

The NTID Center on Access Technology Innovation Laboratory (CAT Lab), a first-of-its-kind initiative, provides a place for students to get involved in the innovation process. The CAT Lab is located on the first floor of NTID's Lyndon B. Johnson Hall, bringing together faculty and associate degree-level deaf and hard-of-hearing students to collaborate on multidisciplinary projects related to developing and adapting access and instructional technologies, health care technologies and services, and more (<http://www.rit.edu/ntid/cat/catlab>).

### **An Investigation of Cisco Technologies and Access Solutions**

The Silicon Valley Community Foundation, following the recommendation of the Cisco Accessibility Team, granted CAT a \$100,000 award to consider the application and adaptation of the ways in which Cisco products can benefit communication access for deaf and hard-of-hearing individuals. The three research strands will examine and provide recommendations related to 911-411-211 telephone response systems;

## Innovation and Creativity at NTID (continued)

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evaluate possible use of avatars to enhance direct communication support for deaf and hard-of-hearing users; and evaluate Cisco TelePresence technologies for classroom and remote communication for deaf and hard-of-hearing users.

### Technology Symposium

NTID co-hosted, with The Nippon Foundation of Japan and PEN-International, its sixth international symposium, *Technology and Deaf Education: Exploring Instructional and Access Technologies*, in June 2010 (<http://www.rit.edu/ntid/vp/techsym/>). The primary goal of the symposium was to provide a forum for educators supporting deaf and hard-of-hearing students to disseminate information relative to current and future innovations and developments in the use of educational media and technology within the teaching and learning process. The symposium consisted of two plenary addresses, 64 formal concurrent presentations, 28 poster sessions, and 11 commercial exhibits. The program was designed to cover a wide range of topics addressing current issues and solutions in both educational and access technologies at both the Pre-K-12 and postsecondary levels. Presentation topics included, among others:

- *Visual Stories of Deafhood*
- *Using Distance Learning Tools to Connect Students, Parents, and Staff*
- *Enhancing the Notetaking Support Process: Utilizing Graphic Notes and New Technologies*
- *Using the NCES Data Analysis System (DAS) to Answer Questions Posed by Constituents*
- *Second Life® as a Learning Tool*
- *Structured Online Academic Reading (SOAR): Enhancing Reading Comprehension and Learning Through Embedded Definitions, Pictures, Videos and Questions*
- *In Our Hands: The Future of Translation of Frozen Texts to Sign Language*
- *English Splash! A Teaching English Online Resource*

A total of 289 teachers, administrators, technologists and researchers representing 17 countries attended. This symposium, the largest to date, marked the 10<sup>th</sup> anniversary of PEN-International. Sixty of PEN-International's network partners, representing all 18 partner and affiliate institutions, participated in the conference by presenting 18 concurrent sessions and four poster sessions.

### Innovation Forum

In April 2010, NTID held its first Innovation Forum, with more than 450 students, faculty, staff, and community members in attendance. The full-day event was intended to generate innovative ideas for implementing *Strategic Decisions 2020* and encouraging thinking about ways to address some of the challenges ahead for the institute. Presentations were given on computer-generated poetry; the Deaf Culture Centre, the first quadra-lingual museum; nanoscience and nanotechnology; closed-captioned video accessible tours; captioning for mobile learning situations; and more.

NTID Associate Professor of Cultural and Creative Studies Thomas Warfield, seen here, gave a presentation on *Performing Arts – Partnerships in Innovation and Creativity*. The forum helped inspire 92 proposals to the NTID Innovation Fund for possible implementation. Collectively, the proposals are a result of collaborations between 347 faculty and staff and 262 students.



## Innovation and Creativity at NTID (continued)

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### Showcasing Deaf Artists

A team of NTID faculty and staff developed a website that showcases and promotes the works of deaf and hard-of-hearing artists ([www.rit.edu/deafartists](http://www.rit.edu/deafartists)). The site features art and biographical information on more than 100 professional deaf artists from around the world as well as streaming videos and articles related to deaf artists and deaf art. Also included on the site are the self portraits of a group of RIT/NTID students, along with video and/or written descriptions.

### Preserving Deaf History

The experiences of deaf people during World War II are captured in a website developed by a team of NTID faculty and staff ([www.rit.edu/deafww2](http://www.rit.edu/deafww2)). Designed for students, teachers, scholars, researchers and historians, the site features articles, scripts, video clips, testimonies, artwork, books and links to related sites. Also included is an award-winning NTID documentary, *Exodus: A Deaf Jewish Family Escapes the Holocaust* and a new documentary, *Worry: A Jewish Deaf-Blind Survivor Shares Her Story*.



## Imagine RIT: Innovation and Creativity Festival

Innovation and creativity found full expression on the RIT campus in May 2010, when the university held its third-annual *Imagine RIT: Innovation and Creativity Festival*. The event showcased RIT's unique blend of technology and the arts.

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More than 32,000 people came to campus for *Imagine RIT*, which featured more than 300 exhibits highlighting the work of students, faculty and staff, who proudly displayed examples of green technology, new ideas for products and services, creative arts and crafts and groundbreaking research—all demonstrating the innovative thinking and creative spirit and energy that are uniquely RIT and that have shaped RIT President William W. Destler's vision of RIT as the nation's first "innovation university." Other examples of NTID participation follow.

- Festival goers learned about NTID Laboratory Science Technology students' research related to the carcinogens in cigarettes and improving accessibility to safe drinking water.
- Visitors enjoyed a demonstration of distance-learning and access technologies that allow remote participants to interact using video, audio and texting communication supported by captions and sign-language interpreters.
- The NTID Electric Bike Club demonstrated its fleet of electric bicycles designed to incorporate battery, motor and controller innovations with zero point-of-use carbon emissions.
- A C-Print® software exhibit showcased applications for smartphones and tablet PCs, which provide captions that deaf and hard-of-hearing students use to understand communication in classrooms and other settings.
- Festival attendees had the opportunity to learn about American Sign Language and Deaf culture and received tips for communicating with deaf people.
- Visitors saw a PDA/telephone notification system that works with a cell phone or pager to transmit electronic signals to a bed shaker or lamp to awaken a deaf person.
- NTID provided sign language interpreting support for the festival to ensure that the event was accessible to deaf and hard-of-hearing attendees.



*NTID Performing Arts has a formal connection with RIT's School of Film and Animation that provides a theater track within their BFA program. Seen here are NTID students participating in a performance at Imagine RIT.*



## Intellectual Property: Licensed Products, Patents and Inventions

NTID products are categorized into two groups. Those products developed before the October 1997 RIT Intellectual Property Policy was implemented are unlicensed products. Those products developed after RIT implemented the policy are licensed products, and the sales revenue is shared by the creator(s) of the products and NTID per the requirements of the policy.

All materials are copyrighted to Rochester Institute of Technology and are available through a variety of vendors. Below is a summary of the products in both categories and distribution information.

We have no patents and none are in process. There are no invention disclosures at this time.

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### Unlicensed Products

- *Cumulative Trauma Disorder* (manual and training materials)  
Distributed through NTID Marketing Communications
- *From Dream to Reality* (NTID's history book)  
Distributed through NTID Marketing Communications
- *Technical Signs* (videos and manuals)  
Distributed through ADCO Hearing Products, Butte Publications, Harris Communications and NTID Marketing Communications
- *Let's Communicate* (brochure)  
Distributed through NTID Marketing Communications
- *Tips for Communicating* (brochure)  
Distributed through NTID Marketing Communications
- *Project Access Workshop Planner's Guide*  
Distributed through NTID Marketing Communications

### Licensed Products

- *Attention Deficit Scales for Adults - Sign Language Version*  
Distributed through NTID Marketing Communications
- *ASL at Work*  
Distributed by Dawn Sign Press
- *ASL Dictionary and Inflection Guide* (CD)  
Distributed through Harris Communications, HearMore, Captioned Media Program, various college bookstores and NTID Marketing Communications
- *ASL Dictionary and Inflection Guide* (online subscription)  
Order online at [www.ntid.rit.edu/dig](http://www.ntid.rit.edu/dig)
- C-Print<sup>®</sup> Pro Software and C-Print<sup>®</sup> online training  
Distributed through NTID College Operations
- *Educational Interpreting* (DVDs and companion booklet)  
Distributed through Harris Communications, Butte Publications and NTID Marketing Communications
- *Interpreter Discourse* (CDs)  
Distributed through Barnes & Noble @ RIT, Dawn Sign Press and NTID Marketing Communications

## Intellectual Property (continued)

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- *NTID Speechreading* (DVD and supplementary materials)  
Distributed through AUDITEC
- *Processing Skills* (CDs)  
Distributed through Barnes & Noble @ RIT and NTID Marketing Communications
- *Processing Skills Development* (ASL texts)  
Distributed through Barnes & Noble @ RIT and NTID Marketing Communications
- *The Heart of the Hydrogen Jukebox* (DVD)  
Distributed through NTID Marketing Communications

## Research



**E. William Clymer, NTID associate professor and interim director of the Center on Access Technology, is seen here presenting at the international symposium *Technology and Deaf Education: Exploring Instructional and Access Technologies*, held at NTID in June 2010.**

## Research Overview

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### NTID Research Agenda

NTID determines topics for research on the basis of a research agenda and priorities derived from a variety of sources in the college and in the field, including the NTID National Advisory Group and the Department of Education. NTID researchers conduct ongoing programmatic research, as well as special institutional research projects reflecting institute priorities and performance indicators from the Department of Education. As a result of the new priorities laid out in *Strategic Decisions 2020*, programmatic research projects will fall into four categories:

1. Teaching and Learning
2. Communication
3. Technology, Access, and Support Services
4. Employment and Adaptability to Social Changes and the Global Workplace

As required by the Education of the Deaf Act (2008), NTID regularly solicits public input on the institute's research priorities through its research websites and publications. The total number of page views for the research units for the year was 32,166. The research publications that solicited input were *NTID Research Bulletin*, *NTID Papers and Publications*, and *Implications of NTID Research*.

### NTID Research Units

- The Department of Research and Teacher Education ([www.ntid.rit.edu/research](http://www.ntid.rit.edu/research)) has as its mission the improvement of the lives of deaf and hard-of-hearing people through research that can be applied in the classroom, workplace and society. We recognize that collaboration across departments, institutions and disciplines is key to fulfilling this mission, and we welcome the opportunity to work with others in the discovery of new knowledge and its application to practice.

In FY 2010, 18 research articles and books were published; 53 external presentations and workshops were given; and nine grant proposals were submitted. Internally, five reports and 20 presentations were prepared and offered.

- The Center on Access Technology (CAT) addresses the challenge of utilizing, developing and/or adapting new technologies for use by people who are deaf or hard-of-hearing to improve access to personal communication within educational environments, social settings and the workplace ([www.rit.edu/ntid/cat](http://www.rit.edu/ntid/cat)). CAT was established in March 2006 to address the challenges of utilizing or adapting new technologies for use in postsecondary education. CAT is charged to investigate, evaluate and report on the most effective use of access technologies and to train individuals to accelerate the implementation of best practices within postsecondary deaf education. The center's main strands of research include cyber-infrastructure and provision of remote services, classroom access technologies, mobile and personal communication technologies, training and evaluation services, and audio technologies of particular interest to hard-of-hearing persons.
- The Center for Education Research Partnerships (CERP) is charged with establishing and joining research partnerships concerning development and learning among deaf and hard-of-hearing students across the lifespan and in various educational settings ([www.rit.edu/ntid/ceerp/home](http://www.rit.edu/ntid/ceerp/home)). Primary activities include promotion of related collaboration among individuals, educational institutions and organizations, both nationally and internationally. These and other activities focus on bridging research and practice to optimize educational opportunities and success for students who are deaf or hard-of-hearing. This notion of serving as a "collaborator" and an "incubator" for new ideas lies at the heart of the center.

This year, CERP grew by more than 50 percent, from six to 10 people. The addition of an associate director at the end of the year is intended particularly to enhance outreach, external contracts and dissemination.

## Research Overview (continued)

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CERP was established to contribute to the education of deaf and hard-of-hearing students of all ages through the sharing of findings and expertise with others. The success of this initiative is evidenced in CERP members making 19 invited presentations this academic year (18 for external organizations). Beyond this sharing of knowledge, these efforts bring greater visibility to NTID/CERP and RIT, thus creating additional opportunities for both collaborations and funding. This year, CERP has had to turn down more such opportunities than it could accept. CERP responded to over 300 requests for information and/or assistance. Over this past academic year, CERP members have published (or have in press) seven peer-reviewed journal articles and seven chapters. Two books were published (one written, one edited), two are in press (one written, one edited), and another is under contract.

The center was awarded more than \$1 million in grants from the National Science Foundation (two grants) and the National Institute for Child Health and Human Development (one grant, with the University of Aberdeen) to support CERP research activities. In addition, a grant from the Nuffield Foundation and the United Kingdom is supporting another CERP project in collaboration with the University of Edinburgh. Three federal grant proposals are pending.

- Throughout higher education, institutional research is conducted to support institutional planning, policy information, decision-making and outcomes reporting. At NTID, institutional research involves preparing periodic reports for institutional units, state and federal agencies, accrediting bodies and other external groups, including monitoring and analyzing reporting requirements, and auditing/verifying data. Assistance also is provided to institutional users in analyzing data with regard to program trends and effectiveness, and personnel-related issues.

*Students gather in the Joseph F. and Helen C. Dyer Arts Center to discuss the ideas and research presented at NTID's Innovation Forum.*



## Examples of Research Activities

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### 1. Teaching and Learning

Expansion of Information Source for Educators and Parents of Deaf Children. Last year, with a grant from the Daisy Marquis Jones Foundation, CERP created the Raising and Educating a Deaf Child website ([www.ntid.rit.edu/educatingdeafchildren](http://www.ntid.rit.edu/educatingdeafchildren) also available at [www.educatingdeafchildren.org](http://www.educatingdeafchildren.org), .com, .net and .info domains). Utilizing center expertise and collaborating with colleagues around the world, the site responds to questions with research-based information and references. This year, with a grant from the Sorenson Foundation and support from Oxford University Press, the site was expanded to be able to field video questions (i.e., asked and answered in sign language). A proposal is pending at a private foundation to add additional capabilities to the site. Over the past year, the site has averaged more than 3,000 hits per month.

CERP Research Findings. A center for education research partnerships obviously has, at its heart, research. Easily the most important accomplishments this year are our new and exciting findings concerning the cognitive foundations of learning by deaf and hard-of-hearing students and ways of potentially “leveling the playing field” for them in educational settings. Our results have implications for K-12 programming as well as college-level settings; indeed, they pertain to life-long learning by deaf, hard-of-hearing, and hearing students of all ages. As noted on our website, CERP dissemination efforts (invited presentations and publications) and ongoing research seek nothing less than “simply to change the world through better understanding and improving the education of deaf students.”

Decoding Strategies Used by Deaf and Hard-of-Hearing College Readers: A Miscue Analysis Part 4. To date, investigations of reading by deaf and hard-of-hearing students have focused mainly on strategies related to comprehension. However, at its most fundamental level, reading depends on being able to accurately decode the words on the page. Our hypothesis is that this ability may not have been fully mastered by some deaf readers at the college level and represents an aspect of the reading process that has not been studied in this group. After analyzing the miscues of 10 college-age readers and the results of other comprehension-related tasks, we concluded that comprehension of basic grade school-level passages depended on the ability to recognize and comprehend key words and phrases in these texts. We also concluded that these diagnostic procedures provided useful information about the reading abilities and strategies of each reader that had implications for designing more effective interventions. The report of this study is in press with the *Journal of Deaf Studies and Deaf Education*.

Deaf College Students' Knowledge of English Verbs and Associated Argument Realizations and Event Structures. A grant proposal was developed and submitted to the National Science Foundation focusing on deaf college students' knowledge of English verbs and their associated argument realizations and event structures. Lexical knowledge of a verb, the core of a sentence's proposition, entails knowledge of the verb's argument patterns (subject, objects, and prepositional phrases), the semantic roles associated with its arguments (e.g., agent, instrument, theme), and the types of linguistic events (activities, accomplishments, achievements) in which the verb can participate. The research will examine deaf students' knowledge of subtle properties of sentences containing different kinds of English verbs relative to the knowledge of their hearing English-speaking peers. Hypotheses are formulated in the context of established linguistic theories of lexical knowledge and widely recognized lexical constructs. Hypotheses will be tested in specially constructed sentence acceptability tasks. The focus on deaf college students is motivated by the educational challenges that deaf learners typically face as a result of acquiring English under conditions of severely restricted access to spoken language input. Discovering the details of such knowledge might define domain-specific English knowledge that has been undetectable by gross measures such as reading level assessment and that could contribute to better understanding the variables associated with deaf students' persistence and success.

## Examples of Research Activities (continued)

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Continuation of Survive and Thrive Project: A Study of a Sample of the 2007, 2008, and 2009 Cohorts of Entering NTID Students. This study identified factors that influence persistence, academic success, and attrition for entering NTID students. Initiated in 2007, this study examined personal factors of deaf and hard-of-hearing (D/HH) students relative to college performance. Two nonverbal visual reasoning assessments and two personal inventories were administered. These assessed personal factors such as intellectual interests, academic motivation, dropout proneness, coping, anxiety, attitudes, confidence, study habits, time management, and sociability. Three cohorts of entering D/HH students at NTID/RIT have participated ( $n = 132$  in 2007;  $n = 167$  in 2008,  $n = 248$  in 2009) for a total of 547. Students' personal factors were then statistically analyzed with their quarterly and cumulative academic GPA and program status until either attrition or graduation. Also, at the end of their first-year experience, a follow-up survey assessed the students' self-perception of their academic performance and their support strategies used. Findings show that a number of personal factors were significantly associated with students' academic GPA, most notably attitude and interest in academic topics, preparation for class and tests, time management skills, study habits, attitude toward teachers, and desire to finish college. In addition, nonverbal reasoning and visual analytical skills were significantly associated with mathematics placement and students' entering mathematics, science, and reading test scores. The results of this research have been presented at national and international conferences and several manuscripts are currently in process.

Development of Norms for the ADSA-SLV. We recently published *The Attention Deficit Scales for Adults—Sign Language Version (ADSA-SLV)*, which is the first sign language-based test to assess ADHD in deaf and hard-of-hearing adults. At present there are no norms for the performance of deaf and hard-of-hearing adults on this test. One purpose of this project is to develop an appropriate normative database for deaf and hard-of-hearing adults and to compare it to the original ADSA database available for the hearing population. The second purpose of this project is to determine whether the modified English sentences in the ADSA-SLV are comparable to English sentences in the original ADSA paper-and-pencil test by comparing the performance of hearing college students on these two tests. Students at NTID and RIT between the ages of 18 and 25 with corrected vision and no other visual problems were selected to participate in this project. In addition, the hearing students met the criteria of having normal hearing, English as their first language, and no knowledge of sign language; the deaf students met the criterion of having at least an 80-dB loss in the better ear. The participants were given a background questionnaire, a screening test for neurological integrity (the SDMT), the ADSA-SLV, and a cognitive skills test to control for IQ (the KBITS). Data collection from hearing students has been completed and is in progress for the deaf and hard-of-hearing students as planned.

Deaf Readers' Neural Networks: Impact of Communication Mode. This project includes two neuroimaging projects that are exploring the impact of different educational and language experiences on (a) the processing of written English and (b) single sign recognition. These projects are externally funded. We collected more neuroimaging data this year and will continue to collect data over the summer and in the beginning of the next year. Preliminary results suggest that there are some similar and some different routes used by deaf young adults who were raised orally, those using sign (not ASL), and native ASL signers. Behavioral data suggest that long-term memory skills account for more of deaf readers' reading process than the other attributes measured, including phonological awareness. Phonological awareness accounts for most of the variance of hearing readers' skills compared to the other cognitive functions measured (including long-term memory skills). Analysis of the results of the single sign recognition study are still in progress.

## 2. Communication

Effect of Sign Task on Speech Timing in Simultaneous Communication by Inexperienced Signers. Previous research with experienced signers has indicated that the complexity of the signing task during simultaneous communication has a moderate effect on some of the temporal aspects of speech. Thus, as the sign task becomes more complex in simultaneous communication, temporal modifications of speech occur that can affect the overall intelligibility of speech that accompanies



## Examples of Research Activities (continued)

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simultaneous communication. No data are available which address the issue of sign complexity during simultaneous communication produced by inexperienced signers. Such data would provide information regarding the speech model being presented to hearing-impaired children by individuals who are not experienced signers, such as peers, siblings and parents. The measurement of acoustic data on all subjects was completed.

Comparing Deaf and L2 English Learners' Knowledge of Numeral Quantifiers Phase 2. A multi-picture sentence interpretation task was employed to assess college-level deaf students' and hearing second-language (L2) learners' interpretations of English sentences containing a numeral quantifier and an indefinite noun phrase. Such sentences, which are prevalent in the discourse of STEM education, are generally ambiguous between a "collective" interpretation and a "distributive" interpretation and therefore pose a challenge to learners' comprehension of academic text. It was predicted that, unlike hearing native English speakers, both deaf students and hearing L2 English learners' sentence interpretations would be influenced by the relative degree of complexity inherent in the derivations of superficially similar sentence types. This prediction was supported. Both the deaf students' and L2 learners' sentence interpretations were influenced by derivational complexity, resulting in parallel performance by these two types of English learner. The participant groups differed, however, in the extent to which discourse-pragmatic factors affect sentence interpretation. The deaf students with relatively lower overall English proficiency were more affected than deaf students with higher English proficiency in the extent to which pragmatic factors adversely affected sentence interpretation. The results provide insight into the English language and literacy challenges facing deaf students at the college level.

Intelligibility of Simultaneous Communication in Blocked Hands/Face Conditions. The aim of this project is to better understand Simultaneous Communication (SC), the use of speech and sign produced at the same time. Because there are two streams of information from the sender, study of SC can yield valuable information on the linguistic processing of visual language input, about which little is known despite the widespread use of SC when deaf and hearing people come together. The objective of this study was to measure the intelligibility of an SC message when view of the torso (and most signing) is blocked versus when view of the face (and the spoken message) is blocked. The data collection phase of this project was completed with the testing of 24 new subjects whose data were added to the 32 who were tested previously. Although the original objective was to test only congenitally or prelingually deaf students whose first language was either American Sign Language or English, a significant portion of the students who volunteered were born and educated outside of the United States, learned English during elementary or high school, and were relatively new to ASL. Because these students may represent a unique complex of needs, their data were retained and another grouping variable was added to the analysis design, namely, age at introduction to English. Stimulus and response files for our specially constructed set of speech-critical and sign-critical sentences were converted and formatted for analysis. Initial results indicate that the pattern of results from this year's participants replicates that of last year's participants. It remains to be seen, however, how the new grouping variable will influence conclusions in the next phase of data analysis.

Acoustic and Perceptual Characteristics of Vowels Produced During Simultaneous Communication by Inexperienced Signers. Speech produced during simultaneous communication is altered in temporal and suprasegmental characteristics when compared to speech produced alone. There are no data regarding the perception of speech produced during simultaneous communication by inexperienced signers. Such information would be useful because it would indicate whether the changes in speech that occur during simultaneous communication have a positive or negative impact on the perception of speech. The purpose of this study is to examine the acoustical and perceptual features of all vowels produced in standard American English during experimental conditions of (a) speech alone and (b) speech combined with simultaneous communication by inexperienced signers. This year, measurement of data was completed and statistical analysis was initiated.

## Examples of Research Activities (continued)

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Investigation of Poor and Proficient Readers in Different Countries. This international research program is investigating the cognitive processes deaf students use when reading. We will also be looking at the effects of different orthographies (English, German, Hebrew, Arabic, and Turkish) on the reading process in deaf students, hearing students with phonological dyslexia, and hearing students without any reading disability. Data collection in Israel, Germany, Turkey, and the United States was begun and is near completion. Preliminary results suggest that deaf readers generally do not rely on the phonological route for reading; instead, they appear to be using the orthographical route. Further data analyses will be conducted during the next academic year.

### 3. Technology, Access, and Support Services

An Investigation of Cisco Technologies and Access Solutions. The Silicon Valley Community Foundation, following the recommendation of the Cisco Accessibility Team, granted CAT a \$100,000 award to consider the application and adaptation of the ways in which Cisco products can benefit communication access for deaf and hard-of-hearing individuals. The three research strands will examine and provide recommendations related to 911-411-211 telephone response systems; evaluate possible use of avatars to enhance direct communication support for deaf and hard-of-hearing users; and evaluate Cisco TelePresence technologies for classroom and remote communication for deaf and hard-of-hearing users.

CAT Innovation Lab. The NTID CAT Innovation Laboratory (CAT Lab) is a first-of-its-kind initiative, providing a place for students to get involved in the innovation process. The CAT Lab brings together faculty and associate degree-level deaf and hard-of-hearing students to collaborate on multidisciplinary projects related to developing and adapting access and instructional technologies, health care technologies and services and more. For example, faculty and students collaborated on the development of a wake-up alarm system for PDAs that would alert people who are deaf and hard-of-hearing.

Testing the Concept of a Virtual Alliance for Deaf and Hard-of-Hearing STEM Students at the Postsecondary Level. This project is funded by the National Science Foundation and began in September 2009. It is a planning grant to investigate the creation of a virtual support network for mainstreamed deaf/hard-of-hearing college students around the country enrolled in science, technology, engineering, and mathematics (STEM) programs. The virtual support network could consist of interpreting, captioning, mentoring, tutoring and social networking services.

Development of a Consortium for Advanced Collaborative Technologies. The major goals of this project were to develop an educational platform called ClassGrid, utilizing the capacity of Internet2, and to establish a framework called the University Consortium for Advanced Collaborative Technologies (UCACT) to facilitate its implementation. The project team organized for this proposal had multidisciplinary expertise and was based at geographically separated universities, Rochester Institute of Technology and the University of Washington Tacoma. About 80 undergraduate students were projected to take four courses in geospatial technology and data mining skills, which were planned to be fully accessible to deaf and hard-of-hearing students, and to students who have English as their second language. We designed the consortium structure and activities. A grant proposal was developed and submitted in January to the National Science Foundation: *ClassGrid: Multi-University Use of Advanced Collaboration Technologies*. Pilot research on this project is continuing.

Feasibility of Achieving Normal Loudness Growth for Listeners with Severe or Profound Hearing Loss: Report. Whereas audibility and loudness are the relevant parameters assessed in the verification stage of hearing aid fitting, comfort and benefit are assessed at the validation stage; yet the latter is heavily dependent on the former, especially for listeners with severe or profound hearing loss. The purpose of this study was to document the patterns of growth of loudness obtained with best-fit hearing aids and the relationship between goodness of loudness growth functions and satisfaction with hearing aids in cases of severe or profound hearing loss. Preliminary analysis of the data from 23 listeners indicates general satisfaction with hearing aid performance despite a wide

## Examples of Research Activities (continued)

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variety of loudness growth patterns for a range of narrow-band speech and tonal signals. Additional hearing aid and user variables are being studied to explain connections between hearing aid characteristics and loudness perception.

Supporting Deaf and Hard-of-Hearing Undergraduate Students in STEM Field Settings with Remote Speech-to-Text Services: Year 3. Results from a survey of student users of the Remote Speech-to-Text technology found that student-rated comprehension improved as the technology improved. In the first two trials with the technology, the average rated comprehension was 40-50 percent. In trials 3-9, with improved technology, the average rated comprehension was 80-90 percent. Student interview comments indicated that students felt they had more flexibility in regard to what they could do and observe on field trips because the text display on their hand-held device provided a reliable display of what the tour speaker was saying. That is, students did not need to be concerned with being at the front of the tour to understand the speaker or interpreter.

Dissemination of Project Access: Partnerships Internal and External to RIT. NTID's Project Access is designed to help educators incorporate basic strategies to foster better learning for mainstreamed deaf and hard-of-hearing students. The focus of Team Access this year has been on dissemination of Project Access resources and materials, including the *Project Access Workshop Planner's Guide* and the Class Act website ([www.rit.edu/classact](http://www.rit.edu/classact)). The core team of nine collaborators made nine presentations to campus groups, including new faculty and teaching assistants, current tenure track and adjunct faculty, and professional staff. Two presentations were given to groups external to NTID, including members of the PEPNet South team and members of the PEPNet Board. Team Access also gave a presentation at the 2010 International Congress on the Education of the Deaf.

Examination of Course Completion and Communication Ease in Online Learning Courses. The research team on online learning at RIT examined three sets of variables and their interplay in online and face-to-face (F2F) classes at RIT. We implemented a questionnaire to measure student perceptions of classroom communication, and we used a second quantitative measure to divide RIT online courses into quartiles based on the actual number of postings. Finally, we looked at how the perceptions and quantitative measures of communication related to academic achievement for deaf, hard-of-hearing, and hearing students in RIT classes. Courses were matched; that is, only F2F courses were included that had the same course number for online sections of the same course. Our findings were that deaf students in RIT College of Liberal Arts courses had significantly lower GPAs in F2F classes, but no difference was found in the online courses. Thus deaf and hard-of-hearing students performed as well as their hearing peers when the course content was presented online.

#### 4. Employment and Adaptability to Social Changes and the Global Workplace

SSA Research with Cornell University. NTID is a collaborative partner with Cornell University and the federal Social Security Administration in a program of research to assess the effect of postsecondary education on the economic status of persons who are deaf/hard-of-hearing. Through a data-sharing agreement, NTID has been able to research such things as dependency on federal disability programs, workforce participation, and lifetime earnings across various levels of education. Conclusions drawn from these studies have significantly highlighted the benefits that an NTID education has on our deaf/hard-of-hearing students, and have provided program feedback for NTID.

## Examples of Research Activities (continued)

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### 5. Other

National Center for Deaf Health Research. The University of Rochester's National Center for Deaf Health Research (NCDHR) is a national center for research on health care and health promotion in the deaf community. It was first funded by a \$3.5 million grant from the Centers for Disease Control for five years starting in September 2004, with participation of the National Technical Institute for the Deaf through a subcontract. As of September 2009, the NCDHR is now supported by a five-year renewal grant from the CDC. The NTID co-principal investigator on the NCDHR team contributed to this past year's research agenda and coordinated the activities of RIT and outside consultants for development of new sign language survey materials for the Deaf Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. These activities required the formation of a translation committee that developed signed English translations of CAHPS material and the coordination of studio filming of the CAHPS material. Ongoing analysis of NCDHR's College Health Survey and the Deaf Community Survey was carried out through collaborative consultation with NCDHR members on statistical and experimental design issues. Research findings were presented at two national and international conferences.



## Outreach



**Steps to Success is a career exploration mini-camp for African-American, Latin American, and Native American students in grades 7–9 and their families. Students participate in hands-on activities that are designed to help them identify possible career paths.**

## Outreach Highlights

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NTID's educational outreach efforts include a number of innovative programs designed to share educational information and provide technical assistance to alumni, other deaf and hard-of-hearing adults, teachers of deaf and hard-of-hearing students, employers, Vocational Rehabilitation personnel, secondary and middle school students and parents of deaf and hard-of-hearing children. FY 2010 outreach program highlights include pre-college, college, post-college and other outreach activities.

### Pre-College Outreach Programs

- NTID's *Strategic Vision 2010* called for an increase in outreach efforts aimed at deaf and hard-of-hearing middle school and high school students. The purpose was to provide educational experiences for these students that would enable them to envision a place for themselves in a college environment after their high school graduation. A special focus of this effort was young women and African-American, Latino-American and Native-American (AALANA) students. During FY 2010, NTID faculty and staff conducted eight outreach programs: the SpiRIT Writing Contest for students in grades 10–11; the RIT National Science Fair for students in grades 6–11; Explore Your Future, a summer program for students in grades 10–11; TechGirlz, a summer camp for girls in grades 7–9; Steps to Success, a weekend camp for AALANA students in grades 7–9; a math competition for middle school students using problems from MATHCOUNTS®; the Digital Arts, Film and Animation Competition for students in grades 9–12; and FutureQuest, a transition conference for high school students in grades 9-12 and their parents.

- Explore Your Future (EYF), a week-long career exploration and evaluation program for deaf and hard-of-hearing students about to enter their junior or senior year of high school, is one of NTID's most successful outreach programs. EYF provides opportunities for high school students to learn about themselves and their educational and life/career choices, and is based on the idea that people have differing interests in six areas: Realistic, Investigative, Artistic, Social, Enterprising and Conventional (RIASEC). Students participate in hands-on career exploration classes and personal awareness instruction. A myriad of social activities and dorm-living opportunities give the students a taste of college life. More than 4,900 students have participated in EYF over the past 26 years. In summer 2010, 217 students participated in the program.



### College Outreach Programs

- The Postsecondary Education Programs Network-Northeast Region (PEPNet-Northeast) is one of four regional centers supported by contracts with the U.S. Department of Education Office of Special Education Programs to provide technical assistance, training and resources that enable employers, and secondary and postsecondary educational institutions to work effectively and successfully with individuals who are deaf or hard-of-hearing, including those with co-occurring disabilities. The project received funding for a five-year cycle commencing in October 2006. Outreach activities provided by the project include: technical assistance and dissemination; linking state, regional and national educators, service providers and individuals in a cooperative network; personnel development activities that create and promote training opportunities for education and rehabilitation professionals on transition and secondary and postsecondary educational services; and demonstrating innovative technology utilization that provides access to and accommodations within programs for individuals who are deaf or hard-of-hearing.



## Outreach Highlights (continued)

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In its fourth year of operation (FY 2010), PEPNet-Northeast and the three other regional centers collaborated with the Association of Higher Education and Disability (AHEAD) to co-convene the 33<sup>rd</sup> annual AHEAD international conference and the PEPNet seventh biennial conference. This first-time event, which took place in Denver, Colo., in summer 2010, provided one seamlessly integrated place and time for attendees from across the disability and education communities to come together for an unparalleled professional conference.

During this reporting period, PEPNet-Northeast produced three live, national webcasts: *Online Accessible Technology* (produced in collaboration with PEPNet-South and the University of Tennessee at Knoxville); *RKit: An Online Resource for Teachers, Parents, and Service Providers* (an introduction and orientation to the resources currently available on the national PEPNet website), and *Impact on Access: Individuals with COCHLEAR IMPLANTS in Educational And Employment Settings* (a moderated panel of professionals and consumers). Each webcast is archived on the national PEPNet website ([www.pepnet.org](http://www.pepnet.org)). Project staff also have completed the first phase of the initiative to translate into Spanish the more than 35 PEPNet topical briefs or Tipsheets that provide information on a variety of topics relevant to education, accommodations and the provision of support services to deaf and hard-of-hearing students.

Additionally, PEPNet-Northeast initiated two new pre-GED distance courses for deaf and hard-of-hearing students in rural settings. Each course was offered through cooperative agreements with LaGuardia Community College; the Hiram G. Andrews Center, Johnstown, Pa.; and Northern Essex Community College, Haverhill, Mass. A significant milestone was achieved when for the first-time a two-and-a-half-day series of training and awareness programs was implemented for service providers, parents and staff of the Department of Education in the United States Virgin Islands. The training series took place on the islands of St. Thomas and St. Croix and involved more than 60 participants that also included rehabilitation professionals, disability and advocacy organizations and teachers. The training team included two PEPNet-Northeast staff members, a staff member from the NTID Student Life Team and a member of the NTID National Advisory Group. PEPNet-Northeast continues to provide opportunities for training and professional development for regional stakeholders that involve local, regional and national events. For example, training grants were provided for 15 stakeholders to attend the AHEAD-PEPNet Co-Convened Conference (including Continuing Education Credits). Additionally, 22 regional stakeholders received grants to participate in the 2010 Technology and Deaf Education Symposium held at NTID in June, and four training grants were provided for continuing education training, which was offered by DeKalb Technical College, Clarkston, Ga., for practicing C-Print<sup>®</sup> captionists to learn new C-Print technologies.

Expanded partnerships and collaboration with key regional stakeholders continue to be a priority for PEPNet-Northeast. Examples of stakeholders with which project staff have worked this year include, but are not limited to: Northeastern University National and Regional Interpreter Education Centers, NTID FutureQuest Program, New York State Educational Support Service Personnel, New England Technical Assistance Continuing Education Center, Pennsylvania Community of Practice on Transition, City University of New York Consortium, New York City Board of Education, Pennsylvania Center for Independent Living, and the New Jersey Department of Health Pediatric Early Hearing Detection and Intervention Program. On a national level, some examples of collaborations include: U.S. Department of Education Rehabilitation Services National Conference of VR Personnel Serving Deaf, Hard-of-Hearing, and Deaf-Blind Consumers; the Assistive Technology Industry Association; National Assistive Technology Technical Assistance Partnership; Parent Advocacy Coalition for Education Rights; National Association of State Directors of Special Education; and National Secondary Transition Technical Assistance Center.

PEPNet-Northeast, working closely with the three other regional PEPNet centers, has implemented a synergistic model of service delivery that significantly enhances the capability of project staff to meet stakeholder needs relevant to high quality, useful training and products, and innovative accessible technology.



## Outreach Highlights (continued)

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- NTID's Project Access is designed to help educators incorporate basic strategies to foster better learning for mainstreamed deaf and hard-of-hearing students. NTID faculty have led workshops for teachers and other professionals from across the country and have established a resource website for educators called Class Act (<http://www.rit.edu/classact>). The site includes ready-to-use classroom handouts, information on universal design for education, and videotaped faculty and student input. The site is organized into teaching, communication, support services, and environment categories. Instructors may use the site for strategies and tips to address the challenges they face and ultimately foster better learning for deaf, hard-of-hearing, and hearing students. Of particular interest are three online interactive instructional modules: *Working with Interpreters*, *Pace of Instruction*, and *First Day of Class*. In addition to orientation for new faculty and graduate teaching assistants, we are actively sharing information about Project Access with adjuncts and other faculty groups through the RIT Faculty Learning Communities and New Faculty Orientation. In FY 2010, there were approximately 5,000 visits to the Class Act website.

### Post-College Outreach Programs

- The Deaf Initiative in Information Technology (DIIT) project was established with two continuing grants from the National Science Foundation. During the six years of NSF funding (2000-2006), DIIT focused on the area of information technology. Since the end of NSF funding in 2006, NTID has supported the project, expanding the DIIT model to other disciplines and changing the name of the project to Deaf Initiative in Technology (DiiT). Faculty members from the Information and Computing Studies, Arts and Imaging Studies, Engineering Studies, Business Studies and Liberal Studies Departments offered workshops on a wider range of topics during the 2009-2010 academic year. Outside funding also has been acquired to support the annual offerings of DiiT workshops in the Greater Los Angeles and Pittsburgh areas. During AY 2009-2010, the DiiT project offered eight workshops to 64 deaf and hard-of-hearing participants. These included:
  - Four workshops offered on the RIT/NTID campus.
  - One workshop offered in the greater Los Angeles area, supported by the Max Factor Family Foundation.
  - One workshop offered in Pittsburgh, supported by the Bank of New York Mellon Foundation.

This brings the 10-year total for the DiiT project to 92 separate workshops offered to 710 deaf and hard-of-hearing attendees.

- NTID makes available on a national basis 61 sign language videotapes and two CD-ROMs in 26 technical/specialized content areas for technical communication. These videotapes and CDs are available from the NTID Marketing Communications Department. The videotapes also are available from the Described and Captioned Media Program. In addition, NTID-produced sign language books for technical communication are available through ADCO in Colorado, Butte Publications in Oregon, Harris Communications in Minnesota and the Barnes & Noble @ RIT bookstore.

### Other Outreach Activities

- In 2009-2010, NTID's Center on Employment (NCE) served a total of 521 employer representatives through 29 training sessions and outreach workshops such as *Working Together: Deaf and Hearing People*. NCE successfully completed Pittsburgh and Chicago trips, which included 10 employer orientations and two alumni workshops. NCE completed the fifth and final year of the Max Factor grant, during which a total of 126 employer representatives from Southern California attended eight different events to promote the hiring of deaf and hard-of-hearing RIT/NTID students and NCE services.
- Sign Language Proficiency Interview (SLPI) Workshops and follow-up provide training for school personnel and others to implement and conduct sign language communication skills assessment and development services for personnel and others who work with or who are preparing to work with deaf

## Outreach Highlights (continued)

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and hard-of-hearing individuals. Project efforts include support for development of sign language program policy and procedure documents and annual reports to guide implementing SLPI use within the context of sign language communication skills assessment/development programs.

During FY 2010, SLPI training and services included a four-hour SLPI refresher training via videoconference for the Alaska School for the Deaf and new SLPI team-member training for:

- Kentucky School for the Deaf, Danville, Ky.,
- Colorado School for the Deaf and Blind, Colorado Springs, Colo.,
- Northern Virginia Community College, Sterling, Va.,
- J. Sargeant Reynolds Community College, Richmond, Va., and
- Massachusetts Commission for the Deaf and Hard of Hearing, Boston, Mass.

The SLPI website provides responses to frequently asked questions about the SLPI, guidelines for establishing an SLPI Team, model documents for implementing and monitoring SLPI use, SLPI workshop training materials, and information from NTID's Office of Communication Assessment and Services (OCAS), which coordinates provision of SLPI services at the college.

- C-Print<sup>®</sup> software, developed at NTID, is used by captionists to produce text of spoken content. C-Print is an access service option for deaf and hard-of-hearing students in educational environments. Inquiries about C-Print come via e-mail, phone calls and website visits. From October 2009 through September 2010, there were approximately 2000 e-mail dialogues and 800 phone call discussions with the C-Print Development and Training Office. The C-Print main website received 22,380 visits from October 2009 to September 2010. NTID conducts online C-Print captionist training as a distance-education program designed to give individuals the core preparation necessary to provide speech-to-text services, primarily in a classroom setting. Orders for online training totaled 194 from October 2009 through September 2010.
- NTID Performing Arts celebrated its 35<sup>th</sup> season in AY 2009-2010 by presenting three mainstage and three laboratory productions that involved more than 490 deaf, hard-of-hearing and hearing students, faculty/staff and members of the Rochester community as actors, dancers, theater technicians and front-of-house staff (box office and ushers). These performances were attended by 4,514 people from throughout New York State as well as schools and community groups from neighboring states and Canada. On-campus performances included *Vignettes of the Deaf Character*, *Equus*, *Little Women*, *Sleeping Beauty*, *An Evening of One Act Plays* and *The Bungler*. Additional performances included *The Visit* by members of The RIT Players, a one-woman show performed by alum Rosa Lee, a performance by renown Deaf actress Michelle Banks, and a special performance by the Sen-Hibiki Taiko Drummers. Back again, RIT alumnus and well-known Deaf playwright, Willy Conley, the author of *Vignettes of the Deaf Character*, came to campus to view the NTID production of his work and to provide workshops for students on theater and playwriting.

During AY 2009-2010, 581 students registered for and attended Performing Arts classes, an increase of 86 students from the previous year. Ten students were awarded performing arts scholarships and six students were awarded performing arts certificates. In total, approximately 5,595 people were served by NTID Performing Arts activities during the 2009-2010 production season.

- The Office of the RIT Provost sponsors an annual Provost Summer Intensive American Sign Language and Deaf Culture Experience for selected RIT faculty/staff. The aim of the program is to enhance interactions among deaf and hearing members of the RIT community. Up to 15 RIT faculty/staff, who are not employed within NTID and who represent the various academic and non-academic areas of RIT, are selected each year to participate in this intensive three-week program during the month of June. The focus of the program is to develop basic American Sign Language skills, an introduction to Deaf culture and an introduction to the dynamics of deaf and hearing interactions. The program has enjoyed continuing success and growth in registration since its inception years ago, and is a valued and coveted offering among RIT and NTID faculty and staff.

## Explore Your Future

Explore Your Future (EYF) is a week-long career exploration and evaluation program conducted at NTID each summer for deaf and hard-of-hearing students about to enter their junior or senior year of high school. It is one of the institute's most successful outreach programs. The program provides high school students with the opportunity to learn about themselves and their educational and life/career choices. It incorporates the framework that people have differing interests in six areas: Realistic, Investigative, Artistic, Social,

Enterprising and Conventional (RIASEC). Students participate in hands-on career exploration classes and personal awareness instruction. Myriad social activities and dorm-living opportunities give the students a taste of college life. A total of 4,973 students have participated in EYF over the past 26 years. Sixty-one percent of the summer 2009 participants subsequently enrolled at NTID. Two sessions were offered in summer 2010. This year's participants came from 29 states and one foreign country.

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Number of Participants	183	253	235	196	217
Percentage of Minorities	20%	15%	29%	30%	33%*
Percentage Enrolling at NTID	44%	59%	62%	61%	N/A**

\* Eighteen percent of students enrolled in EYF 2010 did not indicate their ethnicity on the registration form.

\*\* Students from EYF 2010 currently are in the process of applying to NTID.

## Explore Your Future – Enrollment by Location

Summer 2010 EYF students represented 29 states and one foreign country.

Home State or Country	Number in EYF Summer 2010
Alabama	1
Alaska	0
Arizona	0
Arkansas	0
California	20
Colorado	0
Connecticut	4
Delaware	1
Florida	7
Georgia	3
Hawaii	0
Idaho	0
Illinois	21
Indiana	2
Iowa	0
Kansas	2
Kentucky	2
Louisiana	0
Maine	2
Maryland	17
Massachusetts	18
Michigan	9
Minnesota	4
Mississippi	0
Missouri	12
Montana	1
Nebraska	2
Nevada	0
New Hampshire	0
New Jersey	11
New Mexico	1
New York	38
North Carolina	1
North Dakota	0
Ohio	5
Oklahoma	0
Oregon	1
Pennsylvania	15
Rhode Island	0
South Carolina	0
South Dakota	0
Tennessee	0

## Explore Your Future – Enrollment by Location (continued)

Home State or Country	Number in EYF Summer 2010
Texas	4
Utah	0
Vermont	1
Virginia	4
Washington	0
West Virginia	0
Wisconsin	7
Wyoming	0
Other (Hong Kong)	1
<b>Total</b>	<b>217</b>



*EYF students take a break at the RIT Student Alumni Union.*

## **Employer Outreach**

NTID initiates and delivers consultation, training, follow-up and other support services to employers. Through these services, employers become aware of the needs of deaf and hard-of-hearing people for employment and, in partnership with NTID, facilitate

graduates entering the workforce and continuing their career development. A total of 521 employer representatives received training through the NTID Center on Employment (NCE) in AY 2009-2010.

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### **Employer Training and Educational Programs**

Conducted, delivered and presented 29 programs for 521 human resources professionals, service providers and company representatives.

#### **NTID Job Fair**

The ninth annual NTID Job Fair was held in October 2009 with 33 employers attending and more than 300 students, alumni and members of the deaf community participating. During this fair, six employers participated on a panel attended by student job seekers, with each explaining the job search process from his/her company's perspective and answering questions from student attendees.

#### **Co-op Visitation Program**

Twenty-three NTID faculty and staff visited 63 students on cooperative education assignments and their supervisors in 14 states and Washington, D.C.

#### **Outreach to Employers, Alumni and Other Deaf and Hard-of-Hearing Adults**

- Accommodated 18 employers in recruitment visits and 13 on-campus orientations; there were 34 resume packages requested.
- Consulted with 130 alumni and other deaf and hard-of-hearing adults seeking job search assistance.
- Successfully completed Pittsburgh and Chicago trips, which included 10 employer orientations and two alumni workshops.
- Completed the fifth and final year of the Max Factor grant-supported California workshops. A total of 126 participants attended eight different events.
- Brought 11 students from various majors and degree levels plus five faculty/staff to visit IBM in Hawthorne and Yorktown Heights, N.Y. to learn about employment opportunities and the work environment.

#### **NCE Marketing Highlights**

- Redesigned and revised NCE brochure and co-op flyer for employers.
- Collected employer testimonial quotes and pictures for use on NCE website and publications.
- Identified success stories for NCE website and media.
- Created "Top 10 Reasons to Participate in Job Fair" to target baccalaureate students.
- Continued periodic e-newsletters to employers.

## Deaf Initiative in Technology

The Deaf Initiative in Technology (DiiT) project was established with two continuing grants from the National Science Foundation (NSF) Advanced Technological Education (ATE). They funded the

project from July 2000 through September 2006 with a total of \$1,213,024. The project has now moved into an expanded phase and is funded by NTID.

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The DiiT project is a unique educational model that:

- Addresses the continuing education needs of deaf and hard-of-hearing professionals across the country currently working in or preparing to enter various technical fields;
- Addresses the professional development needs of the faculty in a variety of NTID departments; and
- Enhances the curriculum for the associate degree programs at NTID.

The primary goals of this national project have been to:

1. Develop and offer curriculum and educational materials to “upskill” deaf and hard-of-hearing professionals currently in the workforce or preparing to enter the workforce.
  2. Enhance the skill set and knowledge of the NTID faculty.
  3. Develop and offer cutting-edge curriculum and materials in courses for associate degree deaf and hard-of-hearing students at NTID.
- During the six years of the NSF funding, the DiiT project offered 58 workshops to a total of 409 deaf and hard-of-hearing participants. Attendees have come from 26 different states, with the majority from large corporations and government agencies. Others were unemployed and hoping to gain skills helpful for their job search.
  - The model used for the DiiT project (faculty leaves of absence for training followed by the presentation of a workshop), has successfully contributed to the professional development of many faculty at NTID. As a direct result of the DiiT project, six faculty members received a total of 12 professional certifications.
  - Another goal of the project is to integrate into NTID’s undergraduate curriculum the material faculty develop while on DiiT-supported leaves. As a result of faculty development through the project, NTID’s associate degree curriculum has been significantly updated; for example, there are three new concentration strands that include 15 new courses in the Information and Computing Studies Department (ICS).
  - A fall 2004 survey of DiiT workshop participants revealed that:
    - Fifty percent of respondents obtained a new position or had taken on more responsibilities at their place of employment following participation in DiiT training.
    - Ninety-three percent indicated that participation in the DiiT workshops improved their skills.
    - Seventy-six percent said they used workshop information on the job.
    - Eighty-six percent responded that they were more confident with their skills and with their ability to learn new skills. Through this increased confidence comes a willingness to participate in additional training that will allow these deaf and hard-of-hearing professionals to be competitive with their hearing peers and obtain and retain jobs in increasingly demanding fields.
  - Deaf adults attending DiiT workshops also participated in panel presentations for deaf and hard-of-hearing undergraduate students at RIT/NTID. This is the first time that many students had the opportunity to interact with successful deaf adults working in a technical field.

## Deaf Initiative in Technology (continued)

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### Max Factor Family Foundation Gift

In August 2005, NTID received a gift of \$100,000 from the Max Factor Family Foundation, allowing NTID to provide skill-building and career-development workshops for deaf and hard-of-hearing adults in the Greater Los Angeles area. The goal of this project was to combine NTID's expertise in education and technology with the Max Factor Family Foundation's strong presence and community influence in the Los Angeles area to improve the career preparation of deaf and hard-of-hearing Californians, with a special emphasis on the Hispanic/Latino population, and their subsequent successful integration into the workplace.

To accomplish this goal, NTID offered annually, for five years, two groups of related workshops that brought to this area NTID's proven expertise in preparing deaf people for successful careers:

1. **Deaf Initiative in Technology (DiiT) Workshops** designed to strengthen and "upskill" the computer skills of deaf and hard-of-hearing adults.
2. **Employer Awareness Workshops** that train employers and education professionals such as teachers and counselors to prepare deaf people for successful careers in mainstream workplaces.

In March 2010, the fifth and final annual series of workshops was offered to the deaf and hard-of-hearing community and employers in the Greater Los Angeles area. Six separate workshops were offered to a total of 135 participants. This brings the five-year total for the Max Factor portion of the project to 40 workshops offered to 805 participants.

### Bank of New York Mellon Gift

In August 2009, NTID received a gift of \$25,000 from the Bank of New York Mellon Foundation to provide skill-building and career-development workshops for deaf and hard-of-hearing adults in the Greater Pittsburgh area during the 2009-2010 academic year. Using the model developed with the Max Factor Family Foundation Gift, the goal of this gift was to combine NTID's expertise in education and technology with the BNY Mellon's strong presence and community influence in the Pittsburgh area to improve the career preparation of deaf and hard-of-hearing community members and their subsequent successful integration into the workplace.

During April 2010 four employer awareness workshops were offered in the Pittsburgh area to 64 representatives from several companies, and a five-day Microsoft Office workshop was offered to 16 deaf and hard-of-hearing adults during August 2010.

### Continuation and Expansion of the DIIT Model

Since the end of NSF funding in 2006, NTID has supported the project, expanding the Deaf Initiative in Information Technology (DIIT) model to other disciplines and changing the name of the project to Deaf Initiative in Technology (DiiT). Faculty members from the Information and Computing Studies, Arts and Imaging Studies, Engineering Studies, Business Studies and Liberal Studies departments offered workshops on a wider range of topics during the 2009-2010 academic year. Outside funding has been acquired to support the annual offerings of DiiT workshops in the Greater Los Angeles area for the past five years and the Pittsburgh area beginning this year (see above).

During AY 2009-2010, the DiiT project offered eight workshops to 88 deaf and hard-of-hearing participants, including four workshops offered on the RIT/NTID campus, two workshops offered at Tobyhanna Army Depot in Pennsylvania, the series of workshops in Los Angeles supported by the Max Factor Family Foundation and the workshop in Pittsburgh supported by the BNY Mellon Foundation. This brings the 10-year total for the DiiT project to 92 separate workshops offered to 710 deaf and hard-of-hearing attendees.



## PEPNet-Northeast

The Postsecondary Education Programs Network – Northeast Region (PEPNet-Northeast) is one of four regional centers supported by contracts with the U.S. Department of Education, Office of Special Education Programs. PEPNet-Northeast works with secondary and postsecondary schools, institutions, school

personnel and service providers to enhance education and training opportunities for students who are deaf or hard-of-hearing, including those with co-occurring disabilities. The project successfully completed its fourth of a five-year cycle in September 2010.

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The PEPNet-Northeast central office is located at RIT/NTID, and through the coordination of designated state-based Outreach Specialists, serves the following states and territories:

Connecticut	Massachusetts	Puerto Rico
Delaware	New Hampshire	Rhode Island
District of Columbia	New Jersey	U.S. Virgin Islands
Maine	New York	Vermont
Maryland	Pennsylvania	

Through collaboration with the three other regional centers located in the Midwest, South and Western regions, PEPNet-Northeast has implemented a synergistic model of service delivery to a broad national audience, including secondary and postsecondary school personnel, public and private service agencies, consumer and professional organizations, state departments of education and various professional organizations.

### New Projects

Highlights of project activities completed during FY 2010 include:

- AHEAD and PEPNet Joint Conference. The Association of Higher Education and Disability (AHEAD) and PEPNet joined together to combine AHEAD's 33<sup>rd</sup> annual international conference and PEPNet's seventh biennial conference. This event provided one seamlessly integrated place and time for attendees from across the disability and education communities to come together for an unparalleled professional conference. The event took place in Denver, Colo., in summer 2010.
- National Webcasts. During this reporting period, PEPNet-Northeast produced three live webcasts to national audiences. *Online Accessible Media* was produced in collaboration with Rochester Institute of Technology, PEPNet-South, and the University of Tennessee at Knoxville. *RKIT – An Online Resource for Itinerant Teachers* provided an orientation to a comprehensive online reference resource targeted to teachers as well as other service providers who work with deaf and hard-of-hearing students. *Impact on Access: Individuals with Cochlear Implants in Educational and Employment Settings* featured a panel of professionals and consumers that shared information and experiences relevant to usage, demographics on, benefits, fiscal/legal responsibilities, and accommodations provided in education and the workplace. The webcasts are archived on the national PEPNet website ([www.pepnet.org](http://www.pepnet.org)).
- Distance Learning Project. PEPNet-Northeast piloted two additional Developmental English Distance Learning courses in collaboration with LaGuardia Community College, the Hiram G. Andrews Center, and Northern Essex Community College. The two pilot initiatives have involved more than 15 students located in rural or semi-rural locations where access services are not readily available. The pilot program aims to explore the effectiveness of the delivery of instruction via accessible distance technology.
- U.S. Virgin Islands Training Program. Following numerous prior attempts, PEPNet-Northeast successfully conducted its first training program for special education stakeholders serving deaf, hard-of-hearing and visually challenged consumers in the U.S. Virgin Islands. The three-day training

## PEPNet-Northeast (continued)

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program was conducted in collaboration with the U.S. Virgin Islands Department of Education and took place on the islands of St. Thomas and St. Croix for more than 65 vocational rehabilitation professionals, disability and advocacy personnel, school administrators, teachers and parents.

- Partnerships. PEPNet-Northeast partnered with New England Technical Assistance and Continuing Education Center (TACE) to provide an expanded series of structured training webcasts targeted to state vocational rehabilitation agencies and partners.

### Project Evaluation Activities

- Independent Evaluator Focus Groups. Focus group sessions with staff and stakeholders took place throughout the year and were coordinated by the project's Minnesota-based independent evaluator (Action Consulting and Evaluation Team).
- Department of Education Peer Review. PEPNet-Northeast completed the required multi-year "3+2" evaluation required by the U.S. Department of Education in order to continue receiving funds during the remaining years of the current project cycle. The evaluation process consisted of staff from the Department of Education, Division of Research to Practice, Office of Special Education Programs, the American Institute for Research, a representative from the independent evaluator team, and a panel of external reviewers selected by the Department of Education. The two-day evaluation process took place in Washington, D.C. Reviewer feedback and recommendations were very positive and highly complimentary of the activities and documented outcomes achieved by PEPNet-Northeast, including collaborative initiatives with the three other PEPNet regional centers.

### Regional/National Outreach and Training Activities

On-site trainings and professional development activities were conducted by project staff for more than 400 school personnel and service providers in the Northeast and in collaboration with the three other PEPNet regional centers. Topics included Career Awareness, Transition, Literacy and Education of the Deaf, PEPNet Online Training Programs and Resources, Social Networking to Deliver Technical Assistance, and Using the Data Analysis System to Respond to Stakeholder Inquiries. Participants in these training activities included the following target audiences:

- Itinerant teachers of the deaf
- Community-based service center staff
- State/county school personnel and administrators
- Vocational Rehabilitation personnel
- Parents of students who are deaf or hard-of-hearing
- Community of practice professionals
- Support services personnel
- Career counselors

### Other Activities

- Professional Development Mini-Grants. PEPNet-Northeast offers mini-grants (stipends) to provide partial support to stakeholders applying for professional development opportunities. Applications for mini-grants are reviewed on an individual basis. Approval is based on identified needs, statement of goals, and expected benefits/outcomes consistent with the project goals and mission. A total of 46 mini-grants were awarded to stakeholders during this reporting period. Some trainings offered continuing education credit. Examples of professional development opportunities supported by mini-grants include continuing education training for C-Print<sup>®</sup> captionists, incorporating universal design for online access services, and the use of accessible technology in support of geographically distributed teams.

## PEPNet-Northeast (continued)

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- Exhibiting and Poster Session Activities. During FY 2010, PEPNet-Northeast exhibited, provided poster sessions and/or co-sponsored local regional and national conferences that included:
  - Advanced Job Development Skills Conference – Freeport, Maine
  - AHEAD/PEPNet Co-Convended Conference – Denver, Colo.
  - Clarke School for the Deaf Conference – Northampton, Mass.
  - Educational Support Services Personnel Conference – Syracuse, N.Y.
  - Imagine RIT Fest – Rochester, N.Y.
  - Instructional Technology and Deaf Education Symposium – Rochester, N.Y.
  - Maine Center on Deafness Annual Conference – Portland, Maine
  - Maryland State Department of Rehabilitation Training Conference – Ocean City, Md.
  - National Association of Relay Administrators Conference – Durham, N.C.
  - National Tele-Rehabilitation Service System Conference – Johnstown, Pa.
  - New Hampshire Community of Practice Conference – Concord, N.H.
  - Registry of Interpreters for the Deaf – Albany, N.Y.
  - Rehabilitation Services Administration, National Conference for State Coordinators Serving Deaf, Deaf-Blind, Hard-of-Hearing and Late Deafened – Baltimore, Md.
  - Symposium for Deaf and Hard-of-Hearing Students – Bergen, N.J.
  - Texas Statewide Conference on Deafness – Fort Worth, Texas
  - Virginia Statewide Conference on Deafness – Charlottesville, Va.

Regional and National Partners. PEPNet-Northeast has maintained collaborative partnerships with the following regional and national organizations and agencies throughout FY 2010:

- Association of Higher Education and Disability (AHEAD)
- National Secondary Transition Technical Assistance Center (NSTTAC)
- Parent Advocacy Coalition for Education Rights (PACER)
- Technical Assistance Coordinating Center (TACC)
- National Association of State Directors of Special Education (NASDSE)
- National Post School Outcome Center
- National Deaf-Blind Project
- New England Technical Assistance Continuing Education Center
- Northeastern University National (and Regional) Interpreting Education Center
- St. Francis University Center on Excellence for Remote and Medically Underserved Areas
- Rhode Island School District
- Vermont School District
- Maine CITE: Statewide Project on Assistive Technology and Universal Design
- Hiram G. Andrews Center
- Northern Essex Community College and Gallaudet Regional Center
- Department of Education, U.S. Virgin Islands

PEPNet staff continues to participate in and/or lead the following PEPNet National Work Groups established to implement the PEPNet National Strategic Plan:

- College and University Guide
- Emerging Technology
- Marketing
- PEPNet Perspectives Newsletter
- Product Development
- Technical Assistance
- Training
- Transition
- Web Development
- PEPNet Evaluation Team

## Pre-College Outreach

NTID's *Strategic Vision 2010* and *Strategic Decisions 2020* called for development of an educational outreach consortium that would allow NTID to share its expertise to improve the education and career development of individuals who are deaf or hard-of-hearing. An outgrowth of this decision has been a series of new outreach initiatives designed to provide educational experiences for students in grades 6–12.

NTID's pre-college outreach focuses on empowering deaf and hard-of-hearing middle school and secondary students and their parents with information to help students' long-term career success. A special focus of this effort is young women and African-American, Latino-American and Native-American (AALANA) students.

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In 2010, RIT/NTID welcomed more than 600 middle school and high school students and their parents from all over the country to seven pre-college outreach efforts—four were outreach competitions and three were summer camps. Participation is expected to grow annually as marketing and other promotional efforts continue.

Parents, students and teachers alike had high praise for the 2010 competitions and camps. With the success of these initiatives, RIT/NTID is well on the way to its goal of making outreach a central focus, and sharing 40+ years of expertise in access services, program development and the application of technology to ensure that students will possess the skills and knowledge necessary to be active participants in the 21<sup>st</sup>-century American workforce.

### Digital Arts, Film and Animation Competition

Deaf and hard-of-hearing students in grades 9–12 submitted 62 entries to the 2010 Digital Arts, Film and Animation Competition in seven different categories: mixed digital media, Web page design, graphic media, 3-D animation, interactive media, photo illustration and film. Five winners were selected and invited, along with a parent, to attend the awards ceremony in May 2010, where they received cash prizes and plaques. Their winning artworks were displayed at the RIT Student Alumni Union building.



### Math Competition

RIT/NTID's national Math Competition for middle school students challenges their math skills, develops their self-confidence and rewards them for their achievements. Sixty-one students from 17 middle schools participated in the competition at NTID in April 2010. Cash prizes were given to the top three teams and individual winners. NTID worked in close cooperation with the national office of MATHCOUNTS®, which operates a large successful national competition that has had only very limited participation from deaf and hard-of-hearing students. The intent of the competition is to foster interest in mathematics, a national priority.



### National Science Fair for Deaf and Hard-of-Hearing Students

#### National Science Fair



In 2010, budding scientists in grades 6–12 from all over the United States were invited to submit science project abstracts for review by the science fair committee. The students whose projects were selected were invited to submit a full report on their project to NTID science faculty members, who served as judges. This was the fifth year for the science fair, the purpose of which is to encourage students to pursue their interest in science. Sixty-six students participated in 2010. Winners in the middle school and high school divisions received cash prizes and plaques.

## Pre-College Outreach (continued)

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### SpiRIT Writing Contest

RIT's fifth annual SpiRIT Writing Contest for deaf and hard-of-hearing students attracted 31 students from the 10<sup>th</sup> and 11<sup>th</sup> grades from around the United States in February 2010. Students and their teachers submitted portfolios of the students' best work. The winners received either a full scholarship to NTID's Explore Your Future program or a \$500 cash prize.



### Steps to Success



More than 20 deaf and hard-of-hearing African-American, Latino-American and Native-American (AALANA) students in grades 7–9 and their family members attended the Steps to Success career exploration mini-camp in August 2010. The students attended classes designed to expose them to possible career choices and enjoyed hands-on activities using computers, working with robots, doing science experiments and more. Parents and guardians benefited from workshops that offered tips on supporting their students through the college decision-making and selection process.

### TechGirlz Camp



Forty-one deaf and hard-of-hearing girls in grades 7–9 attended TechGirlz in 2010 to explore their interests in science, technology, engineering and math. The week-long summer camp held in August gave girls the opportunity to learn more about careers in science and technology-related fields. They built their own computers, analyzed a “crime scene” and worked with computer-aided drafting equipment to create a magnifying glass. The program included a day-long workshop for parents that focused on what colleges expect from high school students, how parents should encourage their students to prepare for college and how to access financial aid.

*Here, a group of young participants in the TechGirlz camp learn how to make dog tags using a mill machine. The mill machine cuts the metal into a specific shape, and later, the girls use a machine to engrave the tags.*



### FutureQuest Workshops

FutureQuest is a free weekend workshop designed to help deaf and hard-of-hearing high school students and their parents plan for the future, whether it be the transition from high school to college or from high school to work. Students participate in fun self-awareness activities to explore their interests, learn what they're good at and how things they like to do could become their focus in college.

## Pre-College Outreach (continued)

Parents participate in workshops to learn how to best prepare their children to have a successful future. They gather important information about financial aspects of college and the support and access services that will help their child succeed.

FutureQuest presenters are experienced education professionals who help parents and students focus on strengths and abilities as they consider options and make important decisions about the future.

FutureQuest New York City was attended by 38 students, 26 parents and 18 teachers. FutureQuest Boston was attended by 29 students, 30 parents and 21 teachers. FutureQuest Chicago was attended by 17 students, 18 parents and 19 teachers. FutureQuest Austin (students) and Dallas (parents/teachers) were attended by 44 students, 68 parents and 17 teachers.

The chart below summarizes participation in NTID outreach programs and lists the number of minority students participating in each event.

<b>Pre-College Outreach AY 2009-2010</b>			
	<b>Total Participants</b>	<b>Minorities</b>	
		<b>Number</b>	<b>Percent</b>
Explore Your Future	217	72	33%
National Science Fair	66	25	38%
SpiRIT Writing Contest	31	5	16%
Digital Arts, Film and Animation	62	14	23%
Math Competition	61	21	34%
Steps to Success	23	22	96%
TechGirlz Camp	41	12	29%
FutureQuest (four sites)	128	79	62%

### Project Fast Forward

Project Fast Forward is a project funded in July 2006 by the Advanced Technological Education program of the National Science Foundation. The project is housed in NTID's Information and Computing Studies Department. The goal of Project Fast Forward is to increase the number of deaf and hard-of-hearing students who pursue a postsecondary education in a computer-related field by creating a pathway for students to transition from high school to college in the area of information technology (IT).

To accomplish this, NTID is partnering with high schools across the country to offer dual-credit IT courses for deaf and hard-of-hearing students and professional development for teachers and guidance counselors.

## Pre-College Outreach (continued)

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<b>Original Partner Schools 2007-08</b>	<ol style="list-style-type: none"><li>1. Florida School for the Deaf and the Blind, St. Augustine, Fla.</li><li>2. Lexington School for the Deaf, Jackson Heights, Queens, N.Y.</li><li>3. Vines High School, Plano, Texas</li><li>4. Plano Senior High School, Plano, Texas</li><li>5. Rochester School for the Deaf, Rochester, N.Y.</li><li>6. University High School, Irvine, Calif.</li></ol>
<b>New Partner Schools 2008-09</b>	<ol style="list-style-type: none"><li>7. Eastern North Carolina School for the Deaf, Wilson, N.C.</li><li>8. Horace Mann School for the Deaf, Allston, Mass.</li><li>9. Learning Center for the Deaf, Framingham, Mass.</li><li>10. Maryland School for the Deaf, Frederick, Md.</li><li>11. Texas School for the Deaf, Austin, Texas</li><li>12. WT Woodson High School, Fairfax, Va.</li></ol>
<b>New Partner Schools 2009-10</b>	<ol style="list-style-type: none"><li>13. Mill Neck Manor School for the Deaf, Mill Neck, N.Y.</li><li>14. Murry Bergtraum High School, New York, N.Y.</li><li>15. W. Tresper Clarke High School, Westbury, N.Y.</li></ol>

Project Fast Forward started with six partner schools in the first year of the project and has increased to 15 schools in three years. For the 2008-2009 school year, the project received additional support from a New York State Postsecondary Vocational and Applied Technology Education (VATEA) grant to expand recruiting efforts in New York State. The funding supported, in part, the recruitment of the three additional New York partner schools that started teaching dual-credit courses in fall 2009.

Dual-credit courses. Dual-credit courses have been offered for three years at our partnering high schools. Schools have offered one or more of the following NTID courses:

- Applications Software: an introduction to word processing, spreadsheet, presentation and database applications
- Web Development I: an introduction to Web page development, including XHTML and Web graphics
- Desktop Publishing: an introduction to page layout applications to produce pages and documents to given specifications
- PC Hardware I: an introduction to the fundamental hardware concepts of personal computer (PC) systems including their structure and components

The course Introduction to Desktop Publishing is offered by the NTID Arts and Imaging Studies Department and demonstrates the interest and potential for expanding Project Fast Forward to other technical programs.

## Pre-College Outreach (continued)

Dual-credit course registrations. During the three years of offering dual-credit courses, a total of 206 students participated in the program at our 15 partner schools. Of those students, 30 took two courses, for a total of 236 registrations in Project Fast Forward dual-credit courses during the three years.

School Year	Number of Students	Number of Registrations	Grades Awarded	Credit Hours Awarded
2007-2008	50	60	40	120
2008-2009	72	80	68	204
2009-2010	84	96	67	201
<b>Total</b>	<b>206</b>	<b>236</b>	<b>175</b>	<b>525</b>

Dual-credit grades and credit awarded. Of the 236 students registered for dual-credit courses during the three years, 175 students received passing grades and were awarded RIT credit. A portion of those students who failed to receive credit did not succeed in the course, and others did not receive credit because of the high school teachers failing to follow the NTID curriculum.

Professional development. Four summer professional development sessions (summer 2007, 2008, 2009 and 2010) have been offered to high school teachers and guidance counselors from our partnering high schools.

Summer Professional Development Session				
	2007	2008	2009	2010
Teacher Attendees	7	11	8	3
Counselor Attendees	4	5	6	0
<b>Total</b>	<b>11</b>	<b>16</b>	<b>14</b>	<b>3</b>

The teachers received technical training on course content and teaching methodologies and on improving access for deaf students in mainstream classrooms. Both teachers and counselors received training on IT career opportunities for deaf and hard-of-hearing individuals and on the dual-credit program.

Outcomes. The program has been considered an impressive success since original predictions were that only 65 to 85 students would have qualified for and completed a dual-credit course at their high school by the end of the project. Instead, 175 students have earned dual credit. It was also predicted that a total of 20 teachers and 10 counselors would attend the professional development activities at NTID during the project, while instead there have been 29 teachers and 15 counselors involved in the project.





## Faculty and Staff



NTID's faculty and staff are dedicated to providing deaf and hard-of-hearing students with an outstanding educational experience; many employees have been with NTID for 10 to 30 years. Here, associate professor Antonio Toscano converses with Joel, an Arts and Imaging Studies student from Chicago, Ill.

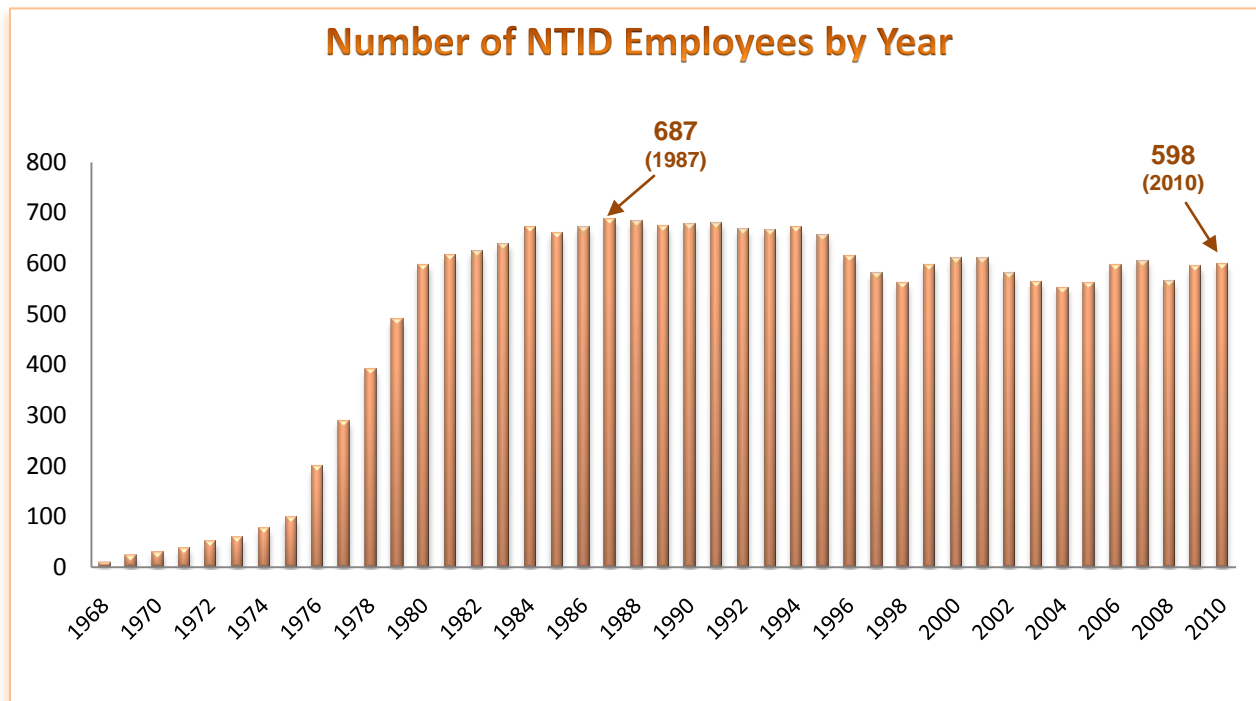
## Faculty and Staff Highlights

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Attracting and retaining the most capable and dedicated faculty and staff members to provide an exceptional learning environment for deaf and hard-of-hearing students is central to fulfilling NTID's mission and purpose. NTID's highly qualified faculty and staff members bring to the institute a wide variety of experiences, skills and backgrounds. Some are veteran educators with many years of higher education teaching experience, while others bring to the NTID classroom a wealth of hands-on knowledge gained from working in business and industry. Among the latter group are alumni who, after gaining significant work experience away from NTID, have returned to their alma mater to share the expertise they have learned on the job with a new generation of students.

In 1987, NTID employed 687 faculty and staff. As of fall 2010, with the largest number of students in NTID history, we employ 598.



## Average Salary: Faculty and Staff

RIT endeavors to maintain faculty salaries that are on par with the colleges and universities with which it competes. Similarly, RIT provides staff salaries that are competitive with other local and regional colleges and businesses. Annual pay increments for NTID faculty and staff are established by RIT.

	Total Number in Position	Average Salary October 2009 – September 2010
<b>Faculty*</b>		
Professor	35	\$99,501
Associate Professor	58	\$79,462
Assistant Professor	53	\$64,399
Senior Lecturer	8	\$60,230
Lecturer	46	\$52,277
Instructor	3	\$47,481
<b>Subtotal Faculty</b>	<b>203</b>	<b>\$71,594</b>
<b>Staff</b>		
Exempt Staff**	130	\$62,474
Non-Exempt Staff***	265	\$40,245
<b>Subtotal Staff</b>	<b>395</b>	<b>\$47,561</b>
<b>Total</b>	<b>598</b>	<b>\$55,720</b>

\* Faculty are based on full-time, 9.5 month salaries; visiting faculty are noted within their rank.

\*\* Based on full-time 12-month salaries.

\*\*\* Technical, clerical and C-Print® captionists are based on 35 hours per week/12 months per year. Interpreters are based on 40 hours per week/12 months per year.

## Tenure-Track Positions and Faculty Rank

In FY 2010, senior-level faculty members (professor and associate professor) comprised 68 percent of all ranked tenure-track faculty as compared to 47 percent in FY 1985. Of the 133 tenure-track positions, 98 percent are tenured. The number of tenure-track positions has decreased from 244 to 133 over the past 26 years.

Rank	Number of Tenure-Track Positions*					FY 2010 Faculty with Tenure	
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Number	Percent
Professor	34	33	35	40	35	35	100%
Associate Professor	74	68	61	57	55	54	98%
Assistant Professor**	54	50	45	43	42	42	100%
Instructor/Lecturer	2	1	2	1	1	0	0%
<b>Total Positions</b>	<b>164</b>	<b>152</b>	<b>143</b>	<b>141</b>	<b>133</b>	<b>131</b>	<b>98%</b>

\* Includes ranked administrators.

\*\* Excluded are assistant professors not in tenure-track positions.

## Degree Levels of Tenured and Tenure-Track Faculty

Faculty members join NTID with a wide variety of backgrounds, including those with substantial experience in the private sector. In FY 2010, 97 percent of full-time, tenure-track faculty members held graduate degrees.

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<b>FY 2010 Highest Degree Level Achieved Tenure and Tenure-Track Faculty*</b>		
	<b>Number</b>	<b>Percent</b>
Doctorate	48	36%
Master's	81	61%
Bachelor's	4	3%
<b>Total</b>	<b>133</b>	<b>100%</b>

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\* Includes ranked administrators.

## Age, Length of Service and Retirement Status of NTID Faculty and Staff\*

NTID's faculty and staff average 50 years of age with 15 years of service at NTID. As of October 2010, 34 percent are eligible for retirement.\*\*

	Percent Full Time	Average Age	Average Length of Service	Age of Faculty/Staff					Currently in Retirement Transition
				≤ 54	55-61	62-64	65-69	≥70	
Professor	100%	61.5	30.9	3	17	8	5	2	2
Associate Professor	100%	59.8	28.9	9	23	12	11	0	2
Assistant Professor	100%	54.1	19.0	17	19	7	1	0	1
Senior Lecturer	100%	55.8	18.7	4	3	0	1	0	0
Lecturer	97%	45.3	4.7	15	2	0	1	0	0
Instructor	100%	39.1	7.9	2	0	0	0	0	0
Exempt Staff	98%	50.2	14.3	61	17	6	7	0	0
Non-Exempt Staff	97%	51.2	12.3	46	12	8	2	0	0
Interpreter	96%	42.9	11.8	92	8	1	3	0	1
C-Print®	77%	44.8	4.8	34	3	0	0	0	0

*Shaniel, a Computer Integrated Machining Technology major from Plano, Ill., receives instruction from his professor, Dr. Sidney McQuay.*



\* Data not available for all faculty and staff.

\*\* To be eligible for retirement, an employee's age and years of service must be greater than or equal to 70, and they must be at least 55 years of age if hired after 1995, and at least 50 years of age if hired before 1995.

## Faculty and Staff New Hires

The distribution of new hires by category and for full-time and part-time positions is shown below.

	New Hires				
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
<b>Full-Time:</b>					
Faculty	8	10	13	11	13
Exempt Staff	29	8	8	12	14
Non-Exempt Staff*	3	19	28	18	24
<b>Total Full-Time</b>	<b>40</b>	<b>37</b>	<b>49</b>	<b>41</b>	<b>51</b>
<b>Part-Time:</b>					
Faculty	2	1	0	0	1
Exempt Staff	5	0	1	1	1
Non-Exempt Staff*	26	10	9	1	6
<b>Total Part-Time</b>	<b>33</b>	<b>11</b>	<b>10</b>	<b>2</b>	<b>8</b>
<b>Total</b>	<b>73</b>	<b>48</b>	<b>59</b>	<b>43</b>	<b>59</b>

\* Includes technical, clerical, C-Print® captionists and interpreters.



## Faculty and Staff Terminations

The faculty and staff turnover rate, 8.9 percent, is a dramatic increase from last year. Retirements of current faculty and staff increased and are expected to continue to increase in the near future. Recruitment of individuals to serve our students will be a priority in the coming years.

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	
Full-Time/Part-Time					Percent	Number
Faculty	6.5%	5.9%	6.7%	2.5%	6.9%	14
Exempt Staff*	7.8%	14.8%	6.6%	6.9%	10.0%	13
Non-Exempt Staff**	6.3%	0.7%	12.7%	4.2%	9.8%	26
<b>Total</b>	<b>7.0%</b>	<b>8.1%</b>	<b>9.4%</b>	<b>4.2%</b>	<b>8.9%</b>	<b>53</b>

\* Includes all exempt staff and educational development and research faculty.

\*\* Includes technical, clerical, C-Print<sup>®</sup> captionists and interpreters.

## RIT/NTID Leadership



**NTID Dean Emeritus and Interim President James J. DeCaro congratulates a new graduate at NTID's commencement. DeCaro served as dean of NTID for 14 of the 39 years he has worked at the college.**

## NTID Administrative Team

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**Dr. T. Alan Hurwitz**  
President, NTID  
Vice President and Dean, RIT  
(Until December 31, 2009)



**Dr. James J. DeCaro**  
Interim President, NTID  
Interim Vice President and  
Dean, RIT  
(Effective December 1, 2009  
until December 31, 2010)



**Donald Beil**  
Executive Assistant to the  
President, NTID  
(Until December 31, 2009)



**Dr. Jeffrey Porter**  
Interim Executive Assistant  
to the President, NTID  
(Effective December 1, 2009  
until December 31, 2010)



**Dr. Laurie Brewer**  
Vice Dean and Interim  
Associate Vice President for  
Academic Affairs



**Dr. Gerard Buckley**  
Assistant Vice President  
for College Advancement;  
(NTID President, effective  
January 1, 2011)



**Dr. Robb Adams**  
Interim Associate Dean for  
Student and Academic Services  
(Effective December 1, 2009)



**Albert Smith**  
Assistant Vice President  
for College Operations  
(Until November 15, 2010)

## NTID Administrative Team (continued)

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**Erwin Smith**  
Assistant Vice President for  
Finance and Operations  
(Effective November 1, 2010)



**Mike Servé**  
Director, Financial  
Planning and Budgeting



**Dr. Stephen Aldersley**  
Associate Dean for  
Academic Administration



**Steve Nelson**  
Director, Access Services



**Pamela Carmichael**  
Director, Marketing  
Communications

## **NTID National Advisory Group**

The National Advisory Group advises the NTID president / RIT vice president and dean for NTID in developing and carrying out policies governing the operation and direction of the institute. The National Advisory Group comprises professionals

concerned with the education of deaf and hard-of-hearing students, professionals concerned with postsecondary education and individuals familiar with the need for the services provided by NTID.

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### **Active Members**

#### **Elizabeth Ayers Gibson**

Advanced Practice Sonographer, Virginia Mason Medical Center

#### **Andrew N. Brenneman**

Senior National Account Executive, Sprint Nextel

#### **Dr. Richard V. Burkhauser**

Sarah Gibson Blanding Professor of Policy Analysis in the Department of Policy Analysis and Management, Cornell University

#### **L'Tanya Fish**

Adjunct Professor, Winston-Salem State University Rehabilitation Counseling Studies & Deafness Program

#### **Claudia Gordon, Esq.**

Special Assistant to the Director, Office of Federal Contract Compliance Programs, U.S. Department of Labor

#### **Dr. Catherine Hunt**

Senior R&D Director External Science and Technology, DOW Chemical Company

#### **Cinda Lautenschlegar**

Lead Senior Air Pollution Control Engineer, Connecticut Department of Environmental Protection

#### **Lauren Lercher**

Research Teaching Specialist, Department of Neuroscience and Cell Biology, University of Medicine and Dentistry of New Jersey

#### **Jon Levy**

Principal, Orange County Department of Education Regional Deaf and Hard-of-Hearing Program

#### **James Meisser**

Director and Chief Risk Officer, Lake Shore Wisconsin Corporation

#### **Dr. Harold Mowl**

Superintendent/CEO, Rochester School for the Deaf

#### **Dr. Angel Ramos**

Superintendent, Sequoia School for the Deaf and Hard-of-Hearing

#### **Dr. Susan Salvador**

Vice President, Student Affairs, Monroe Community College

#### **Thomas Samuels**

Assistant to the Director (retired), Program for Deaf Adults, LaGuardia Community College

## **NTID National Advisory Group (continued)**

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### **Laurance Warford**

Senior Workforce Consultant, League for Innovation in the Community College

### **Sara Weiner-Collier**

Project Coordinator, Women with Disabilities Health Equity Coalition, Oregon Health and Science University

### **U.S. Department of Education**

#### **Annette Reichman**

Director/Liaison, Office of Special Institutions

### **U.S. Government Representatives**

#### **The Honorable Charles E. Schumer**

Member, U.S. Senate, New York State

#### **The Honorable Louise M. Slaughter**

Member, U.S. House of Representatives, New York State

### **Honorary Members**

#### **W. Frank Blount**

Chairman and Chief Executive Officer, JI Ventures Inc.

#### **The Honorable Hugh L. Carey**

Former Governor, New York State

#### **Nanette Fabray MacDougall**

Actress

#### **Jane Ratcliffe Pulver**

Emeritus Member, RIT Board of Trustees; Active Member, NTID Foundation Board; Trustee, Pennsylvania School for the Deaf

## NTID Foundation Board

The NTID Foundation is an organization of volunteers committed to the advancement of career development and personal growth opportunities for deaf and hard-of-hearing students at NTID. It serves as a link through which foundation board

members external to the institute foster involvement and private investment to enrich the quality and vitality of the learning environment at NTID.

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### Active Members:

#### **Richard C. Adamany**

Chief Executive Officer, Swiss+Tech Products

#### **Vicky Adamany**

#### **Gary W. Behm '81**

Instructional/Support Faculty, Engineering Studies, Rochester Institute of Technology

#### **Arthur Carroll**

Chief Technical Officer, Eastman Kodak Company

#### **Gracie P. Coleman**

President, Coleman Consulting Services

#### **Meredith M. Crane**

Former Executive Director, Deaf Initiatives, Inc.

#### **Michael Ellis**

National Sales Manager, Sprint Relay

#### **Max Factor III**

Attorney at Law, Factor Mediation and Arbitration Services, Inc.

#### **Dr. Mary Jane Hellyar**

Retired Executive Vice President, Film & Photofinishing Systems Group, Eastman Kodak Company

#### **Gretchen Logue**

#### **Kenneth Logue**

Sales Manager, ITW Labels

#### **Steven M. Morse**

Executive Director, Institute Audit, Rochester Institute of Technology

#### **Jane Ratcliffe Pulver**

Emeritus Member, RIT Board of Trustees

#### **Robert W. Rice '94, '97 MBA (Chairman)**

President and Managing Partner, BayFirst Solutions, LLC

#### **James J. Stefano**

Vice President, Client Services, Synergy Global Solutions

#### **Ricky Thomas**

Partner, Maguire & Moore Capital Advisors, Inc.

#### **Christopher Wagner '94**

Vice President of Marketing, CSDVRS, LLC

## **NTID Foundation Board (continued)**

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**Cynthia F. Walker**

**George D. Webb II**

Retired Senior Vice President for Operations, Great West Life & Annuity Insurance Co.

**Diane Weihls**

**Gary Weihls**

Senior Director, Tomato-Based Strategic Development, ConAgra Foods

**Sandra Weintraub**

**Dr. Steven Weintraub, MD**

Medical Director, North Shore LIJ, Department of Anesthesia



## RIT Officers

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**Dr. William W. Destler**  
President

**Dr. Donald Boyd**  
Vice President, Research

**Lisa Cauda**  
Vice President, Development and Alumni Relations

**Dr. Mary-Beth A. Cooper**  
Senior Vice President, Student Affairs

**Dr. Jeremy Haefner**  
Provost / Senior Vice President, Academic Affairs

**Dr. James J. DeCaro**  
Interim President, NTID / Vice President and Dean, RIT

**Dr. Katherine Mayberry**  
Vice President, Special Projects

**Dr. James G. Miller**  
Senior Vice President, Enrollment Management and Career Services

**Deborah Stendardi**  
Vice President, Government and Community Relations

**Dr. James H. Watters**  
Senior Vice President, Finance and Administration

## RIT Board of Trustees Active Members

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**Kathleen Anderson**

'94; Media Director, Travers Collins & Company (TCC)

**Willem Appelo**

Senior Vice President, Xerox Corporation

**Donald N. Boyce**

BS '67; Chair, Board of Trustees, Rochester Institute of Technology; Retired Chairman of the Board, IDEX Corporation

**Andrew N. Brenneman**

AS '86, BS '88; Senior Account Executive, Sprint Nextel; also serves as NTID National Advisory Group Representative

**Irene Taylor Brodsky**

Producer, Director, Writer and Cinematographer, Vermilion Pictures, Inc.

**Charles S. Brown, Jr.**

MBA '79; Director for the Rochester Area Colleges Center for Excellence in Math and Science, Nazareth College

**Judy B. von Bucher**

**William A. Buckingham**

BS '64; Chair Emeritus, Board of Trustees, Rochester Institute of Technology; Retired Executive Vice President, M&T Bank

**David J. Burns**

President and Chief Operating Officer, Ex One Corporation

**Ann L. Burr**

Chairman and General Manager, Frontier Communications of Rochester, Frontier Communications Corp., Citizens Communications

**Essie L. Calhoun**

Chief Diversity Officer and Director, Community Affairs Vice President, Eastman Kodak Company

**Mark C. Clement**

President and Chief Executive Officer, Rochester General Health System; President, Rochester General Hospital

**Thomas Curley**

MBA '77; President and Chief Executive Officer, The Associated Press

**William W. Destler**

President, Rochester Institute of Technology

**Robert A. Dobies**

Retired Vice President, ExxonMobil Chemical Company

**Donna J. Ehrhart**

Professor of Business Computer and Information Systems, Genesee Community College; Women's Council Representative, Rochester Institute of Technology

## RIT Board of Trustees Active Members (continued)

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**Nancy L. Fein**

BS '76; Vice President of Lexus Service, Parts, Customer Satisfaction and Training,  
Toyota Motor Sales, USA

**B. Thomas Golisano**

Chairman, Paychex, Inc.

**Arthur A. Gosnell**

Chairman and Chief Executive Officer, Stonehurst Capital LLC

**Bart G. Guerreri**

Chairman and Chief Executive Officer, DSD Laboratories, Inc.

**Brian H. Hall**

MBA '78; Vice Chair, Board of Trustees, Rochester Institute of Technology; Retired Vice Chairman,  
The Thomson Corporation

**Jeffrey K. Harris**

BS '75; Corporate Vice President, Lockheed Martin

**Frank S. Hermance**

BS '71, MS '73; Chairman and Chief Executive Officer, AMETEK, Inc.

**Susan R. Holliday**

MBA '85; President and Publisher, Rochester Business Journal

**Jay T. Holmes**

Retired Executive Vice President and Chief Administrative Officer, Bausch & Lomb, Inc.

**Samuel Tom Hubbard Jr.**

Retired Chairman, High Falls Brewing Company, LLP

**Thomas F. Judson Jr.**

Chairman and Chief Executive Officer, The Pike Company

**Richard A. Kaplan**

Chief Executive Officer, Torvec Inc.

**Kraig H. Kayser**

President and Chief Executive Officer, Seneca Foods Corporation

**Joyce B. Klemmer**

BS '78; Partner, Smith, Gambrell and Russell LLP

**David Koretz**

'97; President and Chief Executive Officer, BlackTie, Inc.

**Gary J. Lindsay**

BS '64; C.P.A.

**Joseph M. Loboza II**

MBA '95; Chairman of the Board, JML Optical Industries, Inc.

**Lawrence J. Matteson**

Retired Vice President, Imaging and Information Systems, Eastman Kodak Company

## RIT Board of Trustees Active Members (continued)

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**Roosevelt Mercer, Jr.**

Vice President and Director, ISR Space Systems Division, ITT Industries

**Harold M. Mowl**

Superintendent and Chief Executive Officer, Rochester School for the Deaf; also serves as NTID National Advisory Group Representative

**Brian P. O'Shaughnessy, Esq.**

BS '81, MS '84; Shareholder, Buchanan Ingersoll & Rooney, PC

**Sandra A. Parker**

Chief Executive Officer, Rochester Business Alliance, Inc.

**Wolfgang Pfizenmaier**

Retired Member of the Management Board, Heidelberger Druckmaschinen AG

**Gerard Q. Pierce**

MBA '77; Senior Vice President for Human Resources, Wegmans Food Markets, Inc.

**Susan M. Puglia**

Vice President, IBM; Process Transformation for Development and Technical Support, IBM Corporation

**Thomas S. Richards**

Corporation Counsel, City of Rochester

**Susan J. Riley**

BS '81; Executive Vice President, The Children's Place

**Richard E. Sands**

Chairman, Constellation Brands, Inc.

**Janet F. Sansone**

Chief Management Officer, The United States Government Printing Office

**Carl E. Sassano**

'72; Chairman of the Board, Transcat, Inc.

**Frank S. Sklarsky**

Chief Financial Officer and Executive Vice President, Eastman Kodak Company

**Kevin J. Surace**

'85; Chief Executive Officer, Serious Materials

**Sharon Ting**

Partner, Axialent, Inc.

**Harry P. Trueheart III**

Chairman, Nixon Peabody LLP

**Donald J. Truesdale**

BS '87; Partner, Goldman, Sachs & Co.

**Chester N. Watson**

BS '74; General Auditor, General Motors Corporation

## RIT Board of Trustees Active Members (continued)

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**Robert D. Wayland-Smith**

Retired Vice President and Manager, Upstate Trust and Investment Division, Chase Manhattan Bank, N.A.

**Christine B. Whitman**

Vice Chair, Board of Trustees, Rochester Institute of Technology; Chairman and Chief Executive Officer, Complemar Partners, Inc.

**Ronald L. Zarrella**

Chairman Emeritus, Bausch & Lomb, Inc.

## Results of Financial Operations



Federal funds received by NTID enable the institute to provide deaf and hard-of-hearing students with a state-of-the-art education. In this picture, students at RIT's Convocation for New Students and Families sign and sing *The Star-Spangled Banner*.

## Financial Operations Highlights

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In fiscal year 2010, NTID received \$63,037,000 in federal support to operations. This was the same level of appropriation that was granted in fiscal year 2009. In addition to our federal funding, NTID collected non-federal revenue of \$22,849,300 in the form of tuition, room, board and fees, a 4.4 percent increase over the previous year. This non-federal revenue increase resulted from the combination of significant enrollment and tuition rate increases. Combined revenues for operations totaled \$85,886,300 and represented a 1.1 percent increase over fiscal year 2009.

Total compensation grew by 6.8 percent in 2010. Salaries and wages increased by 3.8 percent while benefits grew by 16.7 percent. Benefit expenditures are subject to fluctuation as rates paid in previous years are subject to adjustment for actual costs incurred. Compensation represents 53 percent of NTID expenditures for operations.

RIT Services account for 35 percent of operations, including payments to our host institution for physical plant services, residence halls and food services, tuition payments for our students taking courses in other RIT colleges and indirect overhead payments for centralized services such as accounting, human resources, bursar functions and libraries.

Residence hall and food service expenditure growth reflects the impact of NTID's growing enrollment. Physical Plant services expenditures reflect increases in utilities and facility maintenance.

The indirect costs or overhead is levied based on an allocation which is reviewed and approved annually by the Division of Cost Allocations in the Department of Health and Human Services. Overhead costs represent charges for services provided by RIT that benefit the entire campus but which are not specifically identifiable with a particular college or department. The president's office and the human resources division represent the types of costs that are allocated through overhead. In general, NTID is allocated a proportion of these costs based on the relative size of NTID to the rest of RIT.

In 2010, NTID continued to direct additional funds for scholarships for incoming students. We have found this to be a very successful strategy for increasing our enrollments for incoming students meeting admissions standards.

NTID development efforts are greatly enhanced by the ability to assure donors that their contributions will be matched on a dollar-for-dollar basis. In 2010 NTID directed \$1.1 million of its operational resources to the Matching Endowment Program for that purpose.

## Financial Operating Results

In FY 2010, NTID received the same level of federal support for operations as in FY 2009, \$63,037,000. Of that total, \$1,102,800 was directed to the Matching Endowment Program. In addition,

NTID collected \$22,849,300 in non-federal revenue in the form of tuition, room, board and fees. Total revenue for operations, \$85,886,300, represented a 1.1 percent increase over FY 2009.

	FY 2009	FY 2010	Variance \$	Variance %
<b>EXPENSES</b>				
Personnel Compensation Expenditures				
Salaries and Wages	\$32,773,600	\$34,027,700	\$1,254,100	3.8%
Benefits	9,779,000	11,416,200	1,637,200	16.7%
<b>Total Personnel Compensation</b>	<b>\$42,552,600</b>	<b>\$45,443,900</b>	<b>\$2,891,300</b>	<b>6.8%</b>
RIT Services Expenditures				
Direct:				
Residence Halls/Food Service, Student Services	\$7,528,600	\$8,273,100	\$744,500	9.9%
Cross-Registered Tuition	6,956,800	6,829,600	(127,200)	-1.8%
Physical Plant Services	1,885,000	2,092,900	207,900	11.0%
Indirect:				
Overhead	12,192,800	12,641,100	448,300	3.7%
<b>Total RIT Services</b>	<b>\$28,563,200</b>	<b>\$29,836,700</b>	<b>\$1,273,500</b>	<b>4.5%</b>
Other Expenditures				
Support Expenditures	\$4,378,600	\$4,716,100	\$337,500	7.7%
Grant Cost Shares	619,700	496,700	(123,000)	-19.8%
Financial Aid	2,498,600	2,535,500	36,900	1.5%
Capital	1,178,400	2,712,900	1,534,500	130.2%
Matching Endowment	784,000	1,102,800	318,800	40.7%
Plant Fund	4,343,500	(958,300)	(5,301,800)	-122.1%
<b>Total Other</b>	<b>\$13,802,800</b>	<b>\$10,605,700</b>	<b>(\$3,197,100)</b>	<b>-23.2%</b>
<b>Total Expenses</b>	<b>\$84,918,600</b>	<b>\$85,886,300</b>	<b>\$967,700</b>	<b>1.1%</b>
<b>REVENUE</b>				
Federal Appropriation	\$63,037,000	\$63,037,000	\$0	0.0%
Non-federal Funds	21,881,600	22,849,300	967,700	4.4%
<b>Total Revenue</b>	<b>\$84,918,600</b>	<b>\$85,886,300</b>	<b>\$967,700</b>	<b>1.1%</b>



## Tuition, Room, Board and Other Fees

Tuition increased by 4.4 percent, while room, board and other fees increased by 2.7 percent, for a total combined increase of 3.6 percent. These non-federal resources constitute 27 percent of NTID's total operating revenue.

<b>Rates Charged Students</b>					
	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>
Tuition	\$7,992	\$8,559	\$9,153	\$9,801	\$10,233
Room	4,863	5,034	5,211	5,421	5,583
Board	3,588	3,714	3,843	3,960	4,059
Fees	618	642	669	702	717
<b>Total</b>	<b>\$17,061</b>	<b>\$17,949</b>	<b>\$18,876</b>	<b>\$19,884</b>	<b>\$20,592</b>
Collections	\$15,382,500	\$16,607,500	\$19,343,000	\$21,881,600	\$22,849,300
Enrollment (Fall)	1,256	1,250	1,343	1,450	1,474
<b>Collections Per Student</b>	<b>\$12,247</b>	<b>\$13,286</b>	<b>\$14,403</b>	<b>\$15,091</b>	<b>\$15,502</b>

## Financial Aid



**The average student receives significant financial aid to apply against tuition, room, board, fees, books, transportation and other expenses.**

## Financial Aid (Domestic Students)

Financial aid awards to students totaled \$20.4 million in 2010, a 12.1 percent increase over 2009. Fewer students received institutionally sponsored aid, resulting in a 7.4 percent decline in awards. Conversely the number of Pell grants grew by 27 percent with the average award growing by 19 percent – increasing the total amount of

the grants by 51.2 percent. More significantly there was a 30.4 percent increase in the number of loans taken out by students. Student loans in 2010 comprised 26 percent of total financial aid awarded to students, up from 22 percent in 2009.

SOURCE OF AID	2009*		2010*		DIFF %
	Awards*	Amount	Awards*	Amount	
<b>INSTITUTIONALLY SPONSORED SUPPORT</b>					
Grant-in-Aid:					
NTID Grant-in-Aid	392	\$1,315,198	324	\$1,076,232	-18.2%
RIT Grant-in-Aid	32	\$100,588	39	\$98,712	-1.9%
Subtotal Grant-in-Aid	424	\$1,415,786	363	\$1,174,944	-17.0%
Scholarships:					
NTID Merit	386	\$1,147,237	455	\$1,260,718	9.9%
RIT Merit	49	\$76,057	82	\$122,085	60.5%
NTID Endowments	429	\$620,872	363	\$546,389	-12.0%
External Groups	125	\$281,828	84	\$176,158	-37.5%
Subtotal Scholarships	989	\$2,125,994	984	\$2,105,350	-1.0%
<b>Subtotal Institutionally Sponsored Support</b>	<b>1,413</b>	<b>\$3,541,780</b>	<b>1,347</b>	<b>\$3,280,294</b>	<b>-7.4%</b>
<b>STATE AND FEDERAL SUPPORT</b>					
Grants:					
Pell Grants	532	\$1,839,938	676	\$2,781,909	51.2%
State Grants	235	\$549,382	251	\$548,863	-0.1%
Subtotal Grants	767	\$2,389,320	927	\$3,330,772	39.4%
Other Federal Support:					
Vocational Rehabilitation	873	\$8,192,636	905	\$8,377,642	2.3%
Federal Work Study	40	\$39,916	26	\$42,066	5.4%
Subtotal Other Support	913	\$8,232,552	931	\$8,419,708	2.3%
<b>Subtotal State and Federal Support</b>	<b>1,680</b>	<b>\$10,621,872</b>	<b>1,858</b>	<b>\$11,750,480</b>	<b>10.6%</b>
<b>LOANS</b>					
Subsidized Federal Student Loan	512	\$1,982,728	602	\$2,399,348	21.0%
Unsubsidized Federal Student Loan	385	\$1,541,057	582	\$2,426,567	57.5%
Parent PLUS Loans	63	\$536,972	68	\$568,455	5.9%
<b>Subtotal Loans</b>	<b>960</b>	<b>\$4,060,757</b>	<b>1,252</b>	<b>\$5,394,370</b>	<b>32.8%</b>
<b>TOTAL ALL FINANCIAL AID</b>	<b>4,053</b>	<b>\$18,224,409</b>	<b>4,457</b>	<b>\$20,425,144</b>	<b>12.1%</b>
<b>Domestic Student Enrollment</b>		<b>1,412</b>		<b>1,432</b>	<b>1.4%</b>
<b>Average Financial Aid per Student</b>		<b>\$12,907</b>		<b>\$14,263</b>	<b>10.5%</b>
<b>Average Financial Aid per Student Excluding Loans</b>		<b>\$10,031</b>		<b>\$10,496</b>	<b>4.6%</b>

\* Students receive more than one form of aid; therefore the numbers of awards (grants, loans, scholarship, etc.) outnumber the student body.

## External Funding Sources



### NTID's Student Development Center

The substantial external funds that NTID has raised demonstrate the institute's commitment to seeking alternate sources of support.

## The NTID Foundation

NTID received \$2,696,501 in gift income and deferred bequest intentions for FY 2010. These dollars were designated to support our endowed scholarship funds, equipment upgrades to classrooms and laboratories, artwork, the

performing arts program, the CSD Student Development Center, the International Hearing and Speech Center, the Joseph F. and Helen C. Dyer Arts Center and the PEN-International project.

Contributions of \$1,000 and above received during FY 2010 include:

<b>\$1,000,000 and Above Level:</b>	The Nippon Foundation
<b>\$200,000 - \$999,999 Level:</b>	The Estate of Joseph F. Dyer
<b>\$50,000 - \$99,999 Level:</b>	Ms. Renate K. Alpert The Gladys Brooks Foundation The Heinz Endowments Johnson Scholarship Foundation Max Factor Family Foundation Silicon Valley Community Foundation Sprint Relay
<b>\$20,000 - \$49,999 Level:</b>	The Estate of Dr. Eleanor D. Rosenfield Cisco Systems, Inc. Drs. William Destler and Rebecca Johnson Dr. Harold M. and Mary Mowl United States – Japan Foundation
<b>\$10,000 - \$19,999 Level:</b>	Brite Computers Ewing Marion Kauffman Foundation Dr. Mary Jane Hellyar Monroe County Medical Examiner's Office John and Joanne Smith Sorenson Communications, Inc. Paul L. and Sally A. Taylor
<b>\$5,000 - \$9,999 Level:</b>	Apple Inc. Mr. and Mrs. William A. Buckingham Dr. Robert R. and Donna E. Davila Dr. T. Alan and Vicki T. Hurwitz Jephson Educational Trust
<b>\$2,500 - \$4,999 Level:</b>	Andrew N. and Mary E. Brenneman Matthew Garland Graphic Arts Education and Research Foundation Barbara Mayers Donald W. and Jane R. Pulver Rochester Area Community Foundation Solon E. Summerfield Foundation, Inc. Sprint Foundation Louis S. and Molly B. Wolk Foundation Webb Family Foundation Barbara and Donald Zucker Foundation

## The NTID Foundation (continued)

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### \$1,000 - \$2,499 Level:

BayFirst Solutions LLC  
Dr. Laurie C. Brewer  
Dianne K. Brooks  
Dr. Richard and Ginger Burkhauser  
Dr. Karen K. Conner  
Dr. James J. and Patricia A. DeCaro  
Enfocus Software, Inc.  
Dr. Terry and Gail Feigenbaum  
Dr. D. Robert Frisina  
Gannett Foundation, Inc.  
Thomas Gibbons and Linda Siple  
Dr. Robert P. and Mary B. Gulick  
Dr. Robert I. and Evelyn K. Harris  
Interpretek  
Andrew R. Jacobson  
Dr. Ronald R. and Lyn S. Kelly  
Dr. Howard M. and Zje L. Koft  
Dr. Marvin and Elaine Lessig  
Martin G. Lichtenstein  
Lima Design, Inc.  
Dr. Matthew A. Lynn  
Bruce A. and Kathleen M. Martin  
Dr. Stanley D. McKenzie  
Steven M. and Kimberly Morse  
Dr. Robert F. Panara  
Rainbow Alliance of the Deaf, Inc.  
John T. and Shirley M. Reid  
Dr. M. Richard and Clarice Rose  
Joanne Schmeelk  
Michael S. and Barbara N. Servé  
Morris S. Smith Foundation  
Stefano La Sala Foundation, Inc.  
TechSmith Corporation  
Telestream Inc.  
Dr. Steven J. and Sandra Weintraub  
Marsha A. Young

### ***Bequest Intentions/Estate Planning***

The following individual made significant contributions through her estate in the past year:

Dr. Eleanor D. Rosenfield

## The NTID Foundation (continued)

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### ***Gifts in Kind***

The following individuals and companies made significant contributions of equipment or artwork in the past year:

Ms. Renate K. Alpert  
Boinx Software Ltd.  
Cisco Systems, Inc.  
Enfocus Software, Inc.  
Matthew Garland  
Dr. Howard M. and Zje L. Koft  
LanSchool Technologies  
Barbara Mayers  
Dr. Stanley D. McKenzie  
Monroe County Medical Examiner's Office  
Jeremy S. Quiroga  
John and Jeanne Smith  
Sprint Relay  
Rita T. Straubhaar  
TechSmith Corporation  
Telestream Inc.

### ***NTID Projects/Initiatives***

The following individuals and organizations made significant contributions to restricted fund accounts in the past year:

Apple Inc.  
Dr. Karen K. Conner  
Ewing Marion Kauffman Foundation  
Graphic Arts Education and Research Foundation  
The Heinz Endowments  
Interpretek  
Dr. Matthew A. Lynn  
Nippon Foundation  
Rainbow Alliance of the Deaf, Inc.  
Rochester Area Community Foundation  
Joanne Schmeelk  
Silicon Valley Community Foundation  
Morris S. Smith Foundation  
Sorenson Communications, Inc.  
United States – Japan Foundation  
United Way of Greater Rochester  
Louis S. and Molly B. Wolk Foundation

## NTID Annual Fundraising Results

Through the ongoing support of the NTID Foundation, the institute's development program continues to be successful even in this tough economic climate. The substantial sums that NTID has raised over the past 10 years demonstrate NTID's commitment to seeking alternative sources of public and private support.

In FY 2010, NTID received cash of \$2,602,401 for endowment and restricted purposes. Of that amount, \$1,102,800 was deemed eligible for federal matching dollars toward NTID's endowed scholarship funds.

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Cash to Endowment and Restricted Funds	\$2,489,423	\$2,840,116	\$2,527,289	\$2,085,697	\$2,602,401
Equipment and Software	33,148	124,052	254,191	87,660	94,100
<b>Total</b>	<b>\$2,522,571</b>	<b>\$2,964,168</b>	<b>\$2,781,480</b>	<b>\$2,173,357</b>	<b>\$2,696,501</b>

*NTID Performing Arts celebrated its 35<sup>th</sup> season with six major performances, including Sleeping Beauty.*



*Photo by Erin Thomas.*



## NTID Endowment Programs

A total of \$2,205,600, including matching federal funds\* of \$1,102,800, was added to the Federal Matching Endowment Fund corpus in 2010. The market value of NTID's Federal Matching Endowment portfolio stands at \$38,645,276. The market value of NTID's total endowments, which

include privately raised funds prior to the establishment of the Federal Matching Endowment program is \$43,159,914. This is a 15.0 percent increase from the \$37,530,302 portfolio value a year ago.

### Value as of September 30, 2010

	Contributed Value	Market Value
<b>Funds Subject to Federal Investment and Spending Guidelines</b>		
Private	\$7,735,419	\$9,832,757
Federal	\$7,663,821	\$9,371,607
Subtotal	\$15,399,240	\$19,204,364
<b>Funds No Longer Subject to Federal Investment and Spending Guidelines</b>	\$11,010,814	\$19,440,911
<b>Total Federal Endowment</b>	<b>\$26,410,054</b>	<b>\$38,645,275</b>
<b>Other Endowments</b>	<b>Contributed Value</b>	<b>Market Value</b>
Private	\$1,856,880	\$4,514,639
<b>Total Endowments</b>	<b>\$28,266,934</b>	<b>\$43,159,914</b>

\* There is no longer a separate appropriation for the Matching Endowment Program. Any monies matched must be funded through operating funds efficiencies.

## Scholarships and Endowed Funds

The generosity of a large number of friends of NTID has resulted in the following scholarships for our students.

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Barlow Endowed Scholarship Fund

Alice Beardsley Memorial Endowed Scholarship Fund for Interpreting Students at NTID

Ned Behnke Memorial Endowed Scholarship Fund

Doris W. Blanchard Endowed Scholarship Fund

Farid Bozorgi Memorial Endowed Scholarship Fund

Bernard Bragg Deaf Theatre, Signed Arts and Deaf Cinema Endowment Fund

Citicorp/Citibank Endowed Scholarship Fund at NTID

Continental Corporation Endowed Scholarship Fund at NTID

Lillian M. Cowin Memorial Endowed Scholarship Fund

Robert R. and Donna E. Davila Endowed Scholarship Fund

James J. DeCaro Endowed Scholarship Fund

Delta Sigma Phi Fraternity Endowed Scholarship Fund

Ronald Dodge Memorial Endowed Scholarship Fund

Ronald Dodge Faculty/Staff Grants Endowed Fund

Dorothy E. Ann Fund (D.E.A.F.) Endowed Scholarship Fund

Mr. and Mrs. Joseph F. Dyer Endowed Scholarship Fund

Max Factor Family Foundation Endowed Scholarship Fund

Barbara M. Fallon KPMG Memorial Endowed Scholarship Fund

Rose and George Feigenbaum Endowed Scholarship Fund

Ruth H. Fenyvessy Memorial Endowed Scholarship Fund

Maurice and Maxine Forman Endowed Scholarship Fund

Ann Wadsworth Frisina Memorial Endowed Scholarship Fund

Dr. Robert Frisina Award

Max and Helene Frumkes Memorial Endowed Scholarship Fund

Garlinghouse Endowed Scholarship Fund

Warren Goldmann Endowed Scholarship Fund

Allen and Gloria Gopen Endowed Scholarship Fund

Mildred F. Hall Endowed Scholarship Fund

William Randolph Hearst Endowed Scholarship Fund for Financially Disadvantaged Students

Dr. Mary Jane Hellyar Endowed Scholarship Fund

Frank Horton Endowed Scholarship Fund

T. Alan and Vicki T. Hurwitz Family Endowed Scholarship Fund

Ralph Hymes Endowed Scholarship Fund

Interpretek Endowed Scholarship Fund

Lucille Ritter Jennings Endowed Scholarship Fund

## Scholarships and Endowed Funds (continued)

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Jephson Educational Trust Endowed Scholarship Fund for the Performing Arts  
JHB Anonymous Scholarship Fund  
Johnson Scholarship Foundation Endowed Scholarship for Innovation and Entrepreneurship  
David T. Kearns Endowed Scholarship Fund for Technical Excellence  
Drew and Frances King Endowment Fund  
Sara L. Kuhnert Endowed Scholarship Fund  
La Sala Foundation Doctoral Fellowship Fund  
Edward H. Lichtenstein Memorial Endowed Scholarship Fund  
Dr. Frank W. Lovejoy Jr. Endowment for Deafness Research  
Edmund Lyon Memorial Lectureship Fund  
Dr. James C. Marsters Endowed Scholarship Fund  
Dr. Robert S. and Carol D. Menchel Endowed Scholarship Fund  
Mageeda Murad Endowed Scholarship Fund  
Dr. Genji Murai Endowed Scholarship Fund  
Ruth G. Norton Endowed Scholarship Fund  
NTID Alumni Association Endowed Scholarship Fund  
NTID Anonymous #12 Endowed Scholarship Fund  
NTID Architectural Technology Award Endowed Scholarship Fund  
NTID Business Careers Endowed Scholarship Fund  
NTID Emergency EYF Student Scholarship Fund  
NTID Foundation Endowed Scholarship Fund  
NTID Merit Scholarship Fund  
NTID Performing Arts Endowed Scholarship Fund  
NTID President and Dean's Scholarship for Academic Excellence  
NTID Science and Engineering Careers Endowed Scholarship Fund  
NTID Student Leadership Endowed Fund  
NTID Visual Communications Endowed Scholarship Fund  
NYS Federation of Home Bureaus, Inc. Endowed Scholarship Fund in Honor of Martha Perry  
Milton H. and Ray B. Ohringer Endowed Scholarship Fund  
Robert F. Panara Endowed Scholarship Fund  
Shirley M. Panara Memorial Endowed Fund  
Pulver Family Endowed Scholarship Fund  
RIT Celebration of Community Endowed Fund  
Mary Hope Robinson Endowment for the Performing Arts  
Dr. Ellie Rosenfield Endowed Scholarship Fund  
Rothman Family Endowment Fund  
Elizabeth Dunlap Sargent Memorial Endowed Scholarship Fund

## Scholarships and Endowed Funds (continued)

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SASAKAWA Endowed Scholarship Fund  
Wilfrid and Isabel Searjeant Endowed Scholarship Fund  
S. Richard Silverman Endowed Scholarship Fund for International Deaf Students  
Carolie R. Simone Endowed Scholarship Fund  
Edythe and Edward Sklar Endowed Scholarship Fund  
David Smith Memorial Endowed Scholarship Fund  
Benjamin J. Soukup Endowed Scholarship Fund  
Sprint Endowed Scholarship Fund  
Solon E. Summerfield Foundation Endowed Scholarship Fund  
Michael A. Swartzman Memorial Endowed Scholarship Fund  
Paul L. and Sally A. Taylor Endowed Scholarship Fund  
Michael Thomas Endowed Scholarship Fund in the Performing Arts  
Eloise Thornberry Endowed Scholarship Fund  
W. Paul Urich Memorial Endowed Scholarship Fund  
James Ventimiglia Memorial Printing Award Endowed Fund  
Elizabeth W. Williams Endowed Fund for the Performing Arts  
Joseph C. and Loretta F. Wolf Endowed Scholarship Fund  
Louis S. and Molly B. Wolk Foundation Endowed Scholarship Fund for Deaf Students at RIT  
The Womans' Club of Rochester Endowed Scholarship Fund for Deaf Students at RIT  
Women's Council Endowed Scholarship Fund for Hearing-Impaired Students at RIT

## Grants and Contracts

During FY 2010 we had 15 new grant proposals totaling \$5,343,426, which were submitted for funding. Eight, totaling \$1,772,500, were funded; three are still pending; four were not funded. In addition, one pre-proposal, for \$4,861,462, was

submitted. As of September 30, 2010, the annual value of all grants and contracts at NTID totaled \$4,294,833 with a total value over the lives of the projects of \$22,312,415.

Project Title	Grant Provider	Year	Amount FY 2010	Total Value
PEN-International	Nippon Foundation of Japan	10 of 10	\$1,167,600	\$11,461,539
PEPNet-Northeast	U.S. Department of Education	5 of 5	\$1,000,000	\$5,000,000
Psychological Foundations of Mathematics Performance by Deaf and Hearing Students	National Institutes of Health	3 of 4	\$431,847	\$1,642,170
Cognitive and Metacognitive Foundations of STEM Learning by Deaf Students	National Science Foundation	3 of 3	\$324,301	\$966,434
The Science of Learning Center on Visual Language and Visual Learning	National Science Foundation	4 of 5	\$354,492	\$953,701
Substance and Alcohol Abuse Intervention Services for the Deaf (SAISD)	DHHS Substance Abuse and Mental Health Services Administration	5 of 5	\$200,973	\$1,056,620
Reorganization of Visual Functions After Early Deafness	National Institutes of Health	3 of 3	\$44,903	\$136,495
Administrative Supplement to "Reorganization of Visual Functions After Early Deafness"	National Institutes of Health	1 of 1	\$78,440	\$78,440
DHH Cyber-Community – Supporting Deaf and Hard of Hearing Students in STEM Fields	National Science Foundation	2 of 3	\$0	\$90,124
Enrichment: Testing the Concept of a Virtual Alliance for Deaf and Hard-of-Hearing STEM Students at the Postsecondary Level	National Science Foundation	1.5 of 1.5	\$0	\$199,585
National Center for Deaf Health	National Institutes of Health	1 of 5	\$119,224	\$119,224
Survive and Thrive in College (VATEA 09-10)	NYS Education Department	1 of 1	\$26,246	\$26,246
Supporting Women and Underrepresented Deaf Students in Laboratory Science Technology	NYS Education Department	1 of 1	\$5,513	\$5,513

## Grants and Contracts (continued)

Project Title	Grant Provider	Year	Amount FY 2010	Total Value
Analyzing the Use of C-Print Mobile Technology in STEM Laboratory Settings Across Multiple Postsecondary Sites	National Science Foundation	1 of 3	\$394,738	\$394,738
Career Development Workshops to Serve the Deaf Population in Southwestern Pennsylvania	Heinz Endowments	1 of 1.5	\$72,700	\$72,700
Technical Job Training and Career Development Workshops for Deaf and Hard-of-Hearing Adults	BNY Mellon Charitable Foundation	1 of 1	\$25,000	\$25,000
Secondary Educational Enrichment for Deaf Students – International: Sowing the SEEDS of Cross-Cultural Understanding	US – Japan Foundation	1 of 1.33	\$37,011	\$72,041
Investigation of Enhanced Captioning Support	U.S. Department of Education	0.75 of 0.75	\$11,845	\$11,845
<b>Total</b>			<b>\$4,294,833</b>	<b>\$22,312,415</b>



Greg Pollock, past NTID Student Congress President and current RIT Student Government President, at RIT Convocation for New Students and Families, September 2010