2011 Annual Report

Rochester Institute of Technology
National Technical Institute for the Deaf

December 22, 2011

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 2011 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 take great pride in NTID's accomplishments throughout the years as well as the activities and accomplishments during Fiscal Year 2011, during which Dr. Buckley became NTID's first alumnus president.

For the fifth year in a row, NTID set a new enrollment record with 1,547 students, a 15 percent increase from FY 2008. NTID also had a record 298 student co-op experiences (paid employment related to field of study) and continued our 90 percent employment rate, even though the national economic climate improved only slightly this year. NTID's access services department provided unprecedented hours of captioning, interpreting and notetaking, and we saw RIT's second-ever deaf Student Government president, Greg Pollock, reelected for a second term. NTID completed the first year of implementation of our new strategic plan, *Strategic Decisions 2020: Shaping NTID's Future Through Innovation* and opened the RIT American Sign Language and Deaf Studies Community Center in the center of RIT's campus. You will find more about these events and our other accomplishments and challenges in the following pages.

Almost 45 years after the "Grand Experiment" of educating deaf students in a hearing college environment began operation in 1967, NTID has proven itself as a federal investment that works. The mission we were charged with in 1965 is as relevant today as it was then and continues to serve as the anchor to which all projects, goals and initiatives must be tied:

> *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. 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.*

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

http://www.ntid.rit.edu/media/annual-report

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

Gerard J. Buckley, Ed.D.
President, NTID
Vice President and Dean, RIT

Cover Photos

NTID Commencement Ceremony

The front cover photo, taken in May 2011 during NTID's commencement ceremony, shows Lauren Aggen, of Algonquin, Ill., who graduated with an associate degree in Applied Liberal Arts. She was selected as NTID's 2011 commencement delegate and is a recipient of NTID Presidential, NTID Merit, NTID Performing Arts and Lucille Jennings scholarships.

Aggen authored the book *Austin's Gift: The Life of a Grateful Organ Recipient*, which chronicles her experiences as the first female pediatric heart transplant recipient from Chicago's Heart Transplantation Program to attend college. Aggen returned to the RIT campus this fall to pursue a bachelor's degree. Her goal is to become an educator and spokesperson for organ, tissue, eye and blood donor awareness/registration.

NTID Pulse Happy Hour

The back cover photo was taken in November 2011 during one of NTID's Pulse Happy Hours, a bi-weekly open gathering sponsored by NTID Student Congress to give students an opportunity to learn more about on-campus resources and mingle with peers, faculty and staff. The photo shows NTID President Gerard J. Buckley, the first RIT/NTID alumnus to lead the institute, with Robb Dooling, a Computer Science major from Omaha, Neb.

Dooling, an officer of two NTID student organizations, NTID Student Assembly and Spectrum Club, just completed a co-op with NTID's Center on Access Technology for summer and fall 2011. He also is a past winner of RIT's SpiRIT Writing Contest for deaf and hard-of-hearing high school students.

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Contents

RIT's orientation theme for fall 2011, "Dream Big," welcomed RIT/NTID students to campus.

Note of Explanation

This Annual Report notes activities and accomplishments throughout Fiscal Year 2011 (October 1, 2010 – September 30, 2011), corresponding primarily to Academic Year 2010-2011. References to Fiscal Year 2012 correspond to characteristics and accomplishments as of fall quarter Academic Year 2011-2012.

NTID FY 2011 Annual Report
Contents

Contents (continued)

Contents (continued)

The primary mission of the National Technical Institute for the Deaf is 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.

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

Character
World's first and largest technological college for students who are deaf or hard of hearing. One of nine colleges of Rochester Institute of Technology (RIT), 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 (PL 89-36). Began operation in 1967 at RIT, with first students in 1968. RIT was founded in 1829.

RIT Campus
Occupies 1,300 acres, in suburban Rochester, the third largest city in New York state. RIT also has international campuses in Eastern Europe and Dubai.

Enrollment
Total of 1,547 students enrolled as of fall 2011. Undergraduate: 1,281 deaf and hard-of-hearing students, 160 hearing students (enrolled in ASL-English Interpretation program). Graduate: 106 students (64 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 42 deaf and hard-of-hearing in the other colleges of RIT). These students study and reside on a campus that includes more than 16,200 hearing students studying at the associate, baccalaureate, master's and doctoral levels.

Academic Calendar
Currently operates within a quarter system with the typical academic year consisting of fall, winter and spring quarters. Effective September 2013, RIT will convert its academic calendar to a semester system with the typical academic year including fall and spring semesters.

Male/Female Ratio
52 percent male; 48 percent female.

Diversity
Of the 1,547 students enrolled, 29.3 percent are minority students and 2.7 percent are international students from 20 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 200 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.

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, 92 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.

Research
Integrated research program of national and international prominence, focusing on teaching and learning; communication; technology, access and support services; and employment and adaptability to social changes and the global workplace.

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, Health Sciences and Technology, Imaging Arts and Sciences, Liberal Arts and Science.

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

Annual Expenses 2011-2012
for Undergraduate/U.S. Citizens

Tuition	$ 11,583
Room	$ 6,096
Board	$ 4,317
Fees	$ 453
Total	$ 22,449

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 2011 was $10,966, not including loans or federal work study.

Annual Highlights

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

- NTID experienced a fifth year of record enrollment – 1,547 students for fall 2011.
- Real-time captioning and interpreting services were in strong demand in FY 2011, with staff providing 21,493 hours of captioning and 131,065 hours of interpreting – a record level of service.
- NTID had a record number of student co-op experiences – 298 in FY 2011.
- Nearly ninety percent (89.71%) of FY 2010 graduates who sought employment were employed in FY 2011, not including MSSE and ASL-English Interpretation graduates.
- One hundred percent (100%) of FY 2010 MSSE and ASL-English Interpretation graduates were employed in FY 2011.
- Dr. Gerry Buckley became RIT/NTID's first alumnus president on January 1, 2011.
- In January 2011, the Rochester Institute of Technology American Sign Language and Deaf Studies Community Center (RADSCC) opened in the center of RIT's campus.
- NTID students Hannah Worek and Maya Ariel were featured on ABC's television program, *What Would You Do?* in February 2011. The show looked at how the general public addresses discrimination against people who are deaf and underscored NTID's outreach efforts to human resource organizations and employers to educate them about working with deaf and hard-of-hearing individuals.
- In June 2011, RIT/NTID received a grant of $1.75 million from the William G. McGowan Charitable Fund for construction of the Sebastian and Lenore Rosica Hall, a first-of-its-kind facility designed to foster innovation, research and entrepreneurship among deaf, hard-of-hearing and hearing students.
- Based on the success of the TechGirlz summer camp, NTID had its first TechBoyz camp for junior high deaf or hard-of-hearing boys interested in science, technology, engineering and math.
- In August 2011, RIT/NTID received the largest award from the National Science Foundation in RIT's history to establish DeafTEC: Technological Education Center for Deaf and Hard-of-Hearing Students, the first ever Advanced Technological Education center to serve individuals who are deaf or hard of hearing.
- NTID also set a new record of the number of students with cochlear implants – 331 in fall 2011 (more than 24% of students who are deaf or hard-of-hearing).
- In September 2011, Greg Pollock, RIT's second-ever deaf RIT Student Government president, was reelected for a second year (AY 2011-2012).

Executive Summary

New Registrations	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Fall Admissions (Deaf and Hard-of-Hearing Students Only)					
Applications	905	895	900	906	902
Acceptances	463	534	482	477	439
Registrations	377	396	341	351	345
Other New Registrations					
AAS/BS ASL-English Interpretation	34	36	52*	57**	41
MS in Secondary Education	27	24	30	27	18
Total New Registrations	**438**	**456**	**423**	**435**	**404**
Enrollment (Deaf and Hard-of-Hearing Students Only)					
Sub-Baccalaureate Programs					
Career-Focused Programs	450	501	485	488	449
Transfer Associate/Pre-Baccalaureate	113	138	150	168	204
Subtotal Sub-Baccalaureate	**563**	**639**	**635**	**656**	**653**
Baccalaureate Programs at RIT	443	451	478	495	515
Graduate Programs at RIT	51	48	38	40	42
Subtotal Baccalaureate and Graduate at RIT	**494**	**499**	**516**	**535**	**557**
Career Exploration Studies	97	122	124	112	113
Subtotal Deaf and Hard-of-Hearing Students Only	**1,154**	**1,260**	**1,275**	**1,303**	**1,323**
Other Enrollments					
Educational Interpreting	130	135	138*	147**	160
MS in Secondary Education***	59	55	61	71	64
Subtotal Other	**189**	**190**	**199**	**218**	**224**
Total Enrollment	**1,343**	**1,450**	**1,474**	**1,521**	**1,547**

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*   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 2007	FY 2008	FY 2009	FY 2010	FY 2011
Withdrawn (All Students)	16%	14%	15%	14%	13%
Graduates					
Total Degrees Granted	251	286	284	306	288
Degree Level					
Certificate	10	9	7	12	15
Diploma	2	2	1	1	0
Associate (AOS)	43	33	35	42	41
Associate (AS/AAS)	45	61	73	74	82
Associate (Interpreting)	26	10	0	2	1
Bachelor's (Interpreting)	10	18	34	31	18
Bachelor's	78	108	89	112	97
Master's	14	12	22	14	11
Master's (MSSE)	23	33	23	18	23
Post-Graduation Employment					
Post-Graduation Employment	112	102	94	96	N/A*
Post-Graduation Employment Rate	95%	90%	90%	90%	N/A*
By Sector of the Economy					
Business and Industry	63%	71%	59%	57%	N/A*
Education	29%	20%	21%	27%	N/A*
Government	8%	9%	20%	16%	N/A*
Cooperative Work Experiences	272	255	262	281	298
Access/Support Services					
Notetaking Hours	59,466	65,851	63,291	63,620	77,436
Tutoring Hours	15,045	15,271	17,636	18,236	19,395
Interpreting Hours	110,840	114,233	109,618	116,782	131,065
Real-Time Captioning Hours	15,440	16,722	18,168	19,493	21,493

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* Post-graduation employment numbers reflect status as of one year following graduation; placement numbers for September 1, 2010 through August 31, 2011 graduates will be reported next year.

Outreach (Number of External Participants)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
C-Print® Training	7	14	0	7	6
Deaf Initiative in Technology	88	71	64	88	34
Digital Arts, Film and Animation	*	54	64	62	47
Explore Your Future	253	235	196	217	228
FutureQuest	*	46	96	128	102
Interpreter Training**	97	92	37	74	63
Math Competition	*	55	98	61	105
National Center on Employment	958	692	577	521	677
National Science Fair	*	54	62	66	54
Notetaker Training	261	318	223	346	359
Project Fast Forward	*	66	86	76	55
SpiRIT Writing Contest	*	35	42	31	31
Steps to Success	*	14	20	23	23
TechGirlz/TechBoyz Camp	*	21	32	41	38

Financial Aid (Domestic Students)					
Grant-in-Aid	$1,306,250	$1,169,113	$1,415,786	$1,174,944	$1,268,955
Vocational Rehabilitation	6,257,424	7,383,519	8,192,636	8,377,642	8,805,867
Pell Grants	1,241,903	1,450,715	1,839,938	2,781,909	3,130,369
State Grants	536,811	547,755	549,382	548,863	464,249
Federal Loans	3,274,300	3,663,544	4,060,757	5,394,370	5,671,152
Scholarships and Other	1,523,423	1,789,895	2,165,910	2,147,416	2,570,891
Total Financial Aid	**$14,140,111**	**$16,004,541**	**$18,224,409**	**$20,425,144**	**$21,911,483**
Average Aid per Domestic Student (Excluding Loans)*	**$9,537**	**$9,537**	**$10,031**	**$10,496**	**$10,966**

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*   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.

Domestic Student Rates*	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Tuition	$9,153	$9,801	$10,233	$10,719	$11,583
Room	5,211	5,421	5,583	5,862	6,096
Board	3,843	3,960	4,059	4,182	4,317
Fees	669	702	717	753	453
Total	**$18,876**	**$19,884**	**$20,592**	**$21,516**	**$22,449**
Fundraising Activity					
Cash to Endowment and Restricted Funds	$2,527,289	$2,085,697	$2,602,401	$2,975,368	**
Equipment and Software	254,191	87,660	94,100	1,028,004	**
Federal Funds Matched***	$1,200,000	$784,000	$1,102,800	$4,003,372	**

Graduates Olumuyiwa Shodek, an Arts and Imaging Studies major from Largo, Md., and Teresa Jackson, an Arts and Imaging Studies major from Woodbine, Ga., share graduation with their families.

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* 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

The Education of the Deaf Act requires NTID to submit this report annually to the federal government.

Dr. Gerry Buckley, RIT/NTID's first alumnus president, congratulates Dae-Kun Kim, a Master of Science in Secondary Education graduate, from Fremont, Calif.

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.

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.]

(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

Performance indicators, required by the Government Performance and Results Act, measure NTID's performance related to enrollment, persistence, graduation and employment.

Rashaad Lyn, a Mechanical Engineering Technology student from Canton, Mass., receives instructional support from Dr. Patricia Iglesias Victoria, an assistant professor in Engineering Studies.

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.

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 of 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 programs
- 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
2012	1,547

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 Surpassed
2000	1,080	1,084	Target Surpassed
2001	1,080	1,089	Target Surpassed
2002	1,080	1,121	Target Surpassed
2003	1,080	1,093	Target Surpassed
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 Surpassed
2009	1,045	1,212	Target Surpassed
2010	1,045	1,237	Target Surpassed
2011	1,045	1,263	Target Surpassed
2012	1,200	1,281	Target Surpassed
2013	1,200	(October 2012)	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. In September 2011, the target for the number of undergraduates who are deaf and hard of hearing enrolled in NTID was increased from 1,045 students to 1,200 students, as NTID enrolled more than 1,200 undergraduate students in FY 2009, FY 2010, and FY 2011. The target will be revisited prior to October 2013 and revised, if needed.

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
2012	515	766	1,281

As seen from the above table, NTID has increased the undergraduate enrollment of students who are deaf or hard of hearing from 1,263 students during the 2010-2011 academic year to 1,281 students in 2011-2012 academic year (FY 2012). Baccalaureate students account for this growth, increasing by 20 students, while sub-baccalaureate students decreased by two students.

Measure 1.2 of 3: The number of students enrolled in NTID's ASL-English Interpretation programs (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 Surpassed
2007	100	130	Target Surpassed
2008	100	130	Target Surpassed
2009	100	135	Target Surpassed
2010	100	138	Target Surpassed
2011	120	147	Target Surpassed
2012	140	160	Target Surpassed
2013	140	(October 2012)	Pending

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

Frequency of Data Collection. Annual

Performance Indicators (continued)

Data Quality. Enrollment data for students in the ASL-English Interpretation programs 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 160 students in FY 2012. NTID has reported that the ASL-English Interpretation programs receive more applicants than the program is able to accept. NTID 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. Due to the continued growing demand for the program, the target was revised upward again to 140 students for FY 2012 and subsequent years.

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 or 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 Surpassed
2001	50	55	Target Surpassed
2002	75	60	Made Progress From Prior Year
2003	75	73	Made Progress From Prior Year
2004	75	114	Target Surpassed
2005	90	126	Target Surpassed
2006	120	127	Target Surpassed
2007	120	101	Target Not Met
2008	105	110	Target Surpassed
2009	105	103	Target Not Met
2010	105	99	Target Not Met
2011	105	111	Target Surpassed
2012	95	106	Target Surpassed
2013	95	(October 2012)	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. The target was further reduced from 105 students to 95 students for FY 2012 and subsequent years, as NTID's *Strategic Decisions 2020* envisions that enrollment in the MSSE program will decrease by the end of the decade. In FY 2012, NTID had a total of 64 students in the MSSE program and 42 deaf and hard-of-hearing students in other RIT graduate programs, for a total of 106 students.

Objective 2 of 4

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

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 2011 data will be reported in April 2012.

Measure 2.1 of 4: 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 (desired direction: increase)			
Fiscal Year	**Target**	**Percentage (or date expected)**	**Status**
2004		72.0	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	68.8	Target Not Met
2011	70	(April 2012)	Pending
2012	70	(April 2013)	Pending

Source. Rochester Institute of Technology, Registrar Office records

Frequency of Data Collection. Annual

Data Quality. In April 2011, NTID reported to the Department the FY 2010 persistence rate of its sub-baccalaureate students, including interpreter education students, who returned from the 2009-2010 academic year to their second year in the 2010-2011 academic year. NTID will report to the Department the FY 2011 persistence rate in April 2012, with a sub-set of disaggregated data on the persistence rates of sub-baccalaureate students who are deaf and interpreter education students. Prior to FY 2008, this measure did not include interpreter education students.

NTID reported that the persistence rate of its first-time, full-time, degree-seeking sub-baccalaureate students who are deaf and who are not enrolled in NTID's ASL-English Interpretation programs is 68.8 percent. Currently, there are no sub-baccalaureate students enrolled in the ASL-English Interpretation programs.

Target Context. The target for the persistence rate of NTID's sub-baccalaureate students is 70 percent. In comparison, IPEDS data indicate that two-year public colleges have an average persistence rate of 52.5 percent, and two-year private colleges have an average persistence rate of 60.1 percent. Based on this comparison with IPEDS data, the Department and NTID determined that the target of 70 percent for FY 2010 and subsequent years is an ambitious, yet achievable, goal for NTID.

(Source: National Collegiate Retention and Persistence to Degree Rates, retrieved from this Web site: www.act.org/research/policymakers/pdf/retain_2006.pdf)

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 2.2 of 4: 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 (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	85.9	Target Not In Place
2009	Maintain a Baseline	88.0	Target Not In Place
2010	85	93.5	Target Surpassed
2011	85	(April 2012)	Pending
2012	85	(April 2013)	Pending

Source. Rochester Institute of Technology, Registrar Office records

Data Quality. In April 2011, NTID reported to the Department the FY 2010 persistence rate of its baccalaureate students, including interpreter students, who returned from the 2009-2010 academic year to their second year in the 2010-2011 academic year, along with a sub-set of disaggregated data on the persistence rates of baccalaureate students who are deaf and interpreter education students. Prior to FY 2008, this measure did not include interpreter education students.

The following data was submitted to the Department by NTID:

	All students	Deaf students	ASL-English Interpretation students
FY 2008	85.9%	85.7%	87.5%
FY 2009	88.0%	87.7%	89.5%
FY 2010	93.5%	92.5%	95.8%

NTID will report to the Department the FY 2011 persistence rate of its baccalaureate students in April 2012, with a sub-set of disaggregated data on the persistence rates of baccalaureate students who are deaf and interpreter education students.

Target Context. The target for the persistence rate of NTID's baccalaureate students is 85 percent. In comparison, IPEDS data 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. Based on this comparison with IPEDS data, the Department and NTID determined that the target of 85 percent for FY 2010 and subsequent years is an ambitious, yet achievable, goal for NTID.

(Source: National Collegiate Retention and Persistence to Degree Rates, retrieved from this Web site: www.act.org/research/policymakers/pdf/retain_2006.pdf)

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 2.3 of 4: The percentage of first-time, full-time, degree-seeking sub-baccalaureate students who graduate within 150% of the program-based length of time (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	26.9	Target Not In Place
2009	Maintain a Baseline	37.4	Target Not In Place
2010	26	33.5	Target Surpassed
2011	26	(April 2012)	Pending
2012	27	(April 2013)	Pending

Source. Rochester Institute of Technology, Registrar Office records

Frequency of Data Collection. Annual

Data Quality. In May 2011, NTID reported to the Department the FY 2010 percentage of its sub-baccalaureate students (those who were initially enrolled in the 2004-2005 academic year), including interpreter education students, who graduated within 150 percent of the program-based length of time, along with a sub-set of disaggregated data on the graduation rates of sub-baccalaureate students who are deaf and interpreter education students. Prior to FY 2008, this measure did not include interpreter education students.

The following data was submitted to the Department by NTID:

	All students	Deaf students	ASL-English Interpretation students
FY 2008	26.9%	29.3%	0.0%
FY 2009	37.4%	37.8%	33.3%
FY 2010	33.5%	29.6%	73.3%

(Note: 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.)

NTID will report to the Department the FY 2011 graduation rate of its sub-baccalaureate students in April 2012, with a sub-set of disaggregated data on the graduation rates of sub-baccalaureate students who are deaf and interpreter education students.

Target Context. The target for the graduation rate of NTID's sub-baccalaureate students is 26 percent. In comparison, IPEDS analysis of data on 100 community colleges indicated an average graduation rate of 23 percent for full-time, first-time degree/certificate-seeking students within 150 percent of program-based length of time. Based on the comparison with IPEDS data, the Department and NTID determined that the target of 26 percent for FY 2010 and FY 2011 is an ambitious, yet achievable, goal for NTID. The target will be increased by 1 percent to 27 percent in FY 2012 and subsequent years.

Performance Indicators (continued)

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.

Measure 2.4 of 4: The percentage of first-time, full-time, degree-seeking baccalaureate students who graduate within 150% of the program-based length of time (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	64.9	Target Not In Place
2010	60	53.3	Target Not Met
2011	60	(April 2012)	Pending
2012	61	(April 2013)	Pending

Source. Rochester Institute of Technology, Registrar Office records

Data Quality. In May 2011, NTID reported to the Department the FY 2010 percentage of its baccalaureate students (those who were initially enrolled in the 2004-2005 academic year), including interpreter education students, who graduated within 150 percent of the program-based length of time or within six years, along with a sub-set of disaggregated data on the graduation rates of baccalaureate students who are deaf and interpreter education students. Prior to FY 2008, this measure did not include interpreter education students. NTID also updated the graduation rate that was reported in April 2010 for FY 2009 as 62.2 percent to 64.9 percent as more students graduated within 150 percent of the program-based length of time.

(Note: There were no first-time, full-time, degree-seeking baccalaureate students enrolled in NTID's ASL-English Interpretation programs in Fall 2002, Fall 2003, or Fall 2004.)

NTID will report to the Department the FY 2011 graduation rate of its baccalaureate students in April 2012, with a sub-set of disaggregated data on the graduation rates of baccalaureate students who are deaf and interpreter education students.

Target Context. The target for the graduation rate of NTID's baccalaureate students is 60 percent. In comparison, IPEDS data on four-year public and private colleges indicates that all four-year institutions have an average of 55 percent graduation rate, with four-year public colleges at 51.9 percent and four-year private colleges at 63.5 percent. Based on the comparison with IPEDS data, the Department and NTID determined that the target of 60 percent for FY 2010 and FY 2011 is an ambitious, yet achievable, goal for NTID. The target will be increased by 1 percent to 61 percent in 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 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.

Performance Indicators (continued)

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 2011 GPRA report submitted by NTID on those who graduated in 2010, a total of 250 students graduated from NTID that year. Valid data existed on 227 graduates and were collected for the FY 2011 report. Of the 227 graduates, 96 students were employed (42%), 99 students were in higher education or training (44%), and 32 students were not employed or in higher education or training (14%). Of the 32 students not employed or in higher education or training, 11 were actively looking for work. The table below details each graduate's post-school status.

Category of Graduate	Count
Employed	96
Unemployed (Seeking Employment)	11
Not Seeking Employment	21
Education (Within RIT)	74
Education (Outside RIT)	25
Unknown	23
Total	250

Measure 3.1 of 3: The post-school rate of NTID graduates who are employed 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	42	Target Not Met
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

Performance Indicators (continued)

Target Context. The average employment rate of 2005, 2006 and 2007 graduates who were employed full-time within one year after graduation is 57 percent. 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 2011 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:

Graduation Year	Percentage
2000	94
2001	90
2002	92
2003	89
2004	93
2005	93
2006	95
2007	95
2008	90
2009	90
2010	90

In FY 2006, the Department changed the methodology for 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	44	Target Surpassed
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

Performance Indicators (continued)

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 2011 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.

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	14	Target Not Met
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 2011 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	196,898	187,400	Target Surpassed
2011	201,230	205,900	Target Not Met
2012	205,657	(December 2012)	Pending

Source. National Technical Institute for the Deaf, Budget Office

Frequency of Data Collection. Annual

Data Quality. The FY 2011 data on the federal cost per graduate, as reported by NTID, is an average of the cost per graduate from FY 2006 to FY 2011. 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)

Fiscal Year	Target	Cost (or date expected)	Status
Measure 4.2 of 2: Total educational cost per NTID graduate (desired direction: decrease)			
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	236,675	223,900	Target Surpassed
2011	241,882	246,400	Target Not Met
2012	247,203	(December 2012)	Pending

Source. National Technical Institute for the Deaf, Budget Office

Frequency of Data Collection. Annual

Data Quality. The FY 2011 data on the total educational cost per graduate, as reported by NTID, is an average of the cost per graduate from FY 2006 to FY 2011. 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

Strategic Decisions 2020, NTID's strategic planning initiative, was forged with students, staff and faculty involvement.

Stefanie Pullo, a Hospitality and Service Management graduate from Blauvelt, N.Y., and Justin Folk, an Accounting Technology graduate from Northridge, Calif., embrace at NTID's 2011 Commencement.

Strategic Decisions 2020

FY 2011 marked the first year of NTID's implementation of *Strategic Decisions 2020*, the strategic plan for the next 10 years.

Strategic Decisions 2020, or *SD 2020*, is rooted in NTID's 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 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.

SD 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.

A current example of *SD 2020* initiatives is the establishment of NTID as a National Resource Center of Excellence regarding the education of deaf and hard-of-hearing students in senior high school and at the postsecondary level. A component of this effort will include DeafTEC, a program led by three NTID faculty members (Donna Lange, Gary Long and Myra Pelz) that will provide training to educators and employers on how to teach and employ deaf and hard-of-hearing people in STEM fields. DeafTEC has been funded by a $4.5 million grant from the National Science Foundation.

An envisioned example of *SD 2020* initiatives is the improvement of services to underprepared students by working with regional partners to implement intensive summer academic 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 associate degree-level programs and beyond, and provide consultation to others regarding postsecondary educational alternatives.

SD 2020 implementation began in earnest during the 2010-2011 academic year with the establishment of three committees: Enrollment Targets; Flexibility in Direct Instruction; and Innovation, Scholarship and Research. Each committee comprised administrators, faculty and staff from throughout NTID and was charged with recommending specific steps that NTID should take in order to achieve the overarching goals set forth in *SD 2020*.

Enrollment Targets Committee

The Enrollment Targets Committee, chaired by Dr. Stephen Aldersley, was asked to recommend steps that NTID should take in order to achieve a set of specified enrollment targets by the year 2020. While maintaining NTID's current total enrollment, these targets call for 35 percent of deaf and hard-of-hearing students to be enrolled in NTID-based career-focused associate degree programs; 20 percent to be enrolled in associate+bachelor's (2+2) programs; and 45 percent to be enrolled in baccalaureate and graduate programs in the other colleges of RIT.

The enrollment targets for 2020 are identical to those established in *Strategic Vision 2010* (*SV 2010*), NTID's most recent strategic plan. While NTID made significant gains from 2004 to 2010 in attracting, enrolling and retaining students at all degree levels, it did not meet the *SV 2010* targets.

The committee recommended that NTID embark on a comprehensive brand identity study and brand-development initiative to better understand the targeted students and develop strategies and tactics to more effectively market RIT/NTID to them. NTID is already proceeding with the first part of this recommendation (the brand identity study).

Among other committee recommendations were the following:

- Developing a set of enhanced recruitment, marketing, admissions and financial aid initiatives, including strengthening relationships with parents and reviewing our merit scholarship criteria;
- Enhancing and strengthening relationships with state Vocational Rehabilitation agencies;
- Closely monitoring NTID's retention rate and examining the reasons why students stay and persist to graduation;
- Evaluating all pre-college outreach programs, such as TechBoyz, pictured here, for effectiveness and efficiency, and developing and implementing new ways to ensure that our students arrive at NTID better prepared to enter our degree programs and to persist to graduation;
- Developing new academic programs that correlate with student interest and emerging technological fields; and
- Continuing our commitment to and support of AALANA students.

These strategies and others are designed to result in increasing numbers of our students achieving baccalaureate degrees and higher, while maintaining focus and commitment to quality associate-level degree programs that lead directly to the workplace.

Innovation, Scholarship and Research

Chaired by Dr. Laurie Brewer, this committee has been charged with developing recommendations to enhance innovation, scholarship and research at NTID. There are five components to the committee's implementation plan: (1) Establish a center-based model for NTID's research agenda; (2) support discipline-based research; (3) foster undergraduate and graduate scholarship and innovation; (4) provide space for all of the above; and (5) enhance NTID's institutional research.

The committee developed guidelines for supporting innovation, scholarship and research at NTID. In June, a call was issued for proposals for Strategic Research Centers. These proposals are now being reviewed. The Research Department has been disbanded, and its faculty are being assigned to home departments where they, along with all other tenure-track faculty, will pursue portfolios that will include teaching as well as discipline-based scholarship. Finally, innovation funding has been provided to support nearly 30 faculty-led projects in the areas of instruction and services, scholarship and professional development. These projects also engage students in research and scholarship.

Space for these new initiatives will be provided in part by the new Sebastian & Lenore Rosica Hall, a unique, state-of-the-art facility designed to foster innovation, entrepreneurship and original research among deaf, hard-of-hearing and hearing students. The ground-breaking for Rosica Hall was held in October 2011, and the building is expected to be completed in time for the 2013 academic year.

Flexibility in Direct Instruction Committee

The Flexibility in Direct Instruction Committee, co-chaired by Dino Laury and Mary Pat Magde, analyzed and made recommendations for improved classroom communication at NTID in cases where a student is not benefiting educationally because of apparent mismatches between that student's communication needs and the NTID Direct Instruction Model. (This model utilizes sign language, written language, visual aids and online material in instruction, with the faculty member responsible for facilitating communication in the classroom.)

The committee recommended that additional steps be taken during the Summer Vestibule Program (SVP) to identify and address the potential communication needs of students with no strong communication modality, students with little or no sign language skills, and students who primarily use only ASL to communicate. The committee also recommended procedures for implementing and addressing communication mismatches that occur in the classroom between students and faculty. These recommendations are in the process of being implemented.

The start of the 2011-12 academic year saw the formation of two new *SD2020* committees: Faculty/Staff Professional Development, and Communication Expectations for Faculty and Staff.

Faculty/Staff Professional Development Committee

This committee, co-chaired by Dr. Linda Rubel and Amy Stornello, is charged with reviewing and making recommendations to enhance the professional development options available to both new and veteran faculty and staff. Nearly 40 percent of our current workforce is eligible for retirement, which means that we must take immediate steps to assure a smooth transition to the well-trained and productive leaders of the NTID of the future.

The committee will address five areas of professional development: (1) communication skills; (2) teaching effectiveness; (3) scholarship and research; (4) discipline-based content expertise; and (5) leadership. It will develop recommendations within these five areas, including but not limited to, new faculty and staff orientation programs; discipline-based mentoring by senior faculty members; supporting faculty member's completion of terminal degrees in light of university-wide guidelines and standards; and enhancing communication effectiveness for both new and veteran faculty.

Faculty/Staff Communication Expectations Committee

All faculty, staff and students within the NTID community are expected and encouraged to continuously increase their skill and versatility in communicating with one another in diverse situations. Versatility includes skills and strategies in both American Sign Language and English (written and spoken), and the use of access services and technologies to facilitate communication.

This committee, co-chaired by Rick Postl and Dr. Peter Hauser, will specifically review sign language communication expectations, requirements and incentives for faculty and staff, and recommend modifications where necessary. The committee will also evaluate, and make recommendations regarding, the effectiveness of the Sign Language Proficiency Interview (SLPI) as NTID's main sign communication assessment tool.

Admissions and Enrollment

NTID's fall 2011 enrollment of 1,547 students is the highest enrollment in NTID history.

RIT/NTID students, with some help from RITchie, RIT's tiger mascot, participate in the RIT Tiger Walk, a procession of new students from the residence halls to the Gordon Field House for the opening convocation ceremony.

Admissions and Enrollment Highlights

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

Admissions counselors visited 421 schools during the FY 2011 admissions cycle. Visits this year covered 408 high schools, including 117 in the Midwest, 89 in the Southeast, 56 in the Northeast, 63 in New York State and 76 in the West Coast region. Counselors visited 13 colleges: eight in the West Coast region, one in the Midwest, one in the Northeast, two in New York State and one in the Southeast region. Admissions visited 373 mainstream schools and 48 schools for the deaf.

The number of new students entering NTID in fall 2011 was 404. The total included 337 deaf and hard-of-hearing freshmen and transfers, 17 first-year deaf and hard-of-hearing graduate students (nine in the Master of Science program in Secondary Education of Students who are Deaf or Hard of Hearing [MSSE] and eight in other RIT master's programs), and 50 first-year hearing students (41 in the ASL-English Interpretation program, and nine in the MSSE program).

Overall, NTID's applicants increased by 1 percent from last year's 1,158 to 1,174 applicants for fall 2011 enrollment. Total enrollment was 1,547 compared to 1,521 for last year. The breakdown of the 1,547 students is as follows:

	Deaf and Hard-of-Hearing	Hearing	Total
Undergraduate Programs			
Career Exploration Studies	113	0	113
Career-Focused Associate Programs	449	0	449
Associate+Bachelor's Programs	204	0	204
Baccalaureate (ASL-English Interpretation)	0	160	160
Baccalaureate/Master's Programs in Other RIT Colleges	515	0	515
Subtotal NTID Undergraduate Programs	**1,281**	**160**	**1,441**
Graduate Programs at RIT	42	0	42
MSSE Program	31	33	64
Total Enrolled Students	**1,354**	**193**	**1,547**

NTID's student population remains strong in both ethnic and geographic diversity. Minority students represent 32 percent of this year's fall 2011 entering class, compared to 29 percent of the total student body. Minority students have represented approximately 31 to 34 percent of the entering student population over the past five years. Additionally, minority students have represented approximately 25 to 29 percent of the entire student population over the past five years (for more information see the Diversity and Pluralism section). Students come from all over the country, with 13 percent from the West, 20 percent from the South, 28 percent from the Midwest, and 39 percent from the Northeast.

In addition, NTID enrolled 7 new international students. The total number of international students is 42, 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 past five years.

In summary, NTID registered 404 new students and is serving a total of 1,547 students.

NTID's fall 2011 enrollment of 1,547 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.

Fall Enrollments of NTID Students

1,547
(2011)

1,358
(1984)
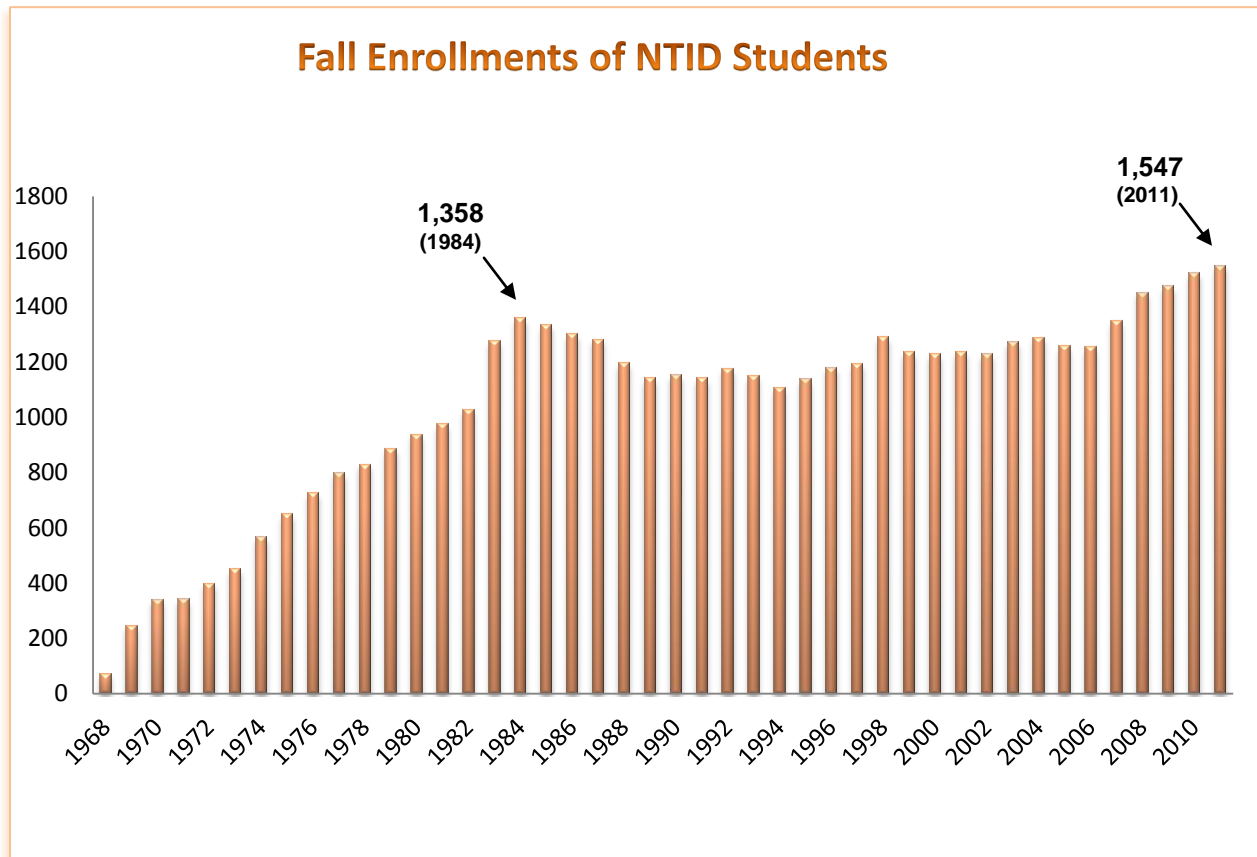
Comparative Admissions Data

Applications, excluding the ASL-English Interpretation or MSSE programs, decreased slightly from last year.* The acceptance rate was 49 percent of applications. Registrations were 345, achieving a yield rate of 79 percent.

	Number of New Students				
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Applicants	905	895	900	906	902
% Increase or Decrease from Previous Year	+16.6%	-1.1%	+0.6%	+0.7%	-0.4%
Accepted Applicants	463	534	482	477	439
% Increase or Decrease from Previous Year	+14.6%	+15.3%	-9.7%	-1.0%	-8.0%
Acceptance Rate (Percent of Total Applicants)	51.2%	59.7%	53.6%	52.6%	48.7%
Registrations	377	396	341	351	345
Yield Rate (Registrations as a Percent of Accepted Applicants)	81.4%	74.2%	70.7%	73.6%	78.6%

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* Overall, NTID's total applications increased by 1 percent from last year's 1,158 to 1,174 applicants for fall 2011 enrollment, as reported on p. 32. In the figures on this page, "applicants" and the other categories 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 2011.

	Number of Students*				
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
SVP Students Accepted	355	397	366	352	323
SVP Students Registered at Start of Program	254	295	265	269	269
SVP Students Completing Program	253	294	259	268	268
SVP Students Registered in Academic Programs for Fall Quarter 2011	253	294	253	263	265

Students line up for SVP 2011 registration.

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

Admissions and Enrollment

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 they do not need the SVP experience.

As of fall 2011, the number of new students was down 6 percent from the previous fall, from 373 to 352 students.

	Number of Students*				
	FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2011**
Winter (Off-Term)	18	20	24	23	7
Spring (Off-Term)	25	18	2	9	8
Summer (Off-Term)	0	0	0	0	0
Subtotal Off-Term	**43**	**38**	**26**	**32**	**15**
Fall (SVP) **	253	299	258	276	277
Fall (Direct Entry)**	81	86	71	65	60
Subtotal Fall	**334**	**385**	**329**	**341**	**337**
Total	**377**	**423**	**355**	**373**	**352**

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* 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 programs or the Master of Science program in Secondary Education. Specific data on these students is reported in the section on Academic Programs.

** Includes 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 (160), or deaf, hard-of-hearing or hearing students enrolled in the Master of Science program in Secondary Education (64). 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 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%	1,213	4.03%	-6.91%	1,211	3.50%	-0.16%	442	7.54%	269	0.00%
FY 12:	Oct. 11-Sep. 12	1,323	1.53%										

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 2008	FY 2009	FY 2010	FY 2011	FY 2012		
						Number	
					Percent	**Full-Time**	**Total**
Career Exploration	99%	99%	99%	100%	98%	111	113
Career-Focused and Transfer Associate Degrees	98%	98%	97%	97%	98%	602	616
Pre-Baccalaureate	100%	97%	100%	100%	100%	33	33
Cross-Registered Baccalaureate and Graduate	92%	91%	93%	93%	93%	502	540
ASL-English Interpretation	91%	91%	93%	97%	94%	151	160
Master of Science in Secondary Education (MSSE)*	85%	73%	75%	80%	84%	54	64
Overall	**95%**	**94%****	**94%*****	**95%******	**95%**	**1,453**	**1,526*******

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*   Included for 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.
**   Information on full-time status is not available for 24 students, who therefore are not included.
*** Information on full-time status is not available for 25 students, who therefore are not included.
**** Information on full-time status is not available for 22 students, who therefore are not included.
***** Information on full-time status is not available for 21 students, who therefore are not included.

International Student Recruitment

This year, applications from international students numbered 59 and, of those, seven were accepted and seven 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.

	Number of Students*				
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Applicant Continent of Origin					
Africa	19	9	20	12	7
Asia	10	10	12	10	6
Europe	3	2	8	8	5
North America	33	32	29	31	40
South America	0	0	0	2	1
Total Applicants	**65**	**53**	**69**	**63**	**59**
Accepted Applicants	**11**	**15**	**13**	**14**	**7**
Acceptance Rate (Percent of Total Applicants)	17%	28%	19%	22%	12%
New Registrations	**10**	**7**	**12**	**9**	**7**
Yield Rate (New Registrations as a Percent of Accepted Applicants)	91%	47%	92%	64%	100%
Returning International Students	**34**	**31**	**30**	**31**	**34**
Total Enrollment (Returning International Students plus New Registrations)	**44**	**38**	**42**	**40**	**41**

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

Admissions and Enrollment

Demographic Characteristics of All Entering Students

The demographic profile of entering students demonstrates a change in gender distribution and an increase in the percentage of students for whom this is their first time in college.*

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Characteristics of Entering Students					
Gender					
Male	52%	51%	60%	54%	64%
Female	48%	49%	40%	46%	36%
Mean Age at Entry	21	21	21	21	21
Parents' Hearing Status					
Both Hearing	85%	92%	85%	86%	83%
Both Deaf	5%	4%	9%	8%	10%
One Hearing/One Deaf	10%	4%	6%	6%	7%
Origin of Entering Students					
United States by Region: 100% of U.S. students distributed across four regions					
West	10%	11%	9%	14%	13%
Midwest	20%	23%	26%	25%	28%
South	23%	22%	22%	22%	20%
Northeast	47%	44%	43%	39%	39%
Distribution of United States and International Students					
United States	97%	97%	96%	96%	98%
International	3%	3%	4%	3%	2%
School Background of Entering Students					
First Time in College	74%	71%	72%	72%	81%
Transfer from Other Colleges	16%	17%	16%	20%	12%
Previously Enrolled at RIT	6%	5%	8%	5%	5%
Graduate Students	4%	7%	4%	3%	2%

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* Figures reported include deaf and hard-of-hearing international students, but do not include admissions activity in the ASL-English Interpretation programs 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 2012*		
	International	**U.S.**	**Overall**
Demographics			
Gender			
Male	68%	57%	58%
Female	32%	43%	42%
Entry Age, All Students	25	23	23
Entry Scores			
Hearing Level (Pure Tone Average) in Better Ear	96.8 dB	93.4 dB	93.5 dB
ACT Composite Score	19.0	18.0	18.0
Program Area			
Career Exploration	7%	9%	9%
Career-Focused Associate Degrees	22%	34%	34%
Transfer Associate Degrees	20%	15%	15%
Other Colleges of RIT Baccalaureate/Master's	41%	42%	42%
FY 2012 Status of Students Enrolled FY 2011			
Still Registered	82%	72%	72%
Withdrawn	0%	14%	14%
Graduated	18%	14%	14%

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

Admissions and Enrollment

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 above those of students entering in fall 2010.

American College Test (ACT)*	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
ACT English	14.8	15.6	15.3	14.5	15.1
ACT Reading	17.3	18.4	18.1	17.0	18.1
ACT Mathematics	17.7	18.1	18.3	17.5	18.3
ACT Science Reasoning	19.0	19.1	19.4	18.7	19.7
ACT Composite	17.5	18.2	17.9	17.2	18.0

Trevor Bynum, of Springfield, Mass., and Mio Pejic, of Lombard, Ill., participate in RIT's Tiger Walk, which welcomes new students.

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* Figures reported include deaf and hard-of-hearing international students, but do not include admissions activity in the ASL-English Interpretation programs 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 24.8, and represent 17.8 percent of NTID's entering class of 2011. The average ACT composite score for students entering transfer associate programs is 19.2, and represents 26.7 percent of NTID's entering class. The average ACT composite score for students entering career-exploration programs is 14.7, and represents 21.4 percent of NTID's entering class. Lastly, the average ACT composite score for students entering career-focused associate programs is 16.1, and represents 34.1 percent of NTID's entering class. The average ACT composite score of 18.0 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.

Degree Level	Percentage of Deaf and Hard-of-Hearing Students by Degree Level	ACT Composite Mean
Bachelor's in Other RIT Colleges	17.8%	24.8
NTID		
Career-Focused Associate Programs	34.1%	16.1
Transfer Associate Programs	26.7%	19.2
Career Exploration	21.4%	14.7
Total*	**100%**	
Average Score of All Entering Students*		**18.0**

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

Admissions and Enrollment

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 number of students with cochlear implants has increased to 331 in fall 2011.

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 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.

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Total Number of Deaf Students*	1,187	1,284	1,307	1,332	1,354
Students with Cochlear Implants	245	255	273	305	331
Percent with Cochlear Implants	20.6%	19.9%	20.8%	22.9%	24.4%
Average Hearing Level in Best Ear of All Deaf Students	92.6 dB	93.2 dB	93.2 dB	93.0 dB	93.5 dB

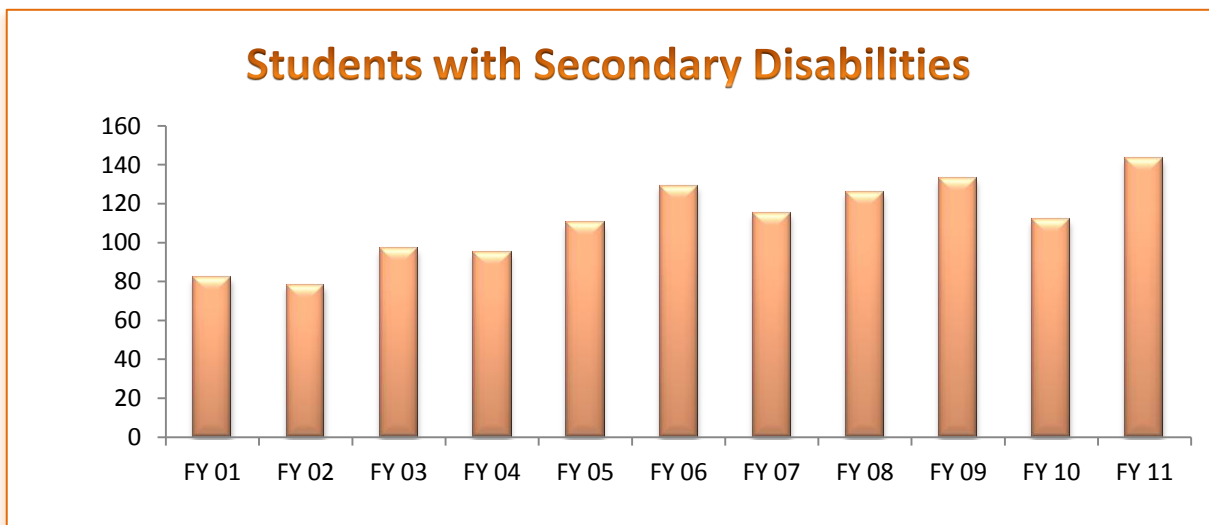### Students with Cochlear Implants
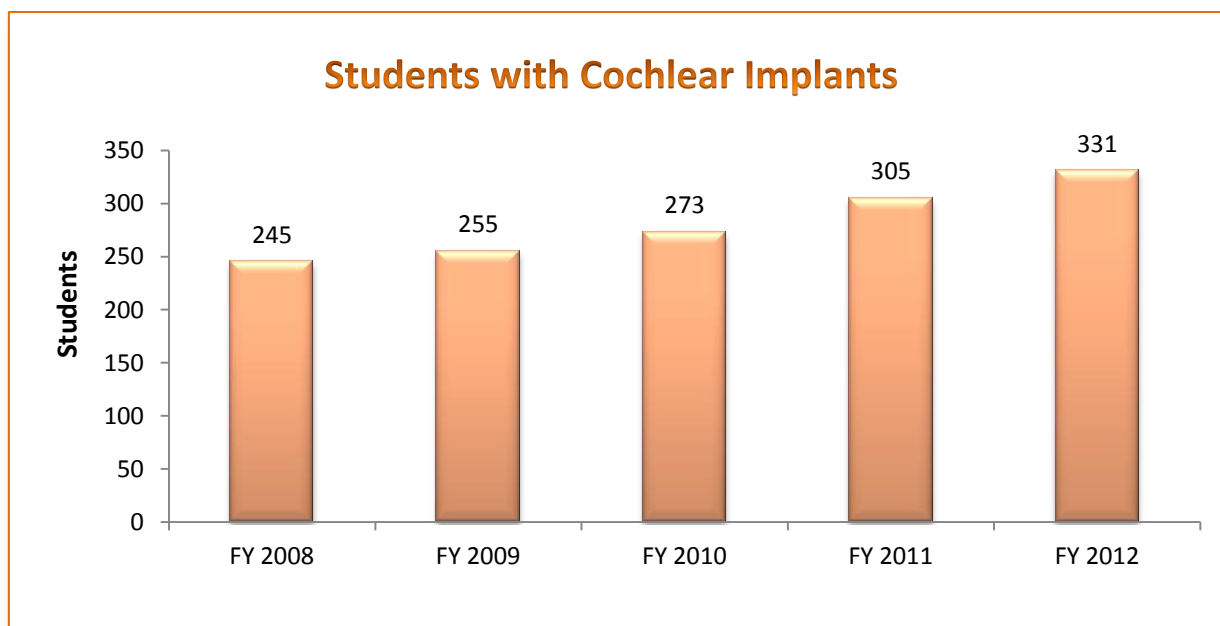
* This figure includes all deaf and hard-of-hearing students, undergraduate and graduate.

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
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%
2011	1,263	143	11%

Students with Secondary Disabilities

*   This figure includes all undergraduate deaf and hard-of-hearing students.
**   Secondary disability numbers for FY 2009 are estimates; these data are not available.

Admissions and Enrollment

Origin of Students and Graduates

NTID students enrolled as of fall 2011 come from 49 states. A total of 20 countries are represented among current students.
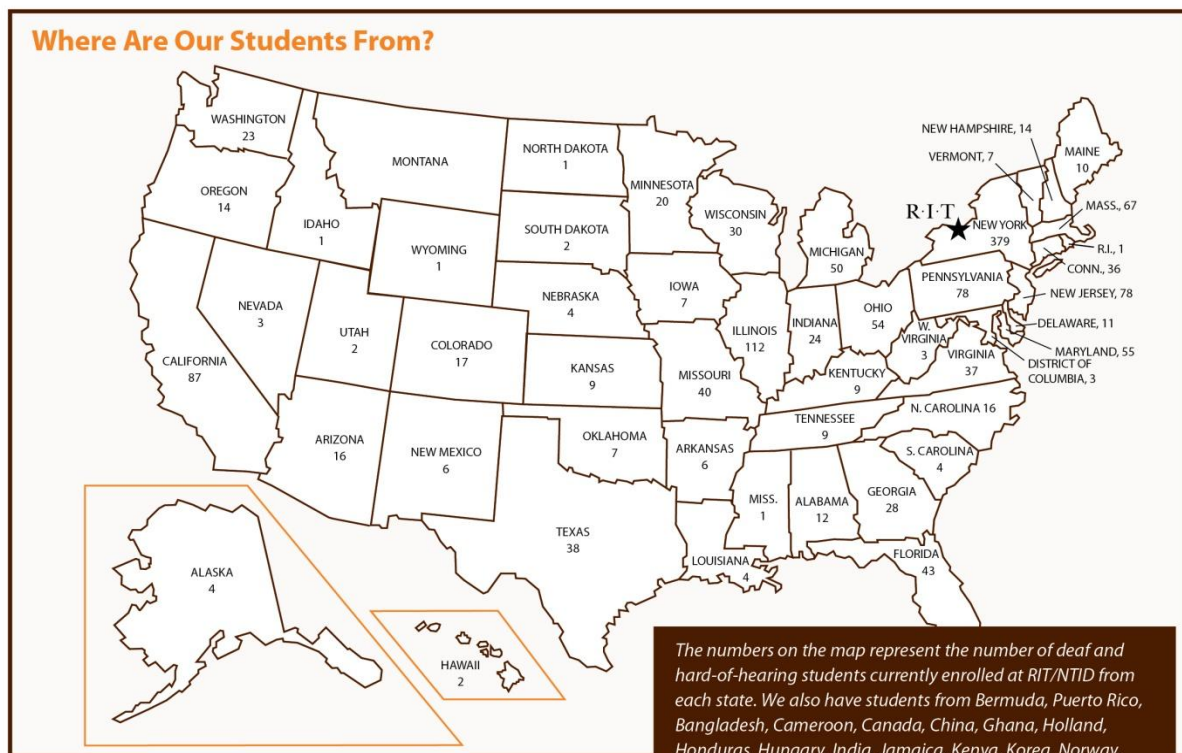
Since NTID began accepting students, we have had students from more than 50 countries and all 50 states.

Home State or U.S. Territory	Number in Student Body FY 2012	Graduates to Date as of Fall 2011	Cumulative Students to Date*
Alabama	12	26	62
Alaska	4	9	23
Arizona	16	29	94
Arkansas	6	28	68
California	87	341	763
Colorado	17	55	115
Connecticut	36	185	371
Delaware	11	27	70
District of Columbia	3	14	36
Florida	43	165	431
Georgia	28	63	170
Guam	0	0	2
Hawaii	2	25	39
Idaho	1	3	16
Illinois	112	399	888
Indiana	24	97	243
Iowa	7	57	110
Kansas	9	43	99
Kentucky	9	42	122
Louisiana	4	52	102
Maine	10	48	109
Maryland	55	153	403
Massachusetts	67	318	657
Michigan	50	263	568
Minnesota	20	95	190
Mississippi	1	5	21
Missouri	40	149	311
Montana	0	7	16
Nebraska	4	36	69
Nevada	3	6	20
New Hampshire	14	47	97
New Jersey	78	341	665
New Mexico	6	22	71
New York	379	1,871	3,903
North Carolina	16	58	140
North Dakota	1	19	35

* Includes current and withdrawn students and graduates.

Origin of Students and Graduates (continued)

Home State or U.S. Territory	Number in Student Body FY 2012	Graduates to Date as of Fall 2011	Cumulative Students to Date*
Ohio	54	374	706
Oklahoma	7	15	43
Oregon	14	50	101
Pennsylvania	78	539	1,091
Puerto Rico	2	8	19
Rhode Island	1	39	77
South Carolina	4	21	48
South Dakota	2	11	22
Tennessee	9	45	95
Texas	38	170	432
Utah	2	11	26
Vermont	7	38	84
Virgin Islands	0	1	4
Virginia	37	126	294
Washington	23	63	161
West Virginia	3	30	64
Wisconsin	30	96	228
Wyoming	1	4	7
Other**	14	11	148
Subtotal	**1,501**	**6,747**	**14,761**

Where Are Our Students From?

The numbers on the map represent the number of deaf and hard-of-hearing students currently enrolled at RIT/NTID from each state. We also have students from Bermuda, Puerto Rico, Bangladesh, Cameroon, Canada, China, Ghana, Holland, Honduras, Hungary, India, Jamaica, Kenya, Korea, Norway, Pakistan, Taiwan, Tanzania, Thailand, Zambia and Zimbabwe.

* Includes current and withdrawn students and graduates.
** U.S. citizens living in other countries.

Admissions and Enrollment

Origin of Students and Graduates (continued)

Country	Number in Student Body FY 2012	Graduates to Date as of Fall 2011	Cumulative Students to Date*
Australia	0	1	1
Bahamas	0	1	1
Bangladesh	1	0	1
Belgium	0	1	1
Bermuda	1	1	3
Bolivia	0	1	1
Brazil	0	0	1
Bulgaria	0	1	1
Cameroon	1	0	2
Canada	16	163	293
Chad	0	0	1
China	1	3	7
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
Holland	4	0	4
Honduras	1	0	1
Hong Kong	0	0	1
Hungary	1	0	1
India	5	17	27
Ireland	0	1	2
Jamaica	2	0	5
Japan	0	4	6
Kenya	1	0	1
Korea	2	0	2
Lebanon	0	0	1
Malaysia	0	2	3
Mexico	0	1	3
Nepal	0	1	2
Nigeria	0	1	4
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

* Includes current and withdrawn students and graduates.

Origin of Students and Graduates (continued)

Country	Number in Student Body FY 2012	Graduates to Date as of Fall 2011	Cumulative Students to Date*
Switzerland	0	1	1
Taiwan	1	5	6
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	1	0	2
Zimbabwe	1	1	2
Other	0	6	4
Subtotal	**46**	**244**	**444**
Total	**1,547**	**6,991**	**15,205**

As of fall 2011, in the entire student body, NTID has 42 international students enrolled based on visa status.

	Number	Percent
U.S. Students	1,505	97.3%
International Students	42	2.7%
Total	**1,547**	**100.0%**

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* 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.

Aharon Riolo, an Applied Mechanical Technology major from East Stroudsburg, Pa., and Marissa Mejorado, an Arts & Imaging Studies major from Fremont, Calif., converse with Engineering Studies lecturer Wendy Dannels.

Academic Program Highlights

This fiscal year, Academic Affairs began the implementation of *Strategic Decisions 2020*. The academic departments took the lead on: 1) identifying new majors for career-focused associate degrees and associate+bachelor's degrees; 2) exploring the possibility of new baccalaureate or master's degrees; 3) enhancing the development of "soft skills" in the curriculum; 4) enhancing the use of technology to improve learning; 5) coordinating technical education and co-curricular activities; and 6) continuing to foster the use of English and ASL in the instructional process.

In addition, there were four college-wide implementation committees that prepared plans for new *SD 2020* initiatives. These included: 1) Establishing Flexibility in the Use of the Direct Instruction Model; 2) Implementing the New Innovation, Scholarship and Research Model; 3) Achieving the Enrollment Targets for 2020; and 4) Coordinating NTID Institutional Research. All committees completed their reports and submitted them to the NTID President for review.

SD 2020 calls for NTID to open an RIT Community Center for ASL and Deaf Studies to promote education, understanding and participation in the RIT deaf community by all members of the RIT community. The new center was opened in January 2011 in the RIT Student Alumni Union in the middle of campus.

Finally, *SD 2020* calls for NTID to enhance its role as a national resource center of excellence. This year, a new DeafTEC Center was established, supported by a grant from the National Science Foundation to improve STEM education for deaf and hard-of-hearing high school students who wish to pursue careers as technicians. NTID is now home to an Advanced Technological Education Center that will make NTID's expertise available nationally through regional partnerships and a comprehensive website.

This fiscal year, the faculty also completed the course mask revisions for all academic programs for conversion to semesters in fall 2013. They also completed the revision of the general education requirements and course revisions for all technical and most general education courses for the semester conversion.

It has truly been an amazingly productive year in Academic Affairs.

Career-Focused Associate Degrees

NTID offers career-focused degrees in the areas of Arts & Imaging, Business, Computing, Engineering Technologies and Lab Science Technology. The programs within these clusters are designed to lead directly to employment in high-demand technical jobs. NTID's *Strategic Decisions 2020* calls for reviewing and updating the career-focused program portfolio by means of conducting an evaluation of existing programs with the goal of continuing, modifying, deleting and creating new programs—the latter to be in areas such as green technology, sustainability and health care. *Strategic Decisions 2020* also repeats the target originally stated in the previous strategic plan of having 35 percent of NTID students in programs at this degree level.

At the beginning of Academic Year (AY 2011-2012), there were 562 deaf and hard-of-hearing students enrolled in career-focused programs, including students enrolled in AOS and non-transfer AAS degrees as well as students in Career Exploration Studies.

In 2010-2011, the following program and curricular revisions were made in the final implementation year of *Strategic Vision 2010*.

In AY 2010-11, the Arts & Imaging Studies (AIS) Department has implemented the revised program curriculum that was approved in spring 2010. This revision from four to two AIS program concentrations has proven to be very successful. The revised list of required core courses is better preparing students for continuing study in their concentrations. As a lead-in to the semester conversion process, the AIS faculty developed revised program goals and learning outcomes. The semester program proposal with

expanded, combined and new courses was written and approved by NTID, RIT and NYSED. In response to the *Strategic Vision 2020* goals, the AIS faculty have identified potential new associate degree programs that would be offered using existing resources. Further study of these program concepts will be conducted in FY 2012.

The Department of Engineering Studies (DES) completed the RIT conversion to semester curriculum for Computer Aided Drafting Technology (CADT A/E/C) and Computer Integrated Machining Technology's (CIMT) career-focused programs. The Automation Technology (AT) program is discontinued, based on institute program review, and scheduled to close at the end of summer 2012 quarter. To continue enhancing the process for student program selection and expand the scope of employment marketability, DES began a major curriculum conversion from a quarter to semester model, explored more than 40 skill sets for future potential program niches, and seriously considered expanding the existing programs. During the 2011 Summer Vestibule Program, 9 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, the pilot program's third year, thus allowing them to do developmental work in Engineering Technology, Math and English. This project is considered a technical expansion program for underprepared students with the idea of a school-within-a-school. More than three-fourths (AY 2009-2010 was 77% and AY 2010-2011 was 87.5%) of these students eventually matriculated into Engineering Studies.

In 2010, 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. In 2011, seven-quarter AAS and AOS degrees, both featuring the two concentrations, were available to students.

The Department of Liberal Studies (DLS), as part of its semester conversion efforts, focused on streamlining the curriculum to more clearly delineate the degree options available to students. The new curriculum, undergoing review by the college curriculum committee, creates greater efficiencies in course offerings and also presents intensive English remediation at both the lowest-level and upper-level courses. Students in the middle-level courses will continue to take three credits of English per semester, while students at other levels will take six credits.

Associate+Bachelor's Degrees

Following a recommendation of *Strategic Vision 2010*, NTID has developed a number of transfer associate degrees that provide seamless transition to RIT baccalaureate programs. There are now seven of these programs, which are now called "associate + bachelor's" degree programs (to avoid confusion with the word "transfer"). They have been very successful, both in terms of growth, graduation at the associate level, transfer to a bachelor's program in one of the other colleges, and subsequent graduation at the bachelor level.

At the beginning of the 2011-2012 academic year, a total of 204 students were enrolled in these and pre-baccalaureate programs, an increase of 21 percent over the preceding year. This number is slated to continue to increase as we expand the number of such programs and market them as precursors to RIT baccalaureate programs. Indeed, *Strategic Decisions 2020* calls for increasing the total proportion of students in these programs from the existing 15 percent to 20 percent of the deaf and hard-of-hearing student body (excluding students in the ASL-English Interpretation programs or the Master of Science in Secondary Education program).

The AS in Applied Liberal Arts, NTID's newest associate+bachelor's degree program, rapidly increased its enrollment from its original seven students to 50 students by fall 2011. One student graduated this past year, with several more very close to completing all program requirements. 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.

Academic Program Highlights (continued)

In the Business Studies Department, the AS associate+bachelor's 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 46 percent of students in AS and BS degrees and 54 percent in AOS/AAS degrees.

The Department of Engineering Studies (DES) completed the RIT conversion to semester curriculum for the associate+bachelor's degree program and renewed the articulation agreement with the College of Applied Science and Technology's (CAST) Mechanical and Manufacturing Engineering Technology programs. The articulation has at least 92 transferable credits. On average, since the initial year of 2005, DES has admitted five students annually. The AY 2010-2011 produced the largest graduating class of five students, and four of them continued on with baccalaureate studies. The (preliminary) Civil Technology associate+bachelor's degree program was approved during the quarter era as a concept paper, and it is currently being modified within the department curriculum committee.

In 2010, 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. The agreements are in the areas of Information Technology, Applied Networking and System Administration, and Information Security and Forensics. As a result, in 2011, students have transitioned smoothly from associate to bachelor's degrees in these three areas.

Support for Baccalaureate Students

Strategic Decisions 2020 continues the goal of pursuing enrollment targets and admissions and programming strategies that will result in increasing numbers of NTID graduates achieving baccalaureate degrees and higher.

At the beginning of AY 2011-2012, 515 students (38 percent of the total deaf and hard-of-hearing student enrollment) were registered for classes in one of 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® services are offered through NTID's Department of Access Services.

Strategic Decisions 2020 Enrollment Targets

The enrollment targets set in *Strategic Decisions 2020* were: 35 percent career-focused programs, 20 percent transfer associate degree programs and 45 percent baccalaureate/master's programs. At the beginning of AY 2011-2012 our enrollment percentages for deaf and hard-of-hearing undergraduates were 43 percent career-focused, 15 percent transfer associate degree and 42 percent baccalaureate/master's programs. *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, resulting in higher enrollment at the baccalaureate level.

Calendar Conversion from Semesters to Quarters

RIT's decision to move from the current quarter system to a semester-based academic calendar starting in fall AY 2013-2014 generated a multitude of activities during AY 2010-2011. NTID faculty and administrators continued to participate on university-wide committees to establish policies, review documents, and bridge current and future registration and advising procedures. The RIT Semester Conversion website housed document templates and facilitated communication to faculty, staff, students and other audiences during the conversion process. See http://www.rit.edu/conversion/.

There were three primary goals for the year: to approve general education requirements; to write, review and approve all proposals for converting degree programs from quarters to semesters; and to create course outlines for all courses associated with degree program proposals.

The NTID AOS General Education Framework Committee drafted a set of Foundation and Perspective categories based on student learning outcomes and loosely modeled after RIT's General Education Framework. A draft of the categories and course requirements was revised after meetings with the NTID Curriculum Committee, the NTID Faculty Congress and each NTID department to gather feedback. In January open forums were held and faculty voted to approve the AOS framework. The Foundation requirement for semesters includes two courses in English, one in Mathematics and one American Sign Language (ASL)/Deaf Cultural Studies course. The Perspectives courses include one in each of the following: Communication, Social and Global Awareness; Creative and Innovative Exploration; and Scientific Processes. AOS students will choose one general education elective from any Foundation or Perspective category. The NTID faculty also approved a proposal for fitting current mathematics, science and ASL/Deaf Cultural Studies requirements into the General Education Framework established by RIT for AAS and AS programs.

The majority of the work on semester conversion during AY 2010-2011 was devoted to preparation and approval of proposals and course outlines. Two groups of NTID Curriculum Committee (NCC) members met separately to review program documentation and courses. In all, 33 program proposals and 262 courses were approved. The NTID Curriculum Resource Associate accompanied each program chair/director to their Intercollegiate Curriculum Committee/Graduate Council review sessions and by June 2011 all proposals were submitted to the New York State Education Department (NYSED). Review of all proposals and course outlines was managed electronically via specific locations within RIT's course management system (myCourses.)

Ten programs were discontinued through the conversion process. Applied Optical Technology AOS/AAS was approved by the NYSED for discontinuance effective March 2011 and Automation Technologies AOS/AAS will be discontinued August 2013. All NTID diploma programs were approved for discontinuance effective June 2011. These included the Applied Computer Technology, Accounting Technology, Administrative Support Technology, Computer Aided Drafting Technology, and Computer Integrated Machining Technology diplomas. The Introductory Programming Certificate was also discontinued.

Two certificate programs were revised for semesters. The NTID faculty consolidated and expanded the content of the courses offered in the Deaf Cultural Studies/ASL Certificate program. A single certificate will be offered instead of the current two tracks, giving students more freedom in choosing and scheduling classes. Students choose three courses from a menu of six electives. The Performing Arts Certificate program was also reduced to one track. This was made possible by the fact that the semester courses are more comprehensive in nature and expose students to more aspects of theatre and more dramatic scripts. Students choose three courses from a list of 12 electives and complete at least one semester credit of *Theatre Practicum.*

Twenty proposals for AOS, AAS, AS, BS and MS programs were approved at the department, college and university levels and sent to NYSED for their review. As part of the conversion process, each program described revisions and improvements they made, and how the converted program responds to the RIT Academic Program Profile. The profile provides guidance and direction for developing and evaluating all degree programs at RIT. It consists of two parts: Guiding Principles of Lifelong Learning and Career Orientation, and a set of five Essential Program Outcomes: Critical Thinking; Global Interconnectedness; Ethical Reasoning; Integrative Literacies (Scientific, Computational or Digital, Mathematical, Communication, Technical, Aesthetic); and Creative and Innovative Thinking. Programs also submitted a table/program schedule listing each semester's required courses/prerequisites. Another table in the proposals clearly showed the relationship between courses in the quarter system versus courses in the semester system. All semester courses were identified as semester equivalents, semester replacements or new. A third table indicated how results from the quarter-based outcomes assessment plan informed the proposed changes to curriculum, instruction, assessment plan elements or other

programmatic changes. Each program developed a new Program Level Outcomes Assessment Plan using a template developed at RIT.

Highlights of curriculum revisions will serve to illustrate the impact of semester conversion on NTID programs of study. ASL-English Interpretation revised program prerequisites, specifically adding *ASL I* or equivalent skill for BS entry and intermediate ASL and a Deaf Cultural Studies course for acceptance into the AAS program. The BS program was enhanced through an additional year of course work in ASL, two Deaf Cultural Studies electives, and new courses in *Discourse Analysis* and *Transliteration*.

The Arts & Imaging Studies AAS/AOS program underwent a modification in 2009 but still made improvements for semester conversion. The Core component was modified, the name of one concentration was changed from "Graphic Technology" to "Graphic Production," and elective courses are no longer clustered by career categories. They also combined the current *Job Search Process* and *Employment Seminar* courses into a single three-credit course to be completed before co-op.

The Business Studies Department revised all five academic programs, utilizing feedback from employers, recommendations from their academic advisory team, and department initiatives based on results of the Outcomes Assessment process and current trends in the profession. Many courses were improved/revised and new courses created. The Accounting Technology (AT) AAS, Administrative Support Technology (AST) AAS and Business Technology AOS programs added three new course requirements: *Personal Finance*, *Applied Ethics for Business* and an Open Elective. AT combined the *Applied Accounting Techniques* and *Employment Seminar* courses into an *Accounting Capstone* course and AST added *Essentials of Human Resource Management.* The AS in Business semester program includes three new courses: *Introduction to Entrepreneurship*; *Organizational Behavior*; and *Globalization*. *Orientation to Business* and *Fundamentals of Management* were combined to form *World of Business and Innovation*. The calendar conversion process provided an opportunity for the AS Hospitality and Service Management program to align itself with the revised curriculum in International Hospitality and Service Management at RIT's College of Applied Science and Technology. Three new core courses were added: *Principles of Food*, *Hotel and Tourism Operations*; *Hospitality Industry Sales and Marketing*; and *Service Management in a Global Economy*.

In converting the Computer Aided Drafting Technology (CADT) AAS/AOS, Computer Integrated Machining Technology (CIMT) AOS, and Applied Mechanical Technology (AMT) AAS programs, the Engineering Studies (ET) faculty removed the common core and strengthened course work in the individual programs. In this picture, CIMT major, Anthony Barcenas, of Ridgecrest, Calif., and Engineering Studies major, Benjamin Oddiah, of Silver Spring, Md., practice measurement skills in the field. CADT infused more civil and construction related content into the curriculum, rather than focusing heavily on architectural studies. Based on feedback from the CADT Industrial Advisory Group, the semester program will integrate instruction in Building Information Modeling (BIM), which is a significant extension on basic CAD (i.e. drafting). Additional instruction in blueprint reading, researching technical information and sustainability will also be included. CIMT had

already explored niche manufacturing areas to include in the program that would use existing ET faculty and resources. Precision optics manufacturing and related courses were recently added because optics and metal manufacturing share similar skills including metrology, blueprint reading, CNC operation,

traditional milling and lathe work, grinding and polishing. The converted program included the new courses Blueprint Reading II, Precision Grinding and Precision Measurement II and restructured several other courses. The AMT program infused more mechanical and manufacturing skills and design-process-related content into the curriculum, and students will participate on teams involving analysis, design, development and implementation of mechanical and/or manufacturing systems processes and effective communications. This will facilitate success in the College of Applied Science and Technology's (CAST) Mechanical and Manufacturing Engineering Technology (MCET / MFET) programs. Most of the curricular changes to the AMT program are in the sequencing and organization of content and reflect changes made by the MCET/MFET programs. Several courses from the CAST MMET program will be taught as equivalent courses at NTID in the AMT program. These include Foundations of Engineering, Foundations of Materials/Lab and Mechanical Design & Fabrication/Lab.

The NTID Applied Liberal Arts (NALA) program was approved in AY 2008-2009 and prepares NTID students to succeed in RIT's College of Liberal Arts (COLA) baccalaureate degree (BS) majors. Because it is still in its infancy, the semester conversion reflects the vision, objectives and curriculum set forth in the original proposal. Revisions to the math/science, professional and immersion courses required in the NALA curriculum are based on revisions to RIT's general education requirements and COLA's courses.

The LST program went through extensive reviews, including discussions with its Advisory Board and participation in the American Chemical Society's "Chemical Technology Voluntary Industry Skills Standards." These resulted in curricular modifications that should help with student co-op experiences and job placement of graduates and prompted the program to include strategic/emergent areas like sustainable/green/environmental. Course improvements include *Fundamentals of Biology II*, *Biotechnology II* and *Principles of Biochemistry*. The Instrumental Analysis course sequence added contact hours to allow greater depth of study and a second technical elective was added to the course mask. The quarter-based Laboratory Applications VI and LST Senior Seminar courses were incorporated into the semester-based Laboratory Methods course, which will serve as an LST program capstone experience.

The AAS/AOS degree programs in Applied Computer Technology (ACT) made several modifications to the curriculum in spring 2010 based on an extensive department curriculum review process that included an examination of current job market demands and trends, student co-op placement, and student feedback. These modifications, approved by NYSED in July 2010, involved deleting a program concentration and eliminating, adding and updating courses. An Advisory Group meeting validated the revised curriculum with minor suggested changes that were incorporated during the semester conversion process. The Computer Technician Support (CTS) and Networking and Cyber Security (NCS) concentrations were retained and several courses were strengthened. These included an expansion of the *Job Search Process* course (now called *World of Work*) to include more focus on "soft skills," expansion of *Server Management and Security* into two separate courses, each focusing on one concentration area: *Server Management and Security* for CTS and *Fundamentals of Systems Administration* for NCS, inclusion of content from the *Employment Seminar* in the *ACT Technical Capstone,* and a combination of *Intro to UNIX* and *Introduction to the Mac* into one course: *Non-Windows Operating Systems.* Significant changes had to be made to the ACT AS program because of changes to RIT Golisano College of Computing and Information Sciences (GCCIS) baccalaureate degree programs. The converted AS program will prepare students for seamless enrollment into only the Information Technology (IT) program. A new AS degree will need to be developed for students who desire entry into the Information Security and Forensics (ISF) and Applied Networking and System Administration (ANSA) majors in GCCIS. To prepare students for the converted IT curriculum, most hardware-related courses have been removed and replaced with additional programming and web development courses, which will be taught by NTID faculty with additional lab experiences to strengthen students' understanding of foundational concepts. These NTID courses, which will be accepted as transfer credit for GCCIS' courses, e.g. *Website Development* and *Website Implementation*, will transfer as *Web I*. Five RIT courses were added to the AS program because they are required in the IT BS converted program.

The conversion process gave the Master of Science in Secondary Education of Students who are Deaf or Hard of Hearing (MSSE) program the opportunity to update and redesign the curriculum to address the

changing demographics, knowledge and needs in the profession. MSSE had to adhere to the requirements stated by NYSED and Council on Education of the Deaf as well as the recommendations from the Teacher Education Accreditation Council and kept in mind the objectives from the New York State Teacher Certification Test for the teacher of the deaf content area. To address identified needs, the program developed three new courses: *General Instructional Methods*, *Issues in Mainstreamed Education* and *American Sign Language (ASL) in Instructional Delivery*. They will also strictly enforce the *ASL I* and content area course work prerequisites and require a professional portfolio as the culminating activity for graduation.

In addition to courses associated with converted degree programs, several NTID departments submitted course outlines to the NCC for review in AY 2010-2011. The Department of Cultural and Creative Studies submitted outlines for seven semester courses beyond the 19 that are part of their Certificate programs. For the Department of Science and Mathematics 13 courses were approved, five of which are required in academic programs. The two Career English courses that are included in AOS degrees were approved, along with three courses from the Career Exploration Studies Department. Finally, six AOS general education courses were submitted by the Department of American Sign Language and Interpreter Education.

Outcomes Assessment

AY 2010-2011 was a productive year relative to student learning outcomes assessment at NTID. In addition to the annual reporting of Student Learning Outcomes Assessment (OA) data by all NTID academic programs as well as general education and academic support areas for AY 2010-2011, academic degree programs also completed RIT Progress Reports based on AY 2009-2010 results and created new Outcomes Assessment Plans to submit with their converted semester programs.

The first annual RIT Progress Report, completed in April 2011, utilized a web-based reporting format and asked program chairs and directors to respond to a series of questions and report on two program-level student learning outcomes listed in AY 2009-2010 Outcomes Assessment Plans. Program information was aggregated by college and the full university, and was shared with the Provost's Office, Board of Trustees, Deans and RIT Student Learning Outcomes Assessment (SLOA) Committee. NTID's response rate was 100 percent (17/17 programs), with 88 percent (15/17) of the programs assessing outcomes in AY 2009-2010. Two of the programs (Hospitality and Service Management and Applied Liberal Arts) were recently established and did not have sufficient data to report. All of the programs (100%) met or exceeded established benchmarks for the two cited outcomes and 94 percent indicated use of assessment results to make program improvements. The SLOA Office evaluated each Progress Report and rated NTID's reports as good, very good or excellent. For six of the reports, the SLOA Office made recommendations for revising outcomes so that rubrics scores rather than course grades are used as a data source. Appropriate revisions will be made prior to the initiation of semester-based outcomes assessment.

Beginning in June 2011, data and use of results were reported for the AY 2010-2011 Outcomes Assessment Plans. 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.

Curricular changes in AY 2010-2011 that were initiated in response to AY 2009-2010 data yielded positive results in assessments administered this year by five programs. Four programs implemented modified procedures this year to more accurately assess student competence in meeting expected skill levels. Six programs plan to either implement curricular changes based on data collected or investigate causes for one or more benchmarks not being met in this assessment cycle. Two associate+bachelor's degree programs administered more measures than in past years but need additional assessments before determining implications. Due to changes in course offerings, two programs were unable to collect data for some of their outcomes and one program had no data to report due to biennial administration of their assessment tool. Two programs reported that criterion was 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 at http://www.ntid.rit.edu/president/soa/pages/plan.html in each program's Outcomes Assessment Plan/Report.

Several examples illustrate how outcomes assessment data impacts decision-making regarding program delivery, curriculum and provision of services at NTID. The Administrative Support Technology program recently added interviews for journal assignments as part of the AST Seminar Mentoring Project. This has enhanced the students' accountability in interpersonal and human relations skills as assessed by their mentors. The program exceeded the benchmark with 100 percent of the students demonstrating appropriate skills for the second year in a row.

The American Sign Language and English Interpretation program saw a marked increase (21.4%) from AY 2009-2010 to AY 2010-2011 in student satisfaction with the program, indicating that recent curriculum and program changes are clearly perceived by students as being effective. One area of concern regarding interpreting skills was revealed on Practicum and Seminar II evaluations. While the benchmark was met for students' ASL to English skills, only 67 percent of students were rated as excellent or good in English to ASL interpreting. Faculty will investigate reasons for this lower rating, but speculate that mentors want to see more skills in Transliteration. A course in this area has been added to the curriculum starting in AY 2013-2014.

The Arts & Imaging Studies program met or exceeded all benchmarks for assessment of technical skills, indicating that most students are demonstrating the ability to produce visual work meeting employment standards. In specific concentrations, such as Photo Imaging, where some students failed to meet the image acquisition, manipulation and display learning outcome, faculty will analyze data from the assessment rubric to determine reasons why some students were graded below expected levels.

The Computer Integrated Machining Technology (CIMT) program concluded that the failure to meet the benchmark for producing machined parts in tolerance in AY 2009-2010's assessment was related to transferability of skills in blueprint reading. To address this issue, they began to require the Blueprint Reading course as a co-requisite to the *CIMT I* course. This seems to be an appropriate curricular decision, evidenced by the fact that 100 percent of the students met the established criteria for tolerance in AY 2010-2011.

The Master of Science in Secondary Education (MSSE) program again exceeded benchmarks for students demonstrating six core competencies. In AY 2010-2011 there was also a substantial increase in the number of student teachers completing a self-evaluation form. Their responses substantiated the program's decision to continue to offer the classroom management workshop and IEP writing seminars, and to emphasize the importance of developing appropriate, measurable objectives for lesson plans. Employer Surveys indicated areas of relative strength and weakness in graduates' preparedness. To address areas with lower ratings, such as students' readiness to work in inclusive classrooms and to teach deaf students with secondary disabilities, two courses were revised during the semester conversion process.

Student and alumni satisfaction and co-op supervisor evaluations were near or above criterion levels for the Applied Computer Technology (ACT) AAS/AOS program. In hands-on direct assessments ACT found that, similar to AY 2009-2010, approximately half of the benchmarks for technical skills were not met this year. For example, outcomes related to repair and maintenance of computers and peripherals were still below expectations even though the program taught UNIX in a more applied way during AY 2010-2011 in response to AY 2009-2010 data. To further address the technical skills outcomes, instructions will be reviewed for clarity and the assessment methods will be evaluated to assure that assessment tasks align with assessment objectives. Additionally, all assessment activities will likely be a part of course grades in 2011-2012 so that students see value in completing them with care.

The Laboratory Science Technology (LST) program again exceeded the benchmark for all items in the General Skills and Professional Competence outcomes section. Students' scores improved in almost every category, which faculty believe is likely the result of a change made during AY 2010-2011. LST has

a new electronic system of capturing information/documentation in student portfolios. This seems to yield a truer measure of student competence than the previous portfolio system. Other programmatic changes have produced higher scores in the Biological Techniques section, but the Outcomes Assessment Plan may need to change to specifically measure skills that should be acquired in the new Molecular Biology course.

The Applied Liberal Arts AS program was offered for the second time during AY 2010-2011 and reported 100 percent success in students making satisfactory progress in the AS program and 100 percent student satisfaction with the program, particularly academic advising and counseling support. It is too early to judge the transferability outcome, but the one student who completed the AS program in AY 2010-2011 was accepted into the intended BS program in the College of Liberal Arts.

Data from co-op supervisor online evaluations regarding overall student job performance was 4.14 on a five-point (1-low to 5-high) scale (N=97). Results were updated in the AY 2010-2011 OA Reports for each academic program, with ratings pooled by department. Means ranged from 3.88 to 4.57 indicating a high level of employer satisfaction with NTID students' work.

The assessment of English Literacy Outcomes continues to be in flux as the curriculum has changed in recent years. Subsequent course placement for students completing the Intensive English Program has been established as one outcome. The established benchmark was not met in AY 2010-2011 prompting the Department of Liberal Studies to begin an investigation regarding initial placement scores and to continue refining course grading rigor. For AY 2011-2012 there is also a plan to collect data on AAS students who take the College of Liberal Arts Writing Seminar course and to evaluate student performance in the Career English course sequence.

Critical Thinking is assessed in the ASO/AAS Capstone Seminar course and results remain very high, with 100% of AOS students and 95% of AAS students achieving the expected score on the critical thinking rubric. The Capstone course continues to be viewed very favorably by students, faculty, administrators and external audiences, and the results of the Critical Thinking outcomes assessment continue to attest to its value. Nevertheless, this course will be deleted from the semester curriculum because of a need to consolidate general education offerings. Capstone experiences will be incorporated into each academic program's requirements.

During AY 2010-2011 each academic degree program that was converted from quarters to semesters was required to submit a program level outcomes assessment plan with their proposal. RIT's Student Learning Outcomes Assessment Office designed a standardized format to assure that all key components of an assessment plan were included. The current NTID format was quite similar and the NTID Curriculum Resource Associate, in conjunction with the RIT SLOA Director, worked with each academic chair/program director to revise their OA plans appropriately. All NTID plans needed to add the specific program goal(s) associated with each student learning outcome and to align student learning outcomes to the RIT Academic Program Profile outcomes (critical thinking, ethical reasoning, integrative literacies, global interconnectedness and creative/innovative thinking). In most cases, compared to their current NTID OA plans, programs refined their data sources, identifying specific courses, experiences, assignments, measures and/or rubrics that will be used in semesters. Additionally, all programs completed a required table which described how they used current program-level outcomes data to inform calendar conversion.

American Sign Language and Interpreting Education (ASLIE)

ASLIE enrolled 160 students in the BS program in ASL-English Interpretation as of fall 2011. Due to the continuing effectiveness of the strategic marketing and recruitment plan employed for the past four 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.

In AY 2010-2011, the ASL-English Interpretation programs graduated 19 students, 16 of whom responded to a Senior Satisfaction Survey. When asked about overall satisfaction with the program, 13 students (82%) indicated agreement; 13 students (82%) indicated they would recommend the program.

Four months after graduation, the 19 students were sent an employment survey. Of the nine students who responded, seven (78%) reported being employed in the field of interpreting, one (11.1%) is pursuing a graduate degree and one (11.1%) is looking for employment.

To implement our "Global Understanding of World Deaf Culture and Sign Languages" theme, in 2010, NTID and the Hogeschool in Utrecht, The Netherlands, signed a memorandum of understanding (MOU) which created a student exchange opportunity between the two programs. Both institutions have a sign language interpreting program. The MOU created the opportunity for students from both programs to experience a foreign sign language and Deaf Culture as well as participate in courses offered by the host program.

In fall 2010, five students from the Hogeschool came to NTID and took courses for 10 weeks. They took *ASL*, *Deaf Culture*, *Interpreting I*, *Sign Mime*, and participated in the NTID play *Inherit the Wind*. In May 2011, eight NTID interpreting program students went to the Hogeschool and took courses in NGT (the sign language of The Netherlands), Deaf Culture, spoken Dutch and various courses related to interpreting. Students could earn up to eight quarter credits for this experience. In fall 2011, the second group of Dutch students arrived on campus. There are four students studying *ASL*, *Deaf Culture*, *Interpreting I*, and all are involved in the play *Sleepy Hollow*.

This exchange program has been an amazing experience not only for the students who have physically gone abroad, but also for the faculty and students of the host programs. From the NTID perspective, having the Dutch interpreting students in our classes has been an enriching and enlightening experience.

In the same vein, we also offered for the first time in 2010, Special Topics courses *Mexican Sign Language* and *Russian Sign Language* – these courses were open to interpreting students as well as other deaf NTID students.

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 267 in fall quarter, 289 in winter quarter, 265 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 45 students, for a grand total of 866 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.

Two years ago, 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 2010-2011, the Introduction to ASL and Deaf Culture program had an enrollment of 46 students. The Faculty Staff Sign Language Education Program (FSSLEP), a program housed in ASLIE, had an enrollment of 623 faculty and staff from NTID and other departments across RIT. ASLIE faculty provided instruction in ASL courses as part of the ASL/Deaf Studies requirement for 62 students – these courses were initially offered through the Department of Cultural and Creative Studies – they are now part of the NTID ASL (NASL) program housed under ASLIE. ASLIE also provided instruction in the

Master of Science program in Secondary Education of Students who are Deaf or Hard of Hearing for 45 students, the Provost I Program for 12 RIT faculty and staff, and the Provost II Program for eight RIT faculty and staff.

In keeping with the Global Understanding theme, for the first time this past summer, ASLIE also hosted a group of 11 interpreters from the Republic of Czechoslovakia for a three-week Intensive ASL Program. This program is also being planned for next summer with the intention of having the same 11 interpreters return for an advanced-level ASL program. In the future, we hope to invite groups from other countries for similar programs.

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 19 Sign Language Proficiency Interviews (SLPI), 21 SLPI Ratings, and 14 hours of SLPI follow-up sessions.

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.

For the first time this past summer, the Office of the RIT Provost also sponsored the Provost's Development of Effective ASL Use at RIT. This week-long program builds on the Provost I Program to provide more advanced ASL instruction for RIT faculty and staff who need higher level and more individualized instruction and feedback. The program fills a niche for many in the NTID and RIT community who have already acquired introductory ASL skills and are now looking to expand their skills. The program was very successful this past summer and received great reviews from those who attended; several others have already expressed interest in attending next year.

Communication Studies and Services (CSS)

The Communication Studies and Services Department (CSS) comprises 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 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 2010-2011, with an additional 290 contact hours of communication support to the Job Search Process Course for 114 students.

Audiological and speech-language clinical services were provided to members of the RIT community throughout the 2010-2011 academic year. Faculty and staff provided 3,870 hours of individual speech-language instruction, serving 214 students, and provided 2,339 hours of audiology services to 992 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 2010-2011 academic year, the lab served an additional 205 students on a walk-in basis, while the Hearing Aid Shop served 781 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 17th year, graduated 23 students during the 2010-2011 academic year. Twelve 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 23 graduates, 20 are now teaching in residential schools for the deaf, mainstream programs or teaching American Sign Language in public school programs. Two graduates are employed by NTID; one continued with her current employment as an interpreter and the other is working as a research assistant. All graduates received provisional certification from the Council on Education of the Deaf. To date, a total of 276 students have graduated from the program.

For the 2011-2012 academic year, the MSSE program has an enrollment of 59 students, of whom 12 (20%) are deaf or hard-of-hearing and seven (15%) are members of minority groups. It is anticipated that up to 35 students will graduate from the program during the 2011-2012 academic year. There are an additional six 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 a partnership with the State University of New York at Cobleskill to recruit potential students with strong backgrounds in English and social studies.

Self-Instruction Lab

The Self-Instruction Lab (SIL) offers a variety of equipment and resources to support signed and spoken language skill development of students, faculty and staff. 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 2010-2011, students, faculty and staff spent 2,956 hours during 2,945 visits to the SIL. Of the total hours, 1,308 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, 268 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 2010-2011, CES served 133 students, and 84 percent of them were accepted into a major within three quarters.

Academic Program Highlights (continued)

NTID Learning Center

The NTID Learning Center (NLC), pictured here and open seven days a week for a total of 84 hours per week from September through May, provides a variety of resources to support academic success such as tutoring, computer use, video production and study space. 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 53,088 times for a total of 153,094 hours. This is a 10 percent increase in the number of hours over AY 2009-2010. Since AY 2006-2007, the NLC has loaned laptops to students during the day and overnight. This year, laptops were borrowed 1,718 times, which is a 15 percent increase over AY 2009-2010. The Sprint Relay Experimental Distance Learning/Access Demonstration Lab, also housed within the NLC, hosted 221 class sessions and 69 workshop sessions for a total of 351.5 hours. The Sprint Relay Lab supported a variety of activities, including conducting experimental videoconferencing projects as well as video-capturing classes for archiving and subsequent "anytime/anywhere" access by students. In addition, Classroom #1 and the General Area supported 159 class sessions and 256 workshop/tutoring sessions, totaling 898.5 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 from other universities.

Students use the NTID Learning Center for tutoring, computer use, video production and study space.

Enrollment by Degree Programs

In fall 2011, 64 percent of NTID's 1,547 students were enrolled in a broad array of programs within NTID. Thirty-six percent were enrolled in other colleges of RIT, including 42 students in graduate programs. Of the 1,547 students, 1,323 are deaf and hard-of-hearing students in traditional undergraduate and graduate programs (excluding MSSE and interpreting). Forty-two percent of our deaf and hard-of-hearing students (557) enrolled in traditional undergraduate and graduate programs are partially or fully enrolled in the other colleges of RIT.

		Student Enrollment FY 2012	
		Number of Students	Percentage of Total
NTID			
Career Exploration Studies			
(NCXP)	Career Preparation/Foundation	71	
(NCXU)	Career Exploration Undecided	42	
Subtotal		**113**	**7.3%**
Career-Focused and Transfer Associate Degrees			
(NACA)	Applied Computer Technology (AAS)	28	
(NACO)	Applied Computer Technology (AOS)	73	
(NACT)	Applied Computer Technology (AS)	26	
(NAIA)	Arts and Imaging Studies (AAS)	31	
(NAIO)	Arts and Imaging Studies (AOS)	92	
(NALA)	Applied Liberal Arts (AS)	50	
(NAMA)	Applied Mechanical Technology (AAS)	13	
(NAUA)	Automation Technologies (AAS)	5	
(NAUO)	Automation Technologies (AOS)	9	
(NBBO)	Business Technology (AOS)	65	
(NBNA)	Accounting Technology (AAS)	19	
(NBSA)	Business (AS)	36	
(NCDA)	Computer Aided Drafting Technology (AAS)	10	
(NCDO)	Computer Aided Drafting Technology (AOS)	15	
(NETG)	NTID Engineering Technologies	34	
(NHMA)	Hospitality and Service Management (AS)	4	
(NLSA)	Laboratory Science Technology (AAS)	28	
(NLSO)	Laboratory Science Technology (AOS)	23	
(NMTO)	Computer Integrated Machining Technology (AOS)	34	
(NOTA)	Administrative Support Technology (AAS)	14	
(NTDZ)	NTID General (non-degree, non-matriculated)	11	
Subtotal		**620**	**40.1%**

		Student Enrollment FY 2012	
		Number of Students	Percentage of Total
ASL-English Interpretation			
(NITF)	ASL-English Interpretation (BS)	156	
(NITZ)	ASL-English Interpretation (non-matriculated)	4	
Subtotal		**160**	**10.4%**
Master of Science in Secondary Education (MSSE)			
(NMSE)	Secondary Education of Students Deaf/HH	59	
(NORG)	Graduate Teacher (Non-Degree)	5	
Subtotal		**64**	**4.1%**
Pre-baccalaureate – Students in NTID			
(NAPE)	Pre-College Engineering Legal Tech	6	
(NAPF)	Pre-College Visual Communication	13	
(NAPL)	Pre-College Liberal Arts	5	
(NAPS)	Pre-College Science	9	
Subtotal		**33**	**2.1%**
NTID Subtotal		**990**	**64.0%**
Baccalaureate Students in Other RIT Colleges			
College of Applied Science and Technology			
(IEME)	Environmental Management and Technology	2	
(IEMT)	Environmental Technology and Environmental Health & Safety (EHS) Management	1	
(IPKT)	Packaging Science	12	
(ISMK)	Hospitality and Service Management	15	
(ITFC)	Civil Engineering Technology	16	
(ITFE)	Electrical Engineering Technology	2	
(ITFF)	Manufacturing Engineering Technology	2	
(ITFL)	Electrical/Mechanical Engineering Technology	2	
(ITFM)	Mechanical Engineering Technology	13	
(ITFP)	Computer Engineering Technology	2	
(ITFS)	Electrical/Mechanical Engineering Technology	1	
(ITFZ)	Undeclared Engineering Technology	1	
(ITPD)	Mechanical Technology	1	
(ITPE)	Electrical Engineering Technology	1	
Subtotal		**71**	**4.6%**

		Student Enrollment FY 2012	
		Number of Students	Percentage of Total
College of Business			
(BBUA)	Business Administration-Accounting	18	
(BBUF)	Business Administration-Finance	7	
(BBUG)	Business Administration-Management	10	
(BBUI)	Management Information Systems	8	
(BBUM)	Business Administration-Marketing	6	
(BBUT)	Business Administration-International Business	3	
(BBUU)	Business Administration-Undeclared	1	
(BBUZ)	Business Administration-General	1	
(BREP)	Graphic Media Marketing	3	
Subtotal		**57**	**3.7%**
College of Science			
(SBIB)	Biology	16	
(SBIC)	Bioinformatics	3	
(SBIT)	Biotechnology	3	
(SBIV)	Environmental Science	13	
(SCHB)	Biochemistry	2	
(SCHC)	Chemistry	3	
(SIMG)	Imaging Science	3	
(SMAM)	Applied Mathematics	4	
(SSEG)	General Science Exploration (ND)	3	
Subtotal		**50**	**3.2%**
College of Imaging Arts and Sciences			
(JADA)	Art and Design	1	
(JADC)	Graphic Design	19	
(JADF)	Fine Arts-Studio	10	
(JADI)	Interior Design	5	
(JADL)	Illustration	2	
(JADU)	Industrial Design	11	
(JADW)	New Media Design and Imaging	5	
(JPHA)	Professional Photographic Illustration	4	
(JPHB)	Biomedical Photographic Communication	4	
(JPHD)	Professional Photo Illustration-Advertising	10	
(JPHF)	Film and Video-Motion Picture Science	2	
(JPHQ)	Film and Video-Film/Video/Animation	5	
(JPHR)	Professional Photo Illustration-Journal	1	
(JPHU)	Visual Media	9	
(JPRW)	New Media-Publishing	3	
(JSCG)	Glass	1	
Subtotal		**92**	**6.0%**

		Student Enrollment FY 2012	
		Number of Students	**Percentage of Total**
College of Liberal Arts			
(GCJC)	Criminal Justice	24	
(GLAU)	Liberal Arts Exploration	4	
(GMUS)	Museum Studies	1	
(GPLS)	Political Science	1	
(GPSY)	Psychology	40	
(GPTA)	Advertising and Public Relations	5	
(GPTC)	Professional and Technical Communication	9	
(GPTJ)	Journalism	3	
(GSSI)	International Studies	4	
(GUCS)	Urban and Community Studies	2	
Subtotal		**93**	**6.0%**
(TCRP)	College Restoration Program	**3**	**0.2%**
College of Engineering			
(EBME)	Biomedical Engineering	3	
(ECME)	Chemical Engineering	3	
(EECC)	Computer Engineering	2	
(EEEC)	Electrical Engineering-Computer Engineering Option	1	
(EEEM)	Electrical Engineering-Biomedical Engineering Option	1	
(EENG)	Engineering-Undeclared	2	
(EIEI)	Industrial Engineering	1	
(EMEE)	Mechanical Engineering	1	
(EMEM)	Mechanical Engineering	4	
(EMEV)	Mechanical Engineering-Automotive Option	1	
Subtotal		**19**	**1.2%**
College of Computing and Information Sciences			
(VCSG)	Computer Science	7	
(VGIU)	Informatics Exploration	1	
(VIGD)	Game Design and Development	3	
(VIGN)	New Media Interactive Development	2	
(VKSF)	Information Technology	21	
(VKSZ)	Information Tech (Even Option)	1	
(VNSA)	Applied Networking and System AD	11	
(VNSF)	Information Security and Forensics	8	
Subtotal		**54**	**3.5%**

		Student Enrollment FY 2012	
		Number of Students	Percentage of Total
University Studies			
(WCEZ)	Non-degree	1	
(WMDB)	Applied Arts and Sciences	4	
(WMDF)	Applied Arts and Sciences (Day)	46	
(WUSP)	University Studies	7	
Subtotal		**58**	**3.8%**
College of Health Sciences and Technology			
(HCLS)	Diagnostic Medical Sonography	1	
(HSBS)	Biomedical Sciences	15	
(HSMD)	Nutrition Management	2	
Subtotal		**18**	**1.2%**
Subtotal Baccalaureate Students in Other Colleges		**515**	**33.3%**
Graduate Students in Other RIT Colleges			
College of Applied Science and Technology			
(IEMH)	Environmental Health and Safety Management	2	
(ISMC)	Human Resources Development	1	
(ISMM)	Hospitality-Tourism Management	1	
(ISMQ)	Service Management	1	
(ITFO)	Telecommunications Engineering Technology	1	
Subtotal		**6**	**0.4%**
College of Business			
(BBUB)	Business Administration	2	
Subtotal		**2**	**0.1%**
College of Engineering			
(EIEV)	Sustainable Engineering	1	
Subtotal		**1**	**0.1%**
College of Imaging Arts and Sciences			
(JADE)	Art Education	1	
(JADG)	Computer Graphics Design	2	
Subtotal		**3**	**0.2%**
College of Liberal Arts			
(GBSP)	School Psychology	2	
Subtotal		**2**	**0.1%**

Enrollment by Degree Programs (continued)

		Student Enrollment FY 2012	
		Number of Students	Percentage of Total
College of Science			
(SBIV)	Environmental Science	1	
(SBIW)	Environmental Science BS/MS	1	
Subtotal		**2**	**0.1%**
College of Health Sciences and Technology			
(HMIL)	Medical Illustration	1	
Subtotal		**1**	**0.1%**
College of Computing and Information Sciences			
(VCSG)	Computer Science	3	
(VCSK)	Computer Science-Dual Degree (BS/MS)	1	
(VKSD)	Software Development and Management	1	
(VKSF)	Information Technology	3	
(VKSI)	Human-Computer Interaction	1	
(VNSM)	Networking and System Administration	2	
Subtotal		**11**	**0.7%**
Golisano Institute for Sustainability			
(UARC)	Architecture	1	
Subtotal		**1**	**0.1%**
University Studies			
(WMDM)	Professional Studies	13	
Subtotal		**13**	**0.8%**
Subtotal Graduate Students in Other Colleges		**42**	**2.7%**
Total		**1,547**	**100%**

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 2010-2011		
	Fall	Winter	Spring
Accounting Technology	9.0	11.8	8.1
American Sign Language	9.0	7.7	6.0
Applied Computer Technology	7.5	7.0	7.9
Arts & Imaging Studies	7.7	6.9	6.8
ASL-English Interpretation	9.0	9.1	8.8
Automation Technologies	6.2	3.5	4.0
Business Technology	7.5	8.9	7.4
Communication Studies and Humanities	10.5	10.6	9.9
Computer-Aided Drafting Technology	8.1	7.3	6.7
Computer Integrated Machining Technology	6.2	4.7	5.5
Deaf Studies	7.0	6.0	12.0
English	11.0	10.1	8.7
Freshman Seminar / Career Exploration	9.6	7.2	8.5
Interdisciplinary Studies	12.1	9.4	7.7
Laboratory Science Technology	8.8	6.8	6.3
Master of Science in Secondary Education	14.7	12.6	20.1
Mathematics	10.4	10.2	8.9
Performing Arts	7.4	6.9	9.0
Science	9.8	9.3	10.0
Social Sciences	11.8	11.0	12.8
Overall Average	**9.2**	**8.4**	**8.8**

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 2011.

		Number of Students	
	Number of Sections	Deaf and Hard-of-Hearing	Hearing
College of Applied Science and Technology			
Management Process	1	5	26
Management Process II	1	4	20
Management Process III	1	4	19
Subtotal	**3**	**13**	**65**
E. Philip Saunders College of Business			
Business Software Applications	1	30	0
Subtotal	**1**	**30**	**0**
B. Thomas Golisano College of Computing and Information Sciences			
OS Scripting	2	1	39
Platform-Independent Client Server Programming	1	1	17
Subtotal	**3**	**2**	**56**
College of Imaging Arts and Sciences			
3D Design I	1	3	15
3D Design II	1	2	18
Architectural Drawing	1	1	13
Building Codes and Regulations	1	2	19
CADD Applications	1	1	11
Interior Design Business Practice	1	2	19
Interior Design CADD II	1	1	17
Interior Design Internship	1	0	5
Survey of Western Art & Architecture I	1	20	0
Survey of Western Art & Architecture II	1	23	0
Survey of Western Art & Architecture III	1	18	0
Subtotal	**11**	**73**	**117**
College of Liberal Arts			
American Sign Language Literature	2	12	13
Arts of Expression: Writing the Discipline	3	46	0
Beginning American Sign Language I	21	9	405
Beginning American Sign Language II	12	17	178
Beginning American Sign Language III	9	16	103

	Number of Sections	Number of Students	
		Deaf and Hard-of-Hearing	Hearing
College of Liberal Arts (continued)			
Beginning Spanish I	2	36	0
Beginning Spanish II	1	17	0
Beginning Spanish III	1	21	0
Computer Crime	3	20	115
Concepts in Criminal Law	1	10	22
Deaf American Literature	1	10	22
Deaf Culture in America	2	26	37
Fine Arts: Theatre Arts	1	0	31
Fine Arts: Visual Arts	1	20	0
Foundations of Sociology	6	123	0
History of Deaf Educational Thought	1	25	1
History: Modern America	2	42	0
Introduction to Psychology	2	50	52
Introduction to Psychology Lecture	5	101	91
Literary and Cultural Studies	2	26	0
Major Issues in Criminal Justice System: Law, Justice/Society	1	14	17
Professional Communication for Business	1	22	0
Scientific Writing	1	14	0
Senior Project Psychology I	2	4	0
Senior Project Psychology II	2	4	0
Special Topics: Deaf Art and Cinema	2	18	39
Special Topics: Diversity in Deaf Communication	1	13	18
Special Topics: Linguistics of ASL	1	11	6
Special Topics: Oppression and Deaf People	1	22	10
Studies in British Literature: The Victorians	1	1	15
Theatre Production Seminar/Workshop	1	0	16
Written Communication I	11	117	0
Written Communication II	12	154	0
Writing Seminar	14	204	0
Subtotal	**129**	**1,225**	**1,191**
College of Science			
Data Analysis I	3	11	95
Independent Study	1	0	1
Solar System Astronomy Lab	2	0	32
Stellar Astronomy Lab	3	0	48
Subtotal	**9**	**11**	**187**

	Number of Sections	Number of Students	
		Deaf and Hard-of-Hearing	Hearing
Kate Gleason College of Engineering			
Discovery: Mechanical Engineering	1	0	33
Subtotal	**1**	**0**	**33**
First-Year Enrichment			
Discovery	3	0	71
Pathways: Leadership	1	0	66
Subtotal	**4**	**0**	**137**
Center for Intercollegiate Athletics and Recreation			
Cardio Core and Sculpt	3	6	61
Country Line Dance	3	7	55
Dance/Ballet	1	0	4
Dance/Jazz	1	1	1
Eating, Body Image and Food	1	4	17
Faculty/Staff Kundalini Yoga	1	1	5
Kundalini Yoga	3	8	109
Meditation Practices	1	2	18
Personal Training	3	4	25
Spinning	2	12	47
Spirituality and Health	2	4	32
Ultimate Frisbee	1	1	22
Subtotal	**22**	**50**	**396**
Total	**183**	**1,404**	**2,171**

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. Forty-one new students matriculated into the program in September 2011. Currently, 12 percent of total enrollment are students from ethnic minority backgrounds. Since its inception, the Department of ASL and Interpreting Education has graduated 596 students. Of that number, 464 have graduated with an AAS degree, 124 with a BS degree, and eight with a certificate.

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Fall Applicants	164	195	210	202*	229
Accepted	47	49	69	66**	49
Registrations	34	36	52	57***	41
Enrollment					
AAS	5	1	0	0	0
BS	121	134	138	147***	156
Non-Matriculated	2	0	0	0	4
Total Enrollment	**128**	**135**	**138**	**147***	**160**
Employment Report					
Graduates	28	34	33	****	****
Employment Rate	100%	100%	100%	****	****

In addition to the interpreting program, ASL and Interpreting Education faculty also provide the following programs:	FY 2011 Enrollment
ASL courses in RIT's College of Liberal Arts (COLA)	866
Faculty/Staff Sign Language Program, open to all RIT and NTID employees	623
ASL courses for deaf students, NTID	62
Master of Science in Secondary Education Program, NTID	45
Intro to ASL and Deaf Culture*****	46
Provost Summer Intensive ASL Experience Program, RIT's Office of the Provost	12
Provost's Development of Effective ASL Use at RIT, RIT's Office of the Provost	8
International ASL Intensive Program Summer – Czechoslovakian Interpreters	11
Global Understanding Program Fall Quarter – Hogeschool, Holland students to NTID	5
Global Understanding Program Summer – NTID interpreting students to Hogeschool, Holland	8

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*   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.
****   As of the writing of this report, the employment information for FY 2011 and FY 2012 is incomplete; therefore, we report employment rates of 2010 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 17th year. To date, 276 students have graduated from the program. One hundred percent (100%) of the FY 2010 graduates have accepted teaching jobs throughout the country.

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.

Forty-three applications for admission for fall 2011 were received. Twenty-six were offered admission. Of those, 18 matriculated into the program. For the 2011-2012 academic year, the MSSE program has a total enrollment of 59 students: 41 second-year or returning students, and 18 first-year students. Of the 59 matriculated students, 20 percent are deaf or hard-of-hearing, and 15 percent are minority.

MSSE Student Data

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Fall Applications	34	39	50	50	43
Acceptances	23	30	37	34	26
New Registrations	27	24	30	27	18
Deaf and Hard-of-Hearing Enrollment	31	24	32	29	12
Total Enrollment*	**59**	**55**	**61**	**71**	**59**
Employment Report					
Graduates	29	22	21	**	**
Employment Rate	100%	100%	100%	**	**

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* 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.

** As of the writing of this report, the employment information for FY 2011 and FY 2012 is incomplete; therefore, we report employment rates of 2010 graduates.

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 2011:
- 298 students were enrolled in cooperative work experiences;
- 61 academic programs had students on cooperative work experiences; and
- 18 faculty and staff visited 51 students at their job sites during the summer.

	Number of Students Involved in Cooperative Work Experiences*				
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Sub-Baccalaureate					
NTID Career-Focused and Transfer Associate Degrees	92	109	132	123	107
Percent of Total Co-op Enrollment	34%	43%	50%	44%	36%
Baccalaureate/Master's					
College of Applied Science and Technology	46	48	41	46	50
College of Business	30	25	23	33	36
College of Computing and Information Sciences	27	26	35	21	34
College of Engineering	15	15	11	10	14
College of Imaging Arts and Sciences	17	10	5	7	13
College of Liberal Arts	40	16	11	28	35
College of Science	5	6	4	13	9
Subtotal	180	146	130	158	191
Percent of Total Co-op Enrollment	66%	57%	50%	56%	64%
Total Co-op Enrollment	**272**	**255**	**262**	**281**	**298**

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

Academic Programs

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.

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 Health Sciences and Technology
- College of Imaging Arts and Sciences
- College of Science

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 6th- to 12th-grade students interested in science
- Steps to Success – Weekend camp at which 7th- to 9th-grade African-American, Latino-American and Native-American (AALANA) students explore career options
- TechGirlz – Week-long camp for 7th- to 9th-grade girls interested in careers in science, technology, engineering and math
- TechBoyz – Week-long camp for 7th- to 9th-grade boys 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

Participants in the TechGirlz summer camp build their own computers.

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. Over the past 11 years, 738 deaf and hard-of-hearing professionals have attended 97 DiiT workshops.

A Sampling of Research Support for NTID STEM Activities

- *Psychological Foundations of Mathematics Performance by Deaf and Hearing Students.* Supported by the National Institutes of Health.
- *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.
- *Analyzing the Use of C-Print Mobile Technology in STEM Laboratory Settings Across Multiple Postsecondary Sites.* Supported by the National Science Foundation.
- *Computer Integrated Machining Technology Training and Curriculum Development (VATEA 10-11).* Supported by the NYS Education Department.

A Sampling of STEM-Related Events and Presentations

Center for Education Research Partnerships

- *Myths and Misunderstandings in Educating Deaf Students: What We Know, What We Don't Know, and What We Think We Know.* NTID, Rochester, N.Y., October 2010.
- *How Deaf Children Learn...Why They Sometimes Don't and What We Can Do about It.* Invited presentation, Coalition of Private Schools Serving Deaf Children, Captiva, Fla., January 2011.
- *Numerical Approximation Skills and Mathematical Achievement in Deaf Children.* Symposium presentation, Society for Research in Child Development, April 2011.
- *Myths and Misunderstandings in Deaf Education: Putting Children First.* CEASD, Honolulu, Hawaii, April 2011.
- *Sign Language in Deaf Education: Foundations and Outcomes.* Hong Kong Education Department and Rehabilitation Advisory Committee, Hong Kong, May 2011.
- *Sign Language in Deaf Education: What We Know, What We Don't Know, and What We Want to Know.* Peace Evangelical Education Centre, Hong Kong, May 2011.
- *Global Trends in Sign Bilingual Co-enrollment Education, Hong Kong Jockey Club Co-Enrollment & Bilingualism Program.* Hong Kong, May 2011.
- *Distance-learning for deaf students?* Invited presentation, European Conference on Technology Enhanced Education, Palermo, Italy, September 2011.
- *Assessment of Temporal and Causal Reasoning in Deaf and Hearing Children.* European Conference on Technology Enhanced Education, Palermo, Italy, September 2011.

Center for Access Technology

- *Current R & D at the NTID Center on Access Technology.* Presentation at the 13th Annual Accessing Higher Ground Conference, Westminster, Colo., February 2011.
- *Evolving Success in Innovating Technologies to Overcome Accessibility Barriers.* Paper presented at the XVI World Congress of the World Federation of the Deaf, Durban, South Africa, July 2011.

A Sampling of STEM-Related Research Publications

Center for Education Research Partnerships

- Print exposure, reading habits, and reading ability among deaf and hearing college students. *Journal of Deaf Studies and Deaf Education.* (In press).
- Numerical estimation in deaf and hearing adults. *Learning and Individual Differences, 21,* 453-457 (2011).
- Evidence-based practice in educating deaf and hard-of-hearing children: Teaching to their cognitive strengths and needs. *European Journal of Special Needs Education, 26*, 3-16 (2011).
- Teaching to the strengths and needs of deaf and hard-of-hearing children. *European Journal of Special Needs Education, 26*, 17-23 (2011).
- Enhancing deaf students' learning from sign language and text: Metacognition, modality, and the effectiveness of content scaffolding. *Journal of Deaf Studies and Deaf Education, 16*, 79-100 (2011).
- What we know, what we don't know, and what we should know. In M. Marschark & P. E. Spencer (Eds.), *Oxford Handbook of Deaf Studies, Language, and Education, Volume 1, second edition* (pp. 511-516). New York: Oxford University Press. (2011).
- Cognitive functioning in deaf adults and children. In M. Marschark & P. E. Spencer (Eds.), *Oxford Handbook of Deaf Studies, Language, and Education, Volume 1, second edition* (pp. 486-499). New York: Oxford University Press. (2011).
- Cochlear implants: Advances, issues and implications. In M. Marschark & P. E. Spencer (Eds.), *Oxford Handbook of Deaf Studies, Language, and Education, Volume 1, second edition* (pp. 452-471). New York: Oxford University Press. (2011).

Center for Access Technology

- *Annual report to the National Science Foundation, HRD#0927586: Testing the Concept of a Virtual Alliance for Deaf and Hard of Hearing STEM Students at the Postsecondary Level*. Rochester, N.Y.: National Technical Institute for the Deaf (September 2011).
- *Overview of Current Structure for Provision of Captioning Services and Development of C-Print® Software at RIT/NTID.* Rochester, N.Y.: National Technical Institute for the Deaf (September 2011).

Student Support Services

RIT/NTID counselors provide personal, social, career and academic counseling services to all deaf and hard-of-hearing students at RIT. Every RIT/NTID student has a counselor assigned to work with them.

Counseling and Academic Advising Services staff Joseph Batiano, Susan Lane-Outlaw (MSSE assistant professor), Laurie Mousley, Margaret Kangai, and Alesia Allen get ready to welcome new students at Tiger Walk and Convocation.

Student Support Services Highlights

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

- <u>Audiological services</u> include hearing evaluations, hearing aid trials, fittings, cochlear implant mapping and individual listening therapy that focus on the development of receptive communication skills.

- <u>Speech and language services</u> 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.

- <u>Mental health counseling and psychotherapy</u> 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 2010-2011, 178 deaf and hard-of-hearing students were seen for these services.

- <u>Personal and career counseling and academic advising</u> 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 25 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.

- <u>Student Life Team</u> (SLT) continued its tradition in FY 2011 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, the 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.

- <u>Center for Intercollegiate Athletics and Recreation (CIAR) – NTID Support</u> 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 2010-2011, 18 deaf students participated on intercollegiate teams. Athletes competed in men's and women's basketball, men's soccer, women's crew, women's lacrosse, women's cross country, men's track and field, wrestling, men's and women's swimming, and women's softball. There were 217 deaf students participating on 55 intramural teams. Students participated in Wellness Instruction classes each quarter, and students were provided individual consultations on fitness, spirituality, healthy relationships, nutrition and other dimensions of wellness upon request.

Student Support Services Highlights (continued)

- Financial aid for domestic students was provided in AY 2010-2011 to NTID students in the form of Vocational Rehabilitation, grants-in-aid, federal and state grants, scholarships and federal loans through RIT's Financial Aid and Scholarships Office. In all, 444 received NTID merit scholarships, 67 received RIT merit scholarships, 488 received NTID endowed scholarships and 95 students received scholarships from external funding sources. In addition, the NTID Financial Services Offices 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 2011, 268 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-two sections were offered with an average class size of 11 students. 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 2010-2011, CES served 133 students. Eighty-four percent of CES students were accepted into a major within three quarters. There were 115 students enrolled in this program in fall 2011.

- 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. Wherever possible, SAISD promotes its successful model across the state.

- The NTID Learning Center (NLC), open seven days a week for a total of 84 hours per week from September through May, provides a variety of resources to support academic success such as tutoring, computer use, video production and individual/group study space. 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 53,088 times for a total of 153,094 hours. This is a 10 percent increase in the number of hours over AY 2009-2010. Since AY 2006-2007, the NLC has loaned laptops to students during the day and overnight. This year, laptops were borrowed 1,718 times, which is a 15 percent increase over AY 2009-2010. The Sprint Relay Experimental Distance Learning/Access Demonstration Lab, also housed within the NLC, hosted 221 class sessions and 69 workshop sessions for a total of 351.5 hours. The Sprint Relay Lab supported a variety of activities, including conducting experimental videoconferencing projects as well as video-capturing classes for archiving and subsequent "anytime/anywhere" access by students. In addition, Classroom #1 and the General Area supported 159 class sessions and 256 workshop/tutoring sessions, totaling 898.5 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 from other universities.

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 2010-2011		
	Hours of Service Tutoring/Advising	Class Sections Served	Total Student Registrations
College of Applied Science and Technology (CAST)	*	470	996
College of Imaging Arts and Sciences (CIAS)	1,947	454	1,044
Saunders College of Business (COB)	2,013*	191	536
Kate Gleason College of Engineering (KGCOE)	2,315*	120	140
College of Liberal Arts (COLA)	2,319	796	3,375
College of Science (COS)	8,625*	565	1,934
Golisano College of Computing and Information Sciences (GCCIS)	2,176*	249	467
Total	**19,395**	**2,845**	**8,492**

Students register at SVP 2011, a 10-day orientation program that allows students to sample majors.

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

Student Access Services

As NTID's enrollment continues to increase, the demand for access services also has reached historic levels.

Here, at an RIT Open House, interpreter Kathy Darroch and a real-time captionist interpret and transcribe remarks for deaf and hard-of-hearing students and their families.

Student Access Services Highlights

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 115, as of fall 2011, 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 52 real-time captionists as of fall 2011, has trained here in C-Print®, 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 2011, is greater than 13 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)	11,174	7,446	1,953	341
Saunders College of Business (COB)	7,494	5,329	2,498	176
Golisano College of Computing and Information Sciences (GCCIS)	7,863	7,305	2,415	230
Kate Gleason College of Engineering (KGCOE)	1,844	2,972	615	78
College of Imaging Arts and Sciences (CIAS)	14,986	14,208	2,882	376
College of Liberal Arts (COLA)	29,070	21,329	5,662	619
NTID Students with Approved Accommodations*	2,208	1,545	11	88
College of Science (COS)	19,469	17,125	4,649	505
Other Courses**	3,924	177	383	224
Total Hours	**98,032**	**77,436**	**21,068**	**2,637**

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*　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 2011	In-Class			Non-Class Activity		Administrative Activity		Overall Total	
	Hours	%*	Sections						
Fall	30,651	77%	632	6,902	17%	2,398	6%	39,951	100%
Winter	31,294	80%	637	6,474	17%	1,531	4%	39,299	100%
Spring	30,642	77%	653	7,234	18%	1,994	5%	39,870	100%
Summer	5,445	46%	84	4,982	42%	1,518	13%	11,945	100%
FY 2011 Total	**98,032**	**75%**	**2,006**	**25,592**	**19%**	**7,441**	**6%**	**131,065**	**100%**
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%
FY 2010 Total	85,111	73%	1,848	24,993	21%	6,678	6%	116,782	100%

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* 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 2011 below is reflective of our strategic planning.

FY 2011	In-Class			Non-Class Activity		Administrative Activity		Overall Total	
	Hours	%*	Sections						
Fall	6,971	99%	236	47	1%	36	1%	7,054	100%
Winter	6,741	99%	229	44	1%	3	0%	6,788	100%
Spring	6,336	99%	203	48	1%	30	0%	6,414	100%
Summer	1,020	82%	28	84	7%	133	11%	1,237	100%
FY 2011 Total	**21,068**	**98%**	**696**	**223**	**1%**	**202**	**1%**	**21,493**	**100%**
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%
FY 2010 Total	18,977	97%	618	203	1%	313	2%	19,493	100%
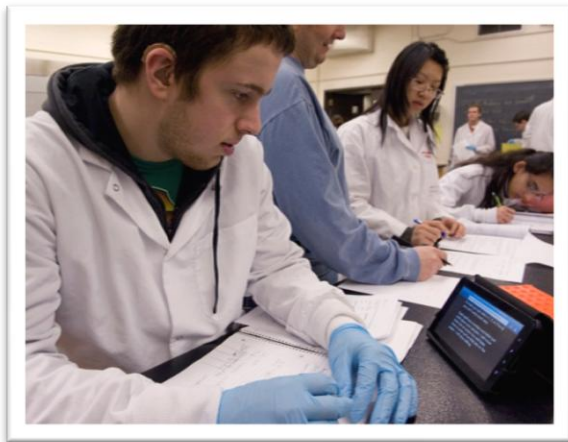
Scott Sanford, a Biology major from Monticello, N.Y., follows the instruction of RIT visiting assistant professor Dr. Gregory Babbit with the help of real-time captioning provided by NTID access services staff.

* Percentages are rounded to the nearest percent.

Student Access Services

Access Services: Staff Training

NTID Access Services offers interpreter, notetaker and C-Print® training to its staff and student employees. Real-time 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 2007	FY 2008	FY 2009	FY 2010	FY 2011
In-Service Training for Interpreters*	97	92	37	74	63
Notetaker Training	261	318	223	346	359
Real-Time Captionist Training	7	14	0	7	6
Total	**365**	**424**	**260**	**427**	**428**

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* 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

Of NTID's FY 2010 graduates, 90 percent of those seeking employment were employed in 2011.

Vanessa Bacellar, a Laboratory Science Technology major from Flushing, N.Y., discusses employment opportunities with Dr. Catherine Hunt, Senior R&D Director, External Science and Technology for Dow Chemical Company.

Persistence, Graduation and Employment Highlights

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, 92 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 2010 graduates show that 90 percent, or 96 of the 107 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 the 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. 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 faculty, staff and student concerns related to this issue. 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, Latino 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)

For AY 2010-11, RIT/NTID awarded 288 associate, bachelor's and master's degrees as well as certificates to students. Of those graduates, 5 percent earned certificates, 43 percent earned associate degrees, 40 percent earned bachelor's degrees and 12 percent earned master's degrees. Twenty-seven 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 (57%). 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.

The NTID Alumni Relations Office is focused on providing alumni workshops on how to develop strategies for finding employment and advancing in careers during challenging economic times. The NTID Alumni Association Board successfully completed their recruitment effort and welcomed seven new members. The board now has a total of 22 active members. More than 800 alumni and guests participated in various activities including receptions, workshops and alumni board meetings throughout the year.

Surrounded by family, Samantha Lynton, an Arts and Imaging Studies major from San Antonio, Texas, proudly shows her diploma.

First-Year Persistence Rates

Since there is 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 first-time, full-time, degree-seeking NTID-supported undergraduate students since 2000. Thus, the most recent three-year average is reported for the 844 students who were first-time, full-time, degree-seeking in the years 2008, 2009 and 2010. Data in the table below indicate that for the most recent three-year period, 82 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
2000, 2001, 2002	674	517	77%
2001, 2002, 2003	646	518	80%
2002, 2003, 2004	625	495	79%
2003, 2004, 2005	594	481	81%
2004, 2005, 2006	607	483	80%
2005, 2006, 2007	697	556	80%
2006, 2007, 2008	804	662	82%
2007, 2008, 2009	861	702	82%
2008, 2009, 2010	844	691	82%

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* Three-year averages for first-time, full-time, degree-seeking students registering for fall quarter. ASL-English Interpretation and MSSE students are not included. Students on leave of absence are counted as persisters.

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

Nationally, four-year public and private colleges have a first-year persistence rate of 78 percent. This compares to an 82 percent persistence rate for first-year NTID students in a major, across two-year and four-year degrees (79% for two-year; 93% 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 (31% for students admitted into sub-bachelor-level programs and 60% 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****
Two-Year Institutions	60%	29%
NTID Sub-Baccalaureate**	**79%**	**31%**
Four-Year Institutions	78%	56%
Other RIT Colleges (NTID Baccalaureate)**	**93%**	**60%**

Edgar Vizcarra, of Milwaukee, Wisc., celebrates his graduation. Edgar received his associate degree in Computer Integrated Machining Technology and was one of the recipients of NTID's Outstanding Graduate Award at the NTID Academic Awards Luncheon in May 2011.

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*   Source of National Estimates: www.higheredinfo.org/dbrowser/?level=nation&mode=data&state=/&submeasure=228
**   Source of National Estimates:
     www.higheredinfo.org/dbrowser/index.php?submeasure=24&year=2009&level=nation&mode=data&state=0
*** NTID calculates first-year persistence and graduation rates using a three-year moving average.

Persistence, Graduation & Employment

Degrees Granted: FY 2007 to FY 2011

During the past five years, NTID has awarded an average of 283 degrees annually. The number for FY 2011 was 288. 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. In FY 2011, 73 of the 288 graduate and undergraduate degrees, and certificates (27%) were granted to students from minority backgrounds.*

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 quarter 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 quarter credit hours of technical instruction. In addition to the technical courses, students must complete 20 quarter 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 quarter 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 quarter credit hours.

5. A *master's* degree indicates that a student has completed a minimum of 45 quarter credit hours beyond the baccalaureate level in any RIT master's degree program.

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* Minority status is unknown for 14 of these 288 graduates.
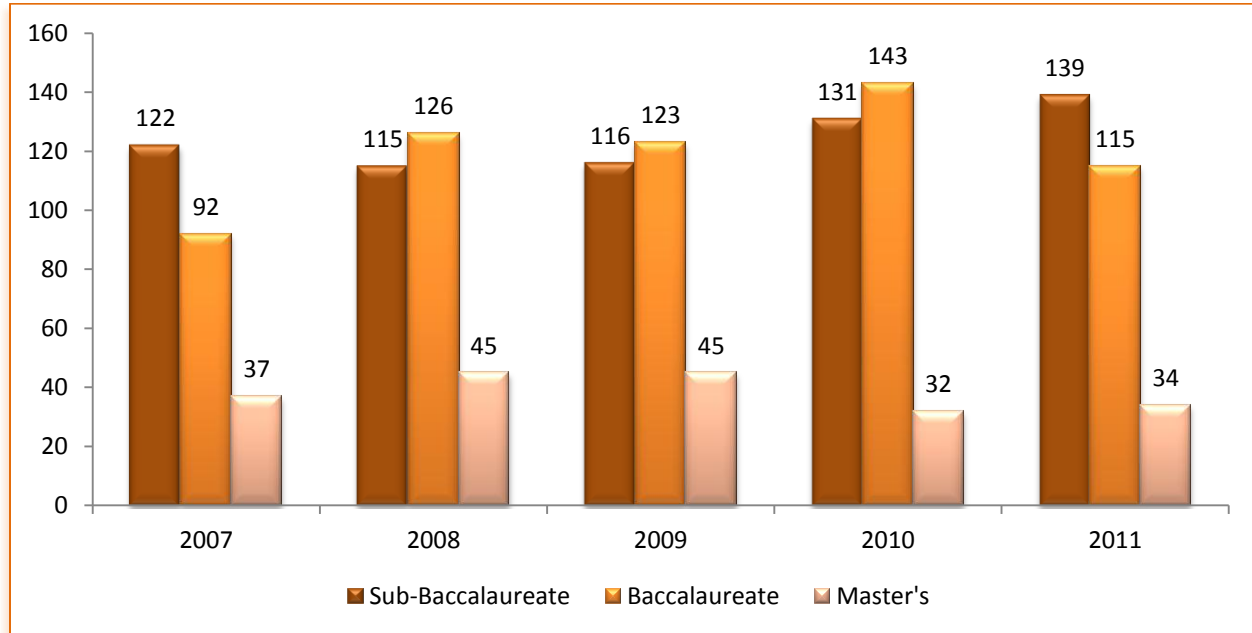
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Sub-Baccalaureate*	48.9%	48.6%	40.2%	40.9%	48.3%
Baccalaureate*	36.3%	36.7%	44.1%	43.3%	39.9%
Master's**	14.8%	14.7%	15.7%	15.8%	11.8%

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* This number includes hearing graduates from the ASL-English Interpretation programs.
** This number includes deaf and hard-of-hearing graduates from RIT, as well as deaf, hard-of-hearing and hearing graduates from the Master of Science program in Secondary Education.

Graduates by Program Areas

Of all the degrees awarded to NTID students on the RIT campus in FY 2011, 60 percent were through programs offered by NTID and 40 percent through the other colleges of RIT. Historically, 67 percent of the degrees have been awarded from NTID and 33 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 2011		CUMULATIVE (FY 1970 – FY 2011)	
	Number of Graduates	Percentage of Graduates	Number of Graduates	Percentage of Graduates
NTID				
Career-Focused and Transfer Associate Degrees	127	44%	3,931	55%
ASL-English Interpretation Bachelor	18	7%	124	2%
ASL-English Interpretation Associate	1	0%	464	6%
ASL-English Interpretation Certificate	2	1%	8	0%
Master of Science in Secondary Education	23	8%	276	4%
Subtotal NTID	**171**	**60%**	**4,803**	**67%**
Other Colleges of RIT*				
College of Applied Science and Technology	10	3%	542	8%
College of Business	22	8%	349	5%
College of Computing and Information Sciences	11	4%	262	4%
College of Engineering	4	1%	80	1%
College of Imaging Arts and Sciences	20	7%	522	7%
College of Liberal Arts	15	5%	411	6%
College of Science	10	3%	133	2%
Multidisciplinary and University Studies	25	9%	50	1%
Subtotal Other Colleges	**117**	**40%**	**2,349**	**33%**
Total	**288**	**100%**	**7,152**	**100%**

* 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 7th- and 9th-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 a 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 approximately 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 5.6 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 2008, 2009, 2010		
First Degree Category	**Average Active Quarters***	**Average Calendar Years****
Bachelor's degree (transfer after NTID associate degree)	21.5	7.1
Bachelor's degree (transfer from NTID without associate degree)	17.1	5.6
Bachelor's degree (direct entry)	15.1	4.5
AS/AAS degree	13.6	4.7
AOS degree	12.7	4.7

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*   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.

Persistence, Graduation & Employment

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 2010*, 250** deaf and hard-of-hearing students graduated, and 107 chose to enter the labor force. Ninety-six were employed, while 11 were unable to find employment. Therefore, 89.71 percent (96/107) found employment. NTID's employment rate over the past five years as calculated above is 92 percent. Of the 143 remaining graduates from 2010, 99 are continuing their education toward advanced degrees either at RIT or elsewhere, 21 are not looking for employment, and 23 have an unknown status.

Degrees Granted

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Graduates	213	203	214	218	250
In the Labor Force	109	118	113	105	107
Employed	103	112	102	94	96

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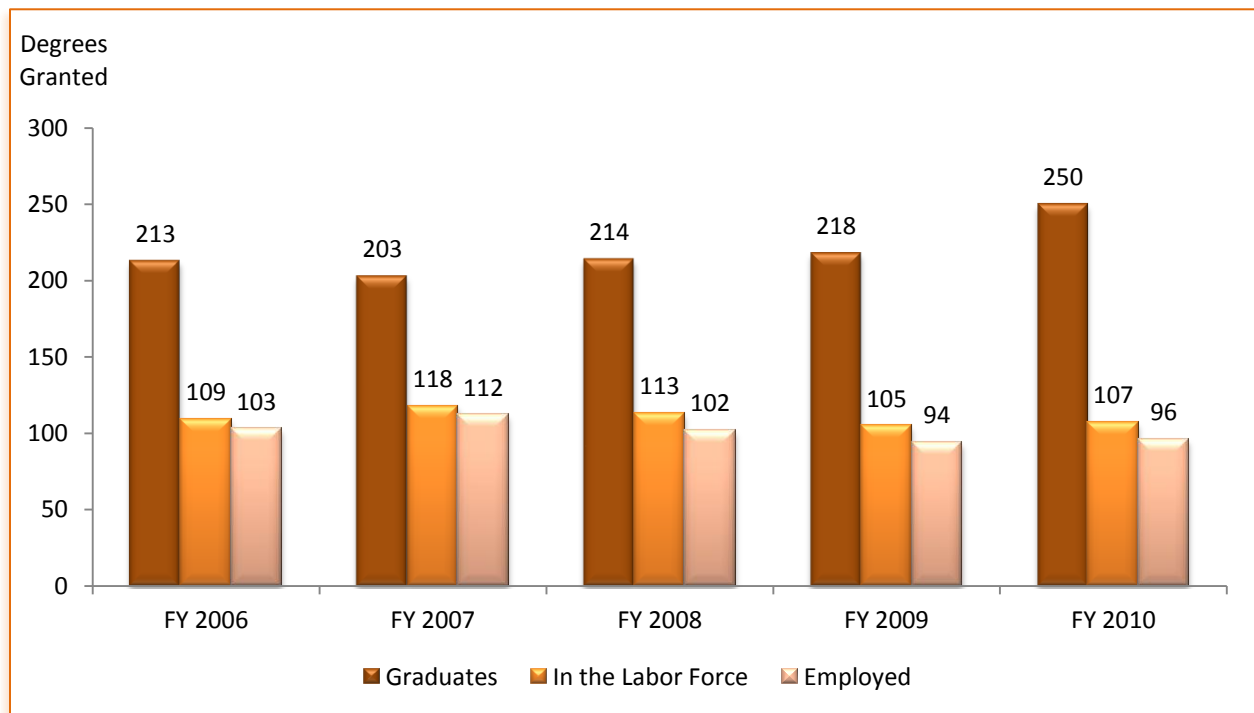
*   As of the writing of this report, the employment information for 2011 is incomplete; therefore, we report employment rates of 2010 graduates.
**   Students are only counted once in the case of multiple degrees, and the total number of graduates does not include degrees in the ASL-English Interpretation 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.

During FY 2011:

- One-hundred nineteen NTID students were enrolled in 11 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.

- Fifty-one students took advantage of two sessions offered to review and advise on resumes.

- Fifty-seven deaf and hard-of-hearing students attended two career development workshops.

- The 10th annual NTID Job Fair was held in October 2010 with 41 employers (including 12 new employers) attending and close to 400 students and alumni participating.

- To inform students about NCE services, NCE participated in several interactive events each quarter for students, along with other NTID departments and student groups.

- Eight students from various baccalaureate programs went to Dow Chemical in Midland, Mich., to talk about their co-op experiences with senior managers who are candidates for the company's top global positions.

- Nine students from various majors and degree levels visited Bayer in Pittsburgh, Pa., to gain a better understanding of the company.

An NTID student discusses employment opportunities with a representative from the National Geospatial Intelligence Agency at NTID's Job Fair.

Persistence, Graduation & Employment

Where Recent Graduates Are Working

In FY 2010, 24 percent of U.S. NTID graduates accepted jobs in areas near their hometowns in their first jobs after graduation, while 17 percent found employment in the Rochester area and 59 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.

	Percent of Placed Graduates				
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010*
Area					
Rochester	22%	16%	21%	18%	17%
Hometown	29%	33%	29%	33%	24%
Other	49%	51%	50%	49%	59%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Number of Graduates Placed	**103**	**112**	**102**	**94**	**96**

FY 2010 Graduate Placement by Region**

Pacific (includes Alaska & Hawaii) 5.2%
Mountain 2.1%
West North Central 8.3%
East North Central 10.4%
New England 7.3%
Middle Atlantic 42.7%
South Atlantic 15.6%
West South Central 0.0%
East South Central 1.0%

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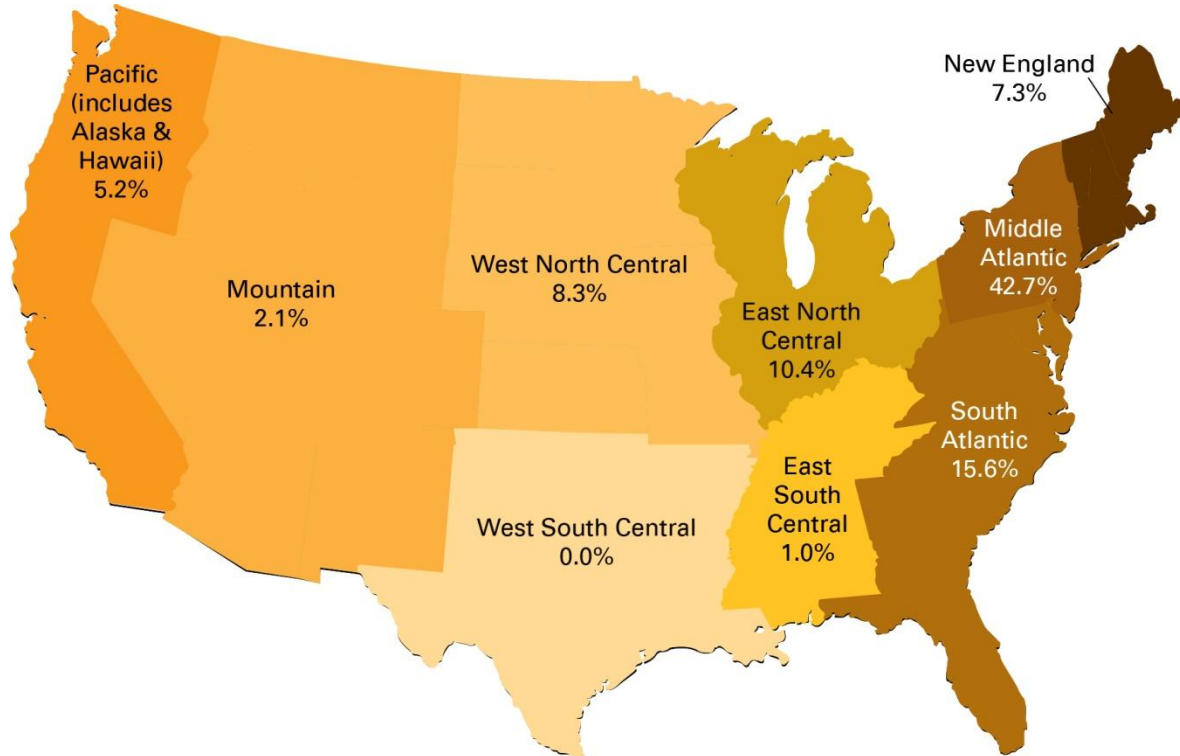
* Placement numbers for FY 2011 graduates are incomplete and will be reported next year.
** In addition, 4.2 percent are working internationally and 3.2 percent are working in unknown locations.

Employment by Sector of the Economy

Of the last cohort of graduates tracked for employment, 57 percent have acquired jobs in business and industry, 27 percent in education and 16 percent in government.

Sector	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010*
Business/Industry	60%	63%	71%	59%	57%
Education/Non-Profit	30%	29%	20%	21%	27%
Government	10%	8%	9%	20%	16%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Hannah Worek (left), a criminal justice major from Rochester, N.Y., and Maya Ariel, a business administration management major from Livingston, N.J., discuss their roles as actors on ABC's program What Would You Do? *with host John Quiñones. The students acted as if they were trying to get a job at a coffee shop, and actors portraying the coffee shop managers told them they wouldn't be hired because they are deaf. Only a few members of the general public spoke up against the management, and several customers who were human resource professionals actually advised the managers on how to discriminate in a way that can't be detected. Almost five million viewers watched the original broadcast in February 2011. NTID is working with human resource organizations and employers to educate them about hiring deaf and hard-of-hearing individuals.*

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* Placement numbers for FY 2011 graduates are incomplete and will be reported next year.

Persistence, Graduation & Employment

Occupations of Recent Graduates: Entry Status by Labor Category

FY 2010 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 2010 Annual Report*. This year shows a large increase relative to previous years for employment in the computer and mathematics category of occupations. There was also a substantial increase this year in the percentage employed in office and administrative support areas. Relatively more were employed in business and finance as well. However, there was a decrease in percentages employed in education, training and library occupations.

Categories for which there was no reported employment this year were: Management; Healthcare Support and Healthcare Practitioners; Construction and Extraction; Installation, Maintenance and Repair; Farming, Fishing & Forestry; Transportation and Material Moving; and the Military.

Occupations of Working 2010 Graduates	%	Sample Job Titles Held by 2010 Graduates within Category
Computer & Mathematics	23.7%	Computer Specialist, IT Intern, Software Engineer, Web Content Manager, Web Designer, PC Technician, Software Verifier and Tester
Office & Administrative Support	16.1%	Accounting Assistant, Customer Service Representative, Front Desk Greeter, Staff Assistant, Administrative Clerk, Accounts Maintenance Clerk
Business & Financial Operations	14.0%	Accountant, Marketing Assistant, Tax Preparer, Project-Based Data Clerk, Intern Research Assistant
Arts, Design, Entertainment, Sports & Media	10.8%	Photographer, Gallery Assistant, Graphic Artist, Graphic Design Intern, Creative Media Intern
Architecture & Engineering	8.6%	Engineer Intern, Field Technician, Service Engineer, Engineer Technician Trainee, Itinerant Actor
Production Occupations	7.5%	CNC Operator, Deburrer/Machinist, Press Operator, Printing Assistant, Laboratory Technician
Life, Physical & Social Science	5.3%	Lab Technician, Pollution Control Technician, Polymer Research Intern, Research Assistant
Food Preparation and Serving Related	3.2%	Bartender, Chef, Clerk
Community & Social Services	2.2%	Student Life Counselor, Summer Intern

Occupations of Working 2010 Graduates	%	Sample Job Titles Held by 2010 Graduates within Category
Sales & Related Occupations	2.2%	Sales Representative, Sales Clerk
Personal Care & Service	2.2%	Camp Counselor, Stylist
Education, Training & Library	1.1%	Student Life Assistant
Legal Occupations	1.1%	Legal Assistant
Protective Services	1.0%	Security Guard
Building and Grounds Cleaning & Maintenance	1.0%	Housekeeper
Job Title Not Specified	3.2%	
Total	**100%**	

The Task Force on Health Care Careers for the Deaf and Hard-of-Hearing Community, made up of participants from NTID, Gallaudet University, the National Center on Deaf Health Research at the University of Rochester Medical Center, and the Rochester General Health System, met at NTID to discuss their charge: to expand opportunities for deaf and hard-of-hearing individuals within health care professions through increased accessibility strategies and options, the coordination and development of educational programs, and enabling policy. An interim report was issued June 30, 2011, and the culmination of the task force's recommendations will be released in March 2012.

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. In 2010, 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. The next alumni survey will be in 2013.

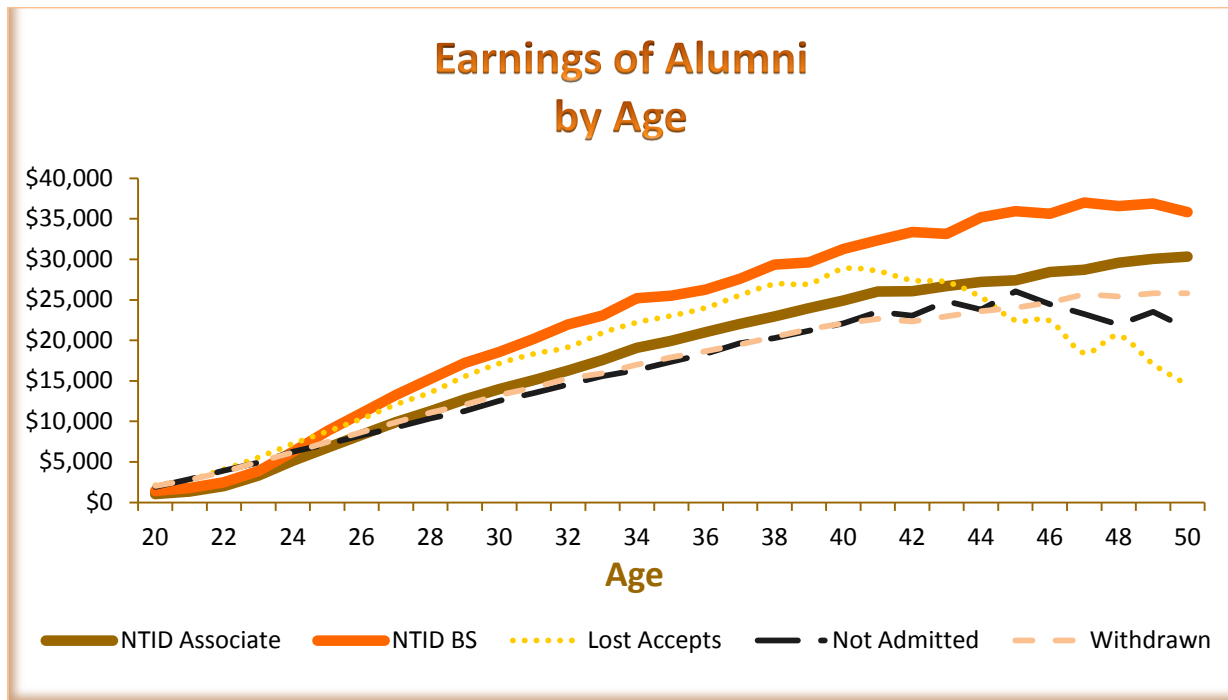| Occupations of Working Alumni*	%	Sample Job Titles Held by Alumni within Category
Education, Training & Library		
All	20.4%	Professor, Practicum Coordinator, Science Teacher, Itinerant Teacher Assistant, Literacy Instructor, Substitute Teacher
One to Five	20.4%	
Six to 15	20.6%	
Male	31.2%	
Female	68.8%	
Computer & Mathematical		
All	13.2%	System Administrator, Webmaster, Software Developer, Support Technician, Software Test Engineer, Programmer/Analyst, Application Developer
One to Five	12.2%	
Six to 15	13.8%	
Male	83.3%	
Female	16.7%	
Business & Financial Operations		
All	11.0%	Tax Coordinator, Compliance Specialist, Fraud and Loss Analyst, VP Marketing, Deciding Officer
One to Five	9.8%	
Six to 15	11.7%	
Male	48.0%	
Female	52.0%	
Community & Social Services		
All	9.9%	Advocacy Officer, Case Manager, Clinical Coordinator, Independent Living Specialist, Job Coach, Career Consultant, Direct Care Staff
One to Five	7.0%	
Six to 15	11.7%	
Male	33.3%	
Female	66.7%	
Office & Administrative Support		
All	9.2%	Accounting Technician, Administrative Assistant, Inventory Clerk, Receipt Log Clerk, Project Assistant, Rural Letter Carrier, Assistant, Legal Associate, Scheduler Clerk
One to Five	8.7%	
Six to 15	9.6%	
Male	38.1%	
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 Working Alumni*	%	Sample Job Titles Held by Alumni within Category
Arts, Design, Entertainment, Sports & Media		Designer, Digital Video Specialist, Exhibit Graphic Designer, Industrial Designer, Media Specialist, Interpreter/Transcriptionist
All	6.2%	
One to Five	7.6%	
Six to 15	5.3%	
Male	32.2%	
Female	67.8%	
Architecture & Engineering		Aerospace Engineer, Machine Designer, Packaging Engineer, Senior Enterprise Architect, Test Technician, Transportation Engineer II, Quality Assurance Analyst
All	5.9%	
One to Five	7.6%	
Six to 15	5.0%	
Male	70.4%	
Female	29.6%	
Production Occupations		Cabinet Maker, Die Builder, Engraving Specialist, Typesetter/QC, Optical Technician, CNC Programmer, Machinist
All	3.7%	
One to Five	1.2%	
Six to 15	5.3%	
Male	82.4%	
Female	17.6%	
Management		Disability Policy Manger, Contracts Administrator, President/Owner, Program Control Officer, Executive Director
All	3.1%	
One to Five	2.9%	
Six to 15	3.2%	
Male	35.7%	
Female	64.3%	
Sales & Related		Customer Service Representative, Customer Service Associate, Representative/Beauty Consultant
All	3.1%	
One to Five	4.6%	
Six to 15	2.1%	
Male	28.6%	
Female	71.4%	
Healthcare Practitioners & Technical Occupations		Emergency Center Medical Coder, Laboratory Technician, Discovery Technologist, Registered Dietician, Sonographer
All	2.8%	
One to Five	3.5%	
Six to 15	2.5%	
Male	23.1%	
Female	76.9%	

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

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

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%	

Michael Anthony, an RIT/NTID 2010 graduate in Computer Science and Game Design and Development, now works as a software development engineer for Microsoft in Redmond, Wash. Here, he recruits other RIT/NTID students at NTID's Job Fair.

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* 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.

Earnings of Alumni by Age

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.

Percent of Alumni Reporting Earnings by Age

Legend: NTID Associate — NTID BS — Lost Accepts — Not Admitted — Withdrawn

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.

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.

Supplemental Security Income (SSI)

Legend: NTID Associate — NTID BS — Lost Accepts — Not Admitted — Withdrawn

X-axis: Age

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.

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.

Social Security Disability Insurance (SSDI)

Legend: NTID Associate — NTID BS — Lost Accepts — Not Admitted — Withdrawn

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

Almost one-third of NTID's fall 2011 entering class is from minority groups.

RIT/NTID students dance in the Frisina Quad during Applefest, an annual festival hosted by the NTID Student Life Team to welcome students and introduce them to clubs and services on campus.

Diversity and Pluralism Highlights

Students

As of fall 2011, the number of U.S. deaf and hard-of-hearing minority students at NTID is 358*, one of the largest numbers in the past five years. FY 2012 highlights follow:

- Thirty-two percent of the entire fall entering class is from minority groups. The percentage in the total student body is 29 percent, which is more than triple what it was 18 years ago.
- First-year persistence rates for the current cohort groups were higher than the rates reported last year for Hispanic, Asian and Black or African-American students.

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 63 employees from ethnic minority populations, 31 are Black or African-American, 16 are Hispanic and 16 are other minorities.

Of our 587 total number of employees, 111 are deaf or hard of hearing.

Of the 159 employees who are deaf or hard of hearing or are members of a minority group, 125 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 29 percent of all hires over the past year were either minority individuals or individuals who are deaf or hard of hearing.

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.

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* Does not include students enrolled in ASL-English Interpretation programs or the Master of Science in Secondary Education program.

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.

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)

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.

- In October 2011, NTID developed an update of its diversity plan to address the needs of students, faculty and staff following the direction of the RIT Chief Diversity Officer. The "NTID Inclusive Excellence Report" outlines our diversity objectives, current status and strategies for achieving our objectives. NTID's president has appointed a Special Assistant to the President on Diversity to continue to develop and execute this plan.

- 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-four percent (220) of this year's 902 deaf
and hard-of-hearing applicants were students from
minority backgrounds. The FY 2012 entering class of
deaf and hard-of-hearing students included
96 minority students, who represent 35 percent of the
newly admitted deaf and hard-of-hearing students.

	FY 2011*	Percent	FY 2012*	Percent
Total Applicants	906		902	
Non-Minority	404	61%	426	66%
Minority	254	39%	220	34%
Unknown	248		256	
Acceptances	477		439	
Non-Minority	228	60%	234	66%
Minority	153	40%	119	34%
Unknown	96		86	
Registrations	351		345	
Non-Minority	178	62%	180	65%
Minority	111	38%	96	35%
Unknown	62		69	

*Renee Glanville, right, an Arts and Imaging Studies
major from Washington, D.C., dances with a
member of the public during NTID Performing Arts'*
Guys and Dolls *presentation at RIT's innovation
and creativity festival, Imagine RIT.*

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* Figures do not include admissions activity in the ASL-English Interpretation programs or the Master of Science program in
Secondary Education. All percentages are of individuals for whom we have data.

Diversity and Pluralism

Ethnicity of Entering Students

The FY 2012 total entering class included
102 minority students, who represent 32 percent of
the entire incoming class. The FY 2012 entering
class of deaf and hard-of-hearing students included
96 minority students, who represent 35 percent of the
newly admitted deaf and hard-of-hearing students.

	FY 2011*	Percent	FY 2012	Percent
Deaf and Hard-of-Hearing Undergraduate and Graduate Students				
American Indian or Alaska Native	0	0.0%	**	
Asian	18	6.2%	12	4.3%
Black or African-American	35	12.1%	39	14.1%
Hispanic of Any Race	52	18.0%	34	12.3%
Native Hawaiian or Other Pacific Islander	0	0.0%	**	
White	169	58.5%	174	63.0%
Two or More Races	6	2.1%	8	2.9%
Non-Resident Alien (International)	9	3.1%	6	2.2%
Unknown Race/Ethnicity	62		69	
Subtotal Minority Deaf and Hard-of-Hearing Undergraduate and Graduate Students	111	38.4%	96	34.8%
Subtotal Deaf and Hard-of-Hearing Undergraduate and Graduate Students	**351**		**345**	

	FY 2011	Percent Minority	FY 2012	Percent Minority
Other Enrollments				
ASL-English Interpretation	57	19.5%	41	10.3%
Master of Science in Secondary Education	27	0.0%	18	17.6%
Unknown Race/Ethnicity	24		13	
Total Minority Enrollments	**119**		**102**	
Total Enrollments	**435**		**404**	
Overall Percent Minority		**34.1%**		**31.7%**

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

Diversity and Pluralism

Ethnicity of Enrolled Students

Minority enrollment at NTID has increased steadily from 8 percent in FY 1988 to 29 percent in FY 2012, nearly four times what it was 24 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	FY 2012	Percent
Deaf and Hard-of-Hearing Undergraduate and Graduate Students				
American Indian or Alaska Native	9	0.8%	**	
Asian	87	7.6%	77	6.8%
Black or African-American	126	11.0%	130	11.5%
Hispanic of Any Race	131	11.4%	127	11.3%
Native Hawaiian or Other Pacific Islander	0	0.0%	**	
White	747	65.2%	728	64.6%
Two or More Races	6	0.5%	13	1.2%
Non-Resident Alien (International)	40	3.5%	41	3.6%
Unknown Race/Ethnicity	157		201	
Subtotal Minority Deaf and Hard-of-Hearing Undergraduate and Graduate Students	359	31.3%	358	31.8%
Subtotal Deaf and Hard-of-Hearing Undergraduate and Graduate Students	**1,303**		**1,328**	

	FY 2011	Percent Minority	FY 2012	Percent Minority
Other Enrollments				
ASL-English Interpretation	147	13.7%	160	12.4%
Master of Science in Secondary Education***	71	10.3%	59	14.6%
Unknown Race/Ethnicity	36		50	
Total Minority Enrollments	**382**		**380**	
Total Enrollments	**1,521**		**1,547**	
Overall Percent Minority		**28.8%**		**29.3%**

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* 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.

** Frequency counts small and not reported for confidentiality.

*** Includes five non-matriculated students.

Diversity and Pluralism

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. However, there are noticeable differences among the various groups in terms of persistence and graduation rates. In FY 2008, the Department of Education requested that NTID's performance indicators in the areas of persistence and graduation be consistent with IPEDS methodology. The information below follows this methodology, with the additional inclusion of students on leave of absence as persisting.

First-Year Persistence Rates for First-Time Full-Time Freshmen*

FY 2011 (Fall 2010 Cohort)	Black or African-American	Asian	Hispanic of Any Race	Non-Resident Alien (International)	White
Cohort Count	26	11	35	5	117
Persisted to Second Year	23	10	29	5	98
First to Second Year Persistence Rate	88%	91%	83%	100%	84%

Six-Year Graduation Rates for First-Time Full-Time Freshmen*
Three-Year Moving Averages

FY 2006 (Fall 2005 Cohort)	Black or African-American	Asian	Hispanic of Any Race	Non-Resident Alien (International)	White
Cohort Count	16	18	8	2	129
Graduated Within Six Years	6	7	4	1	62
Six-Year Graduation Rate	38%	39%	50%	50%	48%

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

Graduates by College and Program Areas: Minority Status

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

| | FY 2011 Number of Graduates | | | | |
	Minority	Non-Minority	Unknown	Total	Percentage of Total Graduates
NTID					
Career-Focused and Transfer Associate Degrees	46	76	5	127	44%
ASL-English Interpretation	*	16	*	21	7%
Master of Science in Secondary Education	*	20	*	23	8%
Other Colleges of RIT**					
College of Applied Science and Technology	*	6	*	10	3%
College of Business	*	18	*	22	8%
College of Computing and Information Sciences	*	8	*	11	4%
College of Engineering	*	*	*	4	1%
College of Imaging Arts and Sciences	*	14	*	20	7%
College of Liberal Arts	*	12	*	15	5%
College of Science	*	8	*	10	4%
University Studies	5	20	0	25	9%
Total***	**73**	**201**	**14**	**288**	**100%**

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* 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.

Diversity and Pluralism

Affirmative Action Report: Faculty and Staff

NTID continues to emphasize and encourage the hiring, promotion and persistence of women, minorities and individuals who are deaf and hard of hearing. 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. Gender and minority status was unknown for seven faculty and staff members.

FY 2011

	Total Employees	Female	Black or African-American	Hispanic of Any Race	Other Minority	Deaf and Hard-of-Hearing
Faculty*	197	99	10	5	9	62
Percent		51%	5%	3%	5%	31%
Exempt Staff*	134	73	10	**	**	34
Percent		54%	8%	**	**	25%
Executive/ Administrative Manager*	57	21	**	**	**	18
Percent		38%	**	**	**	31%
Non-Exempt Staff						
C-Print®	53	51	**	**	0	0
Percent		96%	**	**	0%	0%
Interpreter	124	108	**	**	**	1
Percent		88%	**	**	**	1%
Technical/ Clerical	79	70	6	**	**	14
Percent		89%	8%	**	**	18%
Total	**587**	**401**	**31**	**16**	**16**	**111**
Percent		**69%**	**5%**	**3%**	**3%**	**19%**

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* Of the 57 executive/administrative managers, 22 are included on the faculty line and 35 are included on the exempt staff line. Therefore the numbers in the Executive/Administrative Manger 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
October 1, 2010 – September 30, 2011

	Number of Positions Posted	Total Applicants	Number of Applicants by Category					
			Female	Black or African-American	Hispanic of Any Race	Other Minority	White Male	Unknown
Faculty	9	79	39	4	5	6	31	3
Exempt Staff	15	205	129	20	6	22	50	11
Non-Exempt Staff*	36	733	608	71	29	50	79	35
Total	**60**	**1,017**	**776**	**95**	**40**	**78**	**160**	**49**

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

Diversity and Pluralism

Affirmative Action: Faculty and Staff Hiring Results

During FY 2011, individuals from an ethnic minority totaled 13 percent of all new hires, deaf and hard-of-hearing individuals totaled 17 percent and women, 61 percent. Individuals may appear in more than one Affirmative Action category. Seven new hires were individuals of unknown ethnicity. Five new hires were individuals of unknown gender and unknown hearing status.

FY 2011

	Total New Employees	Female	Black or African-American	Hispanic of Any Race	Other Minority	Deaf and Hard-of-Hearing
Faculty	6	2	*	0	*	1
		50%	*	0%	*	20%
Exempt Staff	13	5	*	0	*	4
		38%	*	0%	*	31%
Executive/ Administrative Manager**	4	0	*	0	*	1
		0%	*	0%	*	25%
Non-Exempt Staff						
Real-Time Captionist	10	7	*	0	*	0
		88%	*	0%	*	0%
Interpreter	0	0	*	0	*	0
		0%	*	0%	*	0%
Technical/Clerical	7	5	*	0	*	0
		100%	*	0%	*	0%
Total	**36**	**19**	**3**	**0**	**1**	**5**
		61%	10%	0%	3%	17%

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*   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 2011, 11 percent of terminations were individuals from ethnic minorities and 74 percent were women. Six terminations were individuals of unknown ethnicity. In the chart below, individuals may appear in more than one Affirmative Action category.

FY 2011

	Total Terminated Employees	Female	Black or African-American	Hispanic of Any Race	Other Minority	Deaf and Hard-of-Hearing
Faculty	13	7	*	0	*	3
		54%	*	0%	*	23%
Exempt Staff	12	6	*	0	*	2
		50%	*	0%	*	17%
Non-Exempt Staff**	25	24	*	0	*	1
		96%	*	0%	*	4%
Total	**50**	**37**	**4**	**0**	**1**	**6**
		74%	9%	0%	2%	12%

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* Frequency counts small and not reported for confidentiality.
** Includes technical, clerical, C-Print® captionists and interpreters.

Diversity and Pluralism

Innovation and Creativity

NTID Performing Arts celebrated its 36th season in FY 2011.

The RIT/NTID Dance Company, a mix of deaf, hard-of-hearing and hearing students, performs *Danser et Voler*, an original collection of choreography by NTID Senior Lecturer in Cultural and Creative Studies, Thomas Warfield.

Scholarship and Accomplishments

Faculty Scholarship

Tenured and tenure-track RIT/NTID faculty are required to 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 2010-2011, faculty in Academic Affairs secured 25 grants for a total award of $4.5 million to support discipline-based research, web-based instructional development, graduate programs preparing students to work with deaf and hard-of-hearing individuals, STEM education, conferences and new access technologies.

During the 2010-2011 academic year, NTID faculty gave presentations at more than 60 professional conferences and meetings in the United States and abroad. Conferences in the U.S. included:
- Convention of American Instructors of the Deaf (CAID), Fort Worth, Texas
- 51st California Educators of the Deaf and Hard of Hearing (CAL-ED) Conference, Norwalk, Calif.
- American Society for Engineering Education Annual Conference and Exposition, Louisville, Ky.
- Society for Information Technology & Teacher Education International Conference 2011, Chesapeake, Va.
- T3 (Teachers Teaching with Technology), San Antonio, Texas
- Institute of Electrical and Electronics Engineers (IEEE) International Symposium on Technology and Society, Chicago, Ill.
- Northeast Cochlear Implant Convention, Sturbridge, Mass.
- American Sign Language Teachers Association (ASLTA) Conference, Seattle, Wash.
- American Chemical Society, Rochester Section, University of Rochester, Rochester, N.Y.
- American College Educators-Deaf and Hard of Hearing, Fort Worth, Texas
- Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD), Honolulu, Hawaii
- American Geophysical Union, San Francisco, Calif.
- Finger Lakes Research Center, Geneva, N.Y.
- Rochester Academy of Sciences, Rochester, N.Y.
- Great Lakes Research Consortium, Syracuse, N.Y.
- Black Mountain North Symposium, Rochester, N.Y.
- Society for Disability Studies, San Jose, Calif.
- American Literature Association, Boston, Mass.
- Niagara University International Conference on Teaching and Learning, Niagara University, N.Y.
- Teachers of English to Speakers of Other Languages (TESOL) Convention, New Orleans, La.
- American Public Health Association, Washington, D.C.
- Tech Symposium: Technology and Deaf Education, Rochester, N.Y.
- Student Success in Writing Conference, Savannah, Ga.
- National Science Teachers Association, San Francisco, Calif.
- College English Association, St. Petersburg, Fla.
- American Deafness and Rehabilitation Association (ADARA) Conference, San Diego, Calif.
- American Chemical Society, Anaheim, Calif.
- American Chemical Society, Denver, Colo.
- Coalition of Private Schools Serving Deaf Children, Captiva, Fla.
- Conference on College Composition and Communication, Atlanta, Ga.
- American Educational Research Association, New Orleans, La.
- Joint Mathematics Meetings, New Orleans, La.
- Convention of the Northeast Modern Language Association, New Brunswick, N.J.
- Ecological Society of America, Austin, Texas
- Cultural Diversity Conference, Brockport, N.Y.
- American Association of Geographers Annual Meeting, Seattle, Wash.
- High Impact Technology Exchange Conference, San Francisco, Calif.
- Annual Conference of the American Society of Deaf Children, Frederick, Md.
- Association of Medical Professionals with Hearing Losses Conference, Portland, Ore.

- McNair Scholarship Conference, Brockport, N.Y.
- Cognitive Neuroscience Society, San Francisco, Calif.
- Inter-Science of Learning Center Student and Post-Doc Conference, Gallaudet University, Washington, D.C.
- Association for Psychological Science, Washington, D.C.
- National Science Foundation, Washington, D.C.
- Southeastern International Conference on Combinatorics, Graph Theory, and Computing, Boca Raton, Fla.
- Geneseo Mathematics Colloquium, Geneseo, N.Y.
- Neurobiology of Language Conference, San Diego, Calif.
- Educational Support Service Personnel, Niagara Falls, N.Y.
- Association of College Educators of the Deaf and Hard of Hearing, Dallas-Ft. Worth, Texas
- Early Hearing Detection and Intervention Conference, Atlanta, Ga.
- Accessing Higher Ground Conference, Westminster, Colo.
- Opening Doors, Unlocking Potential: Language-Literacy-Learning and Students Who are Deaf or Hard of Hearing, Charlottesville, Va.

This year, there was an increase in the faculty presenting at international venues, including the following: World Federation of the Deaf, Durban, South Africa; Society for Research in Child Development, Montreal; European Conference on Technology Enhanced Education, Palermo, Italy; University of L'Aquila, International Research Consortium; Nordic Conference on Cochlear Implantation, Gothenburg, Sweden; Association of the Deaf in Israel, Helen Keller Center, Tel Aviv, Israel; Federation of European Societies of Neuropsychology Congress, Basel, Switzerland; Deaf Academics and Researchers Conference, Florianapolis, Brazil; Ali Yavar Jung National Institute for the Hearing Handicapped, Mumbai, India; and Institute de Formation des Maîtres [Institute for Training of Teachers], Bamako, Mali.

NTID faculty gave workshops and performances at the following U.S. venues: Early Hearing Detection and Intervention Conference, Atlanta, Ga.; Kent State University, Ohio; CAID, Ft. Worth, Texas; Western Pennsylvania School for the Deaf, Pittsburgh, Pa.; Dartmouth College; La Casita Festival at Lincoln Center, New York, N.Y.; Schenectady County Community College, N.Y.; Monroe Community College, N.Y. Internationally, faculty gave workshops at: Deaf and Hard of Hearing Teacher Education Program, York University Access Conference, Toronto, Ontario.; Hogeschool Utrecht in Utrecht, Netherlands; the National Institute for the Deaf in Worcester, South Africa; the Hong Kong Education Department and Rehabilitation Advisory Committee, Hong Kong; the Peace Evangelical Education Centre, Hong Kong; and the Hong Kong Jockey Club Co-Enrollment & Bilingualism Program, Hong Kong.

NTID faculty exhibited artwork at the following venues: Chait Gallery, Rochester High Falls; CMAC Performing Arts Center, Canandaigua, N.Y.; Arts & Cultural Council for Greater Rochester; Williams Gallery, Rochester; Downtown Gallery, Kent, Ohio; Phelps Art Center, Phelps, N.Y.; Wayne Council of the Arts, Newark, N.Y.; Gallery R, Rochester, N.Y.; George Eastman House and Museum, Rochester, N.Y.; Firebrick Gallery and Pottery Studio, Rochester, Mich.; Rochester Contemporary Art Center; Rochester Artisan Works; First Solutions LLC, Washington, D.C.; Massachusetts College of Art; Xerox Corporation and Xerox Latin America, Rochester, N.Y.; Naples Media Group, Fla.; The Buffalo News, Buffalo, N.Y., and Flower City Printing, Rochester, N.Y.

In addition to presentations, exhibitions and workshops, faculty scholarship was published in the following journals with many papers submitted and under review: *Inorganica Chimica Acta*; Dawn Sign Press; *Journal of the Society for Ethics Across the Curriculum*; *Learning and Individual Differences*; *European Journal of Special Needs Education*; *Journal of Deaf Studies and Deaf Education*; *Oxford Handbook of Deaf Studies, Language, and Education*; *Language Learning*; *The International Review of Research in Open and Distance Learning*; *The Journal of Postsecondary Education and Disability*; *Aggression and Violent Behavior*; *Neuroimage*; *Deaf Studies Digital Journal*; *Deafness & Education International*; *South Atlantic Review*; *American Annals of the Deaf*; *College English Association Critic*; *Disability and Health Journal*; *The Eighteenth Century: Theory and Interpretation*; *Open Words: Access and English Studies*;

Scholarship and Accomplishments (continued)

Valparaiso University Law Review; *The Slavic and Eastern European Journal*; *Proceedings of CAID Conference*; *Proceedings of CAL-ED Conference; Proceedings of Society for Information Technology & Teacher Education International Conference; Proceedings of IEEE International Symposium on Technology and Society; Proceedings of the National Academy of Sciences;* and *Proceedings of ENDO, 2011*.

Faculty/Student Scholarship

In accordance with the *Strategic Decisions 2020* mandate to "engage students, both undergraduate and graduate, in scholarship and innovation activities," RIT/NTID faculty worked with students on scholarship projects at every degree level. Faculty/student research may involve faculty working with small groups of students or individual student-based projects.

This year, at the associate degree level, students taking a capstone course presented projects such as *Saving Energy by Raising Maximum Temperatures in Computer Facilities*, as well as various others under the general heading of "How practitioners in my field of study can help the environment." Students also collaborated with faculty doing research on topics such as *Dissolved Organic Carbon in Natural Waters Influenced by Climate Change: Impact on Drinking Water Supply*; *Kinetic Deoxygenation Studies of Polyaromatic Hydrocarbons*; *Analysis of Polyphenols in Wild Fruits*; and *Qualitative and Quantitative Determinations of Carcinogen Deposition in the Lungs as a Function of Cigarette Smoking.* At the graduate level, a representative selection of scholarly projects undertaken by MSSE students includes: *Structured Online Academic Readings: Enhancing the Reading Comprehension Abilities of Deaf and Hard-of-Hearing Students*; *Fairview Learning Adapted Dolch Words and Bridge Lists: Steps to Reading Comprehension*; *The Mathematics Experience: An Overview of Instructional Strategies and Achievement Trends in Deaf Education*; *Applying Factors of Academic Success for Deaf Students: How Can Teachers Help Students Prepare for Post-Secondary Educational Opportunities?; Language-Delayed Deaf High School Students: English Syntax Acquisition and English Language Organizer*; and *Deaf and Hard-of-Hearing Students and Mathematical Word Problem Solving*.

In the Deaf Studies Laboratory, eight undergraduate and graduate students continued to participate in cognition and neuropsychology research projects, funded by the National Science Foundation, the National Institutes of Health and the U.S. Department of Education. These 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. Elsewhere, students assisted faculty in preparation of a cochlear implant database, a cochlear implant poster presentation, and the implementation of a Perkins Grant concerning the experience of deaf entrepreneurs.

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.

RIT/NTID 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. The club is mid-way through an innovation grant to develop a pilot fleet of electric bicycles for shared use on the RIT campus. Instrumentation for logging usage, efficiency, longevity and performance are included on the electric bicycles. Multiple park and charge stations, including solar powered stations, are being designed for placement in strategic locations on the RIT campus.

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. As a result, 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.

We have proven that EEM/PARAFAC can be used to measure phenol in humic substance standards and are now focusing our attention on conducting measurements in natural waters. We have performed a site characterization of Conesus Lake (N.Y.) and are beginning to make measurements on natural samples from this site. During the past academic year, we gave seven presentations on this topic, several of which featured students as the primary authors.

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.

We have completed the first phase of this study and plan to begin making similar measurements on new "electronic cigarette devices". We gave the final presentation, featuring a student as the primary author, at the National Meeting of the American Chemical Society in Anaheim, Calif.

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. We gave the final presentation,

featuring a student as the primary author, at the National Meeting of the American Chemical Society in Anaheim, Calif.

Digital Language Lab for Interpreting Instruction

The NTID American Sign Language and Interpreting Education Department uses a computer-based 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, dual monitors, a camera and a headset with microphone. Each lab is equipped with two digital control racks that connect to a 2TB server, two ceiling-mounted robotic video cameras, a microphone, six speakers, an LCD projector and a separate instructor's station with room controls.

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 finished with an assignment, the students can save their work to their own digital folder on the server, or they can save it to a USB stick. 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 2010-2011 academic year. In addition to providing training for adults, the project supports professional development for faculty and curriculum development for NTID students. To date, 738 deaf and hard-of-hearing individuals have attended 97 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 more than 300 students in fall 2011. 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 classroom collaboration using online software to support students in courses in the master's program in secondary education; lecture capturing of graduate students instructing a group of students for practice and review; multi-point conferencing supporting faculty collaboration; recording mock/practice interviews to assist graduating students with real-world experiences; recruiting high school students at remote locations using application sharing and web

conferencing; video-capturing of a math course, *Integrated Algebra*; and in-class exercises for archiving and 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 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 participate. Instructors see the use of clickers generating enthusiasm that leads to 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 for 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

The microteaching component of a methods course continues to be used by faculty members in NTID's Master of Science program in Secondary Education of Students who are Deaf or Hard of Hearing (MSSE). This is accomplished with the 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. They have indicated that microteaching is a very valuable part of their learning experience.

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 historical figures and ask them about their experiences and perspectives.

Innovation and Creativity at NTID (continued)

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 program is in the process of adding new videos to the library during the 2011-2012 academic year. 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 is 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 provide more than 21,000 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 (e.g., Smartphones) to transmit real-time captioning over a cellular network in non-traditional learning environments.

Online Access Services Request System

NTID has created a unique online Service Request and Assignment System for providing streamlined access to sign language interpreting, notetaking and real-time captioning services for students and other requesters. NTID operates the largest sign language interpreting, notetaking and speech-to-text service organization in the world, including 124 sign language interpreters, over 450 student notetakers each quarter and 52 real-time captionists. In addition, technology is available that provides unique access services for vision-impaired students.

Postsecondary Education Network-International (PEN-International) and Pre-College Education Network (P-CEN): Nippon Foundation Grants to NTID

Created in 2001 via grants funded by The Nippon Foundation of Japan through 2011, PEN-International was a multinational partnership of colleges and universities worldwide. Its goal was to improve and expand postsecondary education for deaf and hard-of-hearing students around the world, particularly in developing countries. PEN accomplished this by sharing educational technology, conducting faculty development and training, constructing state-of-the-art multimedia laboratories at partner institutions, sponsoring student cross-cultural exchanges, providing partners with a platform to share experiences and expertise with other colleagues, and disseminating network and program information. The Nippon Foundation of Japan is now funding a PEN Secretariat to provide support and guidance to ensure that the progress made by PEN partners is sustained.

Additionally, the Pre-College Education Network (P-CEN), a new five-year partnership with The Nippon Foundation, began in March 2011. It will start by working with schools in the Philippines and Vietnam; schools in other developing regions in the Association of Southeast Asia nations (ASEAN) are also expected to join. The new project seeks to improve teaching, learning, and curriculum and instructional development for deaf and hard-of-hearing students in the ASEAN region and to improve career education opportunities for them. P-CEN will share new technologies and teaching models to train faculty at participating schools. Through RIT/NTID's Center on Access Technology, educators from partner countries will participate in workshops in Rochester, and RIT/NTID experts will visit schools in foreign countries to assist in educating faculty and staff there.

Center for Education Research Partnerships

The Center for Education Research Partnerships (CERP) 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. 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 (CAT) 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 Baines 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 Cisco Accessibility Team made a significant donation of two major telepresence systems to NTID in order to provide a platform for research and advanced high definition communication for the community. CAT will be evaluating Cisco TelePresence technologies for classroom and remote communication for deaf and hard-of-hearing users and making recommendations on best practices and product design.

NTID Performing Arts

NTID Performing Arts celebrated its 36th season in AY 2010-2011 by presenting three mainstage productions, two laboratory productions and a Fall Workshop series that involved 462 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 4,645 people from throughout New York State as well as schools and community groups from neighboring states and

Canada. On-campus performances included *Inherit the Wind*, *Prelude to a Kiss*, *Danser et Voler*, *Don't Dress for Dinner*, and *Guys and Dolls*, pictured here. The Fall Workshop Series consisted of theatre-related workshops and performances presented by nationally renowned artists such as Bernard Bragg, Monique Holt and Timothy Chamberlain, as well as NTID performing arts faculty/staff. Additional performances included two laboratory (black box) performances by members of The RIT Players, and a one-man mime show performed by alumnus Jimmy Jones.

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). 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). 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*.

Innovation Funds

As part of *Strategic Decisions 2020*, RIT/NTID faculty, staff and students were encouraged to submit innovation grant proposals that respond to *SD 2020* and relate to innovative instruction/student services, innovative scholarship/research or professional growth. A total of 92 proposals were received, and 18 were funded, nine in each of the three areas. Projects include the development of a prototype for a see-through monitor that would allow teachers to write on the monitor while maintaining eye contact with students, establishing a personal finance club that would enable students to create and monitor the club's portfolio with any interest/dividends going to student scholarships, developing a prototype of an imaging system for image relocation on a head-mounted display for deaf/hard-of-hearing students with Usher's Syndrome (low vision), and targeting the "glass ceiling" for deaf/hard-of-hearing students by looking at NTID graduates' long-term growth in the workplace. Most projects anticipate completion in 2012 and 2013.

Imagine RIT: Innovation and Creativity Festival

Innovation and creativity were center stage on the RIT campus in May 2011, when the university held its fourth-annual *Imagine RIT: Innovation and Creativity Festival.* The event showcased RIT's unique blend of technology and the arts.

More than 32,000 people came to campus on May 7, 2011, for *Imagine RIT*, which featured 350 student, faculty and staff exhibits, demonstrations and performances. Festival attendees saw examples of green technology, new ideas for products and services, creative arts and crafts, and groundbreaking research. They ate ice cream dished out using alternative energy and played with motion-control technology to explore the solar system. Some had their 3-D portrait taken while others lined up to catch a glimpse of the workplace in 2020. And there was even a chance to chat with RIT students stationed across the globe.

Exhibits by NTID students, faculty and staff included:

- Display and presentation of environmentally friendly cleaning resources – natural alternatives to commercial cleaning products designed to save money and protect the environment

- Streaming video project featuring job search strategies to help students improve their job interviewing skills

- Student and faculty poetry performance

- Octagon-shaped air hockey table created by students in NTID's Computer Integrated Machining Technology program

- Kiosk where visitors could get printouts of their names written in American Sign Language

- Signed and captioned instructional video project using standard software to capture video, screen content, text and audio to develop training videos for deaf and hard-of-hearing students

- Smart phone notification system – portable system that uses a smart phone (Android) application and Bluetooth receiver developed by deaf engineering students working with NTID's Center on Access Technology

- Introduction to Deaf Culture – information about American Sign Language, Deaf culture and tips for communicating with deaf people

NTID also provided sign language interpreting support for the festival to ensure the event was accessible to deaf and hard-of-hearing attendees.

All of the exhibits, activities and performances demonstrated 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."

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 an existing pending patent which came to RIT/NTID via assignment from IBM. It is our ID 10-12 titled "See-Through Mask to Facilitate Communication in Environments Requiring the Wearing of a Mask," Application no. 11/550,509.

Unlicensed Products

- *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

- C-Print® Pro Software and C-Print® 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

- *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

Brian Trager, assistant professor of Information and Computing Studies, explains his display at RIT's innovation and creativity festival, Imagine RIT. Using a webcam, his invention would allow deaf and hard-of-hearing students the ability to look one place – their own laptop computers – to see the C-Print® transcription, interpreter, teacher, and any PowerPoint presentations or whiteboard notes at the same time.

Research

Technology, access and support services, along with teaching, communication, and employment and adaptability to social changes and the global workplace, are NTID's primary research areas.

Students and faculty from NTID's Center on Access Technology test TelePresence Center equipment donated by Cisco Systems.

Research Overview

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 81,001. 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) has as its mission the improvement of the lives of deaf and hard-of-hearing people through research than 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 2011, 21 research articles and books were published; 32 external presentations and workshops were given; and 21 grant proposals were submitted. Internally, seven reports and 10 presentations were prepared and offered.

- The Center on Access Technology (CAT) was established in March 2006 to address the challenges 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). 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/cerp/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.

  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 over a dozen invited presentations this academic year and collaborating with over a dozen schools and universities on research into deaf education. 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 responded to over 200 requests for information and/or assistance, and our www.educatingdeafchildren.org website has averaged more than 5,500 hits per month. Over this past academic year, CERP members have published (or have in press) seven peer-reviewed journal articles and three chapters. An edited book was published, another book is in press, and a third is being written under contract.

This year, the center completed two grants from the National Science Foundation and the director currently holds two research grants: a $1.65 million grant from the National Institute for Child Health and Human Development and a $234,000 grant from the Nuffield Foundation in the United Kingdom. Two federal grant proposals and two proposals to private foundations are pending. In addition, the center received a $36,000 grant from the CVS/Caremark Foundation for the expansion of the www.educatingdeafchildren.org website. Three other grant proposals were submitted but not funded. All will be revised and resubmitted.

- 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.

Examples of Research Activities

1. Teaching and Learning

Expansion of Information Source for Educators and Parents of Deaf Children. With a grant from the CVS/Caremark Foundation, CERP is expanding the Raising and Educating a Deaf Child website (www.ntid.rit.edu/educatingdeafchildren and www.educatingdeafchildren.org) to include "FAQ videos." Utilizing center expertise and collaborating with colleagues around the world, the site responds to questions with research-based information and references. The grant also supported expanded advertising of the site which led to an increase in hit rate from approximately 3,000 per month to 5,400 per month and, most recently, more than 6,800 per month.

CERP Research Findings. A center for education research partnerships obviously has, at its heart, research. Easily the most important accomplishments this year continue to be 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 lifelong 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."

Continuation of Survive and Thrive Project: Manuscript Submission Reporting Results of the Noel-Levitz College Student Inventory and the Learning and Study Strategies Inventory. The goal of this study was to identify factors that influence persistence, retention, academic success and attrition for entering NTID students. This study related self-report of personal factors to college performance. Two nonverbal visual reasoning assessments and two personal inventories were administered. These assessed nonverbal intelligence and personal factors such as intellectual interests, academic motivation, dropout proneness, coping, anxiety, attitudes, confidence, study habits, time management and sociability. Three cohorts of entering deaf and hard-of-hearing students at RIT/NTID participated (2007, 2008, 2009), a total of 547 students. Students' personal factors were statistically analyzed with their quarterly and cumulative academic GPA and program status through to attrition or graduation. Follow-up surveys assessed the students' self-perception of their academic performance and their support strategies used. Results showed that in addition to entry measurements of reading and mathematic skills, personal factors contributed to the academic performance of students in their first quarter in college. The findings were published in an article in the *Journal of Deaf Studies and Deaf Education*.

Development of Norms for the ADSA-SLV: Phase II. Deaf college students at NTID and RIT who had corrected vision were tested in this study of the validity of the Attention Deficit Scales for Adults—Sign Language Version (ADSA-SLV). The participants were given a background questionnaire, a screening test for neurological integrity (the SDMT test), the ADSA-SLV test, and a cognitive skills test (the KBITS) to control for IQ. The results of this study will provide a normative database for deaf adults for the ADSA-SLV test and will help strengthen the validity of the ADSA-SLV for ADHD assessment in the deaf adult population.

Center School Model for Educating Deaf and Hard-of-Hearing Students. Historically deaf and hard-of-hearing (D/HH) students have been placed in separate or mainstream schools, and changes in placement are often difficult and time-consuming. The "center model" of schooling provides more flexibility of placement. In this model a critical mass of D/HH students attends a mainstream school where they benefit from both separate and mainstream settings. The critical mass of students provides opportunities for social interaction with other D/HH students as well as a concentration of services, while the mainstream program enables access to hearing peers and a broad selection of academic and extracurricular options. The focus of this project is on documenting the goals, philosophy, structure and practice of center model programs and to determine the pros and cons of this model for D/HH students and their teachers. This year, programs were identified nationally that either define themselves or are nominated by other professionals as following a center model. Administrators and teachers at these schools will be surveyed next year regarding key elements they

consider important to center schools as well as benefits and challenges of this model. Results will be incorporated within teacher training courses to prepare new teachers of D/HH students who are skilled in working within the center model.

Distribution of Attention in Deaf and Hearing Students: Phase II. Deaf students with Deaf parents who were native ASL signers and hearing students with hearing parents who are non-signers participated in this study. Data analyses presented at a national conference showed that the groups did not differ in age, gender, ethnicity, reading skills or IQ. In a target-detection task requiring sustained distributed attention and high accuracy, adult Deaf native signers displayed equivalent accuracy, perceptual sensitivity and response bias but significantly shorter response times than hearing adults at central and peripheral field locations. These results suggest that early deafness may enhance perceptual processing speed independent of enhancement of perceptual sensitivity.

Collaboration in the Classroom Across Context: Interactive Brainstorming and Collaborative Documents. This project piloted student collaborations using interactive online written chats for developing ideas and collaborative documents for developing project and activity reports. Using three lab sessions in two sections of a course in the Master of Science program in Secondary Education, we evaluated written contributions of deaf and hearing students across a variety of written and interactive contexts. Results were disseminated and will continue to be used to develop future class-wide interactive components of C-Print® technology. This project resulted in two presentations this academic year and the start of a draft for publication.

2. Communication

Composing More Fluently. Little research is available on the composing process of deaf student writers and on the use of American Sign Language (ASL), video and automatic speech recognition (ASR) to facilitate this process. This project investigated the use of ASL and ASR to produce early drafts of college essays. Interview data (video) and self-ratings were collected from 10 students using an ASL interpreter and ASR to produce essay drafts for a college writing course. Overall students liked the procedure and felt that drafts written using an interpreter and ASR were better than those written without the procedure. Errors in the ASR-produced text and the additional time required to complete the ASR session were noted as drawbacks. A manuscript was submitted for publication.

Feasibility of Achieving Normal Loudness Growth for Listeners with Severe or Profound Hearing Loss: Report. Loudness issues are especially difficult to resolve in individuals with severe and profound sensorineural hearing loss because of a narrow dynamic range restricted in frequency and amplitude and because of unique patterns of loudness growth. During the hearing aid fitting process, an effort is made to optimize audibility and comfort through various gain and compression settings; however, there has been disagreement as to whether the overall aim should be loudness equalization or loudness normalization. The goal of this project was to examine in particular the feasibility of achieving the latter aim, loudness normalization, given greater levels of hearing loss. A study was conducted in prior years to collect relevant data from a sample of young-adult deaf listeners using best-fit hearing aids. This year, a manuscript was prepared that contains the results of that study. This journal submission describes the categories of aided loudness growth patterns found in our subject group, along with their reports of hearing-aid satisfaction.

Deaf Students' Comprehension of Numeral Quantifiers: Dissemination Phase. This research contrasted deaf and hearing students' interpretive knowledge of English sentences containing numeral quantifier phrases and indefinite noun phrases. A multiple-interpretation picture task methodology was used to assess 305 participants' judgments of the compatibility of sentence meanings with depicted discourse contexts. Participants' performance was assessed on the basis of hearing level (deaf, hearing) and grade level (middle school, high school, college). The deaf students were predicted to have differential access to specific sentence interpretations in accordance with the relative derivational complexity of the targeted sentence types. Hypotheses based on the pressures of derivational economy on acquisition were largely supported. The results also revealed that the deaf participants tended to over-activate pragmatic processes that yielded principled, though non-target,

sentence interpretations. Collectively, the results not only contribute to the understanding of English acquisition under conditions of restricted access to spoken-language input; they also suggest that pragmatic factors may play a broad role in influencing, and compromising, deaf students' reading comprehension and written expression. A manuscript was submitted and accepted for publication.

ASL-English Bimodal Bilingualism. Unlike bilingual behaviors that emerge from the communicative use of two spoken languages in one modality (auditory-vocal), bilingual behaviors that emerge via the use of a spoken language and a sign language involve two modalities—auditory-vocal and visual-gestural. This research project examines "bimodal bilingual" code-switching (CS) that characterizes contact signing, simultaneous communication, and other sign language-spoken language bilingual mixing, focusing on ASL-English CS and Italian-Italian Sign Language (LIS) CS. The ultimate goal of this research is to discover the universal linguistic properties that guide bimodal communication, which is used widely in educational settings. The results of this inquiry have established the foundations for a program of ongoing research on bimodal bilingualism both to better understand its characteristics and to identify optimal bimodal communicative properties.

Anticipatory Scanning in Speech Produced During Simultaneous Communication by Inexperienced Signers. Previous research of vowel influences on consonant duration supports the concept of anticipatory scanning, in which final vowel targets influence the duration of preceding fricative consonants. Inexperienced sign language users recorded palatal and alveolar fricatives produced in four vowel environments in sentences under simultaneous communication (SC) and speech-only (SO) conditions. Results indicated longer sentence durations for SC than for SO and significant effects of vowel context on fricative consonant duration in contextual speech in both SC and SO conditions that revealed similar anticipatory scanning effects seen for experienced signers. These data confirm that the temporal alterations produced by SC do not involve violations of the temporal rules of spoken English and that an accurate model of speech is being presented to deaf and hard-of-hearing children by inexperienced signers using simultaneous communication.

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

An Investigation of Cisco Technologies and Access Solutions. The Cisco Accessibility Team made a significant donation of two major telepresence systems to NTID in order to provide a platform for research and advanced high definition communication for the community. CAT will be evaluating Cisco TelePresence technologies for classroom and remote communication for deaf and hard-of-hearing users and making recommendations on best practices and product design.

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. A multi-year collaboration with a business partner began in FY 2011 to conduct research and assessment on innovative uses of technology.

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 alliance network for mainstreamed deaf/hard-of-hearing college students around the country enrolled in science, technology, engineering, and mathematics (STEM) programs. This project detailed the plans to establish a comprehensive baseline profile of current and recently graduated mainstream deaf and hard-of-hearing STEM students and then formulate specific plans for enriching the academic performance of these students through a virtual Research in Disabilities Education (RDE) Regional Alliance Center. The culmination of this project resulted in the Deaf STEM Community Alliance (below).

Examples of Research Activities (continued)

Deaf STEM Community Alliance: Supporting Postsecondary Deaf and Hard-of-Hearing Students in Science, Technology, Engineering and Mathematics. Funded by the NSF in fall 2011 for a minimum of three to five years, this project will be accomplished by creating a unique virtual academic community, a cyberinfrastructure that will host remote access and support services, an electronic resource library, a communication network, and scheduling capabilities and database storage for deaf and hard-of-hearing students, their faculty, and access and support service providers. The program is designed to increase graduation rates of deaf and hard-of-hearing STEM majors in postsecondary education in the long term. The grant team members will create a model that will provide remote tutoring and mentoring support and real-time captioning and interpreting access services, via the cyber infrastructure, for deaf and hard-of-hearing students studying in mainstream colleges. Cornell University and Camden County (N.J.) College will be NTID's initial partners on the project. Although being piloted in the Northeast, the project seeks to implement a model that will be shared throughout the country.

Evaluation of the Use of Tablet PCs and C-Print® to Support Deaf and Hard-of-Hearing Students: Year 4. Trials and data collection for this project continued and data have now been collected for 84 students. Further trials are intended to yield data from a total of 90 students. One significant preliminary result is that students in the speech-to-text with graphics group reported a higher level of understanding of the classroom discourse than did students in the tablet notetaking group or in the control group. In addition, the most popular form of student interaction with the computer display of captions and notes was to type or write one's own notes. This result presumably reflects students' ability to use a stylus with the tablet PC. A conference presentation on these updated results was made in summer 2011.

Deaf Weight Wise Program. This collaborative project between NTID and the University of Rochester National Center for Deaf Health Research (NCDHR) included detailed development of the clinical trial measures and materials for Deaf Weight Wise (DWW), including pre-measures and outcome measures, active preparation for the launch of the DWW program with the Deaf community, and participation in various mentoring activities for students and junior faculty. We conducted intensive team-based English-to-sign-language translation sessions and studio filming sessions to develop the study measures for use in the NCDHR survey interface (Sign Survey Tool). We also secured funds to produce a second generation Sign Survey Tool to present health and education-related surveys. We authored and coauthored a number of project-related national conference presentations, manuscripts and publications.

Investigation of Expanded Captioning Support. For this project on the use of standard versus expanded captioned educational videos, data were collected from 22 NTID students who each participated in an experiment and in an interview. Results indicated that there was not a significant difference between students' learning when they viewed standard captions and when they viewed expanded captions. An additional result was that students were able to learn biology content when they viewed the educational videos with captions regardless of type. Post-test scores, obtained after students had viewed the videos, were significantly higher than pretest scores. Interviews indicated that few of these students had had much experience with viewing educational videos but that, when they viewed them, they considered having captions critical and usually more desirable than having interpreter support.

Examination of Course Completion and Communication Ease in Online Learning Courses. The purpose of the project is to examine the interaction of deaf and hard-of-hearing students with their hearing peers and with their instructors in online learning courses. Prior research has established a link between ease of communication and academic achievement for students. Students who can readily communicate with their teachers and peers in class are more engaged learners who invest more energy learning and consequently have greater achievement than do students who have very restricted or limited classroom communication. We examined three sets of variables and their interplay in online and face-to-face (F2F) classes at RIT. We employed a questionnaire that measures student perceptions of classroom communication and used a second quantitative measure to divide RIT online courses into quartiles based on the actual number of postings in that course.

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. Our findings indicate that students in online courses, especially those with the most online interaction, receive higher grades and report greater learning than students in comparable F2F courses. Our studies illuminate how the quantity of online interaction in discussions relates to important success factors and how deaf and hard-of-hearing students in these online courses receive special benefits for academic achievement through online discussion.

Team Access: Transition from NTID- to RIT-based Resource. Project Access started as an RIT/NTID initiative to promote inclusive instruction for deaf and hard-of-hearing (D/HH) students in mainstream postsecondary settings. The project was subsequently implemented nationally through two federal grants (DOE). Once funding ended, the focus again returned to RIT as "Team Access" with continuing outreach beyond RIT via the Class Act website and the Project Access Workshop Planner's Guide. Team Access provides presentations at faculty learning community groups, orientations for faculty and graduate teaching assistants, and workshops on inclusive instruction for faculty and staff. Historically, Team Access has been an NTID-based resource. The goal this year was to shift the program to a university-wide project. Meetings between current Team Access coordinators and RIT and NTID administration and professional staff resulted in a transition plan in which NTID instructional support faculty engage instructors in all colleges of RIT in the development and promotion of Team Access activities. The ClassAct website is currently linked to The Learning Center at RIT's Wallace Center, making it available to all RIT faculty.

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

Effect of Postsecondary Education on the Economic Status of Persons Who are Deaf or Hard of Hearing. This project examined the effect that postsecondary education has on earnings and the duration of time spent in the Social Security disability programs for young persons who are deaf or hard of hearing. Our hypothesis was that investments in postsecondary training increase the likelihood of employment for persons who are deaf or hard of hearing and thus reduce dependency on disability-related income support programs. A longitudinal dataset based upon records from NTID and Social Security administrative records was used for this analysis. We found that those who graduate, even those who graduate with vocational degrees, experience significant earnings benefits and reductions in the duration of time spent on federal disability programs when compared with those who do not graduate with a degree. This finding suggests that reductions in the duration of time spent on Social Security programs are not limited to those with the highest level of scholastic aptitude and that investments in postsecondary education can benefit a broad group of deaf and hard-of-hearing persons. In addition, the data showed that individuals who attend college but withdraw before graduation fair no better economically than individuals who never attended college. This project resulted in a published article in the *Journal of Deaf Studies and Deaf Education*.

NSF CAREER Grant: Final Report. This project wraps up the author's multi-year NSF CAREER grant. The project has looked at long-term educational and workplace outcomes of deaf and hard-of-hearing students. One set of work used the National Longitudinal Survey of Youth; the other used results from a collaboration between NTID, Cornell University and the Social Security Administration to evaluate the lifelong impact of an education on economic outcomes. The end date on this NSF CAREER grant was extended to December 2011, at which time a final grant report will be produced.

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.

Outreach

A primary goal of NTID's pre-college outreach programs is to better prepare deaf and hard-of-hearing middle and high schools students for college.

High school students and new friends sign "EYF 2011" to mark their participation in Explore Your Future, a week-long career exploration and evaluation program at NTID.

Outreach Highlights

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 2011 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 2011, NTID faculty and staff conducted eight outreach programs: the SpiRIT Writing Contest for students in grades 10–12; the RIT National Science Fair for students in grades 6–12; Explore Your Future, a summer program for students in grades 10–11; TechGirlz, a summer camp for girls in grades 7–9; TechBoyz, a summer camp for boys in grades 7–9; Steps to Success, a weekend camp for AALANA students in grades 7–9 (with two students pictured here); a math competition for middle school students using problems from MATHCOUNTS®; and the Digital Arts, Film and Animation Competition for students in grades 9–12.

- 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. Myriad social activities and dorm-living opportunities give the students a taste of college life. More than 5,200 students have participated in EYF over the past 27 years. In summer 2011, 228 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 cooperative agreements with the U.S. Department of Education Office of Special Education Programs to provide technical assistance, training and resources to secondary and postsecondary education institutions, employers and service providers that work with individuals who are deaf or hard of hearing, including those with co-occurring disabilities. The goal of the project is to improve educational access and enhance educational opportunities for students who are deaf or hard of hearing. The project received funding for a five-year cycle commencing in October 2006. The five-year funding cycle ended September 30, 2011.

The Postsecondary Education Programs Network-Northeast Region was one of four regional centers originally established in 1996, and known as the Northeast Technical Assistance Center (NETAC). The first cycle (1996-2001) focused on developing materials and infrastructure that could provide regional technical assistance to more than 7,000 institutions listed in the Integrated Postsecondary Education Data Systems who served students who are deaf or hard of hearing. The second funding cycle (2001-2006) focused on using technology to assist in accomplishing the primary goals and reaching out to postsecondary students in non-traditional postsecondary settings. Cycle 3 (2006-2011) focused on expanding the goals established in the first two funding cycles to include personnel development activities for local, state, regional and national groups, and the application of technology to training and technical assistance efforts. During the third funding cycle, the four regional centers developed a system of collaboration to combine the unique technical expertise of each center, and coordinate training and outreach activities. Also in this third funding cycle, the three individually named regional centers developed the PEPNet brand, and the Northeast center became known as PEPNet-Northeast. From the first funding cycle PEPNet-Northeast's expertise and strength has been in the development of multi-media products and web-based applications.

Over the course of five years, PEPNet-Northeast developed and expanded a regional database that currently lists more than 7,700 individual contacts. The database is used to record new contacts, maintain ongoing communication with stakeholders, provide updates on regional/national activities, and market products and resources. Project staff respond to an average of 400 monthly requests for technical assistance. Topical areas covered include requests for on-site specialized training, information and resources on transition, technology use, disability program policy, developmental issues, legal issues, and independent living skills. Stakeholders include secondary school administrators, support services personnel, parents, employers, two- and four-year postsecondary school administrators, vocational rehabilitation professionals, and community-based service providers.

Web-based applications developed by project staff include the highly successful Online Notetaker Training Program–a multimedia, self-paced training application that is used to train classroom notetakers at secondary and postsecondary institutions throughout the country. To date, more than 2,500 individuals have completed the training program, which includes a required assessment and certificate of completion. Project staff have developed 11 web-based applications, including a five-DVD series *Achieving Goals: Career Stories of Individuals Who are Deaf and Hard of Hearing*, a DVD on the Americans with Disabilities Act, and more than 300 topical briefs or tip sheets in online downloadable formats. Other web-based resources developed by PEPNet-Northeast and targeted to service professionals include a resource kit (RKIT) for professionals and itinerant teachers of the deaf; *One Stop for One Stops*, a resource of professionals providing career counseling, job placement and job training to deaf or hard-of-hearing clients; and *English Splash*, an online resource for teachers of English and literacy to deaf students. Project staff have also led national work groups in the development and dissemination of two annual editions of *PEPNet Perspectives* national newsletter, and the online resource *College and University Guide* for deaf and hard-of-hearing students. The center has produced webcasts on such topics as accessible technology, cochlear implants and online resources for education professionals. In addition, three pilot initiatives on the delivery of instruction using distance learning technologies have been implemented in three states in the Northeast region in collaboration with LaGuardia Community College.

To further enhance personnel development activities, PEPNet-Northeast established a professional internship program and mini-grants to stakeholders. Many of these professional activities awarded continuing education credits to participants.

Other outreach activities of project staff include participation in career fairs throughout the region, exhibiting, and workshop and poster presentations at local, regional and national conferences.

- 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 2012, we will update and improve the Class Act website. Key information for improving instruction will be more readily accessible and information for high school teachers will be added. New content focusing on STEM education will be added over the next four years.

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 2010-2011 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 2010-2011, the DiiT project offered five workshops to 34 deaf and hard-of-hearing participants. These included:

  o Three workshops offered on the RIT/NTID campus.
  o Two workshops offered in Pittsburgh, supported by the Bank of New York Mellon Foundation.

  This brings the 11-year total for the DiiT project to 97 separate workshops offered to 738 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. 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 at www.ntid.rit.edu/ntidweb/products.

Other Outreach Activities

- In 2010-2011, NTID's Center on Employment (NCE) served a total of 677 employer representatives through 34 training sessions and outreach workshops such as *Working Together: Deaf and Hearing People*. NCE successfully completed Southern California and Orlando trips, which included 14 employer orientations and two alumni workshops. NCE completed the second year of the BNY Mellon grant, during which a total of 158 employer representatives from Pittsburgh, Pa., 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 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 2011, SLPI training and services included:

- o A four-day SLPI new team training workshop at the National Institute for the Deaf in Worcester, South Africa
- o A four-day SLPI new team training workshop at the Western Pennsylvania School for the Deaf
- o SLPI consulting and familiarization workshops at Hogeschool Utrecht, in Utrecht, Holland
- o A two-day SLPI refresher training workshop at the Atlanta Area School for the Deaf in Clarkston, Ga.
- o Meetings and informational presentations about the SLPI at the biennial conference of the American Sign Language Teachers Association in Seattle, Wash.

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. Additionally, NTID's SLPI Coordinator serves as the Coordinator for the National SLPI: ASL Leadership Board (NSLB) and responds frequently to a wide range of national and international inquiries.

- C-Print® software, developed at NTID, is used by real-time captionists, such as Sharon Bournival, right, 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 2010 through September 2011, there were approximately 2,900 e-mail dialogues and 380 phone call discussions with the C-Print Product Development. The C-Print main website received 26,500 visits from October 2010 to September 2011. NTID conducts

online real-time 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 162 from October 2010 through September 2011.

- NTID Performing Arts celebrated its 36th season in AY 2010-2011 by presenting three mainstage productions, two laboratory productions and a Fall Workshop series that involved 462 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 4,645 people from throughout New York State as well as schools and community groups from neighboring states and Canada. On-campus performances included *Inherit the Wind*, *Prelude to a Kiss*, *Danser et Voler*, *Don't Dress for Dinner*, and *Guys and Dolls*. The Fall Workshop Series consisted of theatre-related workshops and performances presented by nationally renowned artists such as Bernard Bragg, Monique Holt and Timothy Chamberlain, as well as NTID performing arts faculty/staff. Additional performances included two laboratory (black box) performances by members of The RIT Players, and a one-man mime show performed by alumnus Jimmy Jones.

During AY 2010-2011, 437 students registered for and attended Performing Arts classes. Eleven students were awarded performing arts scholarships, and eight students were awarded performing arts certificates. In total, approximately 5,344 people were served by NTID Performing Arts activities during the 2010-2011 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 faculty and staff.

  For the first time this past summer, the Office of the RIT Provost also sponsored the Provost's Development of Effective ASL Use at RIT. This week-long program builds on the Provost Program to provide more advanced ASL instruction for RIT faculty and staff who need higher level and more individualized instruction and feedback. The program fills a niche for many in the RIT/NTID community who have already acquired initial introductory ASL and are now looking to expand their skills. The program was very successful this past summer and received great reviews from those who attended; several others have already expressed interest in attending next year.

An Explore Your Future (EYF) team celebrates their success.
EYF is one of NTID's most successful outreach programs.

Pre-College Outreach

NTID's *Strategic Vision 2010* 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.

In 2011, RIT/NTID welcomed more than 600 middle school and high school students and their parents from all over the country to eight pre-college outreach efforts—four were outreach competitions and four 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 2011 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 21st-century American workforce.

Digital Arts, Film and Animation Competition

Deaf and hard-of-hearing students in grades 9–12 submitted 47 entries to the 2011 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. Three winners were selected and invited, along with a parent, to attend the awards ceremony in April 2011, where they received cash prizes and plaques. The winners attended the Deaf Rochester Film Festival during their stay in Rochester.

Digital Arts, Film and Animation Competition *for Deaf and Hard-of-Hearing Students*

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. In April 2011, 105 students from 25 middle schools participated in the competition at NTID. 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.

MATH COMPETITION FEATURING PROBLEMS FROM MATHCOUNTS®

National Science Fair for Deaf and Hard-of-Hearing Students

National Science Fair for Deaf and Hard-of-Hearing Students

In 2011, 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 sixth year for the science fair, the purpose of which is to encourage students to pursue their interest in science. Fifty-four students participated in 2011. Winners in the middle school and high school divisions received cash prizes and plaques.

SpiRIT Writing Contest

RIT's sixth annual SpiRIT Writing Contest for deaf and hard-of-hearing students attracted 31 10th- and 11th-grade students from around the United States in March 2011. 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

Twenty-three 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 2011. 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 and TechBoyz Camps

Twenty-six deaf and hard-of-hearing girls and 12 deaf and hard-of-hearing boys in grades 7–9 attended TechGirlz/TechBoyz in 2011 to explore their interests in science, technology, engineering and math. This is the sixth year for TechGirlz and the first year for TechBoyz. The week-long summer camps held in August gave girls and boys 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 telescope. The program included an hour-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.

Laboratory Technician Lori Poole leads TechBoyz participants in an "oscillating reaction" where four different clear solutions are mixed in exact equilibrium and produce and repeat three different color changes for 20 seconds.

Pre-College Outreach (continued)

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.

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.

Four FutureQuest events were held in AY 2010-2011 (Columbus, Ohio; Irvine, Calif.; Northridge, Calif. and Austin, Texas) for a total of 102 students and 89 parents.

The chart below summarizes participation in NTID outreach programs and lists the number of minority students participating in each event.

Pre-College Outreach AY 2010-2011			
	Total Participants	Minorities	
		Number	Percent
Explore Your Future	228	65	29%
National Science Fair	54	23	43%
SpiRIT Writing Contest	31	8	26%
Digital Arts, Film and Animation	47	19	40%
Math Competition	105	31	29%
Steps to Success	23	23	100%
TechGirlz/TechBoyz Camp	38	21	55%
FutureQuest (students only)	102	43	42%

Project Fast Forward

Project Fast Forward is a project funded in July 2006 by the Advanced Technological Education (ATE) program of the National Science Foundation (NSF). 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 has been 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.

Original Partner Schools 2007-08	1. Florida School for the Deaf and the Blind, St. Augustine, Fla.
	2. Lexington School for the Deaf, Jackson Heights, Queens, N.Y.
	3. Vines High School, Plano, Texas
	4. Plano Senior High School, Plano, Texas
	5. Rochester School for the Deaf, Rochester, N.Y.
	6. University High School, Irvine, Calif.
New Partner Schools 2008-09	7. Eastern North Carolina School for the Deaf, Wilson, N.C.
	8. Horace Mann School for the Deaf, Allston, Mass.
	9. Learning Center for the Deaf, Framingham, Mass.
	10. Maryland School for the Deaf, Frederick, Md.
	11. Texas School for the Deaf, Austin, Texas
	12. WT Woodson High School, Fairfax, Va.
New Partner Schools 2009-10	13. Mill Neck Manor School for the Deaf, Mill Neck, N.Y.
	14. Murry Bergtraum High School, New York, N.Y.
	15. W. Tresper Clarke High School, Westbury, N.Y.

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.

New partner schools were not recruited during the 2010-2011 academic year since funding for the project was ending in July 2011. Only teachers who had already participated in Project Fast Forward and were planning to teach a new dual-credit course came to NTID for training in July 2010.

Dual-credit courses. Dual-credit courses have been offered for four 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.

Dual-credit course registrations. During the four years of offering dual-credit courses, a total of 250 students have participated in the program at our 15 partner schools. Of those students, 46 took two courses, for a total of 296 registrations in Project Fast Forward dual-credit courses during the four years.

Pre-College Outreach (continued)

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	73	91	67	201
2010-2011	55	65	54	162
Total	**250**	**296**	**229**	**687**

Dual-credit grades and credit awarded. Of the 296 students registered for dual-credit courses during the four years of the project, 229 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) were 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
Total	**11**	**16**	**14**	**3**

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, 229 students have earned RIT 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.

DeafTEC

The National Science Foundation (NSF) Advanced Technological Education (ATE) National Center of Excellence, DeafTEC: Technological Education Center for Deaf and Hard-of-Hearing Students will continue to expand Project Fast Forward over the next four years in more high schools and in a variety of additional disciplines. This award, given in August 2011, is the largest NSF award in RIT's history and will establish the first ATE center to serve individuals who are deaf or hard of hearing.

Pre-College Outreach (continued)

DeafTEC will establish a model within targeted regions of the country – California, Texas and Florida – that will create partnerships among high schools, community colleges, and industry to improve access to technological education and employment for deaf and hard-of-hearing students. The initial regional DeafTEC partners are:

California
    California School for the Deaf, Riverside
    Pierce College, Woodland Hills
    Cisco Systems Inc., San Jose
    Solar Turbines Incorporated, San Diego
    The Dow Chemical Company, Hayward and La Mirada

Florida
    Florida School for the Deaf & the Blind, St. Augustine
    St. Petersburg College, St. Petersburg
    ConMed Linvatec Corporation, Largo
    BioDerm, Inc., North Largo
    Bovie Medical Corporation, Clearwater

Texas
    Texas School for the Deaf, Austin
    Austin Community College, Austin
    The Dow Chemical Company, Houston, Bay Port, Texas City, Deer Park/LaPorte,
    Freeport and Seadrift

DeafTEC will serve as a resource for high schools and community colleges across the country that educate deaf and hard-of-hearing students in science, technology, engineering and mathematics (STEM) related programs and for employers hiring deaf and hard-of-hearing individuals. Through its comprehensive website, DeafTEC will serve as a clearinghouse for information related to technical education and technician careers for deaf and hard-of-hearing students, including career awareness materials, teaching strategies for improving student access to learning, developmental math and English curricula, and information for employers to help them provide a more accessible workplace.

The goal of this national center is to successfully integrate more deaf and hard-of-hearing individuals into the workplace, especially in highly skilled technician jobs where deaf and hard-of-hearing workers are currently underrepresented and underutilized. DeafTEC will provide them, as well as their teachers, counselors, employers and co-workers with the resources that will help them succeed, both in the classroom and on the job.

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 participants a taste of college life. A total of 5,201 students have participated in EYF over the past 27 years. Fifty-nine percent of the summer 2010 participants subsequently enrolled at NTID. Two sessions were offered in summer 2011. This year's participants came from 36 states and two foreign countries.

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Number of Participants	253	235	196	217	228
Percentage of Minorities	15%	29%	30%	33%	29%*
Percentage Enrolling at NTID	59%	62%	61%	59%	N/A**

EYF students work together to construct a remote-controlled car made from Legos as part of Engineering career-exploration classes.

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*   Twenty-four percent of students enrolled in EYF 2011 did not indicate their ethnicity on the registration form.
** Students from EYF 2011 currently are in the process of applying to NTID.

Explore Your Future – Enrollment by Location

Summer 2011 EYF students represented 36 states
and two foreign countries.

Home State or Country	Number in EYF Summer 2011
Alabama	1
Alaska	0
Arizona	2
Arkansas	1
California	29
Colorado	0
Connecticut	1
Delaware	1
Florida	4
Georgia	1
Hawaii	0
Idaho	0
Illinois	20
Indiana	1
Iowa	2
Kansas	1
Kentucky	2
Louisiana	1
Maine	4
Maryland	15
Massachusetts	14
Michigan	10
Minnesota	3
Mississippi	0
Missouri	6
Montana	1
Nebraska	1
Nevada	0
New Hampshire	1
New Jersey	20
New Mexico	1
New York	31
North Carolina	6
North Dakota	0
Ohio	4
Oklahoma	1
Oregon	0
Pennsylvania	15
Rhode Island	1
South Carolina	0
South Dakota	0
Tennessee	0

Home State or Country	Number in EYF Summer 2011
Texas	9
Utah	0
Vermont	0
Virginia	7
Washington	2
West Virginia	0
Wisconsin	6
Wyoming	0
Other (Canada)	2
Other (Japan)	1
Total	**228**

An EYF student proudly shows off the calendar she has designed as part of learning about NTID's Arts and Imaging Studies Department.

PEPNet-Northeast

The Postsecondary Education Programs Network-Northeast Region (PEPNet-Northeast) is one of four regional centers supported by cooperative agreements with the U.S. Department of Education, Office of Special Education Programs. The goal of PEPNet-Northeast is to address the postsecondary, vocational, technical, continuing and adult education needs of individuals who are deaf or hard of hearing, including those with co-occurring disabilities, so that a greater number and proportion of these individuals can access, persist in, and complete their postsecondary education and training. The project successfully completed its fifth and final year of a five-year funding cycle in September 2011.

The PEPNet-Northeast central office, located at RIT/NTID, coordinated a team of state-based Outreach Specialists to serve 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	

Utilizing an innovative model of collaboration with the three other regional centers and the application of technology to training and technical assistance efforts, PEPNet-Northeast significantly enhanced its capacity to serve both regional and national audiences.

Highlights of project activities completed during FY 2011 include:

- National Summit on High School to Work Transition. In spring 2011, PEPNet-Northeast hosted a third PEPNet National Transition Summit. The summit was produced in collaboration with the three other PEPNet regional centers and the NTID Center on Employment. Seventy leaders, practitioners, educators, and community support and service providers serving deaf and hard-of-hearing students from across the country gathered to identify and share creative, best-practice strategies to address the challenges and benefits associated with serving this population. Employers who have hired deaf or hard-of-hearing individuals out of high school and students who have successfully transitioned form high school into the workforce also provided valuable insight during the two-day summit. The full report of the summit proceedings is archived on the PEPNet national website.

- National Webcasts. During this reporting period, PEPNet-Northeast produced a national webcast to introduce the new online resource: *One Stop for One Stops*. This online resource developed by PEPNet-Northeast staff is designed to enhance the access and accommodations needs of deaf and hard-of-hearing clients seeking the employment-related services of any of the One Stop Centers located in all 50 states.

- Technical Assistance Activities. Staff responded to more than 500 individual requests for information, technical assistance and specialized training from stakeholders. Requestors included secondary school teachers/administrators, disability services professionals in two- and four-year colleges, speech-to-text providers, K-12 interpreters, vocational rehabilitation professionals and others.

- Personnel Development. PEPNet-Northeast continued to provide personnel development activities or mini-grants to stakeholders seeking to earn Continuing Education credits or to enhance their knowledge, skill and professional preparation. During this reporting period, PEPNet-Northeast provided 35 mini-grants/training stipends to regional stakeholders.

- Regional/National Evaluation. The project completed a five-year cumulative regional and national evaluation conducted by an independent evaluator, per requirements of the Department of Education.

PEPNet-Northeast (continued)

Dissemination Activities

The following are examples of venues at which PEPNet-Northeast conducted activities, including exhibiting, workshops, presentations, poster sessions and/or co-sponsorship.

- Assistive Technology Industry Conference – Chicago, Ill.
- Clarke School for the Deaf Conference – Northampton, Mass.
- DORS/Maryland Rehabilitation Association Training Conference – Ocean City, Md.
- Hearing Loss Association of America Annual Conference – Brunswick, N.J.
- New Hampshire Transition Community of Practice – Concord, N.H.
- Monroe County BOCES – Rochester, N.Y.
- New Jersey Department of Rehabilitation – Sommerville, N.J.
- Massachusetts Mentorship Program
- Pennsylvania State Office for Deaf/Hard of Hearing – Harrisburg, Pa.
- FutureQuest – University High School – Irvine, Calif.
- New Hampshire Vocational Rehabilitation Advisory Board
- College Transition Seminar – Marlborough, Mass.
- Lancaster-Lebanon Intermediate #13 – Postsecondary Education Fair for Students with Disabilities – Pa.
- TESOL Convention – New Orleans, La.
- ADARA Conference – San Diego, Calif.
- New York City Department of Education, Hearing Education Services
- American Society for Deaf Children Conference – Frederick, Md.
- Association of Higher Education and Disability – Seattle, Wash.
- National Outreach Conference – Gallaudet University – Washington, D.C.
- Pennsylvania Statewide Transition Conference – State College, Pa.
- Convention of American Instructors of the Deaf – CAID Conference – Dallas, Texas

Regional/National Outreach and Training Activities

On-site trainings and professional development activities were conducted by project staff for more than 300 school personnel and service providers in the Northeast and in collaboration with the three other PEPNet regional centers. Topics included Career Awareness, Transition, PEPNet Online Training Programs and Resources, and Speech-to-Text Services. 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

Regional and National Partners. PEPNet-Northeast maintained collaborative partnerships with the following regional and national organizations and agencies throughout FY 2011:

- 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 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
- U.S. Virgin Islands Department of Education
- New York State Educational Support Service Personnel

PEPNet-Northeast staff served as team leader or participating member in the following PEPNet National Work Groups established to implement the PEPNet National Strategic Plan:

- Work Group Team Leader
    - *College and University Guide*
    - *Emerging Technology*
    - *PEPNet Perspectives Newsletter*

- Participating Member
    - Product Development
    - Technical Assistance
    - Training
    - Transition
    - Web Development

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) program. 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.

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 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 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)

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 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.

A second series of workshops were offered in Pittsburgh during spring and summer 2011. Seven career-building workshops were offered to 151 representatives from several companies. Two technical workshops were offered–a five-day Excel 2010 was offered to 10 deaf and hard-of-hearing adults and a five-day Computer Basics for Senior Citizens was offered to eight participants.

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 2010-2011 academic year. Outside funding has been acquired to support the annual offering of DiiT workshops in the Greater Los Angeles area for five years and the Pittsburgh area for two years.

During AY 2010-2011, the DiiT project offered five workshops to 34 deaf and hard-of-hearing participants, including three workshops offered on the RIT/NTID campus and two workshops in Pittsburgh supported by the BNY Mellon Foundation. This brings the 11-year total for the DiiT project to 97 separate workshops offered to 738 deaf and hard-of-hearing attendees.

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 677 employer representatives received training through the NTID Center on Employment (NCE) in AY 2010-2011.

Employer Training and Educational Programs

NCE conducted, delivered and presented 34 programs for 677 human resources professionals and company representatives.

NTID Job Fair

The 10th annual NTID Job Fair was held in October 2010 with 41 employers (including 12 new employers) attending and close to 400 students and alumni participating. During this fair, six employers participated on a panel attended by student job seekers to explain the job search process from their company's perspective and answer questions from student attendees.

Co-op Visitation Program

Eighteen NTID faculty and staff visited 51 students on cooperative education assignments and their supervisors in 10 states and Washington, D.C.

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

- Accommodated 21 employers in recruitment visits and seven on-campus orientations; there were 21 resume packages requested.
- Consulted with 109 alumni and other deaf and hard-of-hearing adults seeking job search assistance.
- Successfully completed southern California and Orlando trips, which included 12 employer orientations and two alumni workshops.
- Completed the second year of the BNY Mellon grant-supported Pittsburgh workshops. A total of 158 participants attended eight different events.

NCE Marketing Highlights

- Completed employer development video, *I Can Work for You!*
- Conducted marketing and media campaign to promote local employers' participation in the 2011 NTID Job Fair.
- Exhibited to employer audiences at the National SHRM Diversity Conference in October 2010 and the New York SHRM Diversity Conference in April 2011.
- Created a Facebook page for the NTID Center on Employment.

Faculty and Staff

Faculty and staff average 15 years of service at NTID.

Faculty march to RIT/NTID's Commencement ceremony on May 21, 2011.

National Technical Institute for the Deaf

Faculty and Staff Highlights

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 2011, with the largest number of students in NTID history, we employ 587.

Number of NTID Employees by Year
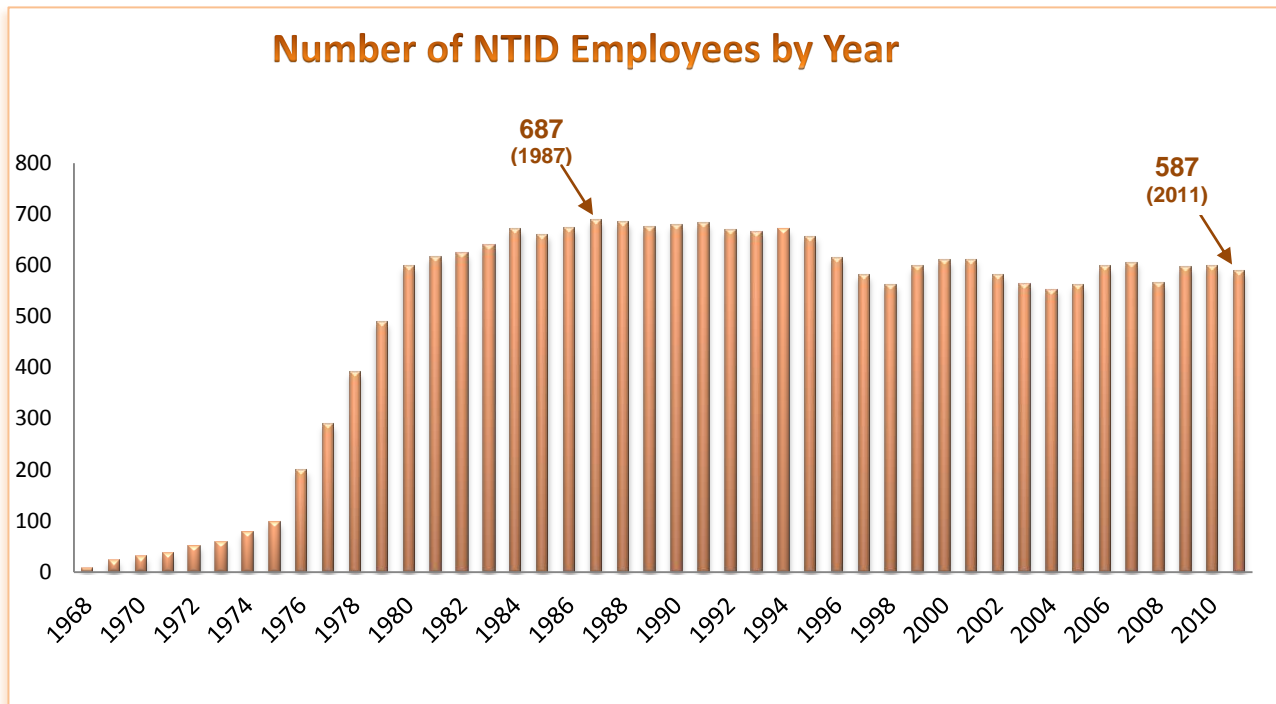
Average Salary: Faculty and Staff

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 2010 – September 2011
Faculty*		
Professor	35	$99,177
Associate Professor	57	$82,005
Assistant Professor	51	$65,956
Senior Lecturer	9	$61,436
Lecturer	43	$53,806
Instructor	2	$49,168
Subtotal Faculty	**197**	**$73,473**
Staff		
Exempt Staff**	134	$58,427
Non-Exempt Staff***	256	$42,404
Subtotal Staff	**390**	**$47,910**
Total	**587**	**$56,489**

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*   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.

Faculty and Staff

Tenure-Track Positions and Faculty Rank

In FY 2011, senior-level faculty members (professor and associate professor) comprised 64 percent of all ranked tenure-track faculty as compared to 47 percent in FY 1985. Of the 142 tenure-track positions, 89 percent are tenured. The number of tenure-track positions has decreased from 244 to 142 over the past 27 years.

Rank	Number of Tenure-Track Positions*					FY 2011 Faculty with Tenure	
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Number	Percent
Professor	33	35	40	35	35	35	100%
Associate Professor	68	61	57	55	56	56	100%
Assistant Professor**	66	60	52	53	51	36	71%
Instructor/Lecturer	1	2	1	1	1	0	0%
Total Positions	**168**	**158**	**150**	**144**	**142**	**127**	**89%**

Engineering Studies assistant professor and RIT/NTID alumnus Gary Behm discusses engineering concepts with Steven Forney, an Electrical/Mechanical Engineering Technology major from Huntsville, Ala., and Cory Behm, a Mechanical Engineering major from Hopewell Junction, N.Y.

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* 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 2011, 96 percent of full-time, tenure-track faculty members held graduate degrees.

FY 2011 Highest Degree Level Achieved Tenure and Tenure-Track Faculty*		
	Number	Percent
Doctorate	60	42%
Master's	77	54%
Bachelor's	5	4%
Total	**142**	**100%**

* Includes ranked administrators.

Age, Length of Service and Retirement Status of NTID Faculty and Staff*

NTID's faculty and staff average 48 years of age with 15 years of service at NTID. As of October 2011, 36 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%	62.2	31.2	3	17	7	6	2	0
Associate Professor	100%	58.6	27.9	15	21	10	11	0	1
Assistant Professor	100%	52.0	18.3	23	18	6	4	0	0
Senior Lecturer	100%	54.9	18.5	5	2	1	1	0	0
Lecturer	99%	44.3	5.9	34	6	1	1	0	0
Instructor	100%	36.2	9.0	2	0	0	0	0	0
Exempt Staff	99%	46.3	13.3	102	18	9	5	0	0
Technical/Clerical	98%	50.1	13.8	51	17	8	2	1	0
Interpreter	95%	42.1	13.1	109	11	1	0	2	1
Real-Time Captionist	76%	45.1	5.2	44	6	2	1	0	0

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* 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 2007	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2011**
Full-Time:					
Faculty	10	13	11	13	6
Exempt Staff	8	8	12	14	13
Non-Exempt Staff*	19	28	18	24	13
Total Full-Time	**37**	**49**	**41**	**51**	**32**
Part-Time:					
Faculty	1	0	0	1	0
Exempt Staff	0	1	1	1	0
Non-Exempt Staff*	10	9	1	6	4
Total Part-Time	**11**	**10**	**2**	**8**	**4**
Total	**48**	**59**	**43**	**59**	**36**

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

Faculty and Staff

Faculty and Staff Terminations

The faculty and staff turnover rate, 8.5 percent, is a slight decrease from last year. Retirements of current faculty and staff are expected to rise as our employee base ages. Recruitment of individuals to serve our students will be a priority in the coming years.

Full-Time/Part-Time	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011 Percent	FY 2011 Number
Faculty	5.9%	6.7%	2.5%	6.9%	6.6%	13
Exempt Staff*	14.8%	6.6%	6.9%	10.0%	9.0%	12
Non-Exempt Staff**	0.7%	12.7%	4.2%	9.8%	9.8%	25
Total	**8.1%**	**9.4%**	**4.2%**	**8.9%**	**8.5%**	**50**

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* Includes all exempt staff and educational development faculty.
** Includes technical, clerical, C-Print® captionists and interpreters.

RIT/NTID Leadership
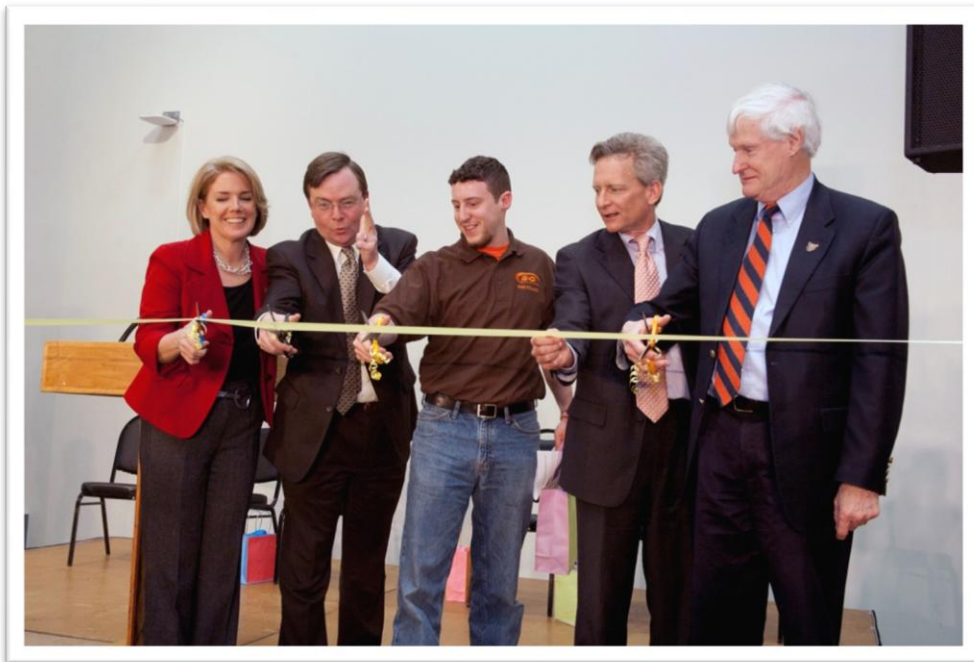
Greg Pollock, RIT's Student Government President, joins RIT Senior Vice President Dr. Mary-Beth Cooper, NTID President Dr. Gerry Buckley, RIT Provost Dr. Jeremy Haefner and RIT President Dr. William Destler in the ribbon-cutting ceremony for the new RIT ASL & Deaf Studies Community Center in January 2011.

NTID Administrative Council*

Dr. Gerard J. Buckley
President, NTID
Vice President and
Dean, RIT

Bernard Hurwitz, J.D.
Executive Assistant to the
President, NTID

Dr. Laurie Brewer
Vice Dean and Associate Vice
President for Academic Affairs

Linda L. Hoke
Assistant to the President
and Office Manager

Erwin Smith
Assistant Vice President for
Information Technology and
College Operations

Mike Servé
Assistant Vice President for
Finance and Budget

Dr. Stephen Aldersley
Associate Dean for
Academic Administration

Dr. Robb Adams
Associate Dean for Student
and Academic Services

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* The following individuals also served on the NTID Administrative Council in FY 2011: Dr. James J. DeCaro – Interim President, NTID and Interim Vice President and Dean, RIT; Dr. Jeffrey Porter – Interim Executive Assistant to the President, NTID; Albert Smith – Assistant Vice President for College Operations; and Steve Nelson – Director, Access Services.

Dr. Rico Peterson
Assistant Dean and Director,
Access Services

Pamela Carmichael
Director, Marketing
Communications

Dr. Denise Kavin
Special Assistant for *Strategic Decisions 2020* Implementation

Alvin Boyd
Special Assistant to the
President for Diversity
and Inclusion

NTID National Advisory Group

The National Advisory Group advises the NTID president / RIT vice president and dean 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.

Active Members

Elizabeth Ayers Gibson
Advanced Practice Sonographer, Virginia Mason Medical Center

Brenda Battat
Executive Director, Hearing Loss Association of America

Andrew N. Brenneman
Senior National Account Executive, Sprint Nextel

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

Essie Calhoun McDavid
Retired Chief Diversity Officer and Director, Community Affairs Vice President, Eastman Kodak Company

James Meisser
Director and Chief Risk Officer, Lake Shore Wisconsin Corporation

Dr. Harold Mowl
Superintendent/CEO, Rochester School for the Deaf

Dr. Susan Salvador
Vice President, Student Affairs, Monroe Community College

Dr. 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

Dr. Olga Welch
Dean, Duquesne University School of Education

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
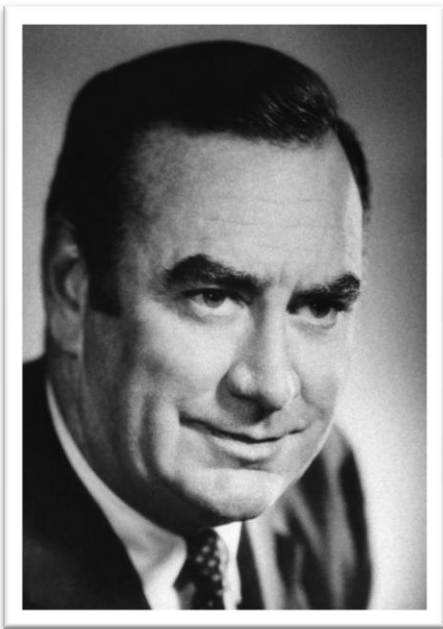
RIT/NTID lost a good friend in Governor Hugh L. Carey in 2011. While a member of the House, Carey introduced one of the bills that created NTID in 1965. He said about the legislation, "In my view, to have a liberal arts program available [for] the deaf, but not to have training in engineering, sciences and technical disciplines would be akin to a 20th century nation without a national science program." Carey announced RIT's selection as NTID's host institution in November 1966 and served on NTID's first National Advisory Group. In 1984, NTID named a new building in the center of campus, Hugh L. Carey Hall, in his honor. He remarked, "I've watched NTID grow from its modest beginnings to an internationally respected organization, and it is a tribute to those who remain."

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.

Foundation board members foster involvement and private investment to enrich the quality and vitality of the learning environment at NTID.

Active Members:

Richard C. Adamany
Chief Executive Officer, Swiss+Tech Products

Vicky Adamany

Gary W. Behm '81 (Vice Chairman)
Instructional/Support Faculty, Engineering Studies, Rochester Institute of Technology

Arthur Carroll
Chief Executive Officer, Mayflower Management Consulting, LLC

Gracie P. Coleman
President, Coleman Consulting Services

Meredith M. Crane
Executive Director, Deaf Initiatives, Inc.

Michael Ellis
National Director, Sprint Relay

Max Factor III
Attorney at Law, Factor Mediation and Arbitration Services

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
Assistant Vice President, Institute Audit, Compliance & Advisement, Rochester Institute of Technology

Jane Ratcliffe Pulver
Emeritus Member, RIT Board of Trustees

Robert W. Rice '94, '97 MBA
President and Managing Partner, BayFirst Solutions, LLC

James J. Stefano
Vice President, Client Services & Quality, Synergy Global Solutions

Ricky Thomas
Managing Director, Maguire & Moore Capital Advisors, Inc.

Christopher Wagner '94 (Chairman)
Senior Vice President of Operations, ZVRS

Cynthia F. Walker

George D. Webb II
Retired Senior Vice President for Operations, Great West Life & Annuity Insurance Co.

Diane Weihs

Gary Weihs
Executive Recruiter, Kincannon & Reed

Sandra Weintraub

Dr. Steven Weintraub, MD
Medical Director, North Shore LIJ, Department of Anesthesia

RIT Officers

Dr. William W. Destler
President

Dr. Gerard J. Buckley
President, NTID / Vice President and Dean, RIT

Lisa Cauda
Vice President, Development and Alumni Relations

Dr. Mary-Beth Cooper
Senior Vice President, Student Affairs

Dr. Jeremy A. Haefner
Provost / Senior Vice President, Academic Affairs

Kevin McDonald, J.D.
Vice President, Diversity and Inclusion

Dr. Katherine Mayberry
Vice President, Special Projects

Dr. James Miller
Senior Vice President, Enrollment Management and Career Services

Dr. Ryne Raffaelle
Vice President, Research / Associate Provost

Deborah Stendardi
Vice President, Government and Community Relations

Dr. James Watters
Senior Vice President, Finance and Administration

RIT Board of Trustees Active Members (continued)

Donald J. Truesdale
BS '87; Partner, Goldman, Sachs & Co.

Chester N. Watson
BS '74; General Auditor, General Motors Corporation

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

Eddie McBride, of Germantown, Md., and Aldo Almanzar and Ralph Santos, of Bronx, N.Y., gather with RIT mascot, RITchie, outside the Student Development Center, a hub for meetings, student organizations, special events and eating at the Commons.

Financial Operations Highlights

In fiscal year 2011, NTID received $65,306,126 in federal support to operations. This was a 3.6 percent increase over the fiscal year 2010 appropriation. In addition to our federal funding, NTID collected non-federal revenue of $24,247,625 in the form of tuition, room, board and fees, a 6.1 percent increase over the previous year. This non-federal revenue increase resulted from a 3.1 percent growth in enrollment and a 4.7 percent tuition rate increase. Combined revenues for operations totaled $89,553,751 and represented a 4.3 percent increase over fiscal year 2010.

Total compensation grew by 4.7 percent in 2011. Salaries and wages increased by 2.2 percent while benefits grew by 12.1 percent. Benefit expenditures are subject to fluctuation as rates paid in previous years are subject to adjustment for actual costs incurred. Health care continues to be a rapidly growing segment of the benefit costs. Compensation represents 53 percent of NTID expenditures for operations.

RIT Services account for 34 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.

NTID pays for each credit hour students attempt in the other colleges of RIT. The billed credit hours (25,541) grew by 17 percent in 2011, resulting in a 20 percent increase in expense. This was partially offset by a 5 percent decrease in indirect costs that resulted from an adjustment to a prior year charge.

The indirect costs or overhead is levied based on an allocation that 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 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 size of NTID relative to the rest of RIT.

The increase in support expenditures (22%) was driven almost entirely by payments made for freelance (community) interpreting services. The increase in students taking courses in the other colleges of RIT, combined with the successful integration of deaf students throughout the RIT community, has increased the demand for access services.

As NTID has increased tuition rates, it has also increased institutionally sponsored financial aid. This grew by 11 percent in 2011.

These statements provide an overview of how NTID expenditures changed over the past year. They speak to the specifics of the expenditures, but fail to address their impact on the students. The reader will find that infused throughout the balance of this annual report.

Financial Operating Results

In FY 2011, NTID operating revenue increased by 4.3 percent. The federal appropriation of $65,306,126 represented a 3.6 percent increase over FY 2010 while non-federal revenue (tuition, room, board and fees) increased by 6.1 percent.

Expenditures were driven by significant growth in the provision of access services as well as credit hours taken by NTID students in other colleges of RIT.

	FY 2010	FY 2011	Variance $	Variance %
EXPENSES				
Personnel Compensation Expenditures				
Salaries and Wages	$34,027,700	$34,784,851	$757,151	2.2%
Benefits	11,416,200	12,792,509	1,376,309	12.1%
Total Personnel Compensation	**$45,443,900**	**$47,577,360**	**$2,133,460**	**4.7%**
RIT Services Expenditures				
Direct:				
Residence Halls/Food Service, Student Services	$8,273,100	$8,381,933	$108,833	1.3%
Cross-Registered Tuition	6,829,600	8,225,641	1,396,041	20.4%
Physical Plant Services	2,092,900	2,048,761	(44,139)	-2.1%
Indirect:				
Overhead	12,641,100	12,001,473	(639,627)	-5.1%
Total RIT Services	**$29,836,700**	**$30,657,808**	**$821,108**	**2.8%**
Other Expenditures				
Support Expenditures	$4,716,100	$5,757,898	$1,041,798	22.1%
Grant Cost Shares	496,700	305,334	(191,366)	-38.5%
Financial Aid	2,535,500	2,818,975	283,475	11.2%
Capital	2,712,900	1,350,303	(1,362,597)	-50.2%
Matching Endowment	1,102,800	220,700	(882,100)	-80.0%
Plant Fund	(958,300)	865,373	1,823,673	-190.3%
Total Other	**$10,605,700**	**$11,318,583**	**$712,883**	**6.7%**
Total Expenses	**$85,886,300**	**$89,553,751**	**$3,667,451**	**4.3%**
REVENUE				
Federal Appropriation	$63,037,000	$65,306,126	$2,269,126	3.6%
Non-federal Funds	22,849,300	24,247,625	1,398,325	6.1%
Total Revenue	**$85,886,300**	**$89,553,751**	**$3,667,451**	**4.3%**

Results of Financial Operations

Tuition, Room, Board and Other Fees

Tuition increased by 4.7 percent, while room, board and other fees increased by 4.2 percent, for a total combined increase of 4.5 percent. These non-federal resources constitute 27 percent of NTID's total operating revenue.

Rates Charged Students

	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
Total	**$17,949**	**$18,876**	**$19,884**	**$20,592**	**$21,516**
Collections	$16,607,500	$19,343,000	$21,881,600	$22,849,300	$24,247,625
Enrollment (Fall)	1,250	1,343	1,450	1,474	1,521
Collections Per Student	**$13,286**	**$14,403**	**$15,091**	**$15,502**	**$15,942**

Financial Aid

The average student receives significant financial aid to apply against tuition, room, board, fees, books, transportation and other expenses.

Kathryn Mills, an Arts and Imaging Studies major from Reading, Ohio, and Kaela Mangiaracina, an Arts and Imaging Studies major from Livingston, N.J., are all smiles before commencement.

Financial Aid (Domestic Students)

Financial aid awards to students totaled $21.9 million in 2011, a 7.3 percent increase over 2010. There was a 19.3 percent increase in institutionally sponsored aid driven by a 55.7 percent increase in grants from NTID endowments. State and federal aid increased by 6.0 percent while loans taken by students increased by 5.1 percent. Overall, the average financial aid per student (excluding loans) increased by 4.5 percent.

SOURCE OF AID	2010* Awards*	2010* Amount	2011* Awards*	2011* Amount	DIFF %
INSTITUTIONALLY SPONSORED SUPPORT					
Grant-in-Aid:					
NTID Grant-in-Aid	324	$1,076,232	339	$1,167,937	8.5%
RIT Grant-in-Aid	39	$98,712	24	$101,018	2.3%
Subtotal Grant-in-Aid	363	$1,174,944	363	$1,268,955	8.0%
Scholarships:					
NTID Merit	455	$1,260,718	444	$1,399,138	11.0%
RIT Merit	82	$122,085	67	$97,698	-20.0%
NTID Endowments	363	$546,389	474	$850,824	55.7%
External Groups	84	$176,158	95	$163,970	-6.9%
Subtotal Scholarships	984	$2,105,350	1,080	$2,511,630	19.3%
Subtotal Institutionally Sponsored Support	**1,347**	**$3,280,294**	**1,443**	**$3,780,585**	**15.3%**
STATE AND FEDERAL SUPPORT					
Grants:					
Pell Grants	676	$2,781,909	706	$3,130,369	12.5%
State Grants	251	$548,863	227	$464,249	-15.4%
Subtotal Grants	927	$3,330,772	933	$3,594,618	7.9%
Other Federal Support:					
Vocational Rehabilitation	905	$8,377,642	904	$8,805,867	5.1%
Federal Work Study	26	$42,066	34	$59,261	40.9%
Subtotal Other Support	931	$8,419,708	938	$8,865,128	5.3%
Subtotal State and Federal Support	**1,858**	**$11,750,480**	**1,871**	**$12,459,746**	**6.0%**
LOANS					
Subsidized Federal Student Loan	602	$2,399,348	634	$2,583,863	7.7%
Unsubsidized Federal Student Loan	582	$2,426,567	602	$2,538,941	4.6%
Parent PLUS Loans	68	$568,455	72	$548,348	-3.5%
Subtotal Loans	**1,252**	**$5,394,370**	**1,308**	**$5,671,152**	**5.1%**
TOTAL ALL FINANCIAL AID	**4,457**	**$20,425,144**	**4,622**	**$21,911,483**	**7.3%**
Domestic Student Enrollment		**1,432**		**1,481**	**3.4%**
Average Financial Aid per Student		**$14,263**		**$14,795**	**3.7%**
Average Financial Aid per Student Excluding Loans		**$10,496**		**$10,966**	**4.5%**

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* Students receive more than one form of aid; therefore the numbers of awards (grants, loans, scholarship, etc.) outnumber the student body.

External Funding Sources
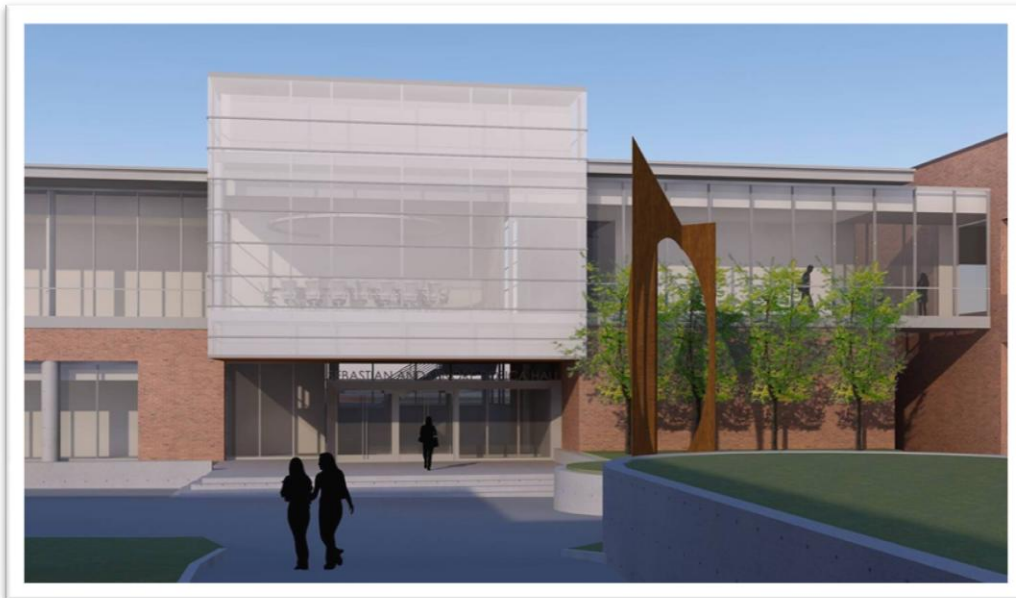
Construction will begin on Sebastian and Lenore Rosica Hall in 2012 thanks to a $1.75 million grant received in FY 2011 from the William G. McGowan Charitable Fund as well as contributions from many other donors. Rosica Hall will be a first-of-its-kind facility specifically designed to foster innovation, research and entrepreneurship among deaf, hard-of-hearing and hearing students.

The NTID Foundation

NTID received $4,003,372 in outright gifts of cash, gifts-in-kind and deferred bequest intentions for FY 2011. 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 Joseph F. and Helen C. Dyer Arts Center, PEN-International, and the Sebastian and Lenore Rosica Hall.

Contributions of $1,000 and above received during FY 2011 include:

$1,000,000 and Above Level:	William G. McGowan Charitable Fund
$200,000 - $999,999 Level:	Cisco Systems, Inc. Eastman Kodak Company The Nippon Foundation
$50,000 - $99,999 Level:	Bank of NY Mellon Financial Corp. Foundation The Gladys Brooks Foundation
$40,000-$49,999 Level:	Motorola Solutions Foundation Novartis Ms. Stephanie M. Tolan
$20,000 - $39,999 Level:	CVS Caremark Charitable Trust Johnson Scholarship Foundation Mr. Donald W. and Jane R. Pulver Oxford University Press Solon E. Summerfield Foundation, Inc. Sorenson Communications, Inc. United States – Japan Foundation
$10,000 - $19,999 Level:	Anonymous #12 Mr. Kenneth G. and Dr. Mary Jane Hellyar Interpretek Jephson Educational Trust Mr. Andrew R. Jacobson Mr. George R. and Merlyn M. Smith Dr. Stephen J. and Sandra Weintraub ZVRS
$5,000 - $9,999 Level:	Mr. David Ankrum Mr. Gerald A. Nelson and Nancy J. Bloch Mr. William and Theresa Urich
$2,500 - $4,999 Level:	BayFirst Solutions LLC Mr. and Mrs. Andrew N. Brenneman Purple Communications, Inc. Mr. Robert W. Rice Webb Family Foundation Mr. George D. Webb, II Louis S. & Molly B. Wolk Foundation

$1,000 - $2,499 Level:	S. & J. Braitman Family Supporting Fdn., Inc.
	Dr. Laurie C. Brewer
	Ms. Dianne K. Brooks
	Caption First, Inc.
	Dr. Karen K. Conner
	Danco Precision, Inc.
	Rodney Danco, Jr.
	Dr. Robert R. and Donna E. Davila
	Dr. James J. and Patricia A. DeCaro
	Mr. Mark C. and Beverly J. Feder
	Dr. Terry and Gail Feigenbaum
	Dr. Laurence C. Franklin
	Mr. Sterling C. Franklin
	Mr. Thomas Gibbons and Dr. Linda Siple
	Ms. Patricia Graves
	Hamilton Relay
	Dr. and Mrs. Robert I. Harris
	Dr. T. Alan and Vicki T. Hurwitz
	Dr. Ronald R. and Lyn S. Kelly
	Dr. Marvin and Elaine Lessig
	Mr. Martin G. Lichtenstein
	Drs. Robert J. and Susan M. Mather
	Morris S. Smith Foundation
	Dr. Harold M. and Mary Mowl
	Northrop Grumman Corp.
	Dr. Robert F. Panara
	Mr. John T. Reid
	Ms. Donna M. Renelt
	Rochester Area Community Foundation
	Dr. Kathryn L. Schmitz
	Mr. Michael S. and Barbara N. Servé
	Mr. Frank R. Shumway, Jr.
	Stefano La Sala Foundation, Inc.
	Mr. Paul L. and Sally A. Taylor
	Barbara & Donald Zucker Foundation

Bequest Intentions/Estate Planning

Mr. Gary Mayers

The NTID Foundation (continued)

Gifts in Kind

The following individuals and companies made significant contributions of equipment or artwork in the past year:

Mr. David Ankrum
Cisco Systems, Inc.
Eastman Kodak Company
Novartis
Oxford University Press
Ms. Stephanie M. Tolan
ZVRS

NTID Projects/Initiatives

The following individuals and organizations made significant contributions to restricted fund accounts in the past year:

Bank of NY Mellon Financial Corp. Foundation
BayFirst Solutions LLC
Caption First, Inc.
Dr. Karen K. Conner
CVS Caremark Charitable Trust
Dr. James J. and Patricia A. DeCaro
Mr. Mark C. and Beverly J. Feder
Mr. Thomas Gibbons and Dr. Linda Siple
Ms. Patricia Graves
Hamilton Relay
Interpretek
Mr. Andrew R. Jacobson
Johnson Scholarship Foundation
William G. McGowan Charitable Fund
Motorola Solutions Foundation
Mr. Gerald A. Nelson and Nancy J. Bloch
Nippon Foundation
Northrop Grumman Corp.
Mr. Donald W. and Jane R. Pulver
Purple Communications, Inc.
Ms. Donna M. Renelt
Mr. Robert W. Rice
Mr. George R. and Merlyn M. Smith
Sorenson Communications, Inc.
United States – Japan Foundation
Dr. Steven J. and Sandra Weintraub
Louis S. & Molly B. Wolk Foundation
Barbara & Donald Zucker Foundation
ZVRS

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 11 years demonstrate NTID's commitment to seeking alternative sources of public and private support.

In FY 2011, NTID received cash of $2,975,368 for endowment and restricted purposes. Of that amount, $220,700 was matched with federal dollars and directed toward NTID's endowed scholarship funds.

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Cash to Endowment and Restricted Funds	$2,840,116	$2,527,289	$2,085,697	$2,602,401	$2,975,368
Equipment and Software	124,052	254,191	87,660	94,100	1,028,004
Total	**$2,964,168**	**$2,781,480**	**$2,173,357**	**$2,696,501**	**$4,003,372**

Abiel Georgeo, an Applied Computer Technology major from San Diego, Calif., Maya Ariel, a Business Administration-Management major from Livingston, N.J., and Samantha Marguccio, an Arts and Imaging Studies major from Lockport, N.Y., perform poetry at RIT's innovation and creativity festival, Imagine RIT.

NTID Endowment Programs

A total of $441,400, including matching federal funds* of $220,700, was added to the Federal Matching Endowment Fund corpus in 2011. The market value of NTID's Federal Matching Endowment portfolio stands at $38,639,330.

The market value of NTID's total endowments, which include privately raised funds prior to the establishment of the Federal Matching Endowment program, is $43,193,138.

Value as of September 30, 2011

	Contributed Value	Market Value
Funds Subject to Federal Investment and Spending Guidelines		
Private	$7,407,069	$8,967,883
Federal	$7,314,520	$8,521,452
Subtotal	$14,721,589	$17,489,335
Funds No Longer Subject to Federal Investment and Spending Guidelines	$12,029,792	$21,149,995
Total Federal Endowment	**$26,751,381**	**$38,639,330**

Other Endowments	Contributed Value	Market Value
Private	$1,881,930	$4,553,808
Total Endowments	**$28,633,311**	**$43,193,138**

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* 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.

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)

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

Kevin Mowl Memorial 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)

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 2011 NTID had 26 new grant proposals totaling $38,503,733 that were submitted for funding. Fourteen, totaling $11,461,062, were funded; six are still pending; six were not funded.

As of September 30, 2011, the annual value of all grants and contracts at NTID totaled $1,477,168, with a total value over the lives of the projects of $4,574,944.

Project Title	Grant Provider	Year	Amount FY 2011	Total Value
Psychological Foundations of Mathematics Performance by Deaf and Hearing Students	National Institutes of Health	4 of 4	$372,872	$1,619,618
The Science of Learning Center on Visual Language and Visual Learning	National Science Foundation	5 of 7	$73,178	$1,190,879
Substance and Alcohol Abuse Intervention Services for the Deaf (SAISD)	DHHS Substance Abuse and Mental Health Services Administration	1 of 1	$162,132	$162,132
DHH Cyber-Community – Supporting Deaf and Hard of Hearing Students in STEM Fields	National Science Foundation	3 of 3	$0	$90,124
National Center for Deaf Health	National Institutes of Health	2 of 5	$109,391	$228,615
Analyzing the Use of C-Print Mobile Technology in STEM Laboratory Settings Across Multiple Postsecondary Sites	National Science Foundation	2 of 3	$0	$394,738
Career Development Workshops to Serve the Deaf Population in Southwestern Pennsylvania	Heinz Endowments	1.5 of 1.5	$0	$72,700
Secondary Educational Enrichment for Deaf Students – International: Sowing the SEEDS of Cross-Cultural Understanding	US – Japan Foundation	2 of 3	$15,498	$72,041
Future Quest and Technical Job Training and Career Development Workshops	BNY Mellon Charitable Foundation	1 of 1.5	$55,000	$55,000
NTID Proposal to the Nippon Foundation of Japan for Pre-College Training in the ASEAN Region	The Nippon Foundation	1 of 1	$599,900	$599,900
A Preliminary Investigation of CISCO Technologies and Access Solutions	Cisco Systems Inc.	1 of 1	$60,620	$60,620
Computer Integrated Machining Technology Training & Curriculum Development (VATEA 10-11)	NYS Education Department	1 of 1	$9,681	$9,681

Project Title	Grant Provider	Year	Amount FY 2011	Total Value
Developing Signed and Captioned Instructional Training Videos for Deaf and Hard-of-Hearing (VATEA 10-11)	NYS Education Department	1 of 1	$18,896	$18,896
Total			**$1,477,168**	**$4,574,944**

Morgan Breese, a Psychology major from Jacksonville, Ill., and Anna Bracilano, an Advertising and Public Relations major from Snohomish, Wash., peek out from a photo booth at RIT's innovation and creativity festival, Imagine RIT.