

# R·I·T

**Rochester Institute of Technology**  
National Technical Institute for the Deaf



————— **2012 Annual Report** —————

# 2012 Annual Report



## Note of Explanation

---

---

This Annual Report notes activities and accomplishments throughout Fiscal Year 2012 (October 1, 2011 – September 30, 2012), corresponding primarily to Academic Year 2011-2012. References to Fiscal Year 2013 correspond to characteristics and accomplishments as of fall quarter Academic Year 2012-2013.

# NTID FY 2012 Annual Report Contents

---

---

Letter to the Secretary of Education .....	1
Cover Photos .....	2
Mission Statement .....	3
Budget Reductions .....	4
National Technical Institute for the Deaf – At a Glance .....	5
Annual Highlights .....	6
Executive Summary .....	7
<b>The Education of the Deaf Act .....</b>	<b>11</b>
Reporting Requirements of the Education of the Deaf Act and the Agreement with RIT .....	12
<b>Performance Indicators .....</b>	<b>15</b>
<b>Strategic Planning .....</b>	<b>29</b>
<i>Strategic Decisions 2020</i> .....	30
<b>Admissions and Enrollment .....</b>	<b>35</b>
Admissions and Enrollment Highlights .....	36
Comparative Admissions Data .....	38
Summer Vestibule Program .....	39
NTID Student Enrollment by Quarter (Deaf and Hard-of-Hearing Students Only) .....	40
Percent of Registered Students with Full-Time Status .....	41
International Student Recruitment.....	42
Demographic Characteristics of All Entering Students .....	43
Demographic Characteristics of Enrolled International Students Compared to Enrolled U.S. Students .....	44
ACT Information on Entering Class (Deaf and Hard-of-Hearing Students Only) .....	45
Academic Skills of Entering Students .....	46
Hearing Assessment and Cochlear Implant Information .....	47
Students with Secondary Disabilities .....	48
Origin of Students and Graduates .....	49
<b>Academic Programs .....</b>	<b>53</b>
Academic Program Highlights .....	54
Enrollment by Degree Programs .....	64
Average Class Size by Discipline.....	70
Educational Support: Teaching .....	71
American Sign Language-English Interpretation Program.....	74
Master of Science in Secondary Education of Students Who Are Deaf or Hard of Hearing ..	75
Cooperative Work Experiences.....	76
Science, Technology, Engineering and Mathematics (STEM) Activities .....	77
<b>Student Support Services.....</b>	<b>81</b>
Student Support Services Highlights .....	82
Support Services .....	84
<b>Student Access Services.....</b>	<b>85</b>
Student Access Services Highlights.....	86
Access Services: Interpreting, Notetaking and Real-Time Captioning .....	87
Access Services: Interpreting Services.....	88
Access Services: Real-Time Captioning (C-Print®) Services .....	89



## Contents (continued)

---

---

Access Services: Staff Training .....	90
<b>Persistence, Graduation &amp; Employment .....</b>	<b>91</b>
Persistence, Graduation and Employment Highlights.....	92
First-Year Persistence Rates .....	94
Persistence to Graduation for Deaf and Hard-of-Hearing Students.....	95
Degrees Granted: FY 2008 to FY 2012 .....	96
Graduates by Program Areas .....	98
Time Required to Complete a Degree .....	99
Graduation and Employment for Recent Graduates .....	100
Employment Services for Deaf and Hard-of-Hearing Students and Graduates .....	101
Where Recent Graduates Are Working .....	102
Employment by Sector of the Economy .....	103
Occupations of Recent Graduates: Entry Status by Labor Category .....	104
Occupations of Alumni by Gender and Labor Categories.....	106
Ten-Year Labor Force Status and Earnings of Alumni .....	110
Effect of College Graduation on Reduction in SSI and SSDI Payments .....	112
<b>Diversity and Pluralism .....</b>	<b>115</b>
Diversity and Pluralism Highlights .....	116
Diversity and Pluralism Philosophy .....	117
Admissions Activity by Ethnicity .....	119
Ethnicity of Entering Students .....	120
Ethnicity of Enrolled Students .....	121
First-Year Student Persistence and Graduation Rates by Diversity Categories .....	122
Graduates by College and Program Areas: Minority Status .....	123
Affirmative Action Report: Faculty and Staff .....	124
Affirmative Action Report: Faculty and Staff Applicants .....	125
Affirmative Action Report: Faculty and Staff Hiring Results .....	126
Affirmative Action Report: Faculty and Staff Termination Results .....	127
<b>Research, Innovation &amp; Creativity .....</b>	<b>129</b>
Research Overview .....	130
Examples of Research Activities .....	132
Innovation and Creativity at NTID .....	136
Imagine RIT: Innovation and Creativity Festival .....	142
Intellectual Property: Licensed Educational Materials, Patents and Inventions .....	143
<b>Outreach .....</b>	<b>145</b>
Outreach Highlights .....	146
Pre-College Outreach .....	149
Explore Your Future .....	155
Explore Your Future – Enrollment by Location .....	156
Deaf Initiative in Technology .....	158
Employer Outreach .....	160

## Contents (continued)

---

---

<b>Faculty and Staff</b> .....	<b>161</b>
Faculty and Staff Highlights.....	162
Average Salary: Faculty and Staff .....	163
Tenure-Track Positions and Faculty Rank .....	164
Degree Levels of Tenured and Tenure-Track Faculty .....	165
Age, Length of Service and Retirement Status of NTID Faculty and Staff .....	166
Faculty and Staff New Hires .....	167
Faculty and Staff Terminations .....	168
<b>RIT/NTID Leadership</b> .....	<b>169</b>
NTID Administrative Council .....	170
NTID National Advisory Group .....	172
NTID Foundation Board .....	174
RIT Officers .....	176
RIT Board of Trustees Active Trustees .....	177
<b>Results of Financial Operations</b> .....	<b>181</b>
Financial Operations Highlights .....	182
Financial Operating Results .....	183
Tuition, Room, Board and Other Fees .....	184
<b>Financial Aid</b> .....	<b>185</b>
Financial Aid (Domestic Students) .....	186
<b>External Funding Sources</b> .....	<b>187</b>
The NTID Foundation .....	188
NTID Annual Fundraising Results .....	190
NTID Endowment Programs .....	191
Scholarships and Endowed Funds.....	192
Grants and Contracts .....	195



Office of the President  
George Eastman Building  
2 Lomb Memorial Drive  
Rochester, New York 14623-5604  
585-475-2394 Fax 585-475-5700

December 10, 2012

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

Dear Secretary Duncan:

We are pleased to submit the following report to fulfill the requirement of the Education of the Deaf Act that the National Technical Institute for the Deaf (NTID), a college of Rochester Institute of Technology (RIT), "... shall prepare and submit an annual report to the Secretary..."

Despite significant budgetary challenges, NTID has much to celebrate for Fiscal Year 2012. Ninety-one percent of FY 2011 graduates seeking employment were employed in FY 2012, with even higher employment rates for our ASL-English Interpretation graduates (100 percent) and Master of Science in Special Education graduates (94 percent). NTID students had a record number of cooperative work experiences (paid employment related to a field of study) last year and a record number of applications for admission to the college for this fall. NTID also had a record number of students enrolled in baccalaureate programs in the other eight colleges of RIT.

NTID continues to lead the way in STEM (science, technology, engineering and mathematics) education for deaf and hard-of-hearing students, from the recognition of Dr. Todd Pagano, director of our Laboratory Science Technology program, as a 2012 U.S. Professor of the Year to the more than \$7 million we received in STEM-focused grant awards to the many summer outreach programs for junior high and high school students in STEM fields. The spirit of innovation also runs through RIT/NTID, with six inventions developed by NTID faculty and students and the creation of the world's first certificate for healthcare interpreting in FY 2012.

We continue to be inspired by our talented students, faculty and staff. Their innovation and creativity, coupled with the support of our partners in government and industry, will ensure that NTID honors its mission:

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

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

[www.ntid.rit.edu/media/annual-report](http://www.ntid.rit.edu/media/annual-report)

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

With warm regards,



William W. Destler, Ph.D.  
President, RIT



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

## Cover Photos

---

---

### **2012 U.S. Professor of the Year Todd Pagano with NTID Students Ryan Spector and James Macisco**

The front cover photo features Dr. Todd Pagano, associate professor and director of NTID's Laboratory Science Technology program, collecting water for sampling with students Ryan Spector of Kings Park, N.Y., and James Macisco, of Stratford, Conn. The students presented their research at a national meeting of the American Chemical Society in San Diego, Calif., in 2012. Dr. Pagano's commitment to involving associate-level students in conducting, publishing and presenting research has resulted in national recognition from his chemist and faculty peers, as well as the devotion of his students.

Dr. Pagano received the American Chemical Society Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences in 2012 and was named a 2012 U.S. Professor of the Year by the Council for Advancement and Support of Education and the Carnegie Foundation for the Advancement of Teaching. The U.S. Professors of the Year Awards Program is the only national initiative specifically designed to recognize excellence in undergraduate teaching and mentoring. Dr. Pagano is the first RIT professor to receive this distinction.

Ryan Spector received his associate degree in Laboratory Science Technology in 2012 and was selected as an NTID 2012 Commencement Delegate. He won the Undergraduate Award for Outstanding Achievement in Chemistry (Rochester Section) and the Chemical Technology Student Recognition Award, both from the American Chemical Society. He currently is pursuing his bachelor's degree in Biomedical Sciences at RIT with a long-term goal of earning a Ph.D. in the medical field.

### **Academic Achievement Award Honorees**

The back cover photo features the 11 students honored at the annual NTID Academic Achievement Awards Luncheon in May 2012. The students in the back row, from left to right, are:

- Kevin Toh, Irvine, Calif.; Industrial Design major
- Ashleen Evans, Lebanon, Ind.; Accounting major
- Sarah Gluck, Smithtown, N.Y.; Biology major
- Kelsey Wall, Hawthorne Woods, Ill.; Fine Arts Studio major
- Casey Schneider, Grandville, Ill.; Industrial Design major
- Zengsheng Wang, Sunnyvale, Calif.; Business major
- Ryan Spector, Kings Park, N.Y.; Laboratory Science Technology major and NTID 2012 Commencement Delegate

The students in the front row, from left to right, are:

- Mary Withem, of McKinney, Texas; Master's program in Professional Studies
- Kehinde Ogunbayo, of Chicago, Ill.; Civil Engineering Technology major
- Eli McDermott-Amos, of Ocala, Fla.; Industrial Design major
- Steven Singer, of Indiana, Pa.; Master of Science program in Secondary Education of Students who are Deaf or Hard of Hearing major and NTID 2012 Commencement Delegate



## Mission Statement

---

---

*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.*

## Budget Reductions

---

---

As a result of level federal funding in the midst of record enrollments and inflationary increases, all NTID departments were asked to submit recommendations for reducing their budgets in FY 2012. The NTID Administrative Council reviewed these recommendations carefully, and forwarded them to President Buckley for final action.

All budget reduction decisions were made after a thorough review of NTID's operations and with careful consideration of the institute's mission and strategic plan, *Strategic Decisions 2020*, with the goal of having as little impact as possible on students.

Reductions were achieved through the elimination of 24 vacant positions and reductions in discretionary expenses such as travel, supplies, marketing and equipment. Workloads were adjusted in some departments to help control costs. Finally, nine filled positions were eliminated, and work schedules were reduced for four positions. Transition services were offered to the affected individuals.

The steps taken to reduce budgetary costs, particularly those affecting staff, were extremely difficult for both the decision-makers and the community. However, despite these challenges, NTID remains committed to providing students with an outstanding education that will lead to their professional success.

# 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 1,529 students enrolled as of fall 2012. Undergraduate: 1,269 deaf and hard-of-hearing students, 167 hearing students (enrolled in ASL-English Interpretation program). Graduate: 93 students (56 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 37 deaf and hard-of-hearing students in the other colleges of RIT). These students study and reside on a campus that includes more than 16,600 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

51 percent male; 49 percent female.

## Diversity

Of the 1,529 students enrolled, 34.0 percent are minority students and 3.3 percent are international students from 16 countries.

## Residence Life

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

## 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 clubs and 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, 91 percent of deaf and hard-of-hearing graduates who have sought jobs after graduation have found one within a year.

## 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 20 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, which may include 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 may include notetaking, tutoring, FM systems, real-time captioning services and the largest interpreting staff for a college program in the United States.

## Annual Expenses 2012-2013

for Undergraduate/U.S. Citizens

Tuition	\$ 12,393
Room	\$ 6,309
Board	\$ 4,491
<u>Fees</u>	<u>\$ 474</u>
Total	\$ 23,667

## 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 2012 was \$10,947, not including loans or federal work study.

## Annual Highlights

---

---

Noteworthy accomplishments and statistics for the past year include the following:

- NTID received more than \$7 million from the National Science Foundation and the U.S. Department of Education in the form of grants to establish DeafTEC: Technological Education Center for Deaf and Hard-of-Hearing Students, Deaf STEM Community Alliance and a project to prepare STEM and minority teachers of deaf and hard-of-hearing students.
- In October 2011, NTID President Gerry Buckley joined Gallaudet University President T. Alan Hurwitz to testify before the U.S. Senate Committee on Health, Education, Labor and Pensions on the topic “Leveraging Higher Education to Improve Employment Outcomes for People Who Are Deaf or Hard of Hearing.”
- The Task Force on Health Care Careers for the Deaf and Hard-of-Hearing Community, consisting of members from NTID, Gallaudet University, University of Rochester Medical Center and Rochester General Health Systems, released its final report and policy recommendations, *Building Pathways to Health Care Careers for the Deaf and Hard-of-Hearing Community* in March 2012.
- Six inventions were developed by NTID faculty and students in FY 2012, including a system for using a virtual see-through, interactive board for instruction and a method and apparatus for performing alarm clock functions with a bed shaker device.
- NTID had a record number of student co-op experiences – 299 in FY 2012.
- NTID also granted a record number of degrees – 355 in FY 2012.
- The first class of NTID’s new Healthcare Interpreting certificate program, the first program of its kind in the world, graduated in May 2012.
- Ninety-one percent of FY 2011 graduates who sought employment were employed in FY 2012, not including MSSE and ASL-English Interpretation graduates.
- One hundred percent of FY 2011 ASL-English Interpretation graduates and 94 percent of FY 2011 MSSE graduates were employed in FY 2012.
- This summer, NTID won the 2012 National Association of the Deaf College Bowl, beating five other teams for the title.
- NTID had a record number of applications (not including activity in the MSSE and ASL-English Interpretation programs) – 989 for FY 2013.
- For the first time, NTID offered a New Signers Program in August 2012 to give deaf and hard-of-hearing freshmen who want to learn sign language a head start the week before other first-year students move in.
- NTID had a record number of students enrolled in baccalaureate programs at RIT – 551 in fall 2012 (FY 2013).
- NTID’s commitment to diversity is evident – with more than one-third of the student body being of ethnic/racial minority.
- NTID also had a record number of students with cochlear implants – 356 in fall 2012 (FY 2013) or 26.7 percent of students who are deaf or hard of hearing.

## Executive Summary

<b>New Registrations</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
Fall Admissions (Deaf and Hard-of-Hearing Students Only)					
Applications	895	900	906	902	989
Acceptances	534	482	477	439	504
Registrations	396	341	351	345	381
Other New Registrations					
AAS/BS ASL-English Interpretation	36	52*	57**	41	45
MS in Secondary Education	24	30	27	18	19
<b>Total New Registrations</b>	<b>456</b>	<b>423</b>	<b>435</b>	<b>404</b>	<b>445</b>
<b>Enrollment (Deaf and Hard-of-Hearing Students Only)</b>					
Sub-Baccalaureate Programs					
Career-Focused Programs	501	485	488	449	400
Transfer Associate/Pre-Baccalaureate	138	150	168	204	198
<b>Subtotal Sub-Baccalaureate</b>	<b>639</b>	<b>635</b>	<b>656</b>	<b>653</b>	<b>598</b>
Baccalaureate Programs at RIT	451	478	495	515	551
Graduate Programs at RIT	48	38	40	42	37
<b>Subtotal Baccalaureate and Graduate at RIT</b>	<b>499</b>	<b>516</b>	<b>535</b>	<b>557</b>	<b>588</b>
Career Exploration Studies	122	124	112	113	120
<b>Subtotal Deaf and Hard-of-Hearing Students Only</b>	<b>1,260</b>	<b>1,275</b>	<b>1,303</b>	<b>1,323</b>	<b>1,306</b>
Other Enrollments					
ASL-English Interpretation	135	138*	147**	160	167
MS in Secondary Education***	55	61	71	64	56
<b>Subtotal Other</b>	<b>190</b>	<b>199</b>	<b>218</b>	<b>224</b>	<b>223</b>
<b>Total Enrollment</b>	<b>1,450</b>	<b>1,474</b>	<b>1,521</b>	<b>1,547</b>	<b>1,529</b>

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

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

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



## Executive Summary (continued)

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Withdrawn (All Students)	14%	15%	14%	13%	14%
<b>Graduates</b>					
Total Degrees Granted	286	284	306	288	355
<i>Degree Level</i>					
Certificate	9	7	12	15	6
Diploma	2	1	1	0	0
Associate (AOS)	33	35	42	41	52
Associate (AS/AAS)	61	73	74	82	107
Associate (Interpreting)	10	0	2	1	0
Bachelor's (Interpreting)	18	34	31	18	32
Bachelor's	108	89	112	97	118
Master's	12	22	14	11	10
Master's (MSSE)	33	23	18	23	30
<b>Post-Graduation Employment</b>					
Post-Graduation Employment	102	94	96	95	N/A*
Post-Graduation Employment Rate	90%	90%	90%	91%	N/A*
<i>By Sector of the Economy</i>					
Business and Industry	71%	59%	57%	54%	N/A*
Education	20%	21%	27%	31%	N/A*
Government	9%	20%	16%	15%	N/A*
Cooperative Work Experiences	255	262	281	298	299
<b>Access/Support Services</b>					
Notetaking Hours	65,851	63,291	63,620	77,436	66,797
Tutoring Hours	15,271	17,636	18,236	19,395	18,039
Interpreting Hours	114,233	109,618	116,782	131,065	129,900
Real-Time Captioning Hours	16,722	18,168	19,493	21,493	19,516

\* Post-graduation employment numbers reflect status as of one year following graduation; employment numbers for September 1, 2011 through August 31, 2012 graduates will be reported next year.

## Executive Summary (continued)

Outreach (Number of External Participants)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
C-Print® Training	14	0	7	6	0
Deaf Initiative in Technology	71	64	88	34	31
Digital Arts, Film and Animation	54	64	62	47	32
DRobotz	*	*	*	*	9
Explore Your Future	235	196	217	228	192
FutureQuest	46	96	128	102	125
Interpreter Training**	92	37	74	63	132
Math Competition	55	98	61	105	115
National Center on Employment	692	577	521	677	613
National Science Fair	54	62	66	54	72
Notetaker Training	318	223	346	359	277
Project Fast Forward	66	86	76	55	25
SpiRIT Writing Contest	35	42	31	31	36
Steps to Success	14	20	23	23	21
TechGirlz/TechBoyz Camp	21	32	41	38	57

### Financial Aid (Domestic Students)

Grant-in-Aid	\$1,169,113	\$1,415,786	\$1,174,944	\$1,268,955	\$1,303,635
Vocational Rehabilitation	7,383,519	8,192,636	8,377,642	8,805,867	9,314,927
Pell Grants	1,450,715	1,839,938	2,781,909	3,130,369	2,972,676
State Grants	547,755	549,382	548,863	464,249	502,031
Federal Loans	3,663,544	4,060,757	5,394,370	5,671,152	6,058,928
Scholarships and Other	1,789,895	2,165,910	2,147,416	2,571,691	2,381,377
<b>Total Financial Aid</b>	<b>\$16,004,541</b>	<b>\$18,224,409</b>	<b>\$20,425,144</b>	<b>\$21,912,283</b>	<b>\$22,533,574</b>

<b>Average Aid per Domestic Student (Excluding Loans)***</b>	<b>\$9,537</b>	<b>\$10,031</b>	<b>\$10,496</b>	<b>\$10,966</b>	<b>\$10,947</b>
--	----------------	-----------------	-----------------	-----------------	-----------------

\* DRobotz began in FY 2012.

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

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

## Executive Summary (continued)

Domestic Student Rates*	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Tuition	\$9,801	\$10,233	\$10,719	\$11,583	\$12,393
Room	5,421	5,583	5,862	6,096	6,309
Board	3,960	4,059	4,182	4,317	4,491
Fees	702	717	753	453	474
<b>Total</b>	<b>\$19,884</b>	<b>\$20,592</b>	<b>\$21,516</b>	<b>\$22,449</b>	<b>\$23,667</b>

### Fundraising Activity

Cash to Endowment and Restricted Funds	\$2,085,697	\$2,602,401	\$2,975,368	\$1,460,336	**
Equipment and Software	\$87,660	\$94,100	\$1,028,004	\$141,740	**
Federal Funds Matched***	\$784,000	\$1,102,800	\$220,700	\$141,418	**



*Jessica Arevalo, an Arts & Imaging Studies major from Hayward, Calif., and Allison Wong, an Applied Computer Technology major from Surprise, Ariz., get feedback from Assistant Professor John Panara in a writing class.*

\* 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.



Rigor Pe Benito, a Business Technology major from Ewa Beach, Hawaii, shares a graduation moment with his family.

## 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 & 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 & Employment, and Diversity and Pluralism sections.]
  - (D) The number of students needing and receiving support services (such as tutoring and counseling) at all educational levels. [Refer to the Student Support Services section.]
  - (E) The number of recruitment activities by type and location for all educational levels. [Refer to the Outreach section of the Executive Summary.]
  - (F) Employment openings/vacancies and grade level/type of job and number of these individuals that applied and that were hired. [Refer to the Diversity and Pluralism section.]
  - (G) ...
- (3) (A) A summary of the annual audited financial statements and auditor's report ... as required under section 4353 of this title. [The audit of RIT is provided to the Secretary, as is a separate schedule for NTID.]



## Education of the Deaf Act (continued)

---

---

- (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. [NTID responds 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 the following inventions were made during the year covered by this Annual Report. [In addition, refer to the Research, Innovation & Creativity section.]

2011-005

#### **Method and System of Virtual See-Through, Interactive Board for Direct and Remote Instruction**

61/588,521

Cory Behm

Gary Behm

Robert Dooling

Christopher Kurz

Brian Trager

2011-014

#### **Method: Using Mobile Communication Device for Signaling**

61/642,347

Gary Behm

Wendy Dannels

Kenneth Hertzog

Alexander Mykyta

Shane Qualls

2011-015

#### **Method: Adjustable Signaling to Tactile Feedback Users**

61/570,653

Gary Behm

Wendy Dannels

Kenneth Hertzog

## Education of the Deaf Act (continued)

---

---

2011-016

### **Apparatus and Method: Whistle Adaptor for Signaling**

61/642,346

Gary Behm

Wendy Dannels

Kenneth Hertzog

Alexander Mykyta

2012-007

### **Method and Apparatus for Performing Alarm Clock Functions with Bed Shaker Device through SoftwareApp with Bluetooth Capability**

61/642,350

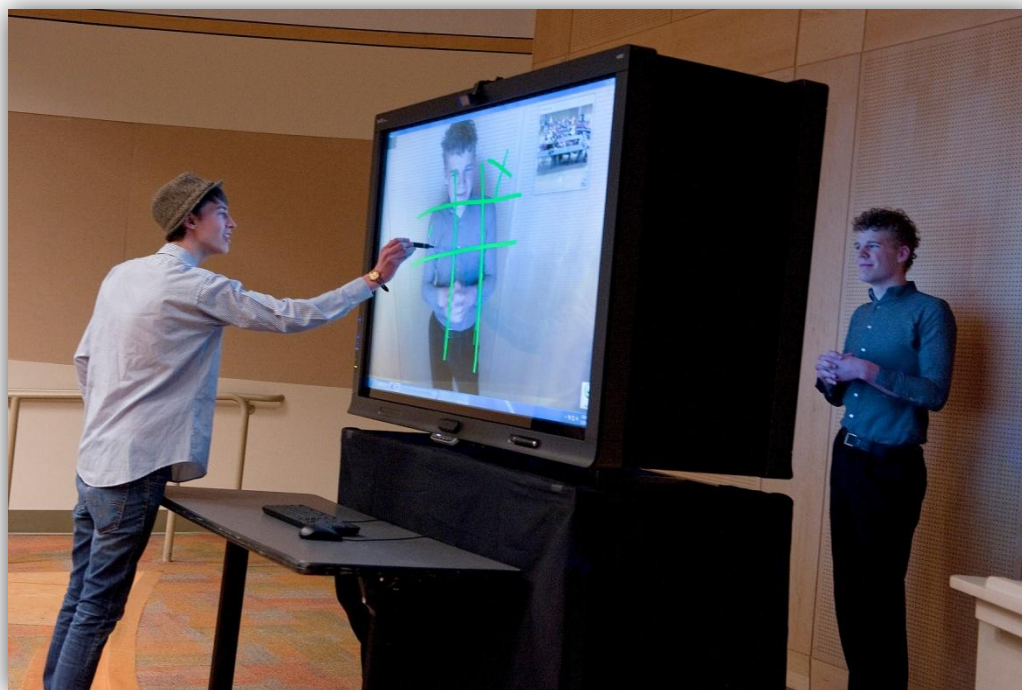
Gary Behm

Youmee Lee

2012-010

### **CAT-Claw aka Z-Notifier**

Gary Behm



*Robb Dooling, right, a Computer Science major from Omaha, Neb., invites Dan Eastman, an ASL-English Interpretation major from Foxborough, Mass., to try out a tic-tac-toe game on the See-Through Interactive Board he is developing with NTID faculty.*

## Performance Indicators

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



Audrey Van Dam, a Chemistry major from New Richmond, Wis., shares a discovery with Denise Lengyel, a lecturer with the Science and Mathematics department.

## 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
2013	1,529

## 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	1,269	Target Surpassed

**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.** On the next page 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.



## Performance Indicators (continued)

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
2013	551	718	1,269

As seen from the above table, NTID has experienced a small decrease in the undergraduate enrollment of students who are deaf and hard of hearing from 1,281 students during the 2011-2012 academic year to 1,269 students in the 2012-2013 (FY 2013) academic year. This small decrease is the summation of a sizable increase in the number of undergraduate baccalaureate students, and a sizable decrease in the number of undergraduate sub-baccalaureate students. This enrollment change is consistent with *Strategic Decisions 2020*.

### 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	167	Target Surpassed

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

## Performance Indicators (continued)

### Frequency of Data Collection. Annual

**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 167 students in FY 2013. 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	93	Target Not Met

**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.

## Performance Indicators (continued)

**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 to 50 by the end of the decade. In FY 2013, NTID had a total of 56 students in the MSSE program and 37 deaf and hard-of-hearing students in other RIT graduate programs, for a total of 93 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 2012 data will be reported in April 2013.

#### 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	69.8	Made Progress From Prior Year
2012	70	(April 2013)	Pending

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

#### Frequency of Data Collection. Annual

**Data Quality.** In April 2012, NTID reported to the Department the FY 2011 persistence rate of its sub-baccalaureate students, including interpreter education students, who returned from the 2010-2011 academic year to their second year in the 2011-2012 academic year. NTID will report to the Department the FY 2012 persistence rate in April 2013, 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 69.8 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

## Performance Indicators (continued)

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 website: [www.act.org/research/policymakers/pdf/retain\\_2006.pdf](http://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	88.2	Target Surpassed
2012	85	(April 2013)	Pending

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

**Data Quality.** In April 2012, NTID reported to the Department the FY 2011 persistence rate of its baccalaureate students, including interpreter students, who returned from the 2010-2011 academic year to their second year in the 2011-2012 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 persistence rates were submitted to the Department by NTID:

	<u>All students</u>	<u>Deaf students</u>	<u>ASL-English Interpretation students</u>
<b>FY 2008</b>	85.9%	85.7%	87.5%
<b>FY 2009</b>	88.0%	87.7%	89.5%
<b>FY 2010</b>	93.5%	92.5%	95.8%
<b>FY 2011</b>	88.2%	89.8%	84.2%

NTID will report to the Department the FY 2012 persistence rate of its baccalaureate students in April 2013, with a sub-set of disaggregated data on the persistence rates of baccalaureate students who are deaf and interpreter education students.

## Performance Indicators (continued)

**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 website: [www.act.org/research/policymakers/pdf/retain\\_2006.pdf](http://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	33.7	Target Surpassed
2011	26	46.0	Target Surpassed
2012	27	(April 2013)	Pending

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

**Frequency of Data Collection.** Annual

**Data Quality.** In April 2012, NTID reported to the Department the FY 2011 percentage of its sub-baccalaureate students (those who were initially enrolled in the 2005-2006 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. In April 2012, NTID also updated the graduation rate that was reported in April 2011 for FY 2010 as 33.5 percent to 33.7 percent as more students graduated within 150 percent of the program-based length of time.

The following graduation rates were submitted to the Department by NTID:

	<u>All students</u>	<u>Deaf students</u>	<u>ASL-English Interpretation students</u>
<b>FY 2008</b>	26.9%	29.3%	0.0%
<b>FY 2009</b>	37.4%	37.8%	33.3%
<b>FY 2010</b>	33.5%	29.6%	73.3%
<b>FY 2011</b>	46.0%	41.3%	81.0%

## Performance Indicators (continued)

(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 2012 graduation rate of its sub-baccalaureate students in April 2013, 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.

**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	55.6	Target Not Met
2011	60	65.9	Target Surpassed
2012	61	(April 2013)	Pending

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

**Data Quality.** In April 2012, NTID reported to the Department the FY 2011 percentage of its baccalaureate students (those who were initially enrolled in the 2005-2006 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. In April 2012, NTID also updated the graduation rate that was reported in April 2011 for FY 2010 as 53.3 percent to 55.6 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, Fall 2004 or Fall 2005.)

## Performance Indicators (continued)

---

---

NTID will report to the Department the FY 2012 graduation rate of its baccalaureate students in April 2013, 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.

### 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.

NTID reports the employment rate for deaf and hard-of-hearing, sub-baccalaureate and baccalaureate graduates one year after graduation, based on availability of valid data. In 2011, a total of 231 deaf and hard-of-hearing students graduated from NTID. Valid data existed on 212 graduates. Of the 212 graduates, 95 students were employed (45 percent), 93 students were in higher education or training (44 percent), and 24 students were not employed or in higher education or training (11 percent). Of the 24 students not employed or in higher education or training, nine were actively looking for work. The table below details each graduate's post-school status.

Category of Graduate	Count
Employed	95
Unemployed (Seeking Employment)	9
Not Seeking Employment	15
Education (Within RIT)	74
Education (Outside RIT)	19
Unknown	19
Total	231

## Performance Indicators (continued)

**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	45	Made Progress From Prior Year
2012	57	(October 2013)	Pending

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

**Frequency of Data Collection.** Annual

**Target Context.** The average employment rate of 2005, 2006 and 2007 graduates who were employed full-time within one year after graduation is 57 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 2012 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
2011	91

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.



## Performance Indicators (continued)

**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	44	Target Surpassed
2012	35	(October 2013)	Pending

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

**Frequency of Data Collection.** Annual

**Target Context.** The average participation rate of 2005, 2006 and 2007 graduates who were in advanced education or training full-time within one year after graduation is 35 percent. In FY 2010, the Department proposed that the target for this measure be equal to this average. NTID will report the participation rate of its 2012 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	11	Made Progress From Prior Year
2012	8	(October 2013)	Pending

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

## Performance Indicators (continued)

### 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 2012 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.

### 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	172,000	Target Surpassed
2013	205,657	(December 2013)	Pending

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

### Frequency of Data Collection. Annual

**Data Quality.** The FY 2012 data on the federal cost per graduate, as reported by NTID, is an average of the cost per graduate from FY 2007 to FY 2012. 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.

## Performance Indicators (continued)

**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.

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

Fiscal Year	Target	Cost (or date expected)	Status
2003		273,400	Measure Not In Place
2004		239,400	Measure Not In Place
2005		246,100	Measure Not In Place
2006		214,300	Measure Not In Place
2007	Set a Baseline	250,300	Target Not In Place
2008	Maintain a Baseline	226,700	Target Not In Place
2009	Maintain a Baseline	236,400	Target Not In Place
2010	236,675	223,900	Target Surpassed
2011	241,882	246,400	Target Not Met
2012	247,203	206,100	Target Surpassed
2013	247,203	(December 2013)	Pending

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

**Frequency of Data Collection.** Annual

**Data Quality.** The FY 2012 data on the total educational cost per graduate, as reported by NTID, is an average of the cost per graduate from FY 2007 to FY 2012. 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.



**John Sweeney, assistant professor of Information and Computing Studies, tutors Information Technology major, Joseph McBeth, of Rancho Cucamonga, Calif.**

## **Strategic Decisions 2020**

FY 2012 marked the second 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 NTID's 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 NTID's 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 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. Further details and updates are available at [www.ntid.rit.edu/president/sd2020](http://www.ntid.rit.edu/president/sd2020).

A current and ongoing 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 includes DeafTEC, a program led by three NTID faculty members (Donna Lange, Dr. 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 of administrators, faculty and staff from throughout NTID 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 previous 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 already is proceeding with the first part of this recommendation (the brand identity study).

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

---

---

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 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 for effectiveness and efficiency, and developing and implementing new ways to ensure that students arrive at NTID better prepared to enter degree programs and persist to graduation;
- Developing new academic programs that correlate with student interest and emerging technological fields; and
- Continuing a commitment to and support of Black or African American, Hispanic of any race and American Indian or Alaska Native students.

These strategies and others are designed to result in increasing numbers of NTID students achieving baccalaureate degrees and higher, while maintaining focus and commitment to quality associate-level degree programs that lead directly to the workplace. One example of implementing these strategies is a Baccalaureate Support Review Committee that has been established to review the support model that NTID uses to maximize the academic success and preparation of the increasing percentage of deaf and hard-of-hearing students who are registered in one of the other colleges of RIT. In addition, NTID has initiated discussions regarding a review and update of both the NTID Career-Focused Program portfolio and expanding offerings for 2+2 and 2+3 transfer programs with the other colleges of RIT.

### **Innovation, Scholarship and Research**

Chaired by Dr. Laurie Brewer, this committee was 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. The Research Department was disbanded after the 2011-12 academic year, and its faculty were 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. NTID established the Strategic Research Coordinating Committee, chaired by Dr. Gary Long, to manage this transition.

After a call for proposals was issued in June 2011 to establish Strategic Research Centers (SRCs) in NTID's strategic areas of research, two new Strategic Research Centers have initially been established:

- The Center on Teaching and Learning, directed by Dr. Susan Foster, Dr. Sara Schley and Dr. Chris Kurz; and
- The Center on Employment, Adaptability to Social Change and the Global Workplace, directed by Dr. Ron Kelly.

In addition, the NTID Collaboratory for Economic, Demographic and Policy Studies, chaired by Bernard Hurwitz, was established to focus on describing the employment and economic conditions of the deaf and hard-of-hearing population of the United States, with emphasis on the impact education has on improving these conditions.

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.

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

---

---

Space for these new initiatives will be provided in part by the new Sebastian and 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. Construction continues apace on Rosica Hall, which will 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 now are being implemented in the form of the New Signers Program (NSP) and Access Services Advisory Boards.

The New Signers Program is an optional one-week, one-credit pre-orientation program offered to newly-accepted deaf and hard-of-hearing students who have little or no prior skills in American Sign Language. It is designed to help enrollees learn basic sign skills before the start of SVP, so they can communicate more effectively with RIT/NTID students, faculty and staff members who use sign language. In addition to sign language instruction, students also receive an introduction to Deaf culture and awareness. NSP, administered by Lisa DeWindt-Sommer and Dr. Kim Kurz, enrolled its first class of 17 students in fall 2012. Here, NSP participants Elissa Patrick, an Applied Liberal Arts major from Jamesport, N.Y., and Brianna Nartowt, a Business major from Sutton, Mass., practice conversing in ASL.



Two Access Services Advisory Boards have been established: one for students, and another for faculty, staff and alumni. These boards are charged with advising the Department of Access Services on optimizing the availability and quality of interpreting, real-time captioning, notetaking and other access services available throughout the Institute.

Three more *SD 2020* committees carried out their charges during the 2011-12 academic year: Services to Underprepared Students; 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, was 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 NTID's current workforce is eligible for retirement, which

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

---

---

means that immediate steps must be taken to assure a smooth transition to the well-trained and productive leaders of the NTID of the future.

The committee addressed five areas of professional development: (1) communication skills; (2) teaching effectiveness; (3) scholarship and research; (4) discipline-based content expertise; and (5) leadership. The committee developed 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. These recommendations are in the process of being implemented.

### **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, reviewed sign language communication expectations, requirements and incentives for faculty and staff, and recommended modifications where necessary. The committee also evaluated and made recommendations regarding the effectiveness of the Sign Language Proficiency Interview (SLPI) as NTID's main sign communication assessment tool. These recommendations, after evaluation by the NTID Administrative Council, will be implemented as part of NTID's ongoing professional development efforts.

### **Services to Underprepared Students Committee**

This committee, co-chaired by Mary Lou Basile and Keith Mousley, was charged with developing ways to work with regional partners to implement intensive summer academic preparation programs in selected high-growth, ethnically diverse areas of the country. The goal of these programs would be to expand efforts to serve students who are academically unprepared, by identifying those students demonstrating promise for success in NTID career-focused programs and beyond, and by providing consultation to others regarding postsecondary education alternatives. The NTID Administrative Council will evaluate the committee's recommendations and determine how they may best be implemented given current budgetary realities.

### **Other SD2020-Related Initiatives**

#### **NTID Health Care Commission**

The Joint Task Force on Health Care Careers, representing a unique partnership among RIT/NTID, Gallaudet University, the National Center on Deaf Health Research/University of Rochester Medical Center and the Rochester General Health System, completed its work and has produced a Final Report. The Task Force's recommendations are designed to address the historic under-representation of deaf and hard-of-hearing individuals throughout the health care industry, and within health care occupations, the over-representation of deaf and hard-of-hearing individuals in those occupations requiring the least amount of education. The Task Force's recommendations align closely with *SD 2020* goals in terms of new areas of career education and academic outreach, innovative access services and technologies and strategic programs of research and policy development; thus these recommendations play a key role in guiding NTID's future.

An important context for the Task Force's recommendations is the projected job growth in the health care industry by 22 percent through 2018, generating 3.2 million new jobs. Shortages in trained employees to fill these jobs are predicted. But there are significant barriers for deaf and hard-of-hearing individuals entering this industry.



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

---

---

Proposed solutions to these barriers as set forth by the Task Force's recommendations include:

- improvements in health care-related educational programs, with NTID actively exploring a primary leadership role in working with regional and national partners in establishing a Consortium Center of Excellence in Health Care Careers
- employer awareness programs, with NTID's Center on Employment already initiating pilot programs in this area
- widespread use of innovative access technologies along with creative approaches for funding access services, with NTID actively exploring, through its Center on Access Technologies, becoming a national resource in this area
- a comprehensive website for information on programs, resources, internships and success stories, to be launched by NTID
- dissemination of best practices in teaching deaf and hard-of-hearing students in both classroom and clinical settings
- establishment of a national advisory group to support the founding institutions in accomplishing the long- and short-term goals

In addition, as a result of the Task Force and efforts by NTID's Development Office, RIT has its first endowed scholarship in the Allied Health Disciplines: the Joanna Larson Endowed Scholarship for deaf and hard-of-hearing students in the College of Health Sciences and Technology at RIT.

With the completion of the Task Force's Final Report, NTID has established a Health Care Commission, chaired by Rose Marie Toscano, charged with implementing the NTID-specific recommendations of the Task Force and ensuring their alignment with *SD 2020*.

### **Diversity**

Alvin Boyd, a lecturer in the NTID Business Studies Department, was appointed Special Assistant to President Buckley for Diversity and Inclusion. He leads NTID's continuing efforts to recruit and retain new faculty and staff members that represent diverse ethnic and racial identities, and works closely with RIT's Vice President for Diversity and Inclusion, Kevin McDonald, on implementation of NTID-specific programs related to RIT's "Inclusive Excellence" initiative, which reaffirms the university's commitment to growing and sustaining a diverse and inclusive learning, living and working environment. The NTID Diversity Group was also established during the 2011-12 academic year; it is committed to promoting the best possible learning, living and working experience for Black or African American, Hispanic of any race and American Indian or Alaska Native members of the RIT/NTID community.

### **Emerging Leaders Program**

As part of an institutional commitment to growing and developing future administrators, the Emerging Leaders Program, led by Amy Stornello, Denise Wellin, Dr. Chris Kurz and Dr. Scot Atkins, produced its first class of 20 faculty and staff members during the 2011-12 academic year. This program is designed to help prepare NTID employees for leadership roles within the institute, and, with some modifications, is expected to continue in the spring of 2013.

## Admissions and Enrollment

NTID had a record 989 applications for FY 2013 (fall 2012), not including MSSE and ASL-English Interpretation programs.



RIT/NTID students relax in the lounge area dedicated as “Ellie’s Place” in honor of Dr. Eleanor Rosenfield, former NTID associate dean for Student and Academic Services. Dr. Rosenfield worked with NTID students for more than 30 years before she passed away in 2010.

## 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 always is a challenge.

Admissions counselors visited 430 schools during the FY 2012 admissions cycle. Visits this year covered 425 high schools, including 131 in the Midwest, 78 in the Southeast, 68 in the Northeast, 60 in New York State, 84 in the West Coast, and four in Canada. Counselors visited five colleges: three in the West Coast region, one in the Midwest and one in the Northeast. Of the 425 high school visits, 378 were mainstream schools and 47 were schools for the deaf.

The number of new students entering NTID in fall 2012 was 445. The total included 370 deaf and hard-of-hearing freshmen and transfers, 19 first-year deaf and hard-of-hearing graduate students (eight in the Master of Science program in Secondary Education of Students who are Deaf or Hard of Hearing [MSSE] and 11 in other RIT master's programs) and 56 first-year hearing students (45 in the ASL-English Interpretation program, and 11 in the MSSE program).

Overall, NTID's applicants increased by 10 percent from last year's 1,174 to 1,288 applicants for fall 2012 enrollment. Total enrollment was 1,529 compared to 1,547 for last year. The breakdown of the 1,529 students is as follows:

	Deaf and Hard-of-Hearing	Hearing	Total
Undergraduate Programs			
Career Exploration Studies	120	0	120
Career-Focused Associate Programs	400	0	400
Associate+Bachelor's Programs	198	0	198
Baccalaureate (ASL-English Interpretation)	0	167	167
Baccalaureate/Master's Programs in Other RIT Colleges	551	0	551
<b>Subtotal NTID Undergraduate Programs</b>	<b>1,269</b>	<b>167</b>	<b>1,436</b>
Graduate Programs at RIT	37	0	37
MSSE Program	25	31	56
<b>Total Enrolled Students</b>	<b>1,331</b>	<b>198</b>	<b>1,529</b>

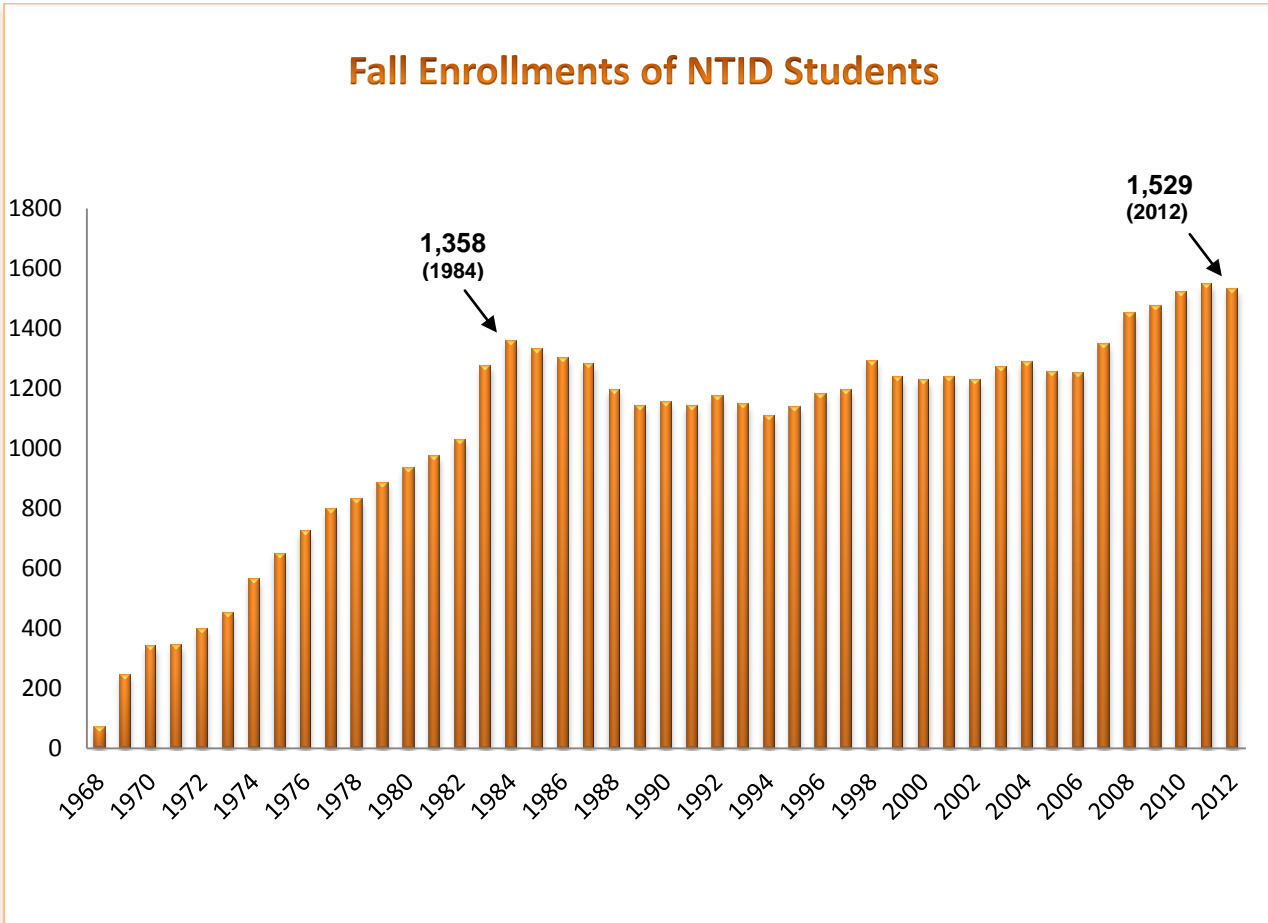
NTID's student population remains strong in both ethnic and geographic diversity. Minority students represent 40 percent of this year's fall 2012 entering class, compared to 34 percent of the total student body. Minority students have represented approximately 32 to 40 percent of the entering student population over the past five years. Additionally, minority students have represented approximately 26 to 34 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 15 percent from the West, 21 percent from the South, 23 percent from the Midwest, and 41 percent from the Northeast.

In addition, NTID enrolled 17 new international students. The total number of international students is 51, or 3.3 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 445 new students and is serving a total of 1,529 students.**

## Admissions and Enrollment Highlights (continued)

NTID's fall 2012 enrollment of 1,529 is one of the highest enrollments in NTID's history. It exceeds the high enrollments from 1983 to 1988 resulting from the rubella epidemic 20 years earlier in which pregnant mothers who contracted rubella gave birth to increased numbers of deaf children.



## Comparative Admissions Data

Applications, excluding the ASL-English Interpretation or MSSE programs, increased significantly from last year.\* The acceptance rate was 50 percent of applications. Registrations were 381, achieving a yield rate of 77 percent.

	Number of New Students				
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
<b>Applicants</b>	895	900	906	902	989
% Increase or Decrease from Previous Year	-1.1%	+0.6%	+0.7%	-0.4%	+9.6%
<b>Accepted Applicants</b>	534	482	477	439	504
% Increase or Decrease from Previous Year	+15.3%	-9.7%	-1.0%	-8.0%	+13.0%
Acceptance Rate (Percent of Total Applicants)	59.7%	53.6%	52.6%	48.7%	50.2%
<b>Registrations</b>	396	341	351	345	381
Yield Rate (Registrations as a Percent of Accepted Applicants)	74.2%	70.7%	73.6%	78.6%	76.8%

\* Overall, NTID's total applications increased by 10 percent from last year's 1,174 to 1,288 applicants for fall 2012 enrollment, as reported on p. 36. 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 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 2012.

	Number of Students*				
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
SVP Students Accepted	397	366	352	323	349
SVP Students Registered at Start of Program	295	265	269	269	269
SVP Students Completing Program	294	259	268	268	268
SVP Students Registered in Academic Programs for Fall Quarter 2012	294	253	263	265	267



*Students can enjoy RIT's new Global Village, a LEED-certified sustainable residential community and commercial complex on campus.*

\* 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.

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

The enrollment reported reflects only 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 (167), or deaf,

hard-of-hearing or hearing students enrolled in the Master of Science program in Secondary Education (56). 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 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%	1,211	-0.16%	-8.47%	1,103	-8.92%	-8.92%	314	-28.96%	269	0.00%
FY 13: Oct. 12-Sep. 13	1,306	-1.28%										

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 2009	FY 2010	FY 2011	FY 2012	Number		
					Percent	Full-Time	Total
Career Exploration	99%	99%	100%	98%	98%	117	120
Career-Focused and Transfer Associate Degrees	98%	97%	97%	98%	97%	550	568
Pre-Baccalaureate	97%	100%	100%	100%	100%	30	30
Cross-Registered Baccalaureate and Graduate	91%	93%	93%	93%	93%	549	588
ASL-English Interpretation	91%	93%	97%	94%	97%	162	167
Master of Science in Secondary Education (MSSE)*	73%	75%	80%	84%	82%	46	56
<b>Overall</b>	<b>94%**</b>	<b>94%***</b>	<b>95%****</b>	<b>95%*****</b>	<b>95%</b>	<b>1,454</b>	<b>1,529</b>

\* 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 people.

\*\* 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 91 and, of those, 20 were accepted and 15 registered. Canadian students always have 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 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 NTID obtains additional private scholarship funds, enrollment of international students will continue to be a challenge.

Applicant Continent of Origin	Number of Students*				
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Africa	9	20	12	7	24
Asia	10	12	10	6	16
Europe	2	8	8	5	4
North America	32	29	31	40	45
South America	0	0	2	1	2
<b>Total Applicants</b>	<b>53</b>	<b>69</b>	<b>63</b>	<b>59</b>	<b>91</b>
<b>Accepted Applicants</b>	<b>15</b>	<b>13</b>	<b>14</b>	<b>7</b>	<b>20</b>
Acceptance Rate (Percent of Total Applicants)	28%	19%	22%	12%	22%
<b>New Registrations</b>	<b>7</b>	<b>12</b>	<b>9</b>	<b>7</b>	<b>15</b>
Yield Rate (New Registrations as a Percent of Accepted Applicants)	47%	92%	64%	100%	75%
<b>Returning International Students</b>	<b>31</b>	<b>30</b>	<b>31</b>	<b>34</b>	<b>33</b>
<b>Total Enrollment (Returning International Students plus New Registrations)</b>	<b>38</b>	<b>42</b>	<b>40</b>	<b>41</b>	<b>48</b>

\* 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.

## 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 who are attending college for the first time.\*

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
<b>Characteristics of Entering Students</b>					
Gender					
Male	51%	60%	54%	64%	55%
Female	49%	40%	46%	36%	45%
Mean Age at Entry					
	21	21	21	21	20
Parents' Hearing Status					
Both Hearing	92%	85%	86%	83%	90%
Both Deaf	4%	9%	8%	10%	5%
One Hearing/One Deaf	4%	6%	6%	7%	5%
<b>Origin of Entering Students</b>					
United States by Region: 100% of U.S. students distributed across four regions					
West	11%	9%	14%	13%	15%
Midwest	23%	26%	25%	28%	23%
South	22%	22%	22%	20%	21%
Northeast	44%	43%	39%	39%	41%
<b>Distribution of United States and International Students</b>					
United States	97%	96%	96%	98%	96%
International	3%	4%	3%	2%	4%
<b>School Background of Entering Students</b>					
First Time in College	71%	72%	72%	81%	80%
Transfer from Other Colleges	17%	16%	20%	12%	13%
Previously Enrolled at RIT	5%	8%	5%	5%	4%
Graduate Students	7%	4%	3%	2%	3%

\* 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 2013*		
	International	U.S.	Overall
<b>Demographics</b>			
Gender			
Male	71%	55%	56%
Female	29%	45%	44%
<b>Entry Age, All Students</b>			
	25	23	23
<b>Entry Scores</b>			
Hearing Level (Pure Tone Average)	98.9 dB	94.1 dB	94.3 dB
ACT Composite Score	17.6	18.4	18.4
<b>Program Area</b>			
Career Exploration	13%	9%	9%
Career-Focused Associate Degrees	27%	31%	31%
Transfer Associate Degrees	13%	15%	15%
Other Colleges of RIT Baccalaureate/Master's	47%	45%	45%
<b>FY 2012 Status of Students Enrolled FY 2011</b>			
Still Registered	78%	71%	71%
Withdrawn	5%	15%	15%
Graduated	17%	14%	14%

\* 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.

## 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 2011.

American College Test (ACT)*	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
ACT English	15.6	15.3	14.5	15.1	15.8
ACT Reading	18.4	18.1	17.0	18.1	18.5
ACT Mathematics	18.1	18.3	17.5	18.3	18.6
ACT Science Reasoning	19.1	19.4	18.7	19.7	19.7
ACT Composite	18.2	17.9	17.2	18.0	18.6



*Lauren Aggen, right, an Applied Arts and Sciences major from Algonquin, Ill., meets with Michael Sarnowski, a visiting assistant professor in RIT's English department.*

\* 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 24.9, and represent 25.7 percent of NTID's entering class of 2012. The average ACT composite score for students entering transfer associate programs is 19.3, and represents 19.7 percent of NTID's entering class. The average ACT composite score for students entering career-exploration programs is 15.0, and represents 20.8 percent of NTID's entering class. Lastly, the average ACT composite score for students entering

career-focused associate programs is 16.1, and represents 33.8 percent of NTID's entering class. The average ACT composite score of 18.6 for all entering students is in the range achieved by students entering four-year schools with open admissions standards and many community colleges. By any measure, the majority of these students would not be admissible to the other colleges of RIT, yet many deaf and hard-of-hearing students graduating from baccalaureate/master's programs throughout RIT came through NTID first, which means they graduated in spite of the fact that their entering ACT scores were in the 15-19 range.

<b>Degree Level</b>	<b>Percentage of Deaf and Hard-of-Hearing Students by Degree Level</b>	<b>ACT Composite Mean</b>
Bachelor's in Other RIT Colleges	25.7%	24.9
<b>NTID</b>		
Career-Focused Associate Programs	33.8%	16.1
Transfer Associate Programs	19.7%	19.3
Career Exploration	20.8%	15.0
<b>Total*</b>	<b>100%</b>	
<b>Average Score of All Entering Students*</b>		<b>18.6</b>

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

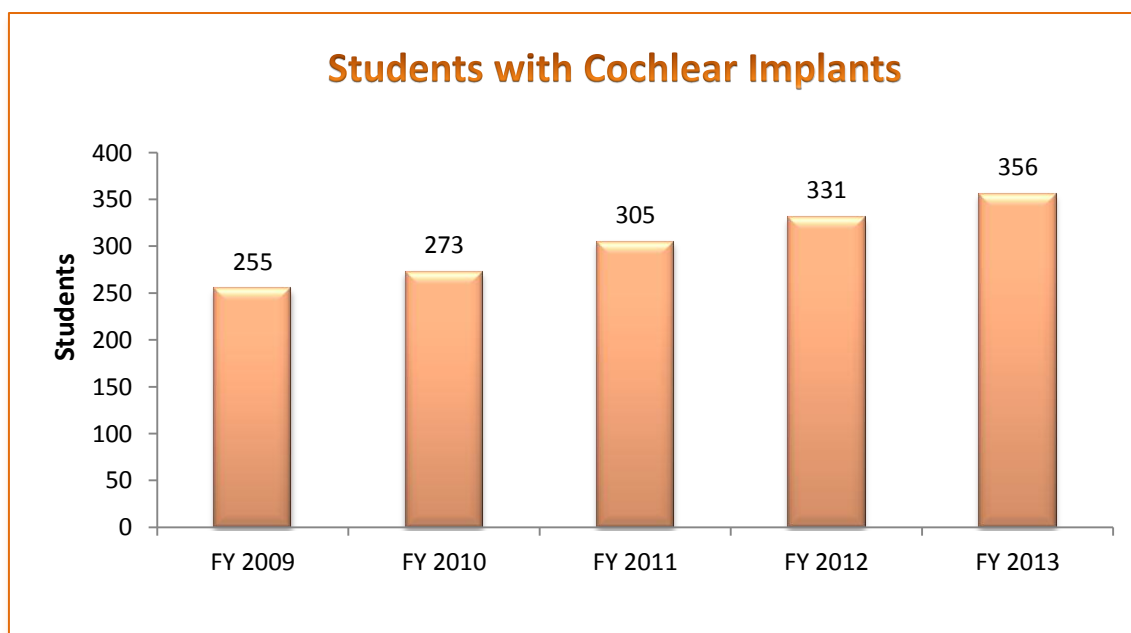
## Hearing Assessment and Cochlear Implant Information

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 93.6 dB.

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

The number of students with cochlear implants has increased to 356 in fall 2012.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total Number of Deaf Students*	1,284	1,307	1,332	1,354	1,331
Students with Cochlear Implants	255	273	305	331	356
Percent with Cochlear Implants	19.9%	20.8%	22.9%	24.4%	26.7%
Average Hearing Level in Best Ear of All Deaf Students	93.2 dB	93.2 dB	93.0 dB	93.5 dB	94.9 dB



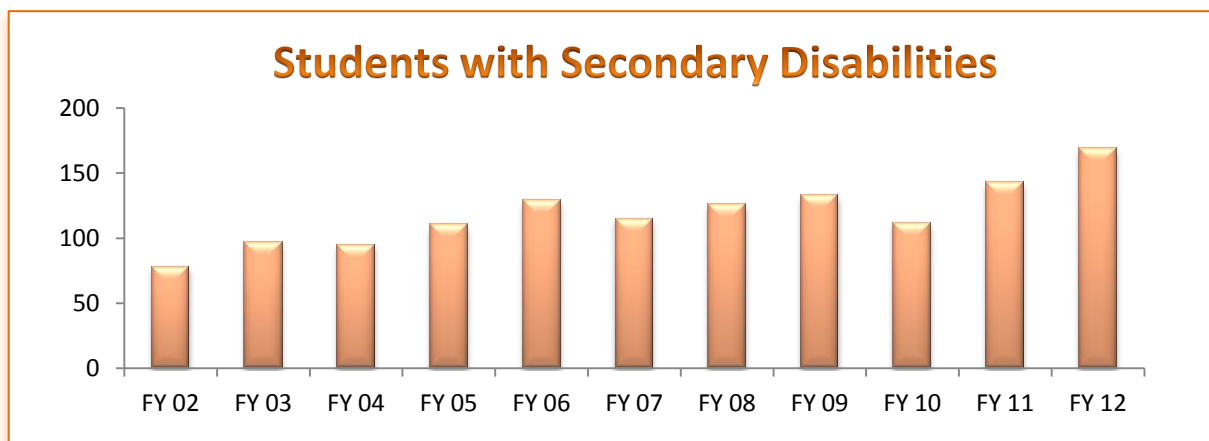
\* This figure includes all deaf and hard-of-hearing students, undergraduate and graduate.

## Students with Secondary Disabilities

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

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

Number and Percent of Students Receiving Secondary Disability Services			
Fiscal Year	Total Deaf Students*	Students with Secondary Disabilities	Percent
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%
2012	1,281	169	13%



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

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

## Origin of Students and Graduates

NTID students enrolled as of fall 2012 come from 49 states. A total of 16 countries are represented among current international students.

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

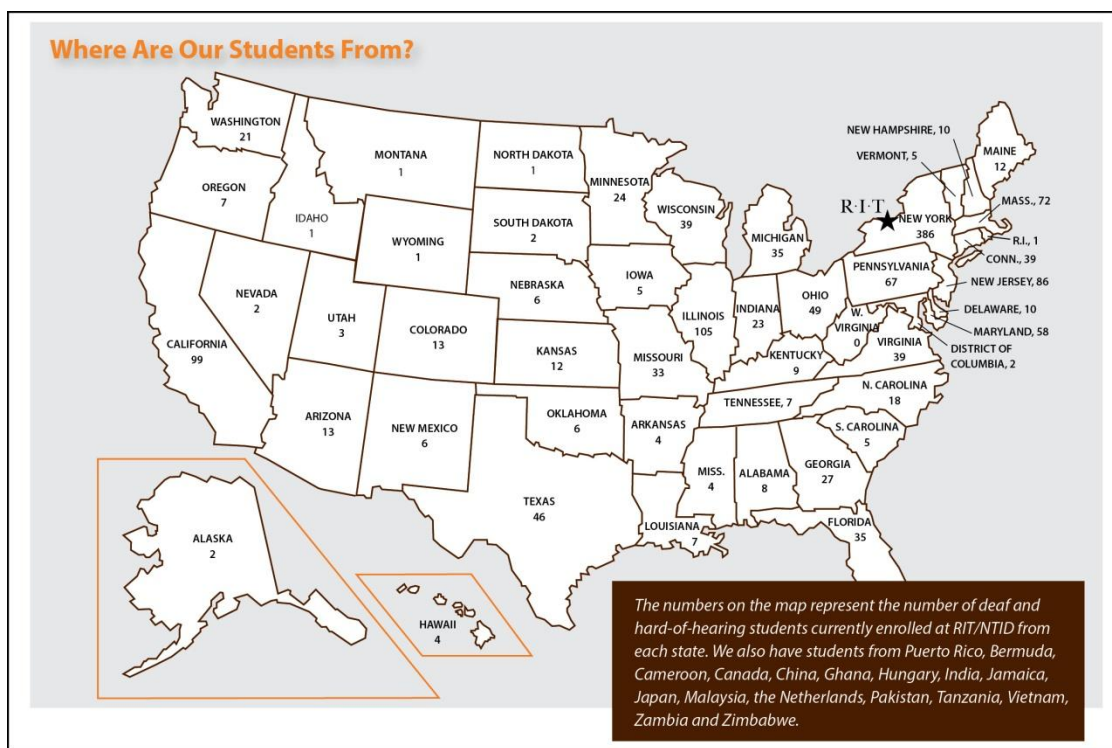
Home State or U.S. Territory (Domestic Students)	Number in Student Body FY 2013	Graduates to Date as of Fall 2012	Cumulative Students to Date*
Alabama	8	31	63
Alaska	2	11	23
Arizona	13	29	97
Arkansas	4	30	69
California	99	349	803
Colorado	13	58	118
Connecticut	39	193	379
Delaware	10	30	70
District of Columbia	2	15	36
Florida	35	176	437
Georgia	27	69	173
Guam	0	0	2
Hawaii	4	26	42
Idaho	1	3	16
Illinois	105	419	910
Indiana	23	100	250
Iowa	5	58	110
Kansas	12	43	102
Kentucky	9	43	126
Louisiana	7	53	104
Maine	12	49	113
Maryland	58	165	424
Massachusetts	72	333	676
Michigan	35	276	573
Minnesota	24	97	198
Mississippi	4	5	24
Missouri	33	151	319
Montana	1	7	17
Nebraska	6	36	72
Nevada	2	7	21
New Hampshire	10	52	98
New Jersey	86	359	694
New Mexico	6	25	72
New York	386	1,954	4,009
North Carolina	18	61	144
North Dakota	1	19	36

\* Includes current and withdrawn students and graduates.



## Origin of Students and Graduates (continued)

Home State or U.S. Territory (Domestic Students)	Number in Student Body FY 2013	Graduates to Date as of Fall 2012	Cumulative Students to Date*
Ohio	49	383	720
Oklahoma	6	15	44
Oregon	7	53	103
Pennsylvania	67	559	1,107
Puerto Rico	1	8	19
Rhode Island	1	40	78
South Carolina	5	22	49
South Dakota	2	11	22
Tennessee	7	48	97
Texas	46	173	445
Utah	3	11	27
Vermont	5	38	86
Virgin Islands	0	1	4
Virginia	39	130	305
Washington	21	69	166
West Virginia	0	31	64
Wisconsin	39	104	240
Wyoming	1	4	7
Other**	3	12	154
<b>Subtotal</b>	<b>1,474</b>	<b>7,045</b>	<b>15,171</b>



\* Includes current and withdrawn students and graduates.

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

## Origin of Students and Graduates (continued)

Country (International Students)	Number in Student Body FY 2013	Graduates to Date as of Fall 2012	Cumulative Students to Date*
Australia	0	1	1
Bahamas	0	1	1
Bangladesh	0	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	24	167	300
Chad	0	0	1
China	2	3	8
Colombia	0	1	1
Czech Republic	0	1	1
Dominican Republic	0	0	1
Ecuador	0	0	1
Estonia	0	1	2
Ghana	1	5	7
Greece	0	1	2
Honduras	0	1	1
Hong Kong	0	0	1
Hungary	1	1	1
India	3	20	27
Ireland	0	1	2
Jamaica	3	0	6
Japan	1	4	6
Kenya	0	0	1
Korea	0	0	2
Lebanon	0	0	1
Malaysia	2	2	4
Mexico	0	1	3
Nepal	0	1	2
The Netherlands**	4	0	4
Nigeria	0	1	4
Norway	0	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

\* Includes current and withdrawn students and graduates.

\*\* Students from the Netherlands are missing international visa status.

## Origin of Students and Graduates (continued)

Country (International Students)	Number in Student Body FY 2013	Graduates to Date as of Fall 2012	Cumulative Students to Date*
South Africa	0	1	1
Switzerland	0	1	1
Taiwan	0	5	6
Tanzania	2	1	6
Thailand	0	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
Vietnam	1	0	1
Zambia	1	0	2
Zimbabwe	1	1	2
Other	6	3	7
<b>Subtotal</b>	<b>55</b>	<b>251</b>	<b>460</b>
<b>Total</b>	<b>1,529</b>	<b>7,296</b>	<b>15,631</b>

As of fall 2012, NTID has 51 international students enrolled based on visa status.

	Number	Percent
U.S. Students	1,478	96.7%
International Students	51	3.3%
<b>Total</b>	<b>1,529</b>	<b>100.0%</b>

\* Includes current and withdrawn students and graduates.

## Academic Programs

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



Annemarie Ross (second from left), assistant professor in Laboratory Science Technology, instructs students Jessica Oldfather, of Savage, Minn.; William Carlisle, of Locust Grove, Ga.; and Noel Mertes, of Colwich, Kan., in the lab. Professor Ross is an NTID alumna who received the Stanley C. Israel Award for Advancing Diversity in the Chemical Sciences from the American Chemical Society.

## Academic Program Highlights

---

---

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

Four college-wide *SD 2020* initiatives were set in place: 1) Flexibility in the Use of the Direct Instruction Model, 2) a New Innovation, Scholarship and Research Model; 3) discussion of Enrollment Targets for 2020; and 4) Coordinating NTID Institutional Research.

*SD 2020* called 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. Since its opening in January 2011 in RIT's Student Alumni Union in the middle of campus, the new center has hosted a wide variety of events ranging from weekly ASL classes to regular community meetings and special Rochester-area group gatherings.

This fiscal year, using completed the course mask revisions for all academic programs for conversion to semesters in fall 2013, faculty and counselors worked closely to develop Individual Advisement Plans for those students who began their RIT careers during the quarter system and will complete their degrees under the semester system. These IAPs outline the specific courses students must take to stay on track for graduation on schedule.

### Career-Focused Associate Degrees

NTID offers career-focused degrees in the areas of Arts & Imaging, Business, Computing, Engineering Technologies and Laboratory 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 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 2012-2013), there were 520 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 AY 2011-12, the Arts & Imaging Studies (AIS) department finalized the modified program for semester conversion including the newly approved general studies component. All proposal and course documents were amended, as needed. AIS faculty have begun the development of course content updates and modifications for the semester replacement and semester equivalent courses. This process will be completed by faculty teams in AY 2012-13. The Individual Advising Plans in preparation for conversion to semester were developed for students in the program prior to 2011-12. The development of a Game Graphics and Development associate degree program in collaboration with the NTID Information and Computing Studies department was begun and will continue in AY 2012-13.

The Business Studies department continues to enjoy steady enrollments in the AOS and AAS programs. This year a record number of students graduated from these programs.

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 was officially discontinued at the summer 2012 quarter, based on institute program review. 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

## Academic Program Highlights (continued)

---

---

potential program niches, and considered expanding the existing programs. During the FY 2012 Summer Vestibule Program, 10 students were interested in DES engineering-related studies, but were rejected for the program because they did not meet the entry requirements in Math and English. These students were accepted into the NETG – CORE, the pilot program's fourth 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 as a "school-within-a-school." More than half of these students eventually matriculated into Engineering Studies.

During the 2011-2012 academic year, the Department of Liberal Studies (DLS) completed its semester conversion efforts. DLS also worked closely with RIT's University Writing Program and RIT's College of Liberal Arts to develop NTID sections of the new baccalaureate level first year and writing intensive semester courses.

### 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 now are seven of these programs, 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 RIT's other colleges and subsequent graduation at the bachelor level.

At the beginning of the 2012-2013 academic year, 198 students were enrolled in these and pre-baccalaureate programs. This number is slated to continue to increase as the number of such programs is expanded and marketed as precursors to RIT baccalaureate programs. *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).

NTID's AS in Applied Liberal Arts remains the largest associate+bachelor's degree program with more than 50 students. The program prepares students for entry into any of 12 baccalaureate majors in RIT's College of Liberal Arts (COLA). Several of the members of the first graduating class are entering their junior and senior years in their baccalaureate studies. DLS has worked closely with the COLA to develop an articulation agreement for the semester courses. With the assistance of the NTID Counseling Department, DLS has prepared an Individual Academic Plan (IAP) to map out the required quarter and semester courses for each current AS student.

In the Business Studies department, the AS associate+bachelor's degree program continues to successfully graduate students who are accepted into RIT's 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 in RIT's College of Applied Science and Technology. Current department numbers show 58 percent of students in AS and BS degrees and 42 percent in AOS/AAS degrees.

### 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 2012-2013, 551 students (41 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<sup>®</sup> services are offered through NTID's Department of Access Services.

## Academic Program Highlights (continued)

---

---

### ***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 2012-2013 the enrollment percentages for deaf and hard-of-hearing undergraduates were 41 percent career-focused, 16 percent transfer associate degree and 43 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 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 change the academic calendar to a semester system by Fall of 2013 necessitated a second year of curriculum activity focused on general education courses, the creation of templates for Individual Advisement Plan templates and the initial phases of implementing a new Student Information System. While all of the semester academic program and associated course outlines were developed during AY 2010-2011, the majority of the general education (liberal arts and sciences) courses were developed this academic year. These courses fulfill graduation requirements in foundation and perspective categories. Each discipline took the conversion opportunity to create curriculum maps.

New and converted general education courses include:

- English: 10 courses with entry requirements based on reading and writing placement scores; courses build upon each other and are sequenced to develop English literacy skills necessary for AOS degree requirements, then prepare students for coursework in RIT's College of Liberal Arts which is necessary for AAS, AS and BS degrees;
- American Sign Language: four courses for the ASL/Deaf Cultural Studies foundation/elective categories;
- Mathematics: 13 courses, most of which satisfy the AOS foundation category and/or an AAS or AS elective. Several courses serve NTID majors while others, including a set of accelerated algebra courses prepare students for success in specific RIT College of Science mathematics courses;
- Science: 13 courses for the AOS Scientific Principles perspective and/or the AAS
- Communication Studies: eight courses which satisfy the Communication, Social and Global Awareness perspective category, including a course designed for students placed in the initial English courses;
- Humanities/Social Sciences: 27 courses approved during AY 2010-11, most of which satisfy the Communication, Social and Global Awareness perspective or the Creative, Innovative Exploration perspective. Several courses are preparatory in nature while others serve baccalaureate and associate degree students.

Students who entered NTID during AY 2010-11 or earlier and will graduate prior to the start of semesters in AY 2013-14 will follow quarter program requirements, but will take some courses in semesters. For those students, the President of RIT has pledged that semesters will add no additional time to graduation and that students will not be harmed financially. In order to assure that this pledge can be met, each student must see an academic advisor for an Individual Advisement Plan (IAP) meeting to lay out the necessary coursework for degree completion. To prepare for these meetings, the academic program and general education chairpersons, the chairperson of Academic Advising and Counseling, and the associate dean for Curriculum and Special Projects collaborated to design IAP templates. These detail the semester courses that can be taken to satisfy quarter requirements and the sequence of quarter and semester courses which will most expeditiously lead to graduation. Target dates were established for

## Academic Program Highlights (continued)

---

---

completion of IAPs with students who entered at various times to NTID degree programs. During AY 2011-12, approximately 60 percent of students who began associate degree programs prior to Fall 2011 and who will require coursework in semesters completed their IAPs. The remaining students, as well as all baccalaureate students, will complete IAPs during AY 2012-13.

In concert with the calendar conversion to semesters, RIT embarked upon an initiative to replace its legacy student information system (SIS) with an enterprise system that will support RIT's current and future needs. While the new SIS promised greater service, flexibility and capacity it necessitates changing numerous forms, procedures, terminology and nomenclature. The four digit course prefixes will be four letters intuitively aligned to the subject area (e.g. English courses 0803-xxx will be NENG-xxx) and the four letter program codes are being replaced by abbreviated program plan names with degree designations (e.g. Applied Liberal Arts changes from NALA to APPLA-AS). During AY 2011-12 the new academic structure, course catalog and schedule, and student records and financials were launched. Training was conducted for faculty, staff and students on how to navigate through the new system. Beginning in April 2012 students enrolled in Fall classes in the new SIS.

### Outcomes Assessment

During AY 2011-2012 NTID conducted student learning outcomes assessment (OA) in all academic programs as well as several general education and academic support areas. In addition, academic degree programs also completed RIT Progress Reports based on AY 2010-2011 results.

The second annual RIT Progress Report, completed in April 2012, 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 2010-2011 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, with 17/17 programs completing the report, compared to 88 percent of programs the previous year. Moreover, NTID was one of only two RIT colleges that also reported data throughout the assessment cycle:

- 100 percent assessed outcomes in AY 2010-2011
- 100 percent met or exceeded established benchmarks for the two cited outcomes
- 100 percent indicated use of assessment results to make program improvements.

Beginning in June 2012, data and use of results were reported for the AY 2011-2012 Outcomes Assessment Plans. NTID OA plans identify critical student learning and programmatic outcomes, performance benchmarks, assessment instruments and timelines. Specific data and use of results are posted annually online at [www.ntid.rit.edu/president/soa/pages/plan.html](http://www.ntid.rit.edu/president/soa/pages/plan.html) in each program's Outcomes Assessment Plan/Report.

Highlights from OA Reports illustrate how outcomes assessment data impacts decision-making regarding program delivery, curriculum and provision of services at NTID.

### Arts & Imaging Studies Department

- Arts & Imaging Studies: Most criteria met or exceeded; faculty plan to initiate a detailed catalog of student projects completed in Production Workshop, which will enable the program to better track overall outcome success.

### ASL and Interpreting Education Department (ASLIE)

- ASL-English Interpretation: Benchmarks met or exceeded for all but one outcome; marked improvement from last year on mentor ratings of students in Practicum and Seminar I; Alumni Survey showed high levels of student satisfaction with the interpreting program; 44 percent of responding alumni were certified within one year of graduation.



## Academic Program Highlights (continued)

---

---

### Business Studies Department

- Accounting Technology: Co-op supervisor evaluation of students' overall performance was excellent; criteria wasn't met for students passing the exam designed to assess accounting cycle outcomes; in response, faculty have developed a new exam for AY 2012-13 that is more balanced in terms of assessing both general business and accounting;
- Administrative Support Technology: Met or exceeded all technical outcomes, including achievement levels for e-Portfolio business communications performance;
- Business AS: Criteria exceeded for all outcomes including assessment of five core business areas through a capstone project;
- Hospitality & Service Management (AS): Small, relatively new program; criterion achieved or approached for all outcomes; faculty will determine which courses students are having difficulty in and make adjustments to tutoring support if they continue to be problematic.

### Communication Studies and Services Department

- Communication Outcomes: Assessed in conjunction with ASLIE; criterion nearly met for face-to-face communication during co-op and exceeded for communication via email and making formal presentations;
- Speech-Language, Aural Rehabilitation and Audiology Services: Criteria met or exceeded for student satisfaction, self-perceived benefit, progress toward goals and pre-post tests; considerable improvement noted in aural rehabilitation assessments compared to previous years.

### Cultural and Creative Studies Department

- Critical Thinking Outcomes: 100 percent of AOS students and 95 percent of AAS students achieved the expected score on the critical thinking rubric applied to Capstone Seminar course projects; the course will be discontinued in semesters and capstone experiences will be incorporated into academic program requirements.

### Engineering Studies Department

- Applied Mechanical Technology: Students continued to perform well on most measures but struggled in one course taken in RIT's College of Applied Science and Technology (CAST); faculty are exploring the possibility of teaching that course at NTID in semesters; the first student who enrolled in CAST directly from this program is on track to graduate during AY 2012-13;
- Automation Technologies: Students met expectations; the program is scheduled for discontinuance so no new students were admitted during AY 2010-11;
- Computer Aided Drafting Technology: Students met or exceeded criterion for all technical and job skills outcomes, with the exception of three technical competencies related to 3-D modeling; faculty are reviewing skill sets to determine what needs modification;
- Computer Integrated Machining Technology: Criteria met for CNC and machining skills and exceeded for skills assessed by co-op supervisors.

### Information and Computing Studies Department

- Applied Computer Technology AS: criterion met or exceeded for entry into baccalaureate programs after completion of the AS degree as well as for retention and graduation rates;
- Applied Computer Technology AOS/AAS: Results were mixed for assessment of general and concentration-specific technical skills for PC Tech Support, Networking and Web Development and Database; criterion was not met for some skills, such as *managing and maintain an operating system*, while marked improvement was shown for technical support outcomes as a result of curricular changes made during AY 2011-12.

## Academic Program Highlights (continued)

---

---

### Liberal Studies Department

- Applied Liberal Arts (AS): Criteria met or exceeded for all outcomes, indicating that students are successfully completing the targeted courses and making progress toward graduation; this relatively new program is on track to match retention rates of other AS programs in the baccalaureate programs students enter.
- English Literacy Outcomes for the Intensive English Program: Benchmark was not met for placement into Written Communication II for students who completed the sequence. Department plans to continue refining course grading rigor and investigating initial placement scores.

### Masters of Science in Secondary Education Department

- Masters of Science in Secondary Education of Students who are Deaf and Hard of Hearing: Criterion met for students demonstrating appropriate teacher competencies on a portfolio or cooperating teachers' evaluation; program support for teacher certification exam preparation has led to improvements in pass rate.

### Science and Mathematics Department

- Laboratory Science Technology: Exceeded the benchmark for student learning outcomes in all technical skill areas; 100 percent of students met criterion in most assessments with the new electronic portfolio capturing system at least partly responsible for the strong marks; programmatic changes in biological and microbiological techniques have led to increased student performance in that category.

*Vanessa Bacellar, a Laboratory Science Technology major from Flushing, N.Y., conducts an experiment in the lab.*



## Academic Program Highlights (continued)

---

---

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

ASLIE enrolled 167 students in the BS program in ASL-English Interpretation as of fall 2012. 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 2011-2012, the ASL-English Interpretation programs graduated 32 students, 14 of whom responded to a Senior Satisfaction Survey. When asked about overall satisfaction with the program, 13 students (93 percent) indicated agreement; 14 students (100 percent) indicated they would recommend the program.

To implement the "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 foreign sign language and Deaf culture, as well as participate in courses offered by the host program.

In fall 2011, four students from the Hogeschool came to NTID and took courses for 10 weeks. They took *ASL, Deaf Culture, Interpreting I, Sign Mime & Creative Movement*, and participated in the NTID play "*Inherit the Wind*." In May 2012, seven 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 2012, the third group of Dutch students arrived on campus. There are four students studying *ASL, Deaf Culture, Interpreting I*, and all are involved in the play "*Arsenic and Old Lace*."

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 NTID's perspective, having the Dutch interpreting students in classes has been an enriching and enlightening experience.

Since 2010, Special Topics courses in *Mexican Sign Language* and *Russian Sign Language* have been offered and are 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 314 in fall quarter, 289 in winter quarter, 313 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 48 students, for a 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.

Three 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, staff and community members at large interested in a basic introduction to ASL and Deaf culture. In AY 2011-2012, the Introduction to ASL and Deaf Culture program had an enrollment of 40 students. The Faculty Staff Sign Language Education Program (FSSLEP), a program housed in ASLIE, had an enrollment of 483 faculty and staff from NTID and other departments across RIT.

## Academic Program Highlights (continued)

---

---

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 15 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 six 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 a different group come to NTID for basic introduction to ASL and Deaf culture. In the future, ASLIE hopes to invite groups from other countries for similar programs.

In addressing one of the initiatives in *Strategic Decisions 2020*, the department established a pilot for deaf and hard-of-hearing students who did not know sign language. The New Signers Program was successful, with 17 students participating in the program.

A total of 10 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 34 Sign Language Proficiency Interviews (SLPI), 115 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 and staff. The aim of the program is to enhance interactions among deaf and hearing members of the RIT community. Up to 15 RIT faculty and 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 and gain an understanding of Deaf culture and the dynamics of deaf and hearing interactions. The program has enjoyed success and growth in registration since its inception, and is a valued offering among RIT and NTID faculty and staff.

For the second 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 RIT community who already have acquired introductory ASL skills and now are looking to expand their skills. The program was successful this past summer and received positive feedback from those who attended; several others have 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 Cued Speech complement courses are provided to those enrolled in the interpreting education program and the MSSE program. In these areas, faculty provided 60 credit hours of instruction for 202 students in 2011-2012, with an additional 205 contact hours of communication support to the Job Search Process course for 118 students.

Audiological and speech-language clinical services were provided to members of the RIT community during the 2011-2012 academic year. Faculty and staff provided 3,830 hours of individual speech-language instruction, serving 207 students, and provided 2,912 hours of audiology services to 1,264 students and others at RIT.

## Academic Program Highlights (continued)

---

---

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 2011-2012 academic year, the lab served an additional 249 students on a walk-in basis, while the Hearing Aid Shop served 622 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 who use cochlear implants.

### **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 18<sup>th</sup> year, graduated 28 students during the 2011-2012 academic year. Fifteen 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 28 graduates, 19 now are 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 lecturer. One continued his employment as an ASL instructor/coordinator at a local college program and another graduate is an ESL teacher for deaf international students at Gallaudet University. Two graduates are working as substitute teachers and employment status of one graduate is unknown. Two graduates are pursuing doctoral programs. To date, a total of 279 students have graduated from the program.

For the 2012-2013 academic year, the MSSE program has an enrollment of 49 students, of whom 22 (45 percent) are deaf or hard-of-hearing and eight (16 percent) are members of minority groups. It is anticipated that up to 23 students will graduate from the program during the 2012-2013 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 [www.ntid.rit.edu/msse/4plus2.php](http://www.ntid.rit.edu/msse/4plus2.php).

MSSE is accredited by the Teacher Education Accreditation Council (TEAC), 2007-2013, 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 2011-2012, students, faculty and staff spent 2,427 hours during 2,580 visits to the SIL. Of the total hours, 1,535 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

## Academic Program Highlights (continued)

---

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 2011-2012, CES served 113 students; 75 percent of these students were accepted into a major within three quarters.

### NTID Learning Center

The NTID Learning Center (NLC), open six 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, studying tools, video production and study space.

This year, individual students used NLC computers 51,174 times for a total of 212,412 hours. This is a 38 percent increase over AY 2010-2011. Since AY 2006-2007, the NLC has loaned laptops to students for 24-hour lending. This year, laptops were borrowed 2,048 times, a 19 percent increase over AY 2010-2011.

Classroom #1 and the General Area supported 202 class sessions, totaling 341 hours of use. The NLC continued to support the administration of SVP writing tests, the quarterly administration of the Liberal Arts Placement Test and provided tours for incoming freshmen and visitors from other national and international universities.

To support learning outside of the typical classroom, the NLC offers individual and small-group tutoring and studying in mathematics, English, information and computing studies, accounting, interpreting, library and Spanish. This year, 149 faculty and students provided 7,815 hours of tutoring in a variety of curricular areas.

The Sprint Relay Experimental Distance Learning/Access Demonstration Lab, also housed within the NLC, hosted 229 course sessions and 26 workshops for a total of 586 hours. This is a 66 percent increase over AY 2010-2011. The Sprint Relay Lab supported a variety of activities, including conducting experimental videoconferencing projects as well as video/lecture-capturing classes for archiving and subsequent “anytime/anywhere” access by students.

*Wesley Blue, right, interim manager of the NTID Learning Center, explains the services and programs the NLC offers to visitors from Croatia interested in opening a school for deaf students.*



## Enrollment by Degree Programs

In fall 2012, 62 percent of NTID's 1,529 students were enrolled in a broad array of programs within NTID. Thirty-eight percent were enrolled in other colleges of RIT, including 37 students in graduate programs. Of the 1,529 students, 1,306 are deaf and hard-of-hearing students in traditional undergraduate and graduate programs (excluding

MSSE and interpreting). Forty-four percent of deaf and hard-of-hearing students (588) enrolled in traditional undergraduate and graduate programs are partially or fully enrolled in the other colleges of RIT. Students are categorized by their primary academic college.

	Number of Students
<b>NTID Career Exploration Studies</b>	
Career Exploration (UND)	42
Career Prep Foundation (UND)	78
<b>Subtotal</b>	<b>120</b>
<b>NTID Career-Focused and Transfer Associate Degrees</b>	
NTID General (NONDEG)	4
Non-Degree Student (NONDEG)	4
Project Fast Forward (NONDEG)	1
Accounting Technology (AAS)	16
Applied Computer Technology (AAS)	29
Applied Computer Technology (AOS)	61
Arts and Imaging Studies (AAS)	33
Arts and Imaging Studies (AOS)	83
Automation Technologies (AAS)	1
Automation Technologies (AOS)	2
Business Technology (AOS)	45
Business Technology (UND)	2
Computer Aided Drafting Technology (AOS)	19
Computer Aided Drafting Technology (AAS)	3
Computer Integrated Machining Technology (AOS)	40
Engineering Technologies (UND)	29
Laboratory Science Technology (AOS)	28
Administrative Support Technology (AAS)	16
Applied Computer Technology (AS)	24
Applied Liberal Arts (AS)	55
Applied Mechanical Technology (AAS)	11
Business (AS)	28
Hospitality and Service Management (AS)	7
Laboratory Science Technology (AAS)	27
<b>Subtotal</b>	<b>568</b>

## Enrollment by Degree Programs (continued)

	Number of Students
<b>NTID ASL-English Interpretation</b>	
ASL-English Interpretation (NONDEG)	4
ASL-English Interpretation (AAS)	1
ASL-English Interpretation (BS)*	162
<b>Subtotal</b>	<b>167</b>
<b>NTID Master of Science in Secondary Education (MSSE)</b>	
Graduate Teacher (NONDEG)	7
Secondary Education of Students who are Deaf/Hard of Hearing (MS)	49
<b>Subtotal</b>	<b>56</b>
<b>NTID Pre-Baccalaureate Students</b>	
Pre-Baccalaureate Engineering (UND)	10
Pre-Baccalaureate Visual Communication (UND)	10
Pre-Baccalaureate Liberal Arts (UND)	3
Pre-Baccalaureate Science (UND)	7
<b>Subtotal</b>	<b>30</b>
<b>NTID Subtotal</b>	<b>941</b>
<b>Baccalaureate Students in Other RIT Colleges</b>	
<b>College of Applied Science and Technology</b>	
Engineering Technology (UND)	3
Hospitality and Service Management (BS)	11
Mechanical Technology (AAS)	1
Packaging Science (BS)	11
Civil Engineering Technology (BS)	14
Computer Engineering Technology (BS)	3
Electrical/Mechanical Engineering Technology (BS)	4
Electrical Engineering Technology (BS)	4
Environmental Sustainability Health & Safety Management (BS)	5
Manufacturing Engineering Technology (BS)	2
Mechanical Engineering Technology (BS)	16
<b>Subtotal</b>	<b>74</b>

\* Includes three students double-majoring in ASLIE and another discipline.



## Enrollment by Degree Programs (continued)

	Number of Students
<b>Saunders College of Business</b>	
Business Administration-Accounting (BS)	13
Business Undeclared (UND)	3
Finance (BS)	6
International Business (BS)	3
Management (BS)	17
Management Information Systems (BS)	8
Marketing (BS)	7
New Media Marketing (BS)	3
<b>Subtotal</b>	<b>60</b>
<b>College of Science</b>	
Applied Mathematics (BS)	3
Applied Statistics (BS)	1
Biochemistry (BS)	3
Bioinformatics (BS)	3
Biology (BS)	15
Chemistry (BS)	2
Environmental Science (BS)	11
Imaging Science (BS)	1
Molecular Bioscience and Biotechnology (BS)	9
Physics (BS)	1
Science Exploration (UND)	1
<b>Subtotal</b>	<b>50</b>
<b>College of Imaging Arts and Sciences</b>	
3D Digital Graphics (BFA)	1
Biomedical Photographic Communication (BS)	5
Film and Animation (BFA)	5
Fine Arts-Studio (BFA)	9
Glass (BFA)	2
Graphic Design (BFA)	17
Illustration (BFA)	4
Industrial Design (BFA)	10
Interior Design (BFA)	5
Media Arts and Technology (BS)	3
Medical Illustration (BFA)	1
Motion Picture Science (BS)	2
New Media Design and Imaging (BFA)	8
Professional Photographic Illustration (BFA)	16
Visual Media (BFA)	4
<b>Subtotal</b>	<b>92</b>

## Enrollment by Degree Programs (continued)

	Number of Students
<b>College of Liberal Arts</b>	
Social Work (BS)	1
Advertising and Public Relations (BS)	4
Criminal Justice (BS)	27
Economics (BS)	1
International Studies (2M)	1
Journalism (BS)	2
Liberal Arts Exploration (UND)	4
Museum Studies (BS)	2
Political Science (BS)	3
Professional and Technical Communication (BS)	8
Psychology (BS)	31
Urban and Community Studies (BS)	3
<b>Subtotal</b>	<b>87</b>
<b>Kate Gleason College of Engineering</b>	
Biomedical Engineering (BS)	6
Chemical Engineering (BS)	4
Computer Engineering (BS)	1
Electrical Engineering (BS)	4
Engineering Exploration (UND)	2
Mechanical Engineering (BS)	9
<b>Subtotal</b>	<b>26</b>
<b>Golisano College of Computing and Information Sciences</b>	
Applied Networking and System Administration (BS)	6
Information Security and Forensics (BS)	3
Information Technology (BS)	18
New Media Interactive Development (BS)	2
Computer Science (BS)	14
Game Design and Development (BS)	4
Software Engineering (BS)	3
<b>Subtotal</b>	<b>50</b>

## Enrollment by Degree Programs (continued)

	Number of Students
<b>University Studies</b>	
Applied Arts and Sciences (BS)	73
Business Administration Accounting (2M)	1
College Restoration Program	2
University Studies (UND)	7
<b>Subtotal</b>	<b>83</b>
<b>College of Health Sciences and Technology</b>	
Biomedical Sciences (BS)	24
Health Systems Administration (CT)	1
Molecular Bioscience and Biotechnology (2M)	2
Nutrition Management (BS)	1
Physician Assistant (BS)	1
<b>Subtotal</b>	<b>29</b>
<b>Subtotal Baccalaureate Students in Other Colleges</b>	<b>551</b>
<b>Graduate Students in Other RIT Colleges</b>	
<b>College of Applied Science and Technology</b>	
Environmental Health and Safety Management (MS)	3
Hospitality-Tourism Management (MS)	1
Human Resources Development (MS)	1
Packaging Science (MS)	1
Service Leadership and Innovation (MS)	1
<b>Subtotal</b>	<b>7</b>
<b>Saunders College of Business</b>	
Business Administration (MBA)	1
<b>Subtotal</b>	<b>1</b>
<b>College of Imaging Arts and Sciences</b>	
Computer Graphics Design (MFA)	4
<b>Subtotal</b>	<b>4</b>
<b>College of Liberal Arts</b>	
Communication and Media Technology (MS)	2
Criminal Justice (MS)	3
School Psychology (MS)	5
<b>Subtotal</b>	<b>10</b>

## Enrollment by Degree Programs (continued)

	Number of Students
<b>College of Science</b>	
Environmental Science (MS)	2
<b>Subtotal</b>	<b>2</b>
<b>College of Computing and Information Sciences</b>	
Computer Science (MS)	2
Information Technology (MS)	1
Networking and System Administration (MS)	1
Software Development and Management (MS)	1
Software Engineering (MS)	1
<b>Subtotal</b>	<b>6</b>
<b>Golisano Institute for Sustainability</b>	
Architecture (M Arch)	1
<b>Subtotal</b>	<b>1</b>
<b>University Studies</b>	
Professional Studies (MS)	6
<b>Subtotal</b>	<b>6</b>
<b>Subtotal Graduate Students in Other Colleges</b>	<b>37</b>
<b>Total</b>	<b>1,529</b>

<b>Legend</b>	
UND	Undeclared
NONDEG	Non-Degree
AOS	Associate of Occupational Science
AAS	Associate of Applied Science
AS	Associate of Science
BS	Bachelor of Science
BFA	Bachelor of Fine Arts
MS	Master of Science
MFA	Master of Fine Arts
M Arch	Master of Architecture
MBA	Master of Business Administration
2M	Double Major
CT	Certificate

## 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 2011-2012		
	Fall	Winter	Spring
Accounting Technology	7.2	9.4	9.6
American Sign Language	13.0	8.5	0.0
Applied Computer Technology	8.3	7.6	7.2
Arts & Imaging Studies	7.7	7.3	7.9
ASL-English Interpretation	10.2	8.8	8.8
Automation Technologies	3.5	1.7	1.0
Business Technology	7.6	7.3	6.8
Communication Studies and Humanities	9.6	11.0	11.1
Computer-Aided Drafting Technology	8.2	7.4	6.7
Computer Integrated Machining Technology	10.0	6.2	6.6
Deaf Studies	7.0	9.5	7.0
English	10.3	9.0	8.2
Freshman Seminar / Career Exploration	11.3	9.8	5.5
Interdisciplinary Studies	10.9	11.3	12.0
Laboratory Science Technology	8.9	6.9	6.3
Master of Science in Secondary Education	13.1	12.1	16.1
Mathematics	9.3	8.5	8.4
Performing Arts	8.9	10.4	9.0
Science	10.7	9.6	11.1
Social Sciences	12.5	12.7	11.6
<b>Overall Average</b>	<b>9.4</b>	<b>8.8</b>	<b>8.0</b>

## Educational Support: Teaching

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

instruction in these courses as well as advisement and tutoring, faculty members help maximize the benefit students receive to ensure their success in RIT's highly competitive academic environment. Below are the statistics for FY 2012.

	Number of Sections	Number of Students	
		Deaf and Hard-of-Hearing	Hearing
<b>E. Philip Saunders College of Business</b>			
Business Software Applications	1	21	0
<b>Subtotal</b>	<b>1</b>	<b>21</b>	<b>0</b>
<b>B. Thomas Golisano College of Computing and Information Sciences</b>			
OS Scripting	1	3	22
Independent Study	1	0	1
<b>Subtotal</b>	<b>2</b>	<b>3</b>	<b>23</b>
<b>College of Imaging Arts and Sciences</b>			
Auto CAD Elective	1	0	15
Building Codes and Regulations	1	0	20
Independent Study	1	0	1
Survey of Western Art & Architecture I	1	21	0
Survey of Western Art & Architecture II	1	22	0
Survey of Western Art & Architecture III	1	18	0
<b>Subtotal</b>	<b>6</b>	<b>61</b>	<b>36</b>
<b>College of Liberal Arts</b>			
American Sign Language Literature	2	26	9
Arts of Expression: Writing about ASL	1	13	0
Arts of Expression: Writing the Discipline	2	22	0
Beginning American Sign Language I	23	10	442
Beginning American Sign Language II	15	11	193
Beginning American Sign Language III	9	7	131
Beginning Spanish I	2	39	0
Beginning Spanish II	2	23	0
Beginning Spanish III	1	16	0
Childhood & Adolescence	1	15	0
Computer Crime	3	17	104
Concepts in Criminal Law	1	7	26
Criminology	1	19	0
Deaf American Literature	1	14	16

## Educational Support: Teaching (continued)

	Number of Sections	Number of Students	
		Deaf and Hard-of-Hearing	Hearing
<b>College of Liberal Arts (continued)</b>			
Deaf Culture in America	2	23	43
Diversity in Deaf Community	1	12	21
Fine Arts: Theatre Arts	1	0	33
Fine Arts: Visual Arts	3	61	0
Foundations of Sociology	5	98	0
Fund Legal Res & Writing	1	4	12
History of Deaf Educational Thought	1	25	1
History: Modern America	3	62	0
Independent Study	2	2	0
Introduction to Psychology	8	134	190
Literary and Cultural Studies	2	20	0
Major Issues in Criminal Justice System: Law, Justice/Society	1	8	24
Oppression and Deaf People	1	13	19
Professional Communication for Business	1	20	0
Seminar in Criminal Justice	1	4	20
Senior Project Psychology I	3	10	0
Senior Project Psychology II	2	7	0
Special Topics: Deaf Art and Cinema	2	32	32
Special Topics: Intermediate ASL I	6	8	54
Special Topics: Intermediate ASL II	3	3	17
Special Topics: Intermediate ASL III	2	4	8
Special Topics: Linguistics of ASL	1	8	10
Studies in British Literature: The Victorians	1	0	11
Theatre Production Seminar/Workshop	1	0	16
Written Communication I	12	130	0
Written Communication II	14	163	0
Writing Seminar	18	236	0
<b>Subtotal</b>	<b>162</b>	<b>1,326</b>	<b>1,432</b>
<b>College of Science</b>			
Chemical Research	2	2	0
Data Analysis I	3	4	104
Discrete Wavelet Transform	1	1	0
Environmental Science Research	1	1	0
Independent Study	2	0	2
Inorganic Chemistry I	1	2	1
Inorganic Chemistry II	1	1	5

## Educational Support: Teaching (continued)

	Number of Sections	Number of Students	
		Deaf and Hard-of-Hearing	Hearing
<b>College of Science (continued)</b>			
Solar System Astronomy Lab	3	0	39
Stellar Astronomy Lab	3	0	46
<b>Subtotal</b>	<b>17</b>	<b>11</b>	<b>197</b>
<b>Kate Gleason College of Engineering</b>			
Thermal Fluids Lab I	1	1	11
<b>Subtotal</b>	<b>1</b>	<b>1</b>	<b>11</b>
<b>First-Year Enrichment</b>			
Discovery	1	0	25
<b>Subtotal</b>	<b>1</b>	<b>0</b>	<b>25</b>
<b>Center for Intercollegiate Athletics and Recreation</b>			
Country Line Dance	3	9	31
Dance/Jazz	1	1	3
Eating, Body Image and Food	2	6	46
Faculty/Staff Kundalini Yoga	1	0	4
Kundalini Yoga	3	4	101
Spinning	2	5	36
Spirituality and Health	3	1	34
Turbo Kick	2	19	27
Ultimate Frisbee	2	5	54
<b>Subtotal</b>	<b>19</b>	<b>50</b>	<b>336</b>
<b>Institute for Sustainability</b>			
Architectural Graphics I	1	0	7
Architectural Graphics II	1	0	7
Architectural Graphics III	1	0	7
Integrated Building Systems I	1	1	10
Integrated Building Systems II	1	0	9
<b>Subtotal</b>	<b>5</b>	<b>1</b>	<b>40</b>
<b>Total</b>	<b>214</b>	<b>1,474</b>	<b>2,100</b>



## American Sign Language-English Interpretation Program

The degree programs in ASL-English Interpretation graduated 19 students in 2010-2011, 18 with BS degrees and one with an AAS degree. Forty-five new students matriculated into the program in September 2012. Currently, 16 percent of total enrollment are students from ethnic minority

backgrounds. Since its inception, the Department of ASL and Interpreting Education has graduated 623 students. Of that number, 464 have graduated with an AAS degree, 151 with a BS degree, and eight with a certificate.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Fall Applicants	195	210	202*	229	250
Accepted	49	69	66**	49	51
Registrations	36	52	57***	41	45
<b>Enrollment</b>					
AAS	1	0	0	0	1
BS	134	138	147***	156	162
Non-Matriculated	0	0	0	4	4
<b>Total Enrollment</b>	<b>135</b>	<b>138</b>	<b>147***</b>	<b>160</b>	<b>167</b>
<b>Employment Report</b>					
Graduates	34	33	19	****	****
Employment Rate	100%	100%	100%	****	****

In addition to the interpreting program, ASL and Interpreting Education faculty also provide the following programs:	FY 2012 Enrollment
ASL courses in RIT's College of Liberal Arts (COLA)	964
Faculty/Staff Sign Language Program, open to all RIT and NTID employees	483
ASL courses for deaf students, NTID	62
Master of Science in Secondary Education Program, NTID	45
Introduction to ASL and Deaf Culture	40
Provost Summer Intensive ASL Experience Program, RIT's Office of the Provost	15
Provost's Development of Effective ASL Use at RIT, RIT's Office of the Provost	8
International ASL Intensive Program Summer – Czechoslovakian Interpreters	6
New Signers Program	17
Global Understanding Program Fall Quarter – Hogeschool, the Netherlands students to NTID	4
Global Understanding Program Summer – NTID interpreting students to Hogeschool, the Netherlands	7

\* 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 2012 and FY 2013 is incomplete.

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

The MSSE program is now in its 18<sup>th</sup> year. To date, 274 students have graduated from the program. Ninety-four percent of the FY 2011 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 Center for Multidisciplinary Studies at RIT. The specifics related to this program can be found at [www.ntid.rit.edu/msse/4plus2.php](http://www.ntid.rit.edu/msse/4plus2.php).

Forty-nine applications for admission for fall 2012 were received. Thirty were offered admission. Of those, 19 matriculated into the program. For the 2012-2013 academic year, the MSSE program has a total enrollment of 56 students: 37 second-year or returning students and 19 first-year students. Of the 56 matriculated students, 45 percent are deaf or hard-of-hearing and 14 percent are minority.

---



---

### MSSE Student Data

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Fall Applications	39	50	50	43	49
Acceptances	30	37	34	26	30
New Registrations	24	30	27	18	19
Deaf and Hard-of-Hearing Enrollment	24	32	29	12	25
<b>Total Enrollment*</b>	<b>55</b>	<b>61</b>	<b>71</b>	<b>64</b>	<b>56</b>
<b>Employment Report</b>					
Graduates	23	18	23	**	**
Employment Rate	100%	100%	94%	**	**

\* 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 people.

\*\* As of the writing of this report, the employment information for FY 2012 and FY 2013 is incomplete.

## 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 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 2012:

- 299 students were enrolled in cooperative work experiences
- 62 academic programs had students on cooperative work experiences
- 18 faculty and staff visited 52 students at their job sites during the summer

	Number of Students Involved in Cooperative Work Experiences*				
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
<b>Sub-Baccalaureate</b>					
NTID Career-Focused and Transfer Associate Degrees	109	132	123	107	96
Percent of Total Co-op Enrollment	43%	50%	44%	36%	32%
<b>Baccalaureate/Master's</b>					
College of Applied Science and Technology	48	41	46	50	57
College of Business	25	23	33	36	34
College of Computing and Information Sciences	26	35	21	34	41
College of Engineering	15	11	10	14	11
College of Health Sciences and Technology	N/A	N/A	N/A	N/A	6
College of Imaging Arts and Sciences	10	5	7	13	11
College of Liberal Arts	16	11	28	35	37
College of Science	6	4	13	9	6
Subtotal	146	130	158	191	203
Percent of Total Co-op Enrollment	57%	50%	56%	64%	68%
<b>Total Co-op Enrollment</b>	<b>255</b>	<b>262</b>	<b>281</b>	<b>298</b>	<b>299</b>

\* 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.

## 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 mathematics/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 6<sup>th</sup>- to 12<sup>th</sup>-grade students interested in science
- Steps to Success – Weekend camp at which 7<sup>th</sup>- to 9<sup>th</sup>-grade Black or African American, Hispanic and American Indian or Alaska Native students explore career options
- TechGirlz – Week-long camp for 7<sup>th</sup>- to 9<sup>th</sup>-grade girls interested in careers in science, technology, engineering and math
- TechBoyz – Week-long camp for 7<sup>th</sup>- to 9<sup>th</sup>-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
- DRobotz – A robot-building summer camp for 9<sup>th</sup>- to 10<sup>th</sup>-grade students

*Participants in the TechGirlz summer camp build their own computers.*



## STEM Activities (continued)

---

---

### 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 12 years, 772 deaf and hard-of-hearing professionals have attended 100 DiiT workshops.

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

#### Center for Education Research Partnerships

- *Evidence-based Information on Raising and Educating Deaf and Hard-of-Hearing Children*. Invited "Masterclass" public lecture, Faculty of Education, Hogeschool, Utrecht, The Netherlands, October 2011.
- *Literacy and Deaf Students: A View from the Practitioner-Researcher Interface*. Keynote address, Year of Reading: Practitioner-Researcher Interface Conference, October 2011.
- *Language Foundations for Learning: What We Know and What We Don't Know*. Invited presentation, Atlantic Provinces Special Education Authority Annual Meeting, Halifax, Canada, October 2011.
- *Deaf Cognition: Deaf Children Are Not Hearing Children Who Can't Hear*. Invited presentation, Atlantic Provinces Special Education Authority Annual Meeting, Halifax, Canada, October 2011.
- *Learning and Literacy: Why Haven't We Made More Progress?* Invited presentation, Atlantic Provinces Special Education Authority Annual Meeting, Halifax, Canada, October 2011.
- *Educating Deaf and Hard of Hearing Children: from Research to Practice*. Baystate (MA) Health Education Center & Willie Ross School for the Deaf, Holyoke, Mass., November 2011.
- *Language, Learning, and Literacy: The Evidence Base in Deaf Education*. Fourth Annual South Carolina Summit, Columbia, S.C., November 2011.
- *What Is so Special about Theory of Mind?* Invited keynote, Deaf Individuals, Sign Language, and Cognition Conference, Paris, France, December 2011.
- *Language, Literacy, and Mathematics Achievement among K-12 Deaf Students*. Coalition of Private Schools Serving Deaf Children, Clearwater, Fla., February 2012.
- *Language and Learning: What We Know and What We Don't Know*. Pennsylvania Deaf Education Conference for Parents and Professionals, Harrisburg, Pa., March 2012.
- *School Perspectives of Deaf Children, Hearing Children, and Their Parents*. Reflecting on Deaf Education Conference, University of Edinburgh, Scotland, March 2012.
- *How Deaf Children Learn: Assumptions, Myths, and Misunderstandings*. Keynote address, Reflecting on Deaf Education Conference, University of Edinburgh, Scotland, March 2012.
- *The Evidence Base in Deaf Education: Putting Children First*. Invited presentation, University of Manchester, School of Nursing, Midwifery, and Social Work, Manchester, England, March 2012.
- *Perspectives on Language and Learning: What We Know and What We Don't Know*. Ohio School for the Deaf Outreach Program, Columbus, Ohio, March 2012.
- *Language and Learning: What We Know and What We Don't Know*. Scranton School for Deaf and Hard of Hearing Children, Scranton, Pa., April 2012.
- *Deaf Education in the 21st Century: Myths, Misunderstandings, and Assumptions*. California Administrative Law Judge Training, Los Angeles, Calif., April 2012.
- *Language and Learning: What We Know and What We Don't Know*. Western Pennsylvania School for Deaf, Pittsburgh, Pa., April 2012.
- *Educating Deaf Students in a Changing World: Has Elvis Already Left the Building?* ESSP 2012 Conference, Rochester, N.Y., May 2012.
- *Myths and Misunderstandings in Deaf Education: On Language, Cognition, and Learning*. Novartis Lecture Series, Catolica Universidad Portuguesa, Lisbon, Portugal, May 2012.
- *What's So Special about Theory of Mind?* Invited workshop presentation, University of Indiana, Department of Psychology, Bloomington, Ind., June 2012.
- *Factors Underlying Low Versus High Achievement in Deaf Children's Mathematics Ability*. 11<sup>th</sup> Asia-Pacific Conference on Deafness, Singapore, July 2012.

## STEM Activities (continued)

---

---

- *Approximate Number System and Working Memory in Children's Mathematics*. Biennial meeting of EARLI SIG 5 Learning and Development in Early Childhood, Utrecht, the Netherlands, August 2012.
- *Foundations of Mathematical Difficulties in Deaf Children: The Approximate Number System*. Biennial meeting of EARLI SIG 5 Learning and Development in Early Childhood, Utrecht, the Netherlands, August 2012.
- *Educating Deaf Children: What We Know and What We Don't Know*. Pennsylvania School for the Deaf, Philadelphia, Pa., August 2012.

### Center on Access Technology

- *Remote Services to Support Deaf Students*. Presentation at the 27<sup>th</sup> Annual International Technology and Persons with Disability Conference, San Diego, Calif., February 2012.

## A Sampling of STEM-Related Research Publications

### Center for Education Research Partnerships

- *How Deaf Children Learn*. New York: Oxford University Press. (2012).
- Do you see what I see? School perspectives of deaf children, hearing children, and their parents. *European Journal of Special Needs Education*. (In press).
- Educating deaf children: Language, cognition, and learning. *Deafness and Education International*, 14, 137-161 (2012).
- Language planning for the 21st century: Revisiting bilingual language policy for deaf children. *Journal of Deaf Studies and Deaf Education*, 17, 291-305 (2012).
- Sprache, Kognition und Lernen: Herausforderungen der Inklusion für gehörlose und schwerhörige Kinder [Language, cognition, and learning: Challenges of inclusion for deaf children.] In M. Hintermair (Ed), *Inklusion, Ethik und Hörschädigung* (pp. 129-176). Heidelberg: Median-Verlag. (2012).
- Print exposure, reading habits, and reading ability among deaf and hearing college students. *Journal of Deaf Studies and Deaf Education*, 17, 61-74 (2012).

### Center on 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 2012).



## Student Support Services

More than 60 diverse student and campus organizations, including sororities, counseling services and student clubs, distribute information at NTID's annual Applefest.



NTID President Gerry Buckley joins Asian Deaf Club representatives Helen Yu, of Sunnyvale, Calif.; Peter Yeung, of West Haven, Conn.; Wilma Dennis, of Tacoma, Wash.; Samuel Sandoval, of Fairfax, Va.; Geraldine Dang, of Missouri City, Texas; and Youmee Lee of Peoria, Ill.; at Applefest. The Asian Deaf Club hosts a Lunar New Year celebration in the fall and a spring banquet.



## Student Support Services Highlights

---

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

- Audiological services include hearing evaluations, hearing aid trials, fittings, cochlear implant mapping and individual listening therapy that focus on the development of receptive communication skills.
- Speech and language services are offered to students who want to enhance their use of spoken English and their general communication competence. Individual and group experiences provide opportunities to improve communication in conversations, group discussions and formal presentations. The Spoken Language Learning and Practice Lab enables students to use computer technology for speech and language analysis and visual feedback. Above, Samuel Sandoval, an Information Technology major from Fairfax, Va., attends a speech therapy session with Bonnie Bastian, a speech/language instructor at NTID.
- Mental health counseling and psychotherapy are 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 2011-2012, 201 deaf and hard-of-hearing students were seen for these services.
- Personal and career counseling and academic advising are provided to NTID students. Upon entry, every NTID-supported student is assigned to a counselor/academic advisor. This professional counselor/advisor plays an important role in helping students maximize their educational opportunities. Last year, the NTID Counseling and Academic Advising Services Department provided more than 11,000 hours of career counseling, personal counseling and academic advising for students. In addition, the faculty and staff in the department taught 28 sections of courses related to various aspects of college success. This department manages a full-service Career Resource and Testing Center, which provides a number of career assessment tools and resources, including an interactive, computer-based career information system that helps students assess their interests, learning styles and values, and explore a wide range of educational and career options. Counselors/advisors also work in collaboration with other service providers on campus to assess student learning competencies and develop educational interventions where appropriate.
- Student Life Team (SLT) continued its tradition in FY 2012 of both challenging and educating 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.
- Student Wellness / NTID Student and Academic Services provides instruction and services that support wellness education. Deaf and hard-of-hearing students are ensured opportunities for



## Student Support Services Highlights (continued)

---

---

exploring, developing and implementing wellness concepts, principles and behaviors into their lives. It is important to ensure deaf students receive a holistic education with a focus on career, academic, emotional, social, physical, spiritual, financial and environmental dimensions of wellness. Wellness initiatives occur through collaboration within many different areas of NTID and RIT. Students participated in wellness instructional classes, wellness presentations in Freshman Seminar classes, weekly “Wellness Wednesday” programs that address different wellness topics, presentations in residence halls, Red Barn activities, intramural programs, institute workshops and personal mentoring. There were 193 deaf students participating on 43 intramural teams.

- Financial aid for domestic students was provided in AY 2011-2012 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, 461 received NTID merit scholarships, 64 received RIT merit scholarships, 376 received NTID endowed scholarships and 100 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 2012, 268 students went through the orientation program. Assessment tests are given to further evaluate a student’s academic placement for English and mathematics 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-three 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 2011-2012, CES served 113 students. Seventy-five percent of CES students were accepted into a major within three quarters.
- 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 six 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, studying tools, video production and study space. 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 national and international universities. To support learning outside of the typical classroom, the NLC offers individual and small-group tutoring and studying in mathematics, English, information and computing studies, accounting, interpreting, library and Spanish. The Sprint Relay Lab supported a variety of activities, including conducting experimental videoconferencing projects as well as video/lecture-capturing classes for archiving and subsequent “anytime/anywhere” access by students.

## 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 2011-2012		
	Hours of Service Tutoring/Advising	Class Sections Served	Total Student Registrations
College of Applied Science and Technology (CAST)	*	367	990
College of Imaging Arts and Sciences (CIAS)	2,028	395	991
Saunders College of Business (SCB)	1,950*	128	586
Kate Gleason College of Engineering (KGC OE)	2,196*	107	130
College of Liberal Arts (COLA)	1,821	594	3,254
College of Health Sciences and Technology (CHST)	**	**	**
College of Science (COS)	7,986*	497	1,895
Golisano College of Computing and Information Sciences (GCCIS)	2,058*	200	517
<b>Total</b>	<b>18,039</b>	<b>2,288</b>	<b>8,363</b>

*Jason Panarra, a 2012 graduate in Chemistry from Jackson, N.J., receives tutoring from Assistant Professor Matthew Lynn.*



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

\*\* The number of tutoring/advising hours for the College of Health Sciences and Technology for FY 2012 is included in the total number of tutoring/advising hours for COS. Similarly, the number of class sections served and total student registrations are reported under COS and CAST. In FY 2014, CHST data will be reported separately.

## Student Access Services

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



Morgan Tucker interprets for Jonathan Petermon, a Political Science major from South Holland, Ill., at a kickboxing class.

## 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 117 staff members—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 staff that has grown to 52 real-time captionists was trained here in C-Print<sup>®</sup>, a computer-assisted system developed at NTID for transcribing in real time what teachers and students say in class. Real-time captioning also is provided for special events and out-of-class needs.
- **Classroom notetaking services** provided by trained student notetakers whose classroom notes are uploaded onto a website for easy access by deaf and hard-of-hearing students.

Other access services provided to NTID students include:

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

NTID also works with each of RIT's colleges to provide the support needed to implement strategies for maximizing access to campus services for deaf students. The Provost's Deaf Access Committee and other groups address the needs of deaf and hard-of-hearing RIT students and ensure that RIT is in full compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act for educational accommodation. The institutional position on accessibility for deaf and hard-of-hearing people includes the following strategies, 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 2012, is greater than 14 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 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)	9,047	5,820	1,414	316
Saunders College of Business (SCB)	8,525	4,953	1,782	168
Golisano College of Computing and Information Sciences (GCCIS)	8,746	5,830	1,399	214
Kate Gleason College of Engineering (KGCOE)	1,805	1,491	394	77
College of Imaging Arts and Sciences (CIAS)	14,697	11,367	3,068	365
College of Liberal Arts (COLA)	27,608	17,991	5,808	600
NTID Students with Approved Accommodations*	1,142	2,505	0	95
College of Science (COS)	20,581	16,189	4,826	500
Other Courses**	5,081	651	401	260
<b>Total Hours</b>	<b>97,232</b>	<b>66,797</b>	<b>19,092</b>	<b>2,595</b>

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

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

## Access Services: Interpreting Services

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

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

FY 2012	In-Class			Non-Class Activity		Administrative Activity		Overall Total	
	Hours	%*	Sections						
Fall	30,985	77%	667	6,753	17%	1,586	6%	39,302	100%
Winter	30,823	80%	663	6,456	17%	1,766	4%	39,037	100%
Spring	31,115	77%	642	7,377	18%	1,919	5%	40,385	100%
Summer	4,309	46%	60	5,180	42%	1,632	13%	11,121	100%
<b>FY 2012 Total</b>	<b>97,232</b>	<b>75%</b>	<b>2,032</b>	<b>25,766</b>	<b>19%</b>	<b>6,902</b>	<b>6%</b>	<b>129,900</b>	<b>100%</b>
FY 2004 Total	80,407	82%		12,813	13%	5,300	5%	98,520	100%
FY 2005 Total	82,265	83%		11,349	11%	5,561	6%	99,175	100%
FY 2006 Total**	89,748	84%		12,049	11%	5,460	5%	107,257	100%
FY 2007 Total**	80,417	73%	1,617	23,757	21%	6,666	6%	110,840	100%
FY 2008 Total	84,211	74%	1,869	23,620	21%	6,402	5%	114,233	100%
FY 2009 Total	80,475	73%	1,831	22,616	21%	6,527	6%	109,618	100%
FY 2010 Total	85,111	73%	1,848	24,993	21%	6,678	6%	116,782	100%
FY 2011 Total	98,032	75%	2,006	25,592	19%	7,441	6%	131,065	100%

\* Percentages are rounded to the nearest percent.

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

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

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

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

The growth in the provision of real-time captioning from FY 2004 to FY 2012 below is reflective of strategic planning.

FY 2012	In-Class			Non-Class Activity		Administrative Activity		Overall Total	
	Hours	%*	Sections						
Fall	6,829	99%	225	65	1%	17	0%	6,911	100%
Winter	6,179	99%	191	50	1%	32	1%	6,261	100%
Spring	5,542	99%	162	69	1%	12	0%	5,623	100%
Summer	542	75%	14	69	10%	110	15%	721	100%
<b>FY 2012 Total</b>	<b>19,092</b>	<b>98%</b>	<b>592</b>	<b>254</b>	<b>1%</b>	<b>171</b>	<b>1%</b>	<b>19,516</b>	<b>100%</b>
FY 2004 Total	3,140	100%	82	6	0%	0	0%	3,146	100%
FY 2005 Total	7,325	98%	186	160	2%	0	0%	7,485	100%
FY 2006 Total	9,198	98%	231	150	2%	2	0%	9,350	100%
FY 2007 Total	15,074	98%	426	288	2%	78	0%	15,440	100%
FY 2008 Total	16,186	97%	496	356	2%	180	1%	16,722	100%
FY 2009 Total	17,330	95%	538	255	1%	515	3%	18,168	100%
FY 2010 Total	18,977	97%	618	203	1%	313	2%	19,493	100%
FY 2011 Total	21,068	98%	696	223	1%	202	1%	21,493	100%

\* Percentages are rounded to the nearest percent.



## Access Services: Staff Training

NTID Access Services offers interpreter, notetaker and C-Print<sup>®</sup> training to its staff and student employees. 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 2008	FY 2009	FY 2010	FY 2011	FY 2012
In-Service Training for Interpreters*	92	37	74	63	132
Notetaker Training	318	223	346	359	277
Real-Time Captionist Training	14	0	7	6	0
<b>Total</b>	<b>424</b>	<b>260</b>	<b>427</b>	<b>428</b>	<b>409</b>

\* In 2012, 14 shorter workshops were provided to a total audience of 266 staff members in addition to the quarter-long IST courses reported above.

## Persistence, Graduation & Employment

Of NTID's FY 2011 graduates, 91 percent of those seeking employment were employed in 2012.



Former RIT Student Government President Greg Pollock experiences the hiring process from the recruiter's perspective, representing the Dow Chemical Company at the NTID Job Fair. After having a successful co-op in corporate communications with Dow, Pollock was hired for a full-time position and returned to NTID to recruit other deaf students.

## 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, 91 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 2011 graduates show that 91 percent, or 95 of the 104 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 baccalaureate 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 bachelor's 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.\*

Quality employment and higher earnings accrue to college graduates. Generally, 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 work closely with their Freshman Seminar instructor, academic counselor and academic chairperson. 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 has 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 in their programs. In fall 2009 (FY 2010), NTID started a Step Up program designed to mentor Black or African American, Hispanic of any race and American Indian or Alaska Native 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 their persistence rate 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 persistence to graduation rate.

---

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

## Persistence, Graduation and Employment Highlights (continued)

---

For AY 2011-12, RIT/NTID awarded 355 associate, bachelor's and master's degrees as well as certificates to students. Of those graduates, 2 percent earned certificates, 45 percent earned associate degrees, 42 percent earned bachelor's degrees and 11 percent earned master's degrees. Twenty-two percent of degrees were granted to minority students.

Most NTID 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 (54 percent). The 2004 SSA research also showed that NTID's 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 the fact that a college degree greatly reduces dependency on Supplemental Social Security transfer payments is added to the equation, the reasons for the dedication of NTID faculty and staff to assure that students graduate and succeed is clear.

The NTID Office of Alumni Relations plans and implements strategies for engaging alumni constituents through social and professional development events and other activities, both campus-based and in targeted regions around the country. With counsel from the NTID Alumni Association Board of Directors, a group of 18 dedicated alumni volunteers work to build and maintain connections between NTID and its 7,409 alumni. More than 800 alumni and guests participated in various activities including receptions, workshops and networking events throughout the year.



*The NTID Alumni Association Board of Directors provides leadership for alumni events and supports the growing number of alumni chapters throughout the country.*

## 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 780 students

who were first-time, full-time, degree-seeking in the years 2009, 2010 and 2011. Data in the table below indicate that for the most recent three-year period, 74 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	479	71%
2001, 2002, 2003	646	464	72%
2002, 2003, 2004	625	442	71%
2003, 2004, 2005	594	418	70%
2004, 2005, 2006	607	422	70%
2005, 2006, 2007	697	498	71%
2006, 2007, 2008	804	607	75%
2007, 2008, 2009	861	650	74%
2008, 2009, 2010	844	627	74%
2009, 2010, 2011	780	577	74%

\* Three-year averages for first-time, full-time, degree-seeking students registering for fall quarter. ASL-English Interpretation and MSSE students are not included.

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

Nationally, four-year public and private colleges have a first-year persistence rate of 79 percent. This compares to an 89 percent persistence rate for first-year NTID students in a major across four-year degrees. 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 (32 percent for students admitted into sub-bachelor-level programs and 60 percent 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	61%	30%
<b>NTID Sub-Baccalaureate**</b>	<b>68%</b>	<b>32%</b>
Four-Year Institutions	79%	58%
<b>Other RIT Colleges (NTID Baccalaureate)**</b>	<b>89%</b>	<b>60%</b>

\* Source of National Estimates: [www.higheredinfo.org/](http://www.higheredinfo.org/)

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

## Degrees Granted: FY 2008 to FY 2012

During the past five years, NTID has awarded an average of 304 degrees annually. The number for FY 2012 was 355. 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 2012, 68 of the 355 graduate and undergraduate degrees and certificates (22 percent) 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.

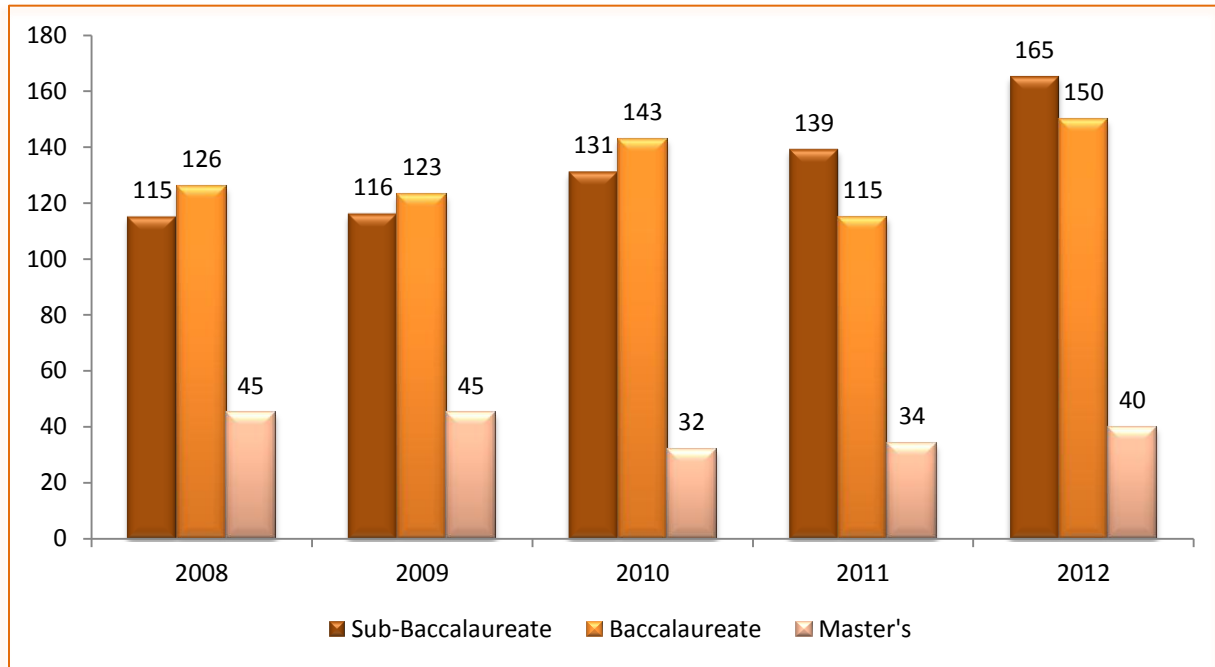
### Bachelor's/Master's Degrees

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.

---

\* Minority status is unknown for 43 of these 355 graduates or the graduate has international visa status.

## Degrees Granted: FY 2008 to FY 2012 (continued)



	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Sub-Baccalaureate*	48.6%	40.2%	40.9%	48.3%	46.5%
Baccalaureate*	36.7%	44.1%	43.3%	39.9%	42.3%
Master's**	14.7%	15.7%	15.8%	11.8%	11.2%

\* 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 2012, 63 percent were through programs offered by NTID and 37 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 2012		CUMULATIVE* (FY 1970 – FY 2012)	
	Number of Graduates	Percentage of Graduates	Number of Graduates	Percentage of Graduates
<b>NTID</b>				
Career-Focused and Transfer Associate Degrees	162	46%	4,001	55%
ASL-English Interpretation Bachelor	32	9%	151	2%
ASL-English Interpretation Associate	0	0%	464	6%
ASL-English Interpretation Certificate	0	0%	8	0%
Master of Science in Secondary Education	30	8%	274	4%
<b>Subtotal NTID</b>	<b>224</b>	<b>63%</b>	<b>4,898</b>	<b>67%</b>
<b>Other Colleges of RIT**</b>				
College of Applied Science and Technology	19	5%	545	8%
College of Business	11	3%	351	5%
College of Computing and Information Sciences	8	2%	254	3%
College of Engineering	4	1%	81	1%
College of Health Sciences and Technology	2	1%	2	0%
College of Imaging Arts and Sciences	24	7%	532	7%
College of Liberal Arts	25	7%	415	6%
College of Science	9	3%	136	2%
Multidisciplinary and University Studies	29	8%	51	1%
<b>Subtotal Other Colleges</b>	<b>131</b>	<b>37%</b>	<b>2,367</b>	<b>33%</b>
<b>Total</b>	<b>355</b>	<b>100%</b>	<b>7,265</b>	<b>100%</b>

\* Graduates are summarized uniquely according to their most recent, highest level of degree completion.

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

## Time Required to Complete a Degree

With the exception of deaf and hard-of-hearing students directly admitted to an RIT college other than NTID, students who are deaf or hard-of-hearing take a longer time to complete a degree than hearing students. There are many reasons for this, not the least of which is academic preparedness. Deaf and hard-of-hearing students admitted to NTID generally are academically behind their 18- to 19-year old hearing counterparts. Many enter NTID with ACT composite scores of less than 16 and reading comprehension and language skills between

7<sup>th</sup>- and 9<sup>th</sup>-grade levels. Therefore, considerable time and effort is devoted to remediation and career exploration. In addition, most programs have between one- and three-quarter requirements for cooperative education experiences (paid employment in a field related to study), while some programs require more than three quarters of cooperative education. This can extend program length by approximately one year. The table below shows the average number of active quarters and years elapsed between entry and date of degree.

### Time Required to Complete a Degree: Graduates FY 2010, 2011, 2012

First Degree Category	Average Active Quarters*	Average Active Years*
Bachelor's degree	16.3	4.1
AS/AAS degree	13.7	3.4
AOS degree	12.6	3.1



*Joe Stanislaw, assistant professor in Information and Computing Studies, teaches a computer lab course with Applied Computer Technology majors, Matthew Ward, of Newark, Del., and Natalie Wilson, of Youngstown, Ohio.*

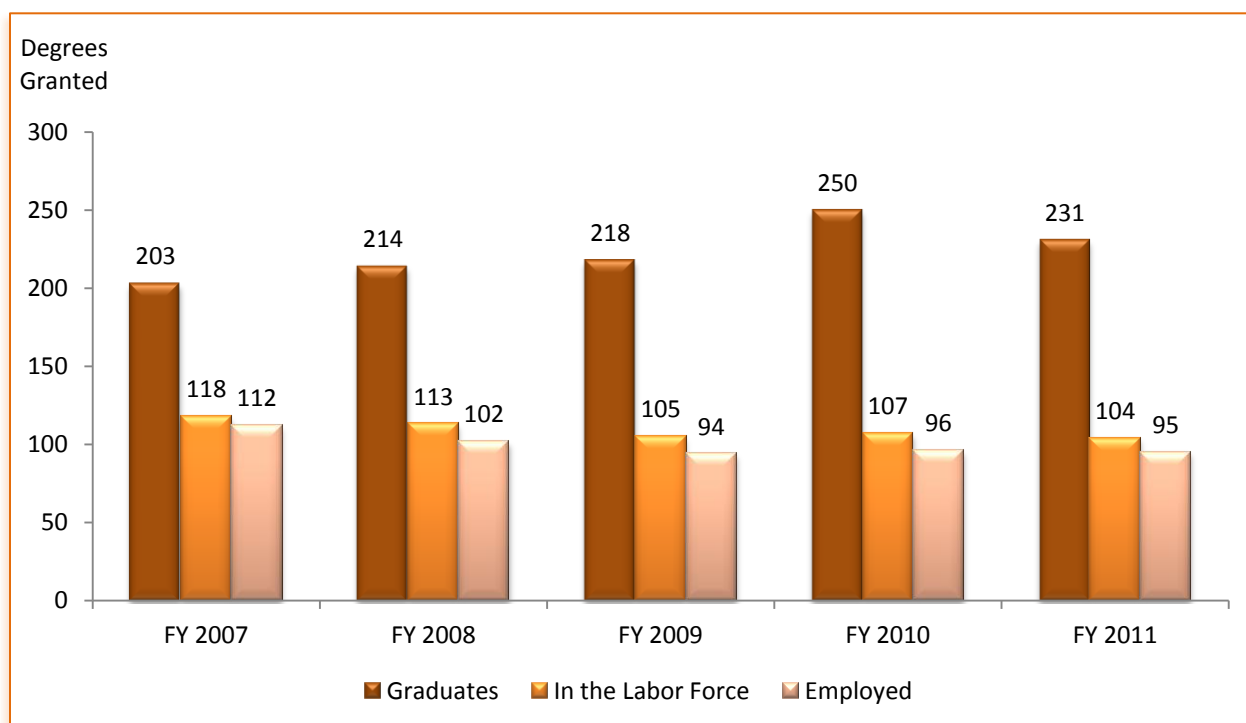
\* Does not include quarters when students were withdrawn or on leave of absence.

## 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 2011\*, 231\*\* deaf and hard-of-hearing students graduated, and 104 chose to enter the labor force. Ninety-five were employed, while nine were unable to find employment. Therefore, 91.34 percent (95/104) found employment. NTID’s employment rate over the past five years as calculated above is 91 percent. Of the 127 remaining graduates from 2011, 93 are continuing their education toward advanced degrees either at RIT or elsewhere, 15 are not looking for employment, and 19 have an unknown status.



\* As of the writing of this report, the employment information for 2012 is incomplete; therefore, NTID reports employment rates of 2011 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. NCE staff also provide job-seeking advice to students and graduates through email, instant messaging and videophone.

---

During FY 2012:

- One-hundred twenty-eight NTID students were enrolled in 10 sections of Job Search Process.
- NCE personnel provided more than 3,000 hours of student and graduate employment advising.
- Students sought individualized job search assistance at various campus locations.
- Thirty-two students took advantage of two sessions offered to review and advise on resumes.
- The 11<sup>th</sup> annual NTID Job Fair was held in October 2011 with 42 employers attending and close to 350 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.
- Four 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.

*U.S. Department of State representative Michael Wolfe attended the NTID Job Fair for the first time in 2011 and went on to hire NTID student Traci Goodrich this summer. His experience was so positive that he returned to recruit more students at the 2012 Job Fair.*



## Where Recent Graduates Are Working

In FY 2011, 43 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

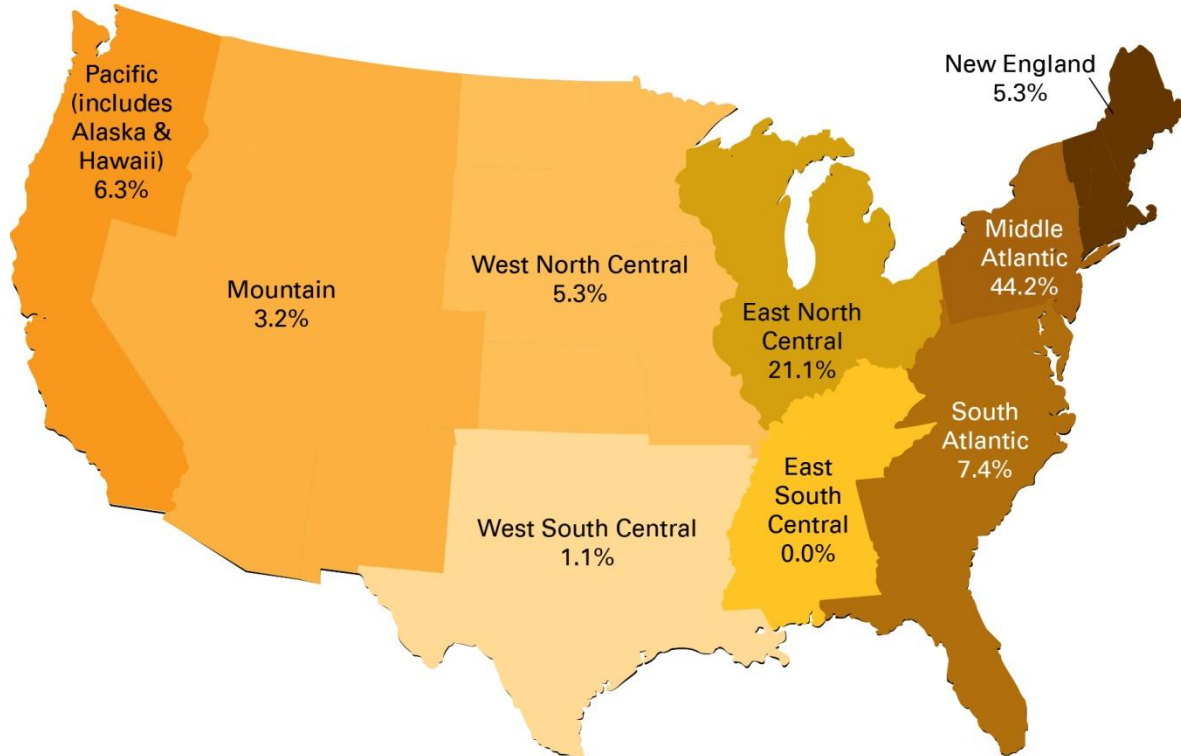
40 percent in other areas of the country. The majority of graduates are employed in the eastern parts of the country, areas that have been strong sources of applicants for NTID.

Area	Percent of Placed Graduates				
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011*
Rochester	16%	21%	18%	17%	17%
Hometown	33%	29%	33%	24%	43%
Other	51%	50%	49%	59%	40%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Number of Graduates Placed	112	102	94	96	95
----------------------------	-----	-----	----	----	----

FY 2011 Graduate Placement by Region\*\*



\* Placement numbers for FY 2012 graduates are incomplete and will be reported next year.

\*\* In addition, 3.1 percent are working internationally and 3.0 percent are working in unknown locations.

## Employment by Sector of the Economy

Of the last cohort of graduates tracked for employment, 54 percent have acquired jobs in business and industry, 31 percent in education and 15 percent in government.

Sector	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011*
Business/Industry	63%	71%	59%	57%	54%
Education/Non-Profit	29%	20%	21%	27%	31%
Government	8%	9%	20%	16%	15%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>



*NTID alumna Alyssa Schreiner recruits a current student during her second time representing the U.S. Defense Logistics Agency at the NTID Job Fair. Schreiner had a co-op experience that turned into a permanent position as a management analyst after graduation.*

\* Placement numbers for FY 2012 graduates are incomplete and will be reported next year.



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

FY 2011 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 2011 Annual Report*. This year shows a large increase relative to previous years for employment in the

Arts, Design, Entertainment, Sports and Media category of occupations. There was also a substantial increase this year in the percentage employed in Community and Social Service occupations. However, there was a sizable decrease in percentages employed in Computer and Mathematics occupations.

SOC categories for which no employment was reported this year were: Farming, Fishing & Forestry; Healthcare Support; Legal; Personal Care and Service; Protective Service and the Military.

SOC Categories of Working 2011 Graduates*	%	Sample Job Titles Held by 2011 Graduates within Category
Arts, Design, Entertainment, Sports & Media	24.14%	Creative Intern, Graphic Designer, Illustrator/Digital Artist, Production Assistant, Website Design & Video Editor
Office & Administrative Support	14.94%	Accounts Payable Intern, Human Resources Assistant, Indexer
Computer & Mathematics	14.94%	Computer Specialist, Computer Technician, Technical Support Representative, Web Developer
Community & Social Services	8.05%	Communications Intern, Disability Resources Manager, Project Assistant
Business & Financial Operations	6.90%	Accounting Intern, Branding Intern, Collaboration Technology Specialist, Income & Tax Senior Intern
Life, Physical & Social Science	6.90%	Lab Assistant, Lab Technician, Research Analyst, Zoo Intern
Production Occupations	5.74%	Custom Framers, Machine Tool Operator
Architecture & Engineering	4.60%	Architectural Drafting Intern, Assistant Engineer, Computer-Aided Drafter
Education, Training & Library	3.44%	Teacher, Tutor, Tutor/Coordinator

\* Eight of the 2011 employed graduates had either unknown job titles or titles too ambiguous for categorization.

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

SOC Categories of Working 2011 Graduates*	%	Sample Job Titles Held by 2011 Graduates within Category
Installation, Maintenance, and Repair	2.30%	Air Conditioning Technician, Technician
Sales & Related	1.15%	Model
Management	1.15%	Assistant Chief Financial Officer
Transportation and Material Moving	1.15%	Package Handler
Building and Grounds Cleaning & Maintenance	1.15%	Cleaner
Healthcare Practitioners and Technical	1.15%	Medication Coordinator
Construction and Extraction	1.15%	Intern
Food Preparation and Serving Related	1.15%	Assistant Cook
<b>Total</b>	<b>100%</b>	

*Google is a sought-after recruiter with students at the NTID Job Fair. In FY 2012, website development and computer technical support were popular jobs for 2011 graduates.*



\* Eight of the 2011 employed graduates had either unknown job titles or titles too ambiguous for categorization.



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

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

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

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

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

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

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

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

*Ebony Cogdell from the National Security Administration talks with Adriana Gaylord, a Manufacturing Engineering Technology major from Houston, Texas, about various employment opportunities.*



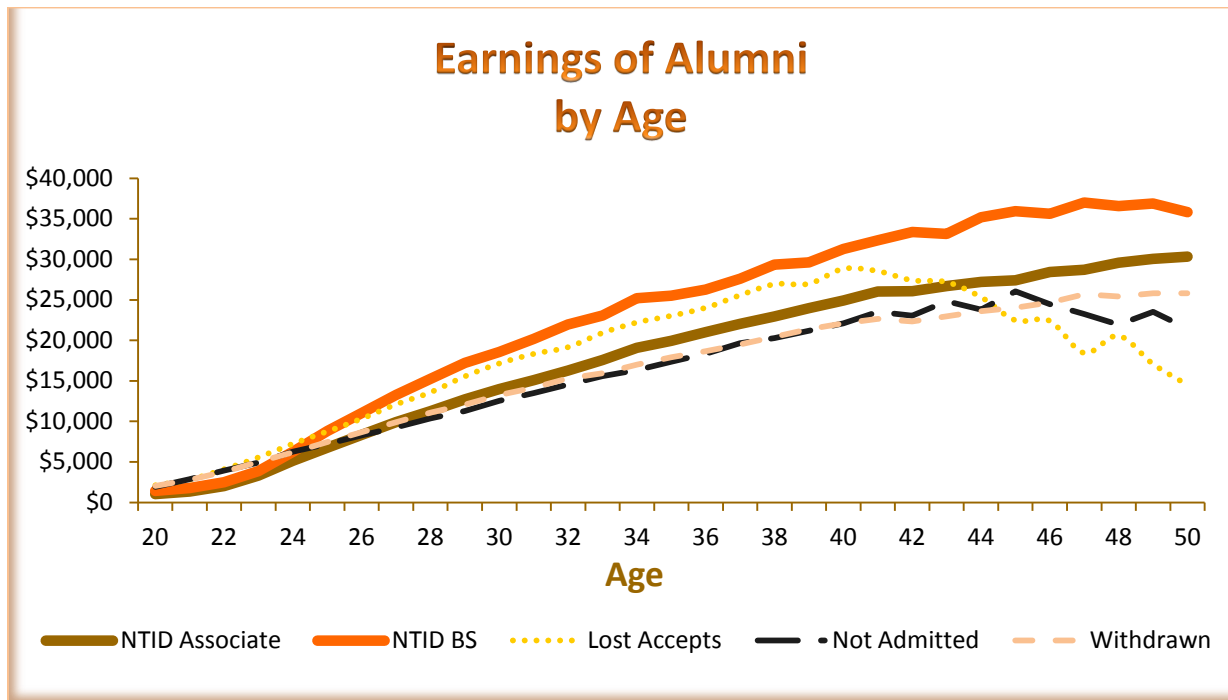
\* There were several job categories not represented by any of the graduates: Protective Services; Farming, Fishing & Forestry; Construction & Extraction and Military Services.

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

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

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

Increased earnings result in greater federal tax contributions.

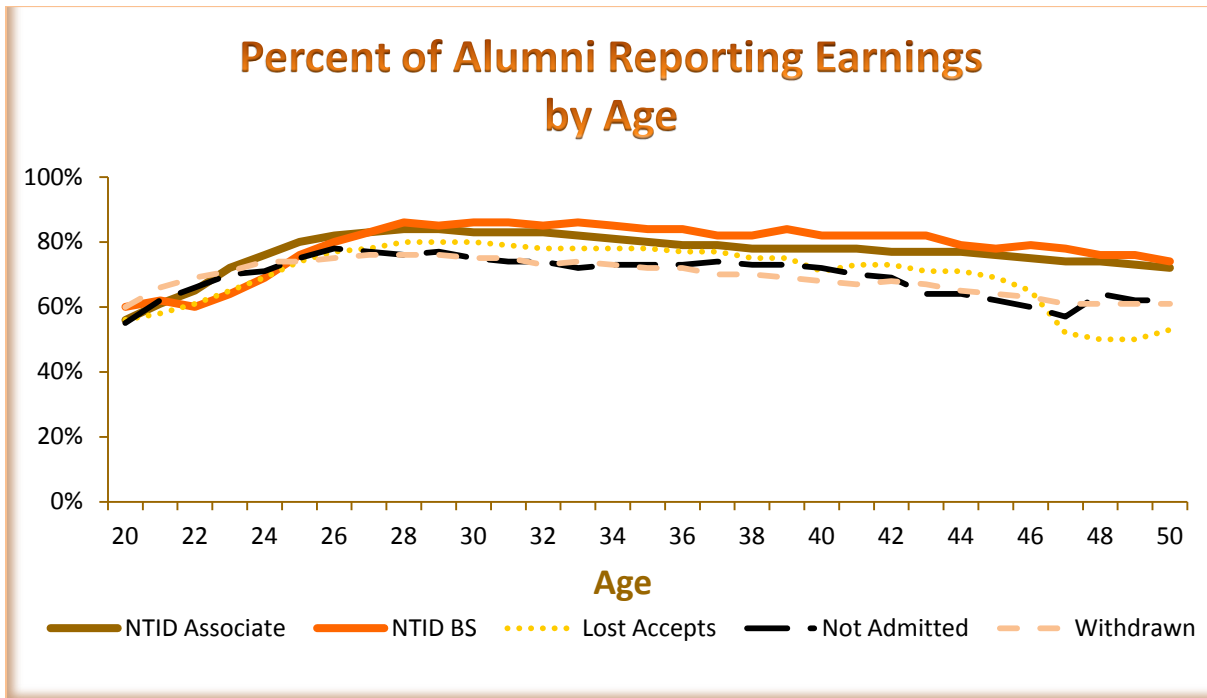


Note: From a 2007 collaborative research study conducted with the Social Security Administration and Cornell University. To accomplish this, NTID forwarded a data file with approximately 13,000 cases to the Social Security Administration. Six study groups were defined by the degree attainment variable: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

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

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

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

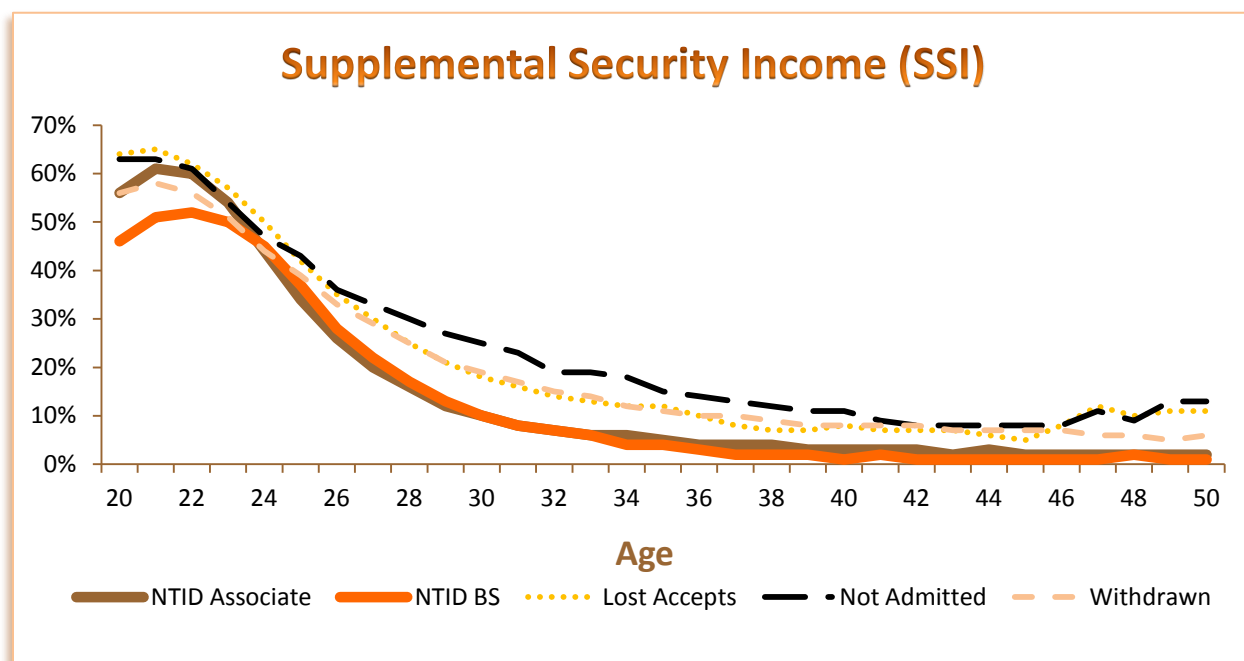


Note: From a 2007 collaborative research study conducted with the Social Security Administration and Cornell University. To accomplish this, NTID forwarded a data file with approximately 13,000 cases to the Social Security Administration. Six study groups were defined by the degree attainment variable: (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

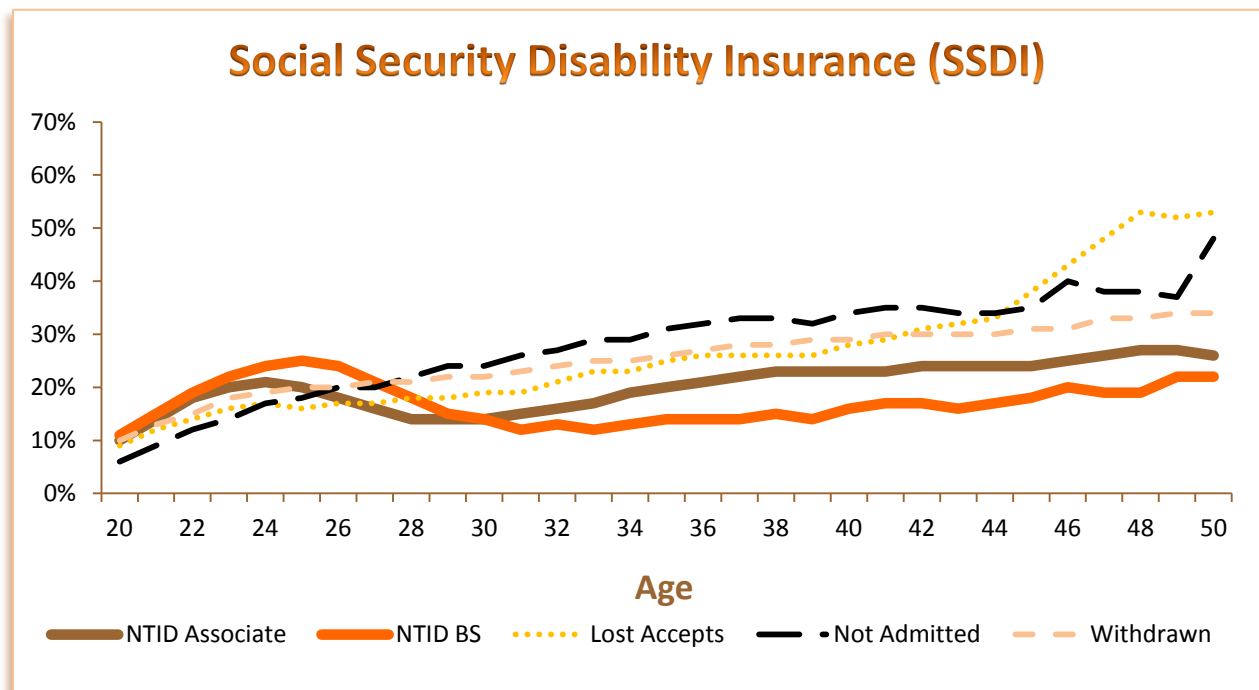
or hard-of-hearing person will collect SSI or SSDI. By age 50, 1 percent of graduates collected SSI, while, on average, 19 percent of individuals who withdrew or have been rejected for admission continued to participate in the SSI program. This reduction is especially noteworthy when one considers that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



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.



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

More than one-third of NTID's student body is from minority groups.



Alvin Boyd, a lecturer in Business Studies and special assistant for Diversity and Inclusion, joins NTID President Gerry Buckley to thank noted poet Joshua Bennett and his sister, Tamara, for visiting NTID. Hundreds of NTID students watched Joshua perform “Tamara’s Opus,” a poem apologizing to his sister, who became deaf at age 2, for not learning sign language.

## Diversity and Pluralism Highlights

---

---

### Students

As of fall 2012, the number of U.S. deaf and hard-of-hearing minority students at NTID is 382\*, one of the largest numbers in the past five years. FY 2013 highlights follow:

- Thirty-seven percent of the fall entering class is from minority groups. The percentage in the total student body is 34 percent, which is more than triple what it was 18 years ago.

### 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 53 employees from ethnic minority populations, 27 are Black or African American, 12 are Hispanic of any race and 14 are other minorities.

Of 565 total number of employees, 105 are deaf or hard of hearing.

Of the 145 employees who are deaf or hard of hearing or are members of a minority group, 113 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 16 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.



*Gil Beverly, assistant professor in the Arts & Imaging Studies department, helps a student in the Explore Your Future summer program.*

---

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

## Diversity and Pluralism Philosophy

NTID provides 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 continues to be a focus in higher education and, more significantly, in society at large. Diversity adds richness to 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.

NTID prepares 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, NTID's academic environment must respond to the needs of people who are both deaf or hard-of-hearing and from minority backgrounds. NTID's commitment to recognize, celebrate and value cultural diversity and individual differences is grounded in the continuing efforts of this 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 NTID's mission, on a changing student body and on the changing nature of the world.

An educational institution has a responsibility not only to reflect society, but also to lead in promoting positive change within that society. 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.

*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*

Finally, the selected list of functions and activities on the next page reflect the importance of diversity and pluralism on the RIT campus.

## Diversity and Pluralism Philosophy (continued)

---

---

- RIT has a Vice President for Diversity and Inclusion 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 June 2012, NTID updated its diversity plan to address the needs of students, faculty and staff following the direction of the RIT Vice President for Diversity and Inclusion. The “NTID Inclusive Excellence Report” outlines diversity objectives, current status and strategies for achieving those objectives. NTID’s Special Assistant to the President on Diversity continues to develop and help execute this plan within the college.
- 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.
- RIT’s 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. In January 2012, RIT’s 30<sup>th</sup> annual Expressions of King’s Legacy Celebration featured noted poet Joshua Bennett, who wrote “Tamara’s Opus,” which he performed at the 2009 White House Poetry Jam before President Obama. The poem apologizes to his sister Tamara, who became deaf at age 2, for not learning sign language. Bennett, a Ph.D. student in English at Princeton University, performed before hundreds of NTID students.
- Diversity training is offered regularly through the RIT Center for Professional Development.
- A group of faculty and staff members associated with NTID formed the NTID Diversity Group in 2012, with the mission statement, “The NTID Diversity Group is committed to promoting the best possible learning, living and working experience for Black or African American, Hispanic of any race and American Indian or Alaska Native members of the RIT/NTID community.” The group’s areas of focus include: RIT/NTID community involvement, professional development and serving as a resource for NTID’s Special Assistant to the President on Diversity. The group includes approximately 40 members.

## Admissions Activity by Ethnicity

Forty-nine percent (284) of this year's 989 deaf and hard-of-hearing applicants were students from minority backgrounds. The FY 2013 entering class of deaf and hard-of-hearing students included 117 minority students, who represent 43 percent of the newly admitted deaf and hard-of-hearing students.

	FY 2011*	Percent	FY 2012*	Percent	FY 2013*	Percent
<b>Total Applicants</b>	906		902		989	
Non-Minority	324	56%	341	61%	296	51%
Minority	254	44%	220	39%	284	49%
<b>Acceptances</b>	477		439		504	
Non-Minority	213	58%	228	66%	202	55%
Minority	153	42%	119	34%	167	45%
<b>Registrations</b>	351		345		381	
Non-Minority	169	60%	174	64%	156	57%
Minority	111	40%	96	36%	117	43%



*Luane Davis Haggerty, an instructor in Cultural and Creative Studies, leads students in a Sign Mime class, which explores how sign language, acting, Deaf culture and hearing culture interact.*

\* Figures do not include admissions activity in the ASL-English Interpretation programs or the Master of Science program in Secondary Education. Percentages are of individuals for whom NTID has data, less those with international visa status.

## Ethnicity of Entering Students

The FY 2013 total entering class included 125 minority students, who represent 40 percent of the entire incoming class. The FY 2013 entering class of deaf and hard-of-hearing students included 117 minority students, who represent 43 percent of the newly admitted deaf and hard-of-hearing students.

	FY 2011*	Percent	FY 2012	Percent	FY 2013	Percent
<b>Deaf and Hard-of-Hearing Undergraduate and Graduate Students</b>						
American Indian or Alaska Native	0	0.0%	**		**	
Asian	18	6.4%	12	4.4%	30	11.0%
Black or African American	35	12.5%	39	14.4%	27	10.0%
Hispanic of Any Race	52	18.6%	34	12.6%	52	19.0%
Native Hawaiian or Other Pacific Islander	0	0.0%	**		0	
White	169	60.4%	174	64.4%	156	57.1%
Two or More Races	6	2.1%	8	3.0%	6	2.2%
Non-Resident Alien (International)	9		6		15	
Unknown Race/Ethnicity	62		69		93	
Subtotal Minority Deaf and Hard-of-Hearing Undergraduate and Graduate Students	111	39.6%	96	35.6%	117	42.9%
<b>Subtotal Deaf and Hard-of-Hearing Undergraduate and Graduate Students</b>	<b>351</b>		<b>345</b>		<b>381</b>	

	FY 2011	Percent Minority	FY 2012	Percent Minority	FY 2013	Percent Minority
<b>Other Enrollments</b>						
ASL-English Interpretation	57	20.0%	41	10.3%	45	25.0%
Master of Science in Secondary Education	27	0.0%	18	18.8%	19	8.3%
<b>Total Minority Enrollments</b>	<b>119</b>		<b>102</b>		<b>125</b>	
<b>Total Enrollments</b>	<b>435</b>		<b>404</b>		<b>445</b>	
<b>Overall Percent Minority</b>		<b>35.1%</b>		<b>32.4%</b>		<b>39.9%</b>

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

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



## Ethnicity of Enrolled Students

Minority enrollment at NTID has increased steadily from 8 percent in FY 1988 to 34 percent in FY 2012, more than 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	FY 2013	Percent
<b>Deaf and Hard-of-Hearing Undergraduate and Graduate Students</b>						
American Indian or Alaska Native	9	0.8%	**		7	0.7%
Asian	87	7.9%	77	7.1%	85	8.2%
Black or African American	126	11.4%	130	12.0%	135	13.1%
Hispanic of Any Race	131	11.8%	127	11.7%	127	12.3%
Native Hawaiian or Other Pacific Islander	0	0.0%	**		0	0.0%
White	747	67.5%	728	67.0%	652	63.1%
Two or More Races	6	0.6%	13	1.2%	28	2.7%
Non-Resident Alien (International)	40		41		48	
Unknown Race/Ethnicity	157		201		224	
Subtotal Minority Deaf and Hard-of-Hearing Undergraduate and Graduate Students	359	32.5%	358	33.0%	382	36.9%
<b>Subtotal Deaf and Hard-of-Hearing Undergraduate and Graduate Students</b>	<b>1,303</b>		<b>1,328</b>		<b>1,306</b>	
<b>Other Enrollments</b>						
ASL-English Interpretation	147	13.6%	160	22.4%	167	16.0%
Master of Science in Secondary Education***	71	10.3%	59	25.0%	56	13.5%
<b>Total Minority Enrollments</b>	<b>382</b>		<b>380</b>		<b>406</b>	
<b>Total Enrollments</b>	<b>1,521</b>		<b>1,547</b>		<b>1,529</b>	
<b>Overall Percent Minority</b>		<b>29.7%</b>		<b>30.3%</b>		<b>34.0%</b>

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

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

\*\*\* Includes 4 to 15 non-matriculated students.



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

NTID enrolls students with diverse backgrounds. This diversity has increased significantly during the past decade. 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.

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

Fall 2009-2011 Cohort	Black or African American	Asian	Hispanic of Any Race	Non-Resident Alien (International)	White
Cohort Count	93	29	94	15	412
Persisted to Second Year	64	24	63	13	296
<b>First to Second Year Persistence Rate</b>	<b>69%</b>	<b>83%</b>	<b>67%</b>	<b>87%</b>	<b>72%</b>

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

Fall 2004-2006 Cohort	Black or African American	Asian	Hispanic of Any Race	Non-Resident Alien (International)	White
Cohort Count	45	55	34	11	398
Graduated Within Six Years	13	23	13	5	168
<b>Six-Year Graduation Rate</b>	<b>29%</b>	<b>42%</b>	<b>38%</b>	<b>45%</b>	<b>42%</b>

\* 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 2012 Number of Graduates			Percentage of Total Graduates
	Minority	Non- Minority	Total***	
<b>NTID</b>				
Career-Focused and Transfer Associate Degrees	37	103	162	46%
ASL-English Interpretation	*	29	32	9%
Master of Science in Secondary Education	*	22	30	8%
<b>Other Colleges of RIT**</b>				
College of Applied Science and Technology	*	13	19	5%
College of Business	*	6	11	3%
College of Computing and Information Sciences	*	6	8	2%
College of Engineering	*	*	4	1%
College of Health Sciences and Technology	*	*	2	1%
College of Imaging Arts and Sciences	5	18	24	7%
College of Liberal Arts	*	18	25	7%
College of Science	*	6	9	3%
University Studies	12	17	29	8%
<b>Total***</b>	<b>69</b>	<b>243</b>	<b>355</b>	<b>100%</b>

\* Frequency counts small and not reported for confidentiality.

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

\*\*\* Totals include small counts shown as asterisks (\*), which are not displayed because of confidentiality. Also included are individuals with unknown race/ethnicity and international visa status. Neither are considered minority or non-minority.

## 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

ever-increasing ethnic diversity 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 2012						
	Total Employees	Female	Black or African American	Hispanic of Any Race	Other Minority	Deaf and Hard of Hearing
<b>Faculty*</b>	196	97	11	**	8	62
Percent		49%	6%	**	4%	32%
<b>Exempt Staff*</b>	119	67	7	**	**	28
Percent		56%	6%	**	**	24%
Executive/ Administrative Manager*	55	20	**	**	**	16
Percent		36%	**	**	**	29%
<b>Non-Exempt Staff</b>						
C-Print®	49	47	**	**	**	**
Percent		96%	**	**	**	**
<b>Interpreter</b>	119	105	**	**	**	**
Percent		88%	**	**	**	**
<b>Technical/     Clerical</b>	82	72	**	**	**	14
Percent		88%	**	**	**	17%
<b>Total</b>	<b>565</b>	<b>388</b>	<b>27</b>	<b>12</b>	<b>14</b>	<b>105</b>
Percent		<b>69%</b>	<b>5%</b>	<b>2%</b>	<b>3%</b>	<b>19%</b>

\* Of the 55 executive/administrative managers, 24 are included on the faculty line and 31 are included on the exempt staff line. Therefore the numbers in the Executive/Administrative Manager row are not included in the column totals, since they are already included on the faculty or exempt staff lines.

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

## Affirmative Action Report: 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, 2011 – September 30, 2012

	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	4	67	25	3	4	5	28	6
Exempt Staff	4	20	5	0	4	3	6	5
Non-Exempt Staff*	9	297	245	23	6	21	28	25
<b>Total</b>	<b>17</b>	<b>384</b>	<b>275</b>	<b>26</b>	<b>14</b>	<b>29</b>	<b>62</b>	<b>36</b>

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

## Affirmative Action Report: Faculty and Staff Hiring Results

During FY 2012, individuals from an ethnic minority totaled 3 percent of all new hires, deaf and hard-of-hearing individuals totaled 13 percent and women, 61 percent. Individuals may appear in more than one Affirmative Action category. Two new hires were individuals of unknown ethnicity.

### FY 2012

	Total New Employees	Female	Black or African American	Hispanic of Any Race	Other Minority	Deaf and Hard of Hearing
Faculty	12	4 33%	0 0%	0 0%	* *	* *
Exempt Staff	8	6 75%	0 0%	0 0%	* *	* *
Executive/ Administrative Manager**	4	0 0%	0 0%	0 0%	* *	* *
Non-Exempt Staff						
Real-Time Captionist	1	0 0%	0 0%	0 0%	* *	* *
Interpreter	0	0 0%	0 0%	0 0%	* *	* *
Technical/Clerical	10	10 100%	0 0%	0 0%	* *	* *
<b>Total</b>	<b>31</b>	<b>19</b> 61%	<b>0</b> 0%	<b>0</b> 0%	<b>1</b> 3%	<b>4</b> 13%

\* 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 Report: Faculty and Staff Termination Results

During FY 2012, 22 percent of terminations were individuals from ethnic minorities and 65 percent were women. In the chart below, individuals may appear in more than one Affirmative Action category.

### FY 2012

	Total Terminated Employees	Female	Black or African American	Hispanic of Any Race	Other Minority	Deaf and Hard of Hearing
Faculty	16	9 56%	*	*	*	5 31%
Exempt Staff	21	12 57%	*	*	*	*
Non-Exempt Staff**	18	16 89%	*	*	*	*
<b>Total</b>	<b>55</b>	<b>36</b> 65%	<b>5</b> 10%	<b>4</b> 8%	<b>2</b> 4%	<b>10</b> 18%

\* Frequency counts small and not reported for confidentiality.

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



## Research, Innovation & Creativity

NTID Performing Arts celebrated its 37<sup>th</sup> season in FY 2012.



NTID Performing Arts students donned day-glo costumes for *The Legend of Sleepy Hollow*, which used shadowgraphy—the art of performing a story using images made by hand shadows—as one of the methods for telling the story of Ichabod Crane.



## 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 priorities laid out in *Strategic Decisions 2020*, programmatic research projects 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 45,005. The research publications that solicited input were *NTID Research Bulletin*, *NTID Papers and Publications* and *Implications of NTID Research*.

### NTID Research Units

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

In FY 2012, 13 research articles and books were published; 25 external presentations and workshops were given; and 17 grant proposals were submitted. Internally, five reports and 13 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](http://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 people.
- 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](http://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 more than 20 invited presentations this academic year and collaborating with more than eight 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

## Research Overview (continued)

---

---

opportunities for both collaborations and funding. This year, CERP responded to 400 requests for information and/or assistance (100 percent more than last year), and the [www.educatingdeafchildren.org](http://www.educatingdeafchildren.org) website has averaged more than 4,700 hits per month. Over this past academic year, CERP members have published (or have in press) six peer-reviewed journal articles and one chapter. One book was published, another book is being written, and an edited book is being prepared, both under contract.

This year, the center entered the final year of 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. CERP holds a subcontract from SRI International, partnering in a project for the U.S. Department of Education. Two federal grant proposals are pending, one of which is expected to be funded (based on current funding levels). Two other grant proposals were submitted but not funded.

- 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. Using center expertise and collaborating with colleagues around the world, CERP hosts the Raising and Educating a Deaf Child website ([www.ntid.rit.edu/educatingdeafchildren](http://www.ntid.rit.edu/educatingdeafchildren) and [www.educatingdeafchildren.org](http://www.educatingdeafchildren.org)). CERP responds to submitted questions (in English, Spanish and ASL) with research-based information and references. A grant from the CVS/Caremark Foundation (ending in 2012) has allowed expansion of the site to include submissions and answers in ASL as well as “FAQ videos” (signed/spoken, interpreted and text).

CERP Research Findings. A center for education research partnerships obviously has, at its heart, research. Easily the most important accomplishments this year are 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” in educational settings. 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 the CERP website, dissemination efforts (invited presentations and publications) and ongoing research seek “simply to change the world through better understanding and improving the education of deaf students.”

Continuation of the Survive and Thrive Project: Deaf College Students' Visual Analytical Abilities. The goal of this study was to identify factors that influence persistence, retention, academic success and attrition for NTID students at entry to college. Initiated in 2007, the larger study has examined self-reports of students' personal factors relative to their actual college performance. Two nonverbal visual reasoning assessments and two personal inventories were administered. These four tests assessed nonverbal visual analytical abilities and personal factors such as intellectual interests, academic motivation, dropout proneness, coping, anxiety, attitudes, confidence, study habits, time management and sociability. A total of 547 entering deaf and hard-of-hearing students at RIT/NTID participated from three entering classes in 2007, 2008 and 2009. In this current phase of the research, preliminary results show that the visual analytical abilities of entering deaf and hard-of-hearing college students are significantly associated with their entering academic skills reflected in mathematics, science and reading test scores.

Development of Norms for the ADSA-SLV: Phase III. The Attention Deficit Scales for Adults-Sign Language Version (ADSA-SLV) is the first linguistically accessible ADHD assessment instrument designed for the deaf and hard-of-hearing population. To develop a normative database for deaf adults using the ADSA-SLV, data was collected on 148 deaf and 27 hearing college students without ADHD. The results showed that deaf and hearing adults performed similarly to non-ADHD norms on the nine subscales suggesting that the test is valid for deaf people.

Defining the Range of School Placements for Deaf and Hard-of-Hearing Students. The purpose of this project is to identify the range of current educational placement options for deaf and hard-of-hearing K-12 students, to place these options along a continuum from fully separate (residential school) to fully mainstream (regular public school in mainstream classes) and to describe the potential benefits and limitations of each model. The methods used are surveys, school visits and interviews (electronic or in person) with school personnel and parents from a representative national sample of schools. This year schools to be included in an initial survey were identified and feedback on the project goals and design was solicited from colleagues at the national conference of the Association of College Educators of the Deaf and Hard of Hearing and the NTID Admissions Department. A survey was designed and will be sent in the fall of AY 12-13 to selected schools asking them to define their model and to identify where they believe they fall along the continuum of placements available to deaf and hard-of-hearing students.

## Examples of Research Activities (continued)

---

---

Distribution of Attention in Deaf and Hearing Students: Phase III. In the previous study, it was found that adult Deaf native signers had equivalent accuracy, perceptual sensitivity and response bias on a continuous performance test, but shorter response times than hearing adults, at both central and peripheral visual field locations. Additional data was collected from deaf and hearing students to see if the results could be replicated. The data analyses show that the results of this new study are consistent with the previous results.

Collaboration in the Classroom Across Context: Interactive Brainstorming and Collaborative Documents. For this project, data was collected in the form of interactive written chats from online lab sessions and online collaborative presentation documents. Additionally a student feedback tool was designed and administered. Using three lab sessions in a graduate course taught in the fall of 2010 and again in the fall of 2011 (six sessions total), written contributions of deaf and hearing students across a variety of written and interactive contexts and their feedback on these lab sessions were evaluated. Data was reviewed and analyzed, and then published as a summary in the *NTID Research Bulletin*. A more extensive manuscript has been drafted for publication in a peer-reviewed journal. Findings include a range of usage and conversational intent in the online chat sessions, and varied outcomes in the collaborative group-produced documents. Future research would benefit from collecting video data of these types of activities in order to evaluate not only the use of online written communication, but also signed and voiced communication. This approach appears to be an effective way of encouraging online and in-person synchronous collaboration within a diverse group of students.

### 2. Communication

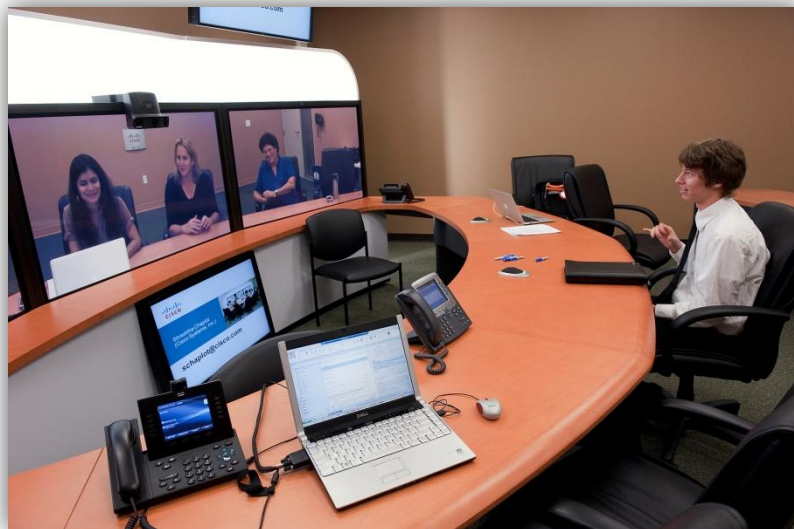
Deaf Students' Knowledge of the (In)transitivity Properties of English Verbs. This study examined deaf learners' acquisition of fundamental lexical properties of English verbs related to transitivity and intransitivity, including the distinction between unergative and unaccusative intransitive verbs. A 140-item sentence acceptability rating scale task was used to assess this lexical knowledge in deaf college students at two English proficiency levels, along with a control group of hearing native English speakers. Hypotheses were drawn from existing acquisition research and addressed the influences of relative derivational complexity and overall English proficiency level. Although the deaf participant groups showed fairly robust knowledge of the transitive and intransitive lexical properties of the high-frequency verbs targeted, in most cases the hearing control group exhibited significantly greater accuracy than the two deaf groups, and the "Higher English" deaf group exhibited greater accuracy than the "Lower English" deaf group. Further research needs to assess deaf students' knowledge of the targeted lexical properties in lower-frequency English verbs, especially unaccusative verbs that are prevalent in the discourse of STEM and other academic disciplines.

Visual Language Processing with Competing Sources of Information. Simultaneous Communication presents two streams of information to the receiver of the message, one spoken and one signed. Previous study of location of eye gaze during reception of Simultaneous Communication indicated a general preference for gazing in the region of the face rather than at the hands. The current study is a companion investigation to document the intelligibility of each source of information (mouth versus hands) when presented separately. Specialized equipment needed for frame-by-frame playback and extraction of critical cues was installed and tested in preparation for analysis of the dataset using a new analysis scheme.

## Examples of Research Activities (continued)

### 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. In the picture,



Shraddha Chaplot, left, a hardware engineer in California, interviews a student at NTID's Cisco TelePresence Center during NTID's Job Fair.

- *911 Telephone Response Systems.* A Summary Report and Whitepaper. Rochester, N.Y.: National Technical Institute for the Deaf, Center on Access Technology (March 2012). [www.rit.edu/ntid/cat/sites/default/files/NTID-911\\_20March2012\\_Final.pdf](http://www.rit.edu/ntid/cat/sites/default/files/NTID-911_20March2012_Final.pdf)
- *Use of Signing Avatars to Enhance Direct Communication Support for Deaf and Hard-of-Hearing Users.* A Summary Report and Whitepaper. Rochester, N.Y.: National Technical Institute for the Deaf, Center on Access Technology (March 2012). [www.rit.edu/ntid/cat/sites/default/files/NTID-SigningAvatar\\_20Mar2012\\_Final.pdf](http://www.rit.edu/ntid/cat/sites/default/files/NTID-SigningAvatar_20Mar2012_Final.pdf)
- *TelePresence Technologies with Professional Sign Language Interpreting Services: Face-to-Face and Remote Communication for Deaf and Hard-of Hearing Users.* A Summary Report and Whitepaper. Rochester, N.Y.: National Technical Institute for the Deaf, Center on Access Technology (October 2012). [www.rit.edu/ntid/cat/sites/default/files/NTID-TelePresence\\_17Oct2012\\_Final.pdf](http://www.rit.edu/ntid/cat/sites/default/files/NTID-TelePresence_17Oct2012_Final.pdf)

CAT Innovation Lab. The NTID CAT Innovation Laboratory (CAT Lab) is a first-of-its-kind initiative, providing a place for student involvement 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 continued in FY 2012 to conduct research and assessment on innovative uses of technology.

Deaf STEM Community Alliance: Supporting Postsecondary Deaf and Hard-of-Hearing Students in Science, Technology, Engineering and Mathematics. Funded by the NSF, this project completed its second year during FY 2012. This project will create a unique Virtual Academic Community (VAC), a cyber infrastructure 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. Many features of the VAC were in development and prototype testing during FY 2012. 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 national model that will demonstrate how remote tutoring and mentoring support and real-time captioning and interpreting access services, via the cyber

## Examples of Research Activities (continued)

---

---

infrastructure, can be deployed 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.

Deaf Weight Wise Program. The National Center for Deaf Health Research (NCDHR) is a national center for research on health, health care, disease prevention and health promotion in the deaf community. NCDHR is one of the Prevention Research Centers of the Centers for Disease Control and Prevention, and currently is funded from October 2009 - September 2014. NTID has been awarded a subcontract to collaborate with NCDHR to implement an experimental weight and obesity intervention program for the deaf community, called Deaf Weight Wise. This year collaboration with NCDHR continued to translate and film new program materials for Deaf Weight Wise and to further develop survey interface software to conduct sign language based surveys and to collect baseline and longitudinal data to assess the outcomes of the Deaf Weight Wise clinical trial. Collaboration, data analyses and dissemination of the results of prior deaf health surveys in papers and presentations at national and international conferences also occurred, along with co-authorship on sections of four federal grants.

Development of Technologies and Instructional Strategies to Support Collaborative Learning in Classrooms. This was the first year of work with NTID Innovation funding. Project activities this year included observation of a variety of classes that included group work with deaf and hearing students during class sessions; focus groups with RIT and other local college faculty and with NTID Department of Access Services interpreters and surveys of deaf and hard-of-hearing students and NTID Department of Access Services C-Print<sup>®</sup> captionists. One finding from the observations was that no one technology or tool was suitable for the various classroom situations that members of the team observed. A second finding was that deaf and hard-of-hearing students reported in the survey that if they judged themselves as having sufficiently intelligible speech and hearing, they used these abilities to a significant extent when working in small groups with hearing students.

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 and blended learning courses. The project also examines best practices for online instruction and the extent to which having an online component in a course leads to improved academic achievement for deaf and hard-of-hearing students. An article, "The importance of interaction for academic success in online courses with deaf and hard-of-hearing students" was published this academic year in the journal *The International Review of Research in Open and Distance Learning*. Research findings were presented at the Sloan International Conference on Online Learning, in Orlando, Fla. Analysis of the findings from interviews conducted with experienced online instructors at RIT and deaf and hard-of-hearing students who have taken online courses to identify "best practices" for online instruction with deaf and hard-of-hearing students currently is taking place.

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

Taking on the Glass Ceiling: Knowledge, Strategies & Research for RIT/NTID Deaf and Hard-of-Hearing Graduates' Career Growth & Promotion. This project is a continuing multi-year project that completed its first full year during AY 2011-2012. A website currently under development will come online in 2012. The purpose of this innovation project is to provide research-based insights on career growth and promotion from published literature to help deaf and hard-of-hearing people improve their paths to career success. Another purpose is to share career success stories of deaf people. A final purpose is to provide career-related information on the following topics: definitions and factors that go into career success; career planning; personal and professional factors leading to career growth and promotion and change and transition factors affecting the workplace.

## 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 team is in the final phase of 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. A solar Park and Charge station has been designed for placement just south of the library near the bus stop. The fleet went live



October 2012 just in time for the Brick City Festival. In the picture above, Clark Hochgraf, associate professor in RIT's department of Electrical, Computer and Telecommunications Engineering Technology; Jason Lee, an Electrical/Mechanical Engineering Technology major from Kendall Park, N.J.; and Scott Bellinger, senior lecturer in NTID's Engineering Studies department show off the e-bike fleet.

### Laboratory Science Technology (LST) Undergraduate Research: Climate Change and Drinking Water

Preliminary laboratory experiments have been extended into real-world samples from Conesus Lake (Finger Lakes Region of New York State). Through these environmental samples, preliminary results show the impact of anthropogenic land use on the water quality of tributaries to the lake (which is used as a drinking water source). During the past academic year, more than 12 presentations on this topic have been given, many of which featured students as the primary authors.

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.

### LST Undergraduate 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



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

---

---

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.

The first phase of this study has been completed, with plans to begin making similar measurements on new “electronic cigarette devices.” An application has been submitted for a National Institute of Health (NIH) grant to move this research to the next phase.

### **LST Undergraduate Research: Nutritional Value of Native and Invasive Wild Fruits**

This new research project focuses on the nutritional value of native versus invasive wild fruit species for migratory songbirds. Fruits contain a variety of polyphenolic compounds that may serve as antioxidants and avian consumers may benefit by seeking out these foods during periods of high oxidative stress including seasonal migrations between breeding and wintering grounds. Food resources that can serve as an antioxidant defense could potentially be beneficial for the condition of birds at migration stopover sites. Many songbird species consume large amounts of fruit during autumn migrations and these fruits can differ in nutritional quality. However, very little is known about how the total phenol content of wild fruits varies among species, particularly between native and invasive fruits, and whether total phenol content of fruits is correlated with increased antioxidant capacity in birds during stopovers. Linking fruit phenol content to avian fruit consumption may provide useful information about the nutritional and physiological impacts of frugivory in migrating birds.

Novel laboratory methods developed in NTID’s laboratory were used to analyze the fruit samples for various nutritional quality indicators. Five presentations, most involving students, have been presented this past academic year on this research project.

### **Digital Language Laboratory 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**

The 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 & Imaging Studies, Engineering Studies, Business Studies and Liberal Studies departments offered workshops on a wide range of topics during the 2011-2012 academic year. To date, 772 deaf and hard-of-hearing individuals have attended 100 different DiiT workshops.



## Innovation and Creativity at NTID (continued)

---

---

### Cochlear Implant Support

The number of students at RIT/NTID with cochlear implants has grown exponentially, from 29 students in 1999 to 356 students in Fall 2012. To accommodate the needs of these students, NTID added two additional individual sound-dampened therapy rooms to the Cochlear Implant Center in 2008. The therapy rooms contain 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. A classroom in NTID Learning Center was converted to The Sprint Relay Experimental Distance Learning/Access Demonstration Lab in summer 2007. The lab is 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 providing anytime, anywhere access for students outside of a classroom.

The Sprint Relay Lab features:

- Desktop computers, wireless laptops and mobile tablets (iPad, Android-based);
- Mobile podium with touch-screen interactive monitor enabling instructors to maintain eye contact with students while "working" the whiteboard;
- Two wall-mounted HD video cameras (instructor and audience) streaming live videos and a third supplementary SD video camera to capture front-of-classroom activities such as student presentations or recording sign language interpreters;
- Multiple multi-type wireless microphones to capture audio from instructors, students, interpreters and visitors;
- Videoconferencing systems (Polycom HDX9004, and software based); and
- Two short-throw interactive wall-mounted projectors with computer-based display, featuring network capabilities, supporting real-time interactions among remote and onsite learners.

Those distance-learning tools allow 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, since technology always has 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

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

---

---

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 of the NTID Performing Arts program 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 between the teachers and students. 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.

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's goal is to complete adding new videos to the library during the 2012-2013 academic year. The teacher-candidates also are required to observe veteran teachers in live classroom situations giving the opportunity to allow the free flow of ideas and strategies between the seasoned teachers and teacher-candidates.

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

C-Print<sup>®</sup> 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<sup>®</sup> 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 19,000 hours of classroom service per academic year. The system allows captionists to transcribe to text what teachers and students say in class. Research continues, currently focusing on the use of tablet PCs to allow the integration of graphical information along with the text and the use of mobile devices (e.g., smart phones) to transmit real-time captioning over a cellular network in non-traditional learning environments.

## Innovation and Creativity at NTID (continued)

---

---

### Online Access Services Request System

NTID has created an online Service Request and Assignment System for providing streamlined access to sign language interpreting, notetaking and real-time captioning services for students. NTID operates the largest sign language interpreting, notetaking and speech-to-text service organization in the world, including 117 sign language interpreters, more than 400 student notetakers each quarter and 52 real-time captionists. In addition, unique access services are available for vision-impaired students.

### Pre-College Education Network (P-CEN): Nippon Foundation Grants to NTID

The Pre-College Education Network (P-CEN), a five-year partnership with The Nippon Foundation, entered its second year during FY 2012. 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. During this project year a delegation from two programs in Cambodia visited NTID and local secondary programs as part of a fact-finding effort sponsored by P-CEN. This 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.

### NTID Performing Arts

For its 37<sup>th</sup> season in AY 2011-2012, NTID Performing Arts presented three mainstage productions, one black box production, and a Fall Workshop series that involved 235 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 4,259 people from throughout New York State as well as schools and community groups from neighboring states and Canada. On-campus

performances

included *The Legend of Sleepy Hollow*, *Off the Wall* (dance performance pictured here), *The Glass Menagerie* and *Silent Laughter*. The Fall Workshop Series consisted of theatre-related workshops and performances presented by nationally renowned artists such as Fred Beam (alumnus) and the Wildzappers Dance troupe, Peter Cook (alumnus) and Keith Wann, as well as NTID performing arts faculty/staff. Additional performances

included two laboratory (black box) performances by members of The RIT Players.



During AY 2011-2012, 379 students registered for and attended Performing Arts classes. Ten students were awarded performing arts scholarships, and eight students were awarded performing arts certificates.

## Innovation and Creativity at NTID (continued)

---

---

In total, approximately 4,873 people were served by NTID Performing Arts activities during the 2011-2012 production season.

### Showcasing Deaf Artists

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

### Preserving Deaf History

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

### The HeART of Deaf Culture: Literary & Artistic Expressions of the Deaf Experience

This multimedia interactive two-DVD set, produced and edited by Karen Christie and Patti Durr, explores Deaf visual art, ASL and English literature, Deaf theater and Deaf cinema. It contains in-depth interviews with Deaf scholars and creators from each genre, and features more than 300 artworks, poems, abc stories, performances and film clips. The interactive DVD was designed as a visual textbook to be used in Deaf Cultural Studies and ASL courses. In addition to an overview providing a historical context, each genre has its own interactive timeline, collection of sample works and accompanying video and text files. [www.ntid.rit.edu/educational-materials/?controller=product&path=23&product\\_id=33](http://www.ntid.rit.edu/educational-materials/?controller=product&path=23&product_id=33)

### Innovation Funds

As part of *Strategic Decisions 2020*, RIT/NTID faculty, staff and students were encouraged to submit 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 27 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 and hard-of-hearing students with Usher's Syndrome (low vision), and targeting the "glass ceiling" for deaf and hard-of-hearing students by looking at NTID graduates' long-term growth in the workplace. All projects anticipate completion in 2013.

## Imagine RIT: Innovation and Creativity Festival

Innovation and creativity were center stage on the RIT campus in May 2012, when the university held its fifth-annual *Imagine RIT: Innovation and Creativity Festival*. The event showcased RIT's unique blend of technology and the arts.

---

A record crowd of 35,000 people came to campus on May 5, 2012, for *Imagine RIT*, which featured 363 student, faculty and staff exhibits, demonstrations and performances. Visitors to *Imagine RIT* built their own virtual retail stores, experienced the latest in alternative-fuel vehicles, created artwork from their facial expressions, developed computer games and played a "larger-than-life" piano.

Exhibits by NTID students, faculty and staff included:

- The Next Big Idea – the top five teams of students who competed for cash prizes for their new product, technology or business to benefit the deaf and hard-of-hearing community talked about their projects. Ideas included a bracelet that stores medication and can alarm the user to take it; a vibrating alarm that could be used with deaf athletes on the playing field; and a waterproof procedure and shield that could enable users of cochlear implants to wear their receivers in the water.
- Teaching in a Virtual World – this exhibit put the viewer in the middle of a physics lab where objects changed in size at the click of a mouse.
- 3-D Imaging for Medical Applications – models of human heads are made on computers for advanced medical applications.
- Deaf Studies Laboratory: The Signing Brain – The differences between a deaf person's brain and a hearing person's brain, and how that may influence learning, were shown.
- Operation Brain Food – presented by the 2012 Premedical Student Association, featured two life-sized versions of the game "Operation." A granola bar complete with baristas provided healthy snacks. Children made "brains" with melted crayons.
- ASL Poets' Tribute to Robert F. Panara – RIT's undergraduate ASL poetry and performance team "Dangerous Signs" celebrated the career and legacy of ASL poetry pioneer and NTID Emeritus Professor Robert F. Panara.
- American Sign Language & Deaf Studies – featured interactive learning of ASL and awareness of Deaf culture, including craft activities and brochures to help communicate with deaf people.
- Rosica Hall 3-D Model – visitors saw what the newest building on the RIT campus will look like.
- Silent Laughter — A Live Performance – deaf and hearing actors worked together without voice interpretation.
- Specialty Graphics Printing – NTID Arts & Imaging Studies students used scale-model cars to produce vehicle wrap signs and decals.



RIT/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 Educational Materials, Patents and Inventions

NTID educational materials are categorized into two groups. Those materials developed before the October 1997 RIT Intellectual Property Policy was implemented are unlicensed materials. Those materials developed after RIT implemented the policy are licensed, and the sales revenue is shared by the creator(s) of the materials 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 materials in both categories and distribution information.

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

---

---

### Unlicensed Educational Materials

- *From Dream to Reality* (NTID's history book)  
Distributed through NTID Marketing Communications
- *Technical Signs* (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 Educational Materials

- *Attention Deficit Scales for Adults - Sign Language Version*  
Distributed through NTID Marketing Communications
- *ASL at Work*  
Distributed by Dawn Sign Press
- *ASL Dictionary and Inflection Guide* (CD)  
Distributed through Harris Communications, HearMore, Captioned Media Program, various college bookstores and NTID Marketing Communications
- *ASL Dictionary and Inflection Guide* (online subscription)  
Order online at [www.ntid.rit.edu/dig](http://www.ntid.rit.edu/dig)
- *ASL Dictionary and Inflection Guide* (iOS application)  
Order online through the Apple Store at <https://itunes.apple.com/us/app/id510152499>
- 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



## Intellectual Property (continued)

---

---

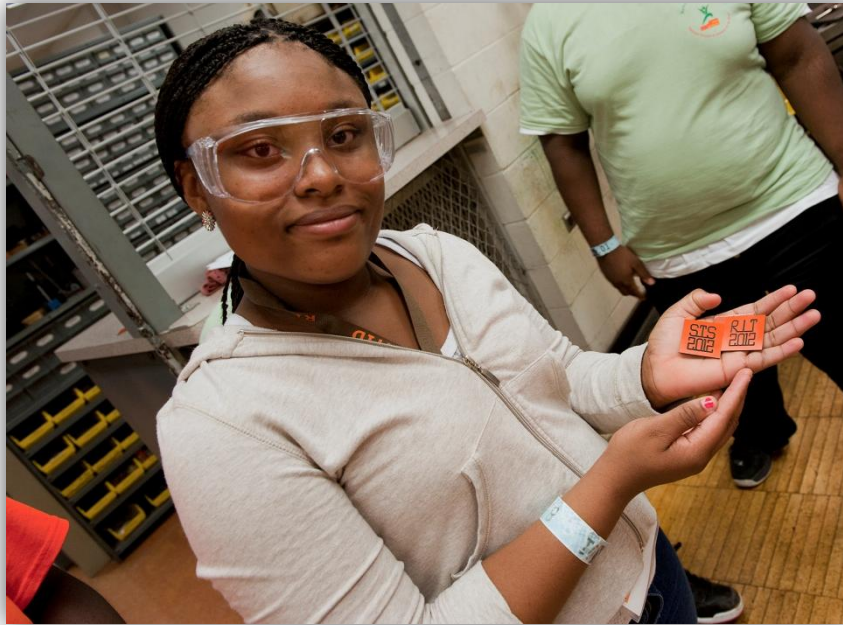
- *NTID Speechreading* (DVD and supplementary materials)  
Distributed through AUDITEC
- *Processing Skills Development* (ASL texts)  
Distributed through Barnes & Noble @ RIT and NTID Marketing Communications
- *The Heart of the Hydrogen Jukebox* (DVD)  
Distributed through NTID Marketing Communications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



*Jim Fugate, assistant professor in Engineering Studies, smiles as students Justin Katich, a Computer Aided Drafting Technology major from New Castle, Pa., and Brandon McCarty, a Civil Engineering Technology major from Lake Geneva, Wis., show off their 3-D model of Sebastian and Lenore Rosica Hall at Imagine RIT. The students, along with Andrew Crawford, a Civil Engineering Technology major from Science Hill, Ky., not pictured, developed the model as a way to learn more about Rosica Hall, a two-story, 22,000 square-foot facility that will house research and innovation projects involving deaf and hard-of-hearing students and their hearing peers. Rosica Hall will be completed in 2013.*

## 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.



A student enrolled in NTID's Steps to Success program, a weekend camp for Black or African American, Hispanic of any race and American Indian or Alaska Native students in grades 7–9, shows off the dog tags she made using a mill machine.



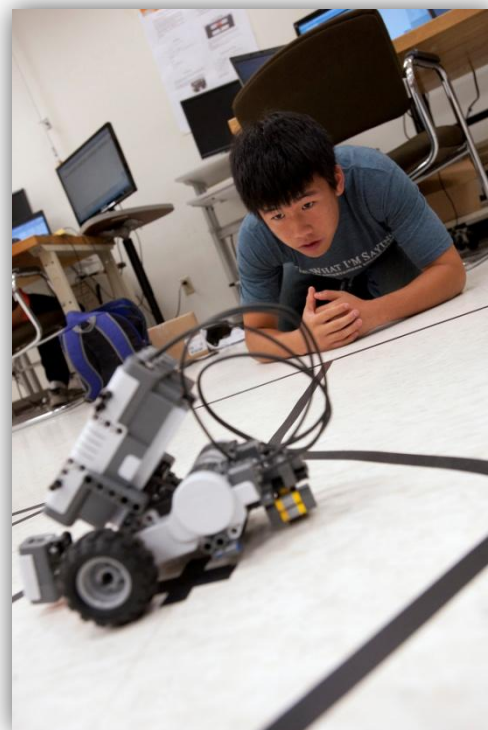
## Outreach Highlights

---

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 2012 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 Black or African American, Hispanic of any race and American Indian or Alaska Native students. During FY 2012, NTID faculty and staff conducted nine 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 Black or African American, Hispanic of any race and American Indian or Alaska Native students in grades 7–9; a math competition for middle school students using problems from MATHCOUNTS®; the Digital Arts, Film and Animation Competition for students in grades 9–12; and DRobotz, pictured right, a robot-building summer camp for students in grades 9–10.



- 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. Students participate in hands-on career exploration classes and personal awareness instruction.



Myriad social activities and dorm-living opportunities give the students a taste of college life. A total of 5,392 students have participated in EYF over the past 28 years. Forty-seven percent of the summer 2011 participants subsequently enrolled at NTID. Two sessions were offered in summer 2012. This year's participants came from 28 states and two foreign countries.

### College Outreach Programs

- 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 ([www.rit.edu/classact](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*

## Outreach Highlights (continued)

---

---

*Class.* In addition to orientation for new faculty and graduate teaching assistants, information about Project Access is shared with adjuncts and other faculty groups through the RIT Faculty Learning Communities and New Faculty Orientation. Updates and improvements are scheduled in FY 2012 for 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 NTID's Information and Computing Studies, Arts & Imaging Studies, Engineering Studies, Business Studies and Liberal Studies departments offered workshops on a wider range of topics during the 2011-2012 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 2011-2012, the DiiT project offered four workshops to 31 deaf and hard-of-hearing participants. These included:
  - Two workshops offered on the RIT/NTID campus.
  - Two workshops offered in Los Angeles, supported by the Max Factor Family Foundation.

This brings the 12-year total for the DiiT project to 100 separate workshops offered to 772 deaf and hard-of-hearing attendees.

- NTID produces sign language books for technical communication that are available through ADCO in Colorado, Butte Publications in Oregon, Harris Communications in Minnesota and at [www.ntid.rit.edu/educational-materials/](http://www.ntid.rit.edu/educational-materials/).

### Other Outreach Activities

- In 2011-2012, NTID's Center on Employment (NCE) served a total of 613 employer representatives through 26 training sessions and outreach workshops such as *Working Together: Deaf and Hearing People*. NCE successfully completed the sixth and final year of the Max Factor Family Foundation grant-supported California trip, which included five employer orientations and one alumni event. NCE completed the final year of the BNY Mellon grant, during which a total of 62 employer representatives from Pittsburgh, Pa., attended seven 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 2012, SLPI training and services included:

- A four-day SLPI new team training workshop at the National Institute for the Deaf in Worcester, South Africa
- A four-day SLPI new team training workshop at the Western Pennsylvania School for the Deaf in Pittsburgh, Pa.
- SLPI consulting and familiarization workshops at Hogeschool Utrecht, in Utrecht, The Netherlands

## Outreach Highlights (continued)

---

---

- A two-day SLPI refresher training workshop at the Atlanta Area School for the Deaf in Clarkston, Ga.
- 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<sup>®</sup> software, developed at NTID, is used by real-time captionists to produce text of spoken content. C-Print is an access service option for deaf and hard-of-hearing students in educational environments. Inquiries about C-Print come via email, phone calls and website visits. From October 2011 through September 2012, there were approximately 2,400 email dialogues and 365 phone call discussions with C-Print Product Development. The C-Print website received 26,500 visits from October 2011 to September 2012. 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 271 from October 2011 through September 2012.
- For its 37<sup>th</sup> season in AY 2011-2012 NTID Performing Arts presented three mainstage productions, one black box production, and a Fall Workshop series that involved 235 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 4,259 people from throughout New York State as well as schools and community groups from neighboring states and Canada. On-campus performances included *The Legend of Sleepy Hollow*, *Off the Wall* (dance), *The Glass Menagerie*, and *Silent Laughter*. The Fall Workshop Series consisted of theatre-related workshops and performances presented by nationally renowned artists such as Fred Beam (alumnus) and the Wildzappers Dance troupe, Peter Cook (alumnus) and Keith Wann, as well as NTID performing arts faculty and staff. Additional performances included two laboratory (black box) performances by members of The RIT Players.

During AY 2011-2012, 379 students registered for and attended Performing Arts classes. Ten students were awarded performing arts scholarships, and eight students were awarded performing arts certificates. In total, approximately 4,873 people were served by NTID Performing Arts activities during the 2011-2012 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 and staff. The aim of the program is to enhance interactions among deaf and hearing members of the RIT community. Up to 15 RIT faculty and 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 offering among RIT faculty and staff.

For the second 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 already have acquired initial introductory ASL and now are looking to expand their skills. The program was very successful this past summer and received positive reviews from those who attended; several others have already expressed interest in attending next year.

## 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 Black or African American, Hispanic and American Indian or Alaska Native students.

---

In 2012, RIT/NTID welcomed more than 600 middle school and high school students and their parents from all over the country to nine pre-college outreach efforts—four were outreach competitions and five 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 2012 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 more than 40 years of expertise in access services, program development and the application of technology to ensure that students will possess the skills and knowledge necessary to be active participants in the 21<sup>st</sup> century American workforce.

### Digital Arts, Film and Animation Competition

Deaf and hard-of-hearing students in grades 9–12 submitted 32 entries to the 2012 Digital Arts, Film and Animation Competition in six different categories: 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 July 2012, where they received cash prizes and plaques. The winners are pictured here with Heather Emerson Jeremy, assistant director of Pre-College Outreach.



### Math Competition

RIT/NTID's national Math Competition for middle school students challenges math skills, develops self-confidence and rewards achievements. In April 2012, 115 students from 27 middle schools participated in the competition at NTID. Cash prizes were given to the top three teams and individual winners. NTID worked in cooperation with the national office of MATHCOUNTS®, which operates a successful national competition that has had only very limited participation from deaf and hard-of-hearing students. The intent of the competition is to foster interest in mathematics, a national priority.

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



In 2012, 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 seventh year for the science fair, which

## Pre-College Outreach (continued)

---

---

encourages students to pursue their interest in science. Seventy-two students participated in 2012. Winners in the middle school and high school divisions received cash prizes and plaques.

### SpiRIT Writing Contest

RIT's seventh annual SpiRIT Writing Contest for deaf and hard-of-hearing students attracted 36 10<sup>th</sup>–12<sup>th</sup>-grade students from around the United States in July 2012. 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-one deaf and hard-of-hearing Black or African American, Hispanic and American Indian or Alaska Native students in grades 7–9 and their family members attended the Steps to Success career exploration mini-camp in August 2012. 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



Nineteen deaf and hard-of-hearing girls and 38 deaf and hard-of-hearing boys in grades 7–9 attended TechGirlz/TechBoyz in 2012 to explore their interests in science, technology, engineering and mathematics. This is the seventh year for TechGirlz and the second 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.

### DRobotz

Nine deaf and hard-of-hearing students in grades 9–10 attended DRobotz in 2012 to explore their interests in technology and science. This is the first year for DRobotz. The two-week summer camp held in July/August gave students the opportunity to build their own NXT2 robot and program it with commands by using cutting-edge computer programs. Students also performed experiments using computer equipment in high-tech laboratories.

## DROBOTZ





## 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.

Three FutureQuest events were held in AY 2011-2012 (Boston, Mass.; New York, N.Y.; and Dallas, Texas) for a total of 58 students and 67 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 2011-2012			
	Total Participants	Minorities	
		Number	Percent
Explore Your Future	192	58	30%
National Science Fair	72	37	51%
SpiRIT Writing Contest	36	13	36%
Digital Arts, Film and Animation	32	13	41%
Math Competition	115	19	17%
Steps to Success	21	21	100%
TechGirlz/TechBoyz Camp	57	18	32%
DRobotz	9	2	22%
FutureQuest (students only)	58	39	67%

### Project Fast Forward

Project Fast Forward was established in 2006 by a three-year grant from the National Science Foundation's Advanced Technological Education program under award DUE#: 0602761 and now is an integral part of DeafTEC. The project originally proposed to build a pathway for deaf and hard-of-hearing students to transition from high school to college in the area of Information Technology. This pathway allows deaf and hard-of-hearing high school students to take dual credit courses, earning college credit while they are still in high school.

Project Fast Forward is being expanded through DeafTEC by offering dual credit courses in more high schools, offering more dual credit courses in IT and offering new dual credit courses in Engineering/Manufacturing and Laboratory Sciences.

Nineteen partner high schools have been recruited since the beginning of the project, 17 of which are currently active in the program. Horace Mann School for the Deaf and W. Tresper Clarke High School are no longer partners due to low student numbers and inadequate resources.

## Pre-College Outreach (continued)

---

---

The chart below shows the schools recruited each year. Please note that no new schools were added to the project for two years, 2010-2011 and 2011-2012, as a result of the transition from the end of Project Fast Forward to DeafTEC.

<b>Original Partner Schools 2007-08</b>	<ol style="list-style-type: none"><li>1. Florida School for the Deaf and the Blind, St. Augustine, Fla.</li><li>2. Lexington School for the Deaf, Jackson Heights, Queens, N.Y.</li><li>3. Vines High School, Plano, Texas</li><li>4. Plano Senior High School, Plano, Texas</li><li>5. Rochester School for the Deaf, Rochester, N.Y.</li><li>6. University High School, Irvine, Calif.</li></ol>
<b>New Partner Schools 2008-09</b>	<ol style="list-style-type: none"><li>7. Eastern North Carolina School for the Deaf, Wilson, N.C.</li><li>8. Horace Mann School for the Deaf, Allston, Mass.</li><li>9. Learning Center for the Deaf, Framingham, Mass.</li><li>10. Maryland School for the Deaf, Frederick, Md.</li><li>11. Texas School for the Deaf, Austin, Texas</li><li>12. WT Woodson High School, Fairfax, Va.</li></ol>
<b>New Partner Schools 2009-10</b>	<ol style="list-style-type: none"><li>13. Mill Neck Manor School for the Deaf, Mill Neck, N.Y.</li><li>14. Murry Bergtraum High School, New York, N.Y.</li><li>15. W. Tresper Clarke High School, Westbury, N.Y.</li></ol>
<b>Partner Schools Added 2012-13</b>	<ol style="list-style-type: none"><li>16. California School for the Deaf, Fremont, Calif.</li><li>17. California School for the Deaf, Riverside, Calif.</li><li>18. Cypress Ridge High School, Houston, Texas</li><li>19. William Boone High School, Orlando, Fla.</li></ol>

Dual-credit courses. Dual-credit courses have been offered for five years at the partner 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

For the 2012-2013 academic year, two additional IT courses, *Introduction to Programming* and *Raster and Vector Graphics*, were offered to teachers at old and new partner schools. These courses are planned to be taught during this academic year.

Project Fast Forward offered dual credit courses for five years. During this time:

- 43 teachers attended the summer training to prepare to teach dual credit courses in their high schools.
- 19 guidance counselors attended summer professional activities to work with students taking the dual credit courses in their high school.

## Pre-College Outreach (continued)

- Four NTID courses have been developed and taught for dual credit.
- 62 dual credit course sections were taught by 29 teachers in their high schools.
- 260 unique deaf and hard-of-hearing students participated in the program.
- 49 of the 309 deaf and hard-of-hearing students took more than one course.
- 309 registrations were recorded in Project Fast Forward courses.
- 239 out of 309 registrations (77 percent) received passing grades.
- 717 credits were awarded to deaf and hard-of-hearing students from 13 different schools.

The following table summarizes the student enrollment, grades and credit awarded by academic year.

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
2011-2012	10	13	10	30
<b>Total</b>	<b>260</b>	<b>309</b>	<b>239</b>	<b>717</b>

Professional development. Five summer professional development sessions (summer 2007, 2008, 2009, 2010 and 2012) were offered to high school teachers and guidance counselors from the partnering high schools.

	Summer Professional Development Session						Totals
	2007	2008	2009	2010	2011	2012	
Teacher Attendees	7	11	8	3	0	11	40
Counselor Attendees	4	5	6	0	0	4	19
<b>Total</b>	<b>11</b>	<b>16</b>	<b>14</b>	<b>3</b>	<b>0</b>	<b>15</b>	<b>59</b>

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.

### 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* was awarded in August 2011. It is the largest NSF award in RIT's history and will establish the first ATE center to support individuals who are deaf or hard of hearing.

The goal of this national center is to successfully integrate more deaf and hard-of-hearing individuals into the workplace in highly skilled technician jobs in which these individuals 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.



## Pre-College Outreach (continued)

---

---

DeafTEC will establish a model within targeted regions of 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

### Florida

Florida School for the Deaf and 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, 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.

DeafTEC also will expand the dual credit program Project Fast Forward, established by NSF ATE funding in 2006 (DUE # 0602761), by offering dual credit courses in more high schools, offering more dual credit courses in Information Technology and by offering new dual credit courses in Engineering and Laboratory Sciences.

DeafTEC accomplishments for the first year include:

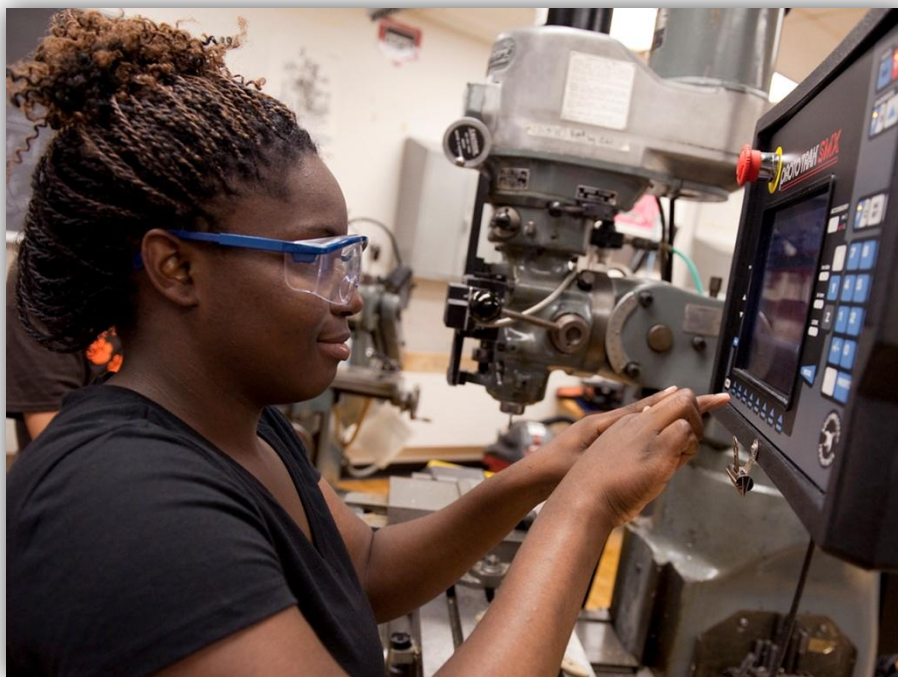
- Formed the DeafTEC National Visiting Committee (NVC), the advisory board for the Center
- Held meetings at NTID for the DeafTEC NVC and regional partners
- Developed the DeafTEC Website at [www.deaftec.org](http://www.deaftec.org)
- Visited each regional partner
- Recruited four new schools to participate in Project Fast Forward
- Completed the evaluation plan and development of evaluation instruments for summer training and first year activities
- Held and evaluated summer professional development activities including:
  - Train-the-Trainer workshops for *Project Access* and *Working Together* offered to 29 participants from high school, community college and industry partners on June 24-27, 2012.
  - Project Fast Forward dual credit course training offered to 11 teachers and four counselors on July 8-13, 2012.

## 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. 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 5,392 students have participated in EYF over the past 28 years. Forty-seven percent of the summer 2011 participants subsequently enrolled at NTID. Two sessions were offered in summer 2012. This year's participants came from 28 states and two foreign countries.

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Number of Participants	235	196	217	228	191
Percentage of Minorities	29%	30%	33%	29%	30%*
Percentage Enrolling at NTID	62%	61%	59%	47%	N/A**



*An EYF student operates a mill machine. The mill machine cuts metal into a specific shape, which then can be engraved later with the student's name.*

\* Twenty percent of students enrolled in EYF 2012 did not indicate their ethnicity on the registration form.

\*\* Students from EYF 2012 currently are in the process of applying to NTID.

## Explore Your Future – Enrollment by Location

Summer 2012 EYF students represented 28 states and two foreign countries.

Home State or Country	Number in EYF Summer 2012
Alabama	0
Alaska	0
Arizona	2
Arkansas	0
California	27
Colorado	0
Connecticut	2
Delaware	3
Florida	6
Georgia	0
Hawaii	1
Idaho	0
Illinois	14
Indiana	2
Iowa	0
Kansas	0
Kentucky	2
Louisiana	2
Maine	1
Maryland	16
Massachusetts	14
Michigan	7
Minnesota	1
Mississippi	0
Missouri	7
Montana	0
Nebraska	0
Nevada	0
New Hampshire	2
New Jersey	12
New Mexico	1
New York	26
North Carolina	1
North Dakota	0
Ohio	6
Oklahoma	0
Oregon	0
Pennsylvania	15
Rhode Island	1
South Carolina	3
South Dakota	0
Tennessee	0

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

Home State or Country	Number in EYF Summer 2012
Texas	12
Utah	0
Vermont	2
Virginia	2
Washington	0
West Virginia	0
Wisconsin	0
Wyoming	0
Other (Canada)	1
Other (India)	1
<b>Total</b>	<b>192</b>



*Colorful posters notify EYF students of the week's activities.*

## 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 now has 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 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 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 Foundation Gift**

In August 2009, NTID received a gift of \$25,000 from the Bank of New York Mellon Foundation to provide skill-building and employer-development workshops for deaf and hard-of-hearing adults in the Greater Pittsburgh, Pa., 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 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.

Another gift of \$25,000 was received from the Bank of New York Mellon Foundation to continue the skill-building and employer-development workshops for deaf and hard-of-hearing adults in the Greater Pittsburgh area. During spring 2012, eight employer awareness workshops/meetings were held in Pittsburgh with 62 representatives from several companies including BNY Mellon, WESCO International, Heinz Company, University of Pittsburgh Medical Center and Highmark.

### **Max Factor Family Foundation Gift**

NTID also received a \$20,000 gift from the Max Factor Family Foundation to support skill-building and employer development workshops. The goal of this program is to provide deaf and hard-of-hearing individuals in Los Angeles County who are employed in the workforce with technical training opportunities suited to their unique communication and cultural needs, ultimately enhancing their career trajectory, benefiting their employers and communities. These workshops also work with employers to better understand deafness and to improve communication between deaf and hearing employees. The Max Factor Family Foundation funded these programs from 2005 to 2010 and again in 2012.

In March of 2012, two workshops were offered in Los Angeles, one at the PUENTE Learning Center to 13 deaf and hard-of-hearing adults on LibreOffice and a second workshop at Greater Los Angeles Agency of Deafness to 12 staff members on various Microsoft Office related topics.

### **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 & 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 2011-2012, the DiiT project offered four workshops to 31 deaf and hard-of-hearing participants, including two workshops offered on the RIT/NTID campus and two workshops in Los Angeles supported by the Max Factor Family Foundation gift. This brings the 12-year total for the DiiT project to 100 separate workshops offered to 772 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 613 employer representatives received training through the NTID Center on Employment (NCE) in AY 2011-2012.

---

---

## Employer Training and Educational Programs

NCE conducted, delivered and presented 26 programs for 613 human resources professionals and company representatives.

### NTID Job Fair

The 11<sup>th</sup> annual NTID Job Fair was held in October 2011 with 42 employers (including eight new employers) attending and close to 350 students and alumni participating. During this fair, five 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 52 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 20 on-campus orientations; there were 18 resume packages requested.
- Consulted with 105 alumni and other deaf and hard-of-hearing adults seeking job search assistance.
- Successfully completed the sixth and final year of the Max Factor Family Foundation grant-supported California trip, which included five employer orientations and one alumni event.
- Completed the final year of the BNY Mellon grant-supported Pittsburgh, Pa., workshops. A total of 62 participants attended seven different events.

### NCE Marketing Highlights

- Created "Behind the Scenes with Chelsea" Job Fair video for students.
- Conducted marketing and media campaign to promote the 2012 NTID Job Fair to local employers.
- Exhibited at the National SHRM Diversity Conference in October 2011 in Washington, D.C.
- Created BS-level program marketing pieces to publicize deaf students in other colleges of RIT to employers.
- Revised NCE brochure and *Tips for Communicating*.
- In collaboration with the Marketing Communications department, created NCE Website Success Story project and content for features about employment in *FOCUS* magazine and parent newsletter.
- Created content for the new alumni page of the NCE website.



## Faculty and Staff

Faculty and staff average 16 years of service at NTID.



In February 2012, RIT and NTID faculty, staff and students participated in an audit showing that the majority of materials in recycle bins on campus *were* recyclable, with only 8 percent needing to be thrown away as trash.



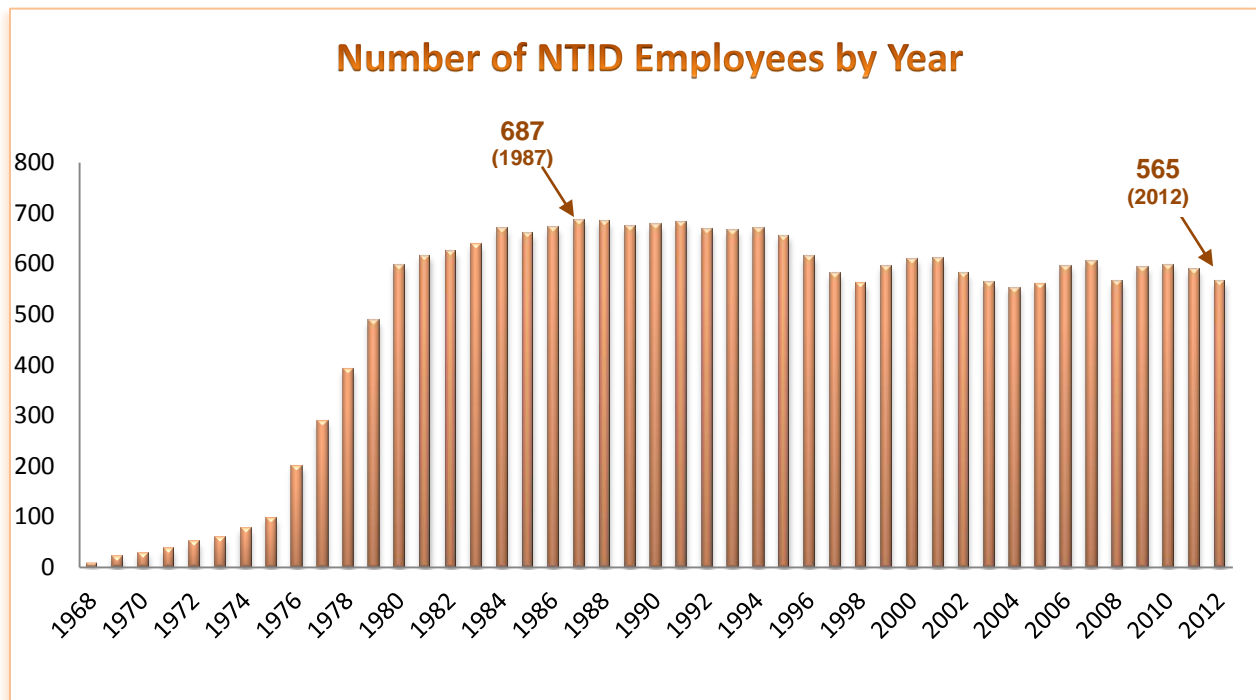
## Faculty and Staff Highlights

---

---

Attracting and retaining the most capable and dedicated faculty and staff 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 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 2012, with one of the largest student enrollments in NTID history, NTID employed 565 faculty and staff, down from 587 in fall 2011 and 598 in fall 2010.



## 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 2011 – September 2012
<b>Faculty*</b>		
Professor	34	\$105,658
Associate Professor	54	\$86,247
Assistant Professor	48	\$69,336
Senior Lecturer	9	\$65,535
Lecturer	49	\$57,402
Instructor	2	\$53,400
<b>Subtotal Faculty</b>	<b>196</b>	<b>\$76,975</b>
<b>Staff</b>		
Exempt Staff**	119	\$60,616
Non-Exempt Staff***	250	\$43,464
<b>Subtotal Staff</b>	<b>369</b>	<b>\$48,995</b>
<b>Total</b>	<b>565</b>	<b>\$58,702</b>

\* Faculty are based on full-time, 9.5 month salaries; visiting faculty are noted within their rank.

\*\* Based on full-time 12-month salaries.

\*\*\* Technical, clerical and C-Print® captionists are based on 35 hours per week/12 months per year. Interpreters are based on 40 hours per week/12 months per year.

## Tenure-Track Positions and Faculty Rank

In FY 2012, senior-level faculty members (professor and associate professor) comprised 62 percent of all ranked tenure-track faculty as compared to 47 percent in FY 1985. Of the 138 tenure-track positions, 87 percent are tenured. The number of tenure-track positions has decreased from 244 to 138 over the past 28 years.

Rank	Number of Tenure-Track Positions*					FY 2012 Faculty with Tenure	
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Number	Percent
Professor	35	40	35	35	34	34	100%
Associate Professor	61	57	55	56	52	52	100%
Assistant Professor**	60	52	53	51	48	34	71%
Instructor/Lecturer	2	1	1	1	4	0	0%
<b>Total Positions</b>	<b>158</b>	<b>150</b>	<b>144</b>	<b>142</b>	<b>138</b>	<b>120</b>	<b>87%</b>



*Werner Zorn, lecturer in Information and Computing Studies, instructs Eric Smith, of Webster, N.Y., on computer hardware.*

\* 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 2012, 96 percent of full-time, tenure-track faculty members held graduate degrees. Thirteen more faculty held doctorate degrees than in FY 2010.

---

---

<b>FY 2012 Highest Degree Level Achieved Tenure and Tenure-Track Faculty*</b>		
	Number	Percent
Doctorate	61	44%
Master's	71	52%
Bachelor's	6	4%
<b>Total</b>	<b>138</b>	<b>100%</b>

---

\* Includes ranked administrators.

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

NTID's faculty and staff average 49 years of age with 16 years of service at NTID. As of October 2012, 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%	63.1	31.8	2	8	14	7	2	0
Associate Professor	96%	59.4	27.6	15	17	6	14	2	4
Assistant Professor	100%	52.0	18.0	24	16	4	4	0	2
Senior Lecturer	100%	55.9	19.5	3	4	1	1	0	1
Lecturer	98%	43.6	8.1	40	7	0	2	0	0
Instructor	100%	37.2	10.0	2	0	0	0	0	0
Exempt Staff	99%	46.6	14.0	89	18	6	3	1	1
Technical/Clerical	97%	49.8	13.3	54	12	12	3	0	0
Interpreter	94%	43.4	14.2	100	14	0	1	2	2
Real-Time Captionist	79%	46.4	6.4	40	5	0	2	0	0



*Patricia Iglesias Victoria, assistant professor in Engineering Studies, discusses her research with Dino Laury, chairperson of Engineering Studies.*

\* 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 2008	FY 2009	FY 2010	FY 2011	FY 2012
<b>Full-Time:</b>					
Faculty	13	11	13	6	11
Exempt Staff	8	12	14	13	7
Non-Exempt Staff*	28	18	24	13	7
<b>Total Full-Time</b>	<b>49</b>	<b>41</b>	<b>51</b>	<b>32</b>	<b>25</b>
<b>Part-Time:</b>					
Faculty	0	0	1	0	0
Exempt Staff	1	1	1	0	1
Non-Exempt Staff*	9	1	6	4	5
<b>Total Part-Time</b>	<b>10</b>	<b>2</b>	<b>8</b>	<b>4</b>	<b>6</b>
<b>Total</b>	<b>59</b>	<b>43</b>	<b>59</b>	<b>36</b>	<b>31</b>

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

## Faculty and Staff Terminations

The faculty and staff turnover rate, 9.7 percent, is an increase from last year. Retirements of current faculty and staff are expected to rise as the employee base ages.

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	
Full-Time/Part-Time					Percent	Number
Faculty	6.7%	2.5%	6.9%	6.6%	8.2%	16
Exempt Staff*	6.6%	6.9%	10.0%	9.0%	17.6%	21
Non-Exempt Staff**	12.7%	4.2%	9.8%	9.8%	7.2%	18
<b>Total</b>	<b>9.4%</b>	<b>4.2%</b>	<b>8.9%</b>	<b>8.5%</b>	<b>9.7%</b>	<b>55</b>

\* Includes all exempt staff and educational development faculty.

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

## RIT/NTID Leadership



Sean Belanger, ZVRS CEO (far left), and Chris Wagner, ZVRS senior vice president for business operations and marketing and NTID Foundation Board chair, join NTID President Gerry Buckley (far right) to congratulate the winners of The Next Big Idea, an annual competition that challenges students to create a business or product that will benefit the deaf and hard-of-hearing community. Students Michael Della Penna, Tyler Swob and Jeremiah Thompson won for making a device to facilitate communication via vibration notification for deaf and hard-of-hearing athletes.



## 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. Stephen Aldersley**  
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. Linda Bryant**  
Interim Associate Dean for  
Student and Academic Services



**Dr. Kathryn Schmitz**  
Associate Dean for  
Academic Administration

---

\* The following individuals also served on the NTID Administrative Council in FY 2012: Dr. Laurie Brewer – Vice Dean and Associate Vice President for Academic Affairs and Dr. Robb Adams – Associate Dean for Student and Academic Services.

## NTID Administrative Council (continued)

---

---



**Dr. Rico Peterson**  
Assistant Dean and Director,  
NTID Access Services



**Marianne Gustafson**  
Associate Dean for  
Curriculum and Special  
Projects



**Pamela Carmichael**  
Executive Director of  
Communications, Marketing  
and Multimedia Services



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



**Alvin Boyd**  
Special Assistant 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

#### **Brenda Battat**

Retired Executive Director, Hearing Loss Association of America

#### **Andrew N. Breneman '86 AS, '88 BS**

Senior National Account Executive, Sprint Nextel

#### **Elizabeth Ayers Gibson '98 BS, '02 MS**

Advanced Practice Sonographer, Virginia Mason Medical Center

#### **Dr. Catherine Hunt**

R&D Director, Innovation Sourcing and Sustainable Technologies, DOW Chemical Company

#### **Cinda Lautenschlegar '87 BS**

Lead Senior Air Pollution Control Engineer, Connecticut Department of Environmental Protection

#### **Lauren Lercher '80 AAS; '81 BS**

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**

President/CEO, Hiawatha National Bank

#### **Dr. Harold Mowl**

Superintendent/CEO, Rochester School for the Deaf

#### **Leeanne Seaver**

Owner, Seaver Creative Services, Inc.

#### **Dr. Laurance Warford**

Senior Workforce Consultant, League for Innovation in the Community College

#### **Sara Weiner-Collier '97 BS**

Project Coordinator, Women with Disabilities Health Equity Coalition, Oregon Health and Science University

#### **Dr. Olga Welch**

Dean, Duquesne University School of Education

## NTID National Advisory Group (continued)

---

---

### U.S. Department of Education

#### **Annette Reichman**

Director/Liaison, Office of Special Institutions, Office of Special Education and Rehabilitative Services

### 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



*Jeanne Behm, coordinator of the RIT ASL and Deaf Studies Community Center (RADSCC), visits with Keko Murashige, an Automation Technologies major from Tuscon, Ariz., at an RADSCC open house.*

## 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**

Associate Professor, Engineering Director of Center on Access Technology Innovation Laboratory, NTID

**Arthur Carroll**

Chief Executive Officer, Mayflower Management Consulting, LLC

**Gracie Coleman** (Emeritus Director)

President & CEO, Coleman Consulting Services

**Meredith Crane** (Emeritus Director)

Executive Director, Deaf Initiatives, Inc.

**Michael Ellis**

National Director, Sprint Nextel

**Max Factor III** (Honorary Director)

Attorney at Law, Factor Mediation and Arbitration Services, Inc.

**Sean P. Flanagan**

Sr. Customer Business Manager, Bayer Consumer Care

**Sue Gagnon-Flanagan**

Volunteer Event Coordinator

**Eric Gjerdingen '92**

Executive Director, DEAF Inc.

**Dr. Mary Jane Hellyar** (Emeritus Director)

Retired Executive Vice President, Film & Photofinishing Systems Group, Eastman Kodak Company

**Gordon Hewitt '73, '75 MS**

Chief for Strategic Enterprise Initiative Branch, U.S. Dept. of Homeland Security

**Andrew Jacobson '90, '96 MS**

Enrolled Agent, Better Tax Service

**Edward Latimer, M.D.**

Psychiatrist

**Gretchen Logue**

**Ken Logue**

National Sales Manager  
ITW Company

## NTID Foundation Board (continued)

---

---

**Steven M. Morse**

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

**Anthony Napoli '01 BS**

Case Manager, Environmental Protection Agency

**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 D. Wagner '94**

Senior Vice President of Operations, ZVRS, LLC

**Cynthia F. Walker** (Emeritus Director)

**George D. Webb II**

Retired Senior Vice President of Operations, Great West Life Insurance Company

**Diane Weihs**

**Gary Weihs**

Managing Director, Kincannon & Reed

**Sandra Weintraub**

**Steven J. Weintraub, M.D.**

Medical Director, Department of Anesthesia, North Shore - Long Island Jewish Health System

## RIT Officers

---

---

**Dr. William W. Destler**  
President

**Karen Barrows**  
Secretary to the Institute and Chief of Staff

**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 Haefner**  
Provost and Senior Vice President for Academic Affairs

**Kevin McDonald, J.D.**  
Vice President and Associate Provost for Diversity and Inclusion

**Dr. Katherine J. Mayberry**  
Vice President for Strategic Planning and Special Initiatives

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

**Dr. David Ornt**  
Vice President, Institute of Health Sciences and Technology; Dean, College of Health Sciences and Technology

**Dr. Ryne Raffaele**  
Vice President for Research and Associate Provost

**Deborah M. Stendardi**  
Vice President, Government and Community Relations

**Dr. James H. Watters**  
Senior Vice President, Finance and Administration

## RIT Board of Trustees Active Trustees

---

---

**Kathleen Anderson**

'94; Media Director, Travers Collins & Company (TCC)

**Willem Appelo**

Senior Vice President, Xerox Corporation

**Donald N. Boyce**

BS '67; Chair, Board of Trustees, Rochester Institute of Technology; Retired Chairman of the Board, IDEX Corporation

**Andrew N. Brenneman**

AS '86, BS '88; Senior National Account Executive, Sprint Nextel; also serves as NTID National Advisory Group Representative

**Charles S. Brown, Jr.**

MBA '79; Retired Director for the Rochester Area Colleges Center for Excellence in Math and Science, Nazareth College of Rochester

**Judy B. von Bucher**

**William A. Buckingham**

BS '64; Chair Emeritus, Board of Trustees, Rochester Institute of Technology; Retired Executive Vice President, M&T Bank

**David J. Burns**

President and Chief Operating Officer, Ex One Corporation

**Ann L. Burr**

Chairman and General Manager, Frontier Communications of Rochester, Frontier Communications Corp., Citizens Communications

**Mark C. Clement**

President and Chief Executive Officer, Rochester General Health System; President, Rochester General Hospital

**Thomas Curley**

MBA '77; President and Chief Executive Officer, The Associated Press

**William W. Destler**

President, Rochester Institute of Technology

**Robert A. Dobies**

Retired Vice President, ExxonMobil Chemical Company

**Donna J. Ehrhart**

Professor of Business and Computer Information Systems, Genesee Community College

**Nancy L. Fein**

BS '76; Vice President, Vehicle Supply Chain Strategy, Toyota Motor Sales, USA

**B. Thomas Golisano**

Chairman, Paychex, Inc.

**Arthur A. Gosnell**

Chairman and Chief Executive Officer, Stonehurst Capital LLC



## RIT Board of Trustees Active Trustees (continued)

---

---

**Bart G. Guerrerri**

Chairman and Chief Executive Officer, DSD Laboratories, Inc.

**Brian H. Hall**

MBA '78; Vice Chair, Board of Trustees, Rochester Institute of Technology; Retired Vice Chairman, The Thomson Corporation

**Jeffrey K. Harris**

BS '75; Retired Corporate Vice President, Lockheed Martin

**Frank S. Hermance**

BS '71, MS '73; Chairman and Chief Executive Officer, AMETEK, Inc.

**Susan R. Holliday**

MBA '85; President and Publisher, Rochester Business Journal

**Jay T. Holmes**

Retired Executive Vice President and Chief Administrative Officer, Bausch & Lomb, Inc.

**Samuel Tom Hubbard, Jr.**

Retired Chairman, High Falls Brewing Company LLP

**Thomas F. Judson, Jr.**

Chairman and Chief Executive Officer, The Pike Company

**Richard A. Kaplan**

Chief Executive Officer, Torvec Inc.

**Kraig H. Kayser**

President and Chief Executive Officer, Seneca Foods Corporation

**Joyce B. Klemmer**

BS '78; Partner, Smith, Gambrell and Russell LLP

**David Koretz**

'97; President and Chief Executive Officer, BlueTie, Inc.

**Gary J. Lindsay**

BS '64; C.P.A.

**Joseph M. Loboizzo II**

MBA '95; Chairman of the Board, JML Optical Industries, Inc.

**Essie L. Calhoun McDavid**

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

**Lawrence J. Matteson**

Retired Vice President, Imaging and Information Systems, Eastman Kodak Company

**Roosevelt Mercer, Jr.**

Vice President and Director, ISR Space Systems Division, ITT Industries

**Harold M. Mowl**

Superintendent and Chief Executive Officer, Rochester School for the Deaf; also serves as NTID National Advisory Group Representative

## RIT Board of Trustees Active Trustees (continued)

---

---

**Brian P. O'Shaughnessy, Esq.**

BS '81, MS '84; Shareholder, Buchanan Ingersoll & Rooney, PC

**Sandra A. Parker**

Chief Executive Officer, Rochester Business Alliance, Inc.

**Wolfgang Pfizenmaier**

Retired Member of the Management Board, Heidelberger Druckmaschinen AG

**Gerard Q. Pierce**

MBA '77; Senior Vice President for Human Resources, Wegmans Food Markets, Inc.

**Susan M. Puglia**

Vice President, IBM; Process Transformation for Development and Technical Support, IBM Corporation

**Thomas S. Richards**

Mayor, City of Rochester

**Robert W. Rice**

BS '94, MBA '97; President and Managing Partner, BayFirst Solutions LLC

**Susan J. Riley**

BS '81; Former Executive Vice President, The Children's Place

**Richard E. Sands**

Chairman, Constellation Brands, Inc.

**Janet F. Sansone**

Retired Chief Management Officer, The United States Government Printing Office

**Carl E. Sassano**

BA '72; Chairman of the Board, Transcat, Inc.

**Stephen L. Schultz**

AS '88, BS '89; Co-Founder and Chief Technology Officer, Pictometry International, Inc.

**Frank S. Sklarsky**

Chief Financial Officer and Executive Vice President, Tyco International

**Kevin J. Surace**

'85; Chief Executive Officer, Serious Materials

**Sharon Ting**

Partner, Axialent, Inc.

**Harry P. Trueheart III**

Chairman, Nixon Peabody LLP

**Donald J. Truesdale**

BS '87; Partner, Goldman, Sachs & Co.

**Chester N. Watson**

BS '74; General Auditor, General Motors Corporation

## RIT Board of Trustees Active Trustees (continued)

---

---

**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



First-year students Ashley Wood, of Burlington, N.J.; Ronny Cuevas of Pennsauken, N.J.; and Diana Guevara of Clifton, N.J., take a bite out of college life at NTID's Applefest.

## Financial Operations Highlights

---

---

Fiscal Year 2012 was challenging as the federal appropriation was held to essentially the same level as in 2011, \$65,422,118. When combined with non-federal revenues, the total funds to support operations rose by a modest 0.6 percent. In response to this, NTID managed its expenditures very carefully throughout the year.

Management of headcount offset salary increments and benefits costs resulting in compensation growth being held to 2.2 percent. Compensation accounts for 55 percent of NTID's expenditures. Payments for services purchased from RIT account for 35 percent of NTID expenditures. These payments grew by 1.9 percent as increases in indirect charges were offset by decreases in the costs of residence halls, student services and payments for credit hours NTID students take in the other colleges of RIT.

Operating efficiencies allowed NTID to increase the amount of access services (interpreting, captioning and notetaking) provided to students at a lower cost than in 2011. In the same way, the judicious allocation of institutionally sponsored financial aid allowed the student need to be met with fewer resources. Finally, expenditures for equipment to support academic programs were significantly reduced in response to level of operating revenue.

It is clear that federal resources will be significantly restricted in fiscal year 2013 and NTID took definitive steps in 2012 to assure that this challenge may be met with the least impact on programs offered to students. Reductions to faculty and staff positions combined with across-the-board operating reductions will allow NTID to function well should the federal appropriation be held to the same level for the third consecutive year.

## Financial Operating Results

In FY 2012, NTID operating revenue increased by 0.6 percent. The federal appropriation of \$65,422,118 represented a 0.2 percent increase over FY 2011 while non-federal revenue (tuition, room, board and fees) increased by 1.9 percent.

	FY 2011	FY 2012	Variance \$	Variance %
<b>EXPENSES</b>				
Personnel Compensation Expenditures				
Salaries and Wages	\$34,784,851	\$35,672,376	\$887,525	2.6%
Benefits	12,792,509	12,949,970	157,461	1.2%
<b>Total Personnel Compensation</b>	<b>\$47,577,360</b>	<b>\$48,622,346</b>	<b>\$1,044,986</b>	<b>2.2%</b>
RIT Services Expenditures				
Direct:				
Residence Halls/Food Service, Student Services	\$8,381,933	\$7,562,794	(819,139)	-9.8%
Cross-Registered Tuition	8,225,641	8,040,804	(184,837)	-2.2%
Physical Plant Services	2,048,761	2,226,971	178,210	8.7%
Indirect:				
Overhead	12,001,473	13,404,341	1,402,868	11.7%
<b>Total RIT Services</b>	<b>\$30,657,808</b>	<b>\$31,234,910</b>	<b>\$577,102</b>	<b>1.9%</b>
Other Expenditures				
Support Expenditures	\$5,757,898	\$5,395,787	(362,111)	-6.3%
Grant Cost Shares	305,334	337,699	32,365	10.6%
Financial Aid	2,818,975	2,731,320	(87,655)	-3.1%
Capital	1,350,303	581,689	(768,614)	-56.9%
Matching Endowment	220,700	141,418	(79,282)	-35.9%
Plant Fund	865,373	1,075,525	210,152	24.3%
<b>Total Other</b>	<b>\$11,318,583</b>	<b>\$10,263,438</b>	<b>(1,055,145)</b>	<b>-9.3%</b>
<b>Total Expenses</b>	<b>\$89,553,751</b>	<b>\$90,120,694</b>	<b>\$566,943</b>	<b>0.6%</b>
<b>REVENUE</b>				
Federal Appropriation	\$65,306,126	\$65,422,118	\$115,992	0.2%
Non-federal Funds	24,247,625	24,698,576	450,951	1.9%
<b>Total Revenue</b>	<b>\$89,553,751</b>	<b>\$90,120,694</b>	<b>\$566,943</b>	<b>0.6%</b>

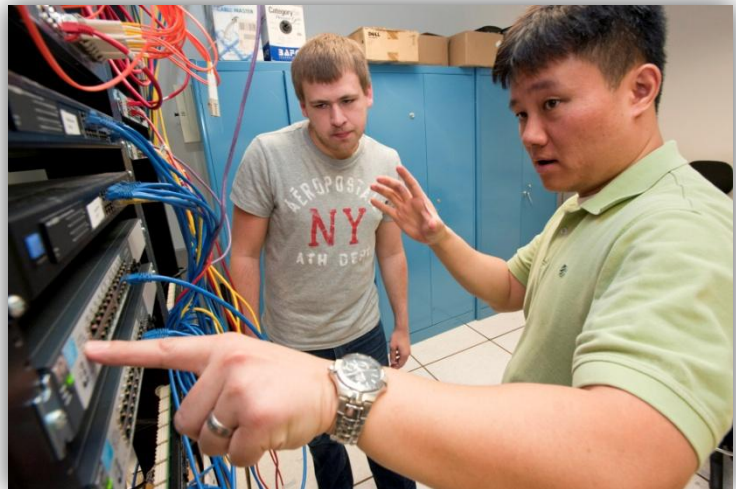
## Tuition, Room, Board and Other Fees

Tuition and fees increased by 4.9 percent while charges for room and board increased by 3.7 percent for a total combined increase of 4.3 percent. These non-federal resources constitute 27 percent of NTID's total operating revenue.

### Rates Charged Students

	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	474
<b>Total</b>	<b>\$18,876</b>	<b>\$19,884</b>	<b>\$20,592</b>	<b>\$21,516</b>	<b>\$22,449</b>
Collections	\$19,343,000	\$21,881,600	\$22,849,300	\$24,247,625	\$24,698,576
Enrollment (Fall)	1,343	1,450	1,474	1,521	1,547
<b>Collections Per Student</b>	<b>\$14,403</b>	<b>\$15,091</b>	<b>\$15,502</b>	<b>\$15,942</b>	<b>\$15,965</b>

*Tao Eng, a lecturer in Information and Computing Studies, demonstrates equipment to Aaron Swank, an Applied Computer Technology major from Wadsworth, Ill.*



## Financial Aid

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



ASL-English Interpretation students are all smiles on graduation day. FY 2011 graduates of the program had a 100 percent employment rate in FY 2012.



## Financial Aid (Domestic Students)

Financial aid awards to students totaled \$22.5 million in 2012, a 2.8 percent increase over 2011. There was a 3.6 percent decrease in institutionally sponsored aid driven by a 28.2 percent decrease in grants from NTID

endowments. State and federal aid increased by 3.0 percent while loans taken by students increased by 6.8 percent. Overall, the average financial aid per student (excluding loans) remained level from 2011.

SOURCE OF AID	2011*		2012*		DIFF %
	Awards*	Amount	Awards*	Amount	
<b>INSTITUTIONALLY SPONSORED SUPPORT</b>					
Grant-in-Aid:					
NTID Grant-in-Aid	339	\$1,167,937	348	\$1,206,833	3.3%
RIT Grant-in-Aid	24	\$101,018	33	\$96,802	-4.2%
Subtotal Grant-in-Aid	363	\$1,268,955	381	\$1,303,635	2.7%
Scholarships:					
NTID Merit	444	\$1,399,938	461	\$1,445,985	3.3%
RIT Merit	67	\$97,698	64	\$93,199	-4.6%
NTID Endowments	474	\$850,824	376	\$611,265	-28.2%
External Groups	95	\$163,970	100	\$192,394	17.3%
Subtotal Scholarships	1,080	\$2,512,430	1,001	\$2,342,843	-6.7%
<b>Subtotal Institutionally Sponsored Support</b>	<b>1,443</b>	<b>\$3,781,385</b>	<b>1,382</b>	<b>\$3,646,478</b>	<b>-3.6%</b>
<b>STATE AND FEDERAL SUPPORT</b>					
Grants:					
Pell Grants	706	\$3,130,369	702	\$2,972,676	-5.0%
State Grants	227	\$464,249	236	\$502,031	8.1%
Subtotal Grants	933	\$3,594,618	938	\$3,474,707	-3.3%
Other Federal Support:					
Vocational Rehabilitation	904	\$8,805,867	943	\$9,314,927	5.8%
Federal Work Study	34	\$59,261	22	\$38,534	-35.0%
Subtotal Other Support	938	\$8,865,128	965	\$9,353,461	5.5%
<b>Subtotal State and Federal Support</b>	<b>1,871</b>	<b>\$12,459,746</b>	<b>1,903</b>	<b>\$12,828,168</b>	<b>3.0%</b>
<b>LOANS</b>					
Subsidized Federal Student Loan	634	\$2,583,863	655	\$2,643,177	2.3%
Unsubsidized Federal Student Loan	602	\$2,538,941	641	\$2,791,802	10.0%
Parent PLUS Loans	72	\$548,348	74	\$623,949	13.8%
<b>Subtotal Loans</b>	<b>1,308</b>	<b>\$5,671,152</b>	<b>1,370</b>	<b>\$6,058,928</b>	<b>6.8%</b>
<b>TOTAL ALL FINANCIAL AID</b>	<b>4,622</b>	<b>\$21,912,283</b>	<b>4,655</b>	<b>\$22,533,574</b>	<b>2.8%</b>
<b>Domestic Student Enrollment</b>		<b>1,481</b>		<b>1,505</b>	<b>1.6%</b>
<b>Average Financial Aid per Student</b>		<b>\$14,796</b>		<b>\$14,972</b>	<b>1.2%</b>
<b>Average Financial Aid per Student Excluding Loans</b>		<b>\$10,966</b>		<b>\$10,947</b>	<b>-0.2%</b>

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

## External Funding Sources



**Members of the public attend NTID Performing Arts productions at the Robert F. Panara Theatre, named for Dr. Robert Panara, RIT's first deaf professor and founder of the NTID Drama Club.**

## The NTID Foundation

NTID received \$1,637,075 in new commitments of support including outright gifts of cash and equivalents, gifts-in-kind, deferred gifts and pledges. These dollars were designated to support NTID endowed funds, construction of Sebastian

and Lenore Rosica Hall, equipment upgrades to classrooms and laboratories, P-CEN and a variety of research and pre- and post-college outreach programs.

Contributions of \$1,000 and above received during FY 2012 include:

<b>\$250,000 - \$999,999 Level:</b>	The Nippon Foundation
<b>\$100,000 - \$249,999 Level:</b>	Anonymous Dr. Linda A. Siple and Mr. Thomas F. Gibbons
<b>\$50,000 - \$99,999 Level:</b>	Novartis Sprint Nextel
<b>\$25,000-\$49,999 Level:</b>	The Bank of New York Mellon Dr. and Mrs. James J. DeCaro Dr. and Mrs. Ronald R. Kelly William G. McGowan Charitable Fund Dr. and Mrs. Harold M. Mowl, Jr. Mr. Robert W. Rice Mr. George D. Webb, II
<b>\$10,000 - \$24,999 Level:</b>	Baird Foundation Capita Foundation Dell Computer Corporation Camille & Henry Dreyfus Foundation Enfocus Software, Inc. Max Factor Family Foundation Jephson Educational Trust Budd Levinson Foundation, Inc. Ralph M. Parsons Foundation Solon E. Summerfield Foundation, Inc. ZVRS
<b>\$5,000 - \$9,999 Level:</b>	Cisco Systems, Inc. Mr. Rodney Danco, Jr. Ms. Lauren D. Lercher Mrs. Kathleen M. Martin Mrs. Jane Ratcliffe Pulver Mr. Philip Rubin Sorenson Communications, Inc.
<b>\$1,000 - \$4,999 Level:</b>	Mr. Robb E. Adams Mr. Joseph Adasko Anonymous Barnes Group Foundation, Inc. Mr. Andrew N. Brenneman Dr. Laurie C. Brewer Mr. Eric B. Bruckman Ms. Lindsay A. Buchko Dr. and Mrs. Gerard J. Buckley

## The NTID Foundation (continued)

---

---

### \$1,000 - \$4,999 Level:

Dr. Richard V. Burkhauser  
Dr. Karen K. Conner  
Constellation Energy Group Foundation, Inc.  
Mrs. Meredith M. Crane  
Dr. Vincent A. Daniele  
Dr. Terry Feigenbaum  
Mr. Frederick G. Feldman  
Mr. Robert A. Foster  
Dr. D. Robert Frisina  
Mr. Daniel Gahagan  
Mr. Warren R. Goldmann  
Hamilton Relay  
Dr. Robert I. Harris  
Mr. Gordon J. Hewitt  
Ms. Charmaine Jacobs Hlibok  
Bernard R. Hurwitz and Stacy M. Lawrence  
Dr. T. Alan and Vicki T. Hurwitz  
Mrs. Mary Jo Nixon Ingraham  
State of Israel Ministry of Finance  
Mr. David J. Krohn  
Drs. Christopher and Kim Kurz  
Stefano La Sala Foundation, Inc.  
Dr. Marvin Lessig  
Mr. Martin G. Lichtenstein  
Mr. Chad Andrew Ludwig  
Mr. Steven M. Morse  
Ms. Gabrielle A. Nocciolino  
Dr. Robert F. Panara  
Dr. Richard W. Peterson  
Ms. Karey T. Pine  
Quark, Inc.  
Dr. Marie Louise Raman  
Mr. James T. Reid  
Rochester Area Community Foundation  
Mrs. Sidonie Merkel Roepke  
Mr. Carl E. Sassano, II  
Mr. John Scanlon  
Mrs. Joanne Schmeelk  
Dr. Kathryn L. Schmitz  
Mrs. Eleanor P. Scouten  
Mr. Michael S. Servé  
Mr. Matthew N. Sickon  
Mr. Erwin J. Smith  
Mr. Mark Sommer  
Sprint Foundation  
Mr. James J. Stefano  
Mr. Paul L. Taylor, III  
Mr. William Urich  
Louis S. & Molly B. Wolk Foundation

## NTID Annual Fundraising Results

Through the ongoing support of the NTID Foundation, the institute's development program continues to be successful even in this tough economic climate. The substantial sums that NTID raises demonstrate NTID's commitment to seeking alternative sources of public and private support.

In FY 2012, NTID development activity generated \$1,460,336 for endowment and restricted purposes. Of that amount, \$141,418 was matched with federal dollars and directed toward NTID's endowed scholarship funds.

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Endowment and Restricted Funds	\$2,527,289	\$2,085,697	\$2,602,401	\$2,975,368	\$1,460,336
Equipment and Software	254,191	87,660	94,100	1,028,004	\$141,740
<b>Total</b>	<b>\$2,781,480</b>	<b>\$2,173,357</b>	<b>\$2,696,501</b>	<b>\$4,003,372</b>	<b>\$1,602,076</b>



*NTID students perform in Silent Laughter. There are several endowed funds for the NTID Performing Arts program.*

## NTID Endowment Programs

A total of \$282,836, including matching federal funds\* of \$141,418, was added to the Federal Matching Endowment Fund corpus in 2012. The market value of NTID's Federal Matching Endowment portfolio stands at \$43,322,277.

The market value of NTID's total endowments, which include privately raised funds prior to the establishment of the Federal Matching Endowment program, is \$48,190,475.

### Value as of September 30, 2012

	Contributed Value	Market Value
<b>Funds Subject to Federal Investment and Spending Guidelines</b>		
Private	\$7,570,803	\$10,694,074
Federal	\$7,479,205	\$10,162,574
Subtotal	\$15,050,008	\$20,856,648
<b>Funds No Longer Subject to Federal Investment and Spending Guidelines</b>	\$12,018,625	\$22,465,629
<b>Total Federal Endowment</b>	<b>\$27,068,633</b>	<b>\$43,322,277</b>
<b>Other Endowments</b>	<b>Contributed Value</b>	<b>Market Value</b>
Private	\$1,891,940	\$4,868,198
<b>Total Endowments</b>	<b>\$28,960,573</b>	<b>\$48,190,475</b>

\* There no longer is 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 NTID 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

Caption First Scholarship at NTID

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

Linda A. Iacelli Endowed Student Support Fund

Interpretek Endowed Scholarship Fund

## Scholarships and Endowed Funds (continued)

---

---

Lucille Ritter Jennings Endowed Scholarship Fund  
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  
Ron and Lyn Kelly Endowed Scholarship for Deaf and Hard-of-Hearing Students  
Drew and Frances King Endowment Fund  
Sara L. Kuhnert Endowed Scholarship Fund  
La Sala Foundation Doctoral Fellowship Fund  
Johanna Larson Endowed Scholarship in the Allied Health Disciplines  
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  
Florence L. Ohringer Art Scholarship Fund  
Milton H. and Ray B. Ohringer Endowed Scholarship Fund  
Ohringer Judean Deaf Students Endowed Scholarship Fund at NTID  
Robert F. Panara Endowed Scholarship Fund  
Shirley M. Panara Memorial Endowed Fund  
Pulver Family Endowed Scholarship Fund



## Scholarships and Endowed Funds (continued)

---

---

Robert W. Rice 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  
Royichi Sasakawa / James J. DeCaro 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 2012 NTID had 54 new grant proposals totaling \$11,031,590 that were submitted for funding. Twenty, totaling \$881,481, were funded; 21 are still pending; 13 were not funded.

As of September 30, 2012, the annual value of all grants and contracts at NTID totaled \$2,317,426, with a total value over the lives of the projects of \$11,032,008.

Project Title	Grant Provider	Year	Amount FY 2012	Total Value
The Science of Learning Center on Visual Language Visual Learning	National Science Foundation	6 of 7	\$65,052	\$1,190,879
The Science of Learning Center on Visual Language Visual Learning - Supplemental Funding	National Science Foundation	1 of 1	\$35,000	\$35,000
Spoken Language & Literacy	Department of Education	1 of 1	\$51,779	\$51,779
DRobotz: A STEM Summer Camp for Deaf and Hard-of-Hearing High School Students	National Science Foundation	1 of 1.5	\$40,000	\$40,000
National Center for Deaf Health	National Institutes of Health	3 of 5	\$65,947	\$373,711
Development of Working Prototypes of Z Notifier for ZVRS	ZVRS	1 of 1	\$85,196	\$85,196
Adolescent Cardiovascular Health Literacy Survey Project Media Development	National Institutes of Health	1 of 1	\$17,280	\$17,280
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
Collaborative Research: Real-Time Captioning by Groups of Non-Experts	National Science Foundation	1 of 3	\$0	\$80,646
Pre-College Education Network (P-CEN)	The Nippon Foundation	1 of 1	\$700,000	\$700,000
RDE Supplement: Intensive Summer Research Experience for Postsecondary Students	National Science Foundation	1 of 1	\$15,000	\$15,000
Using Social Media and Online Video Applications, with Added Peer Tutoring	NYS Education Department	1 of 1	\$11,207	\$11,207
Instrumentation for Broadening High-Tech Career Opportunities for the Deaf and Hard of Hearing	NYS Education Department	1 of 1	\$14,325	\$14,325
Department of Engineering Studies Training and Curriculum Development	NYS Education Department	1 of 1	\$10,500	\$10,500
Exploring the Use of Classroom/Lecture Capture Technology to Improve Perception	NYS Education Department	1 of 1	\$16,300	\$16,300

## Grants and Contracts (continued)

Project Title	Grant Provider	Year	Amount FY 2012	Total Value
Deaf STEM Community Alliance: Supporting Postsecondary Deaf and Hard-of-Hearing Students	National Science Foundation	1 of 5	\$166,926	\$1,695,421
An Accountability Initiative with Special Emphasis on Recruitment of STEM and Minority Teachers of Deaf and Hard-of-Hearing Students	Department of Education	1 of 5	\$87,034	\$1,496,417
DeafTEC: Technological Education Center for Deaf and Hard-of-Hearing Students	National Science Foundation	1 of 4	\$674,852	\$4,641,477
Analyzing the Use of C-Print® Mobile Technology in STEM Lab Settings Across Multiple Postsecondary Sites	National Science Foundation	2 of 3	\$98,896	\$394,738
<b>Total</b>			<b>\$2,317,426</b>	<b>\$11,032,008</b>



*Denise Lengyel (center), a lecturer in the Science and Mathematics department, observes fish during a biology lesson with students Richard Dunn, a Pre-Baccalaureate Science major from Munds Park, Ariz., and Tasnia Ali, a Biomedical Sciences major from East Elmhurst, N.Y.*

