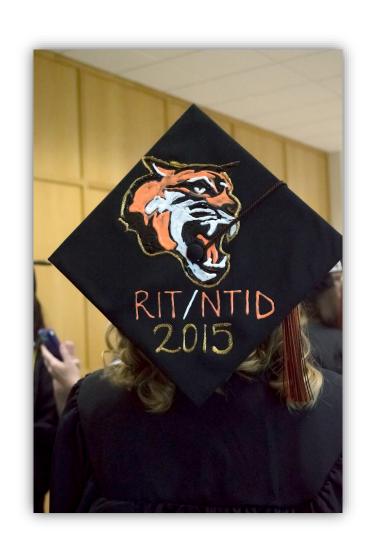
RIT



National Technical Institute for the Deaf
2015 Annual Report

2015 Annual Report



Note of Explanation

This Annual Report notes activities and accomplishments throughout Fiscal Year 2015 (October 1, 2014 – September 30, 2015), corresponding primarily to Academic Year 2014-2015. References to Fiscal Year 2016 correspond to characteristics and accomplishments as of fall semester Academic Year 2015-2016.

Throughout the report, RIT and NTID alumni are indicated by their graduation years appearing after their names. We apologize for any omissions.

NTID FY 2015 Annual Report Contents

Letter to the Secretary of Education	1
Cover Photos	2
Mission Statement	3
National Technical Institute for the Deaf – At a Glance	4
Annual Highlights	5
Executive Summary	6
	11
	12
	15
	29
3	30
	35
Admissions and Enrollment Highlights	36
Comparative Admissions Data	38
Summer Vestibule Program	39
NTID Student Enrollment by Term (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
	45
	46
-	47
•	48
·	49
-	53
•	54
	65
,	72
	73
	75
Master of Science in Secondary Education of Students Who Are Deaf or	
·	76
	77
	79
	80
	82
	83
	84
	85
	86
	87
Access Services: Staff Training	88

Contents (continued)

Persi	stence, Graduation & Employment
	Persistence, Graduation and Employment Highlights
	First-Year Persistence Rates
	Persistence to Graduation for Deaf and Hard-of-Hearing Students
	Degrees Granted: FY 2011 to FY 2015
	Graduates by Program Areas
	Time Required to Complete a Degree
	Graduation and Employment for Recent Graduates
	Employment Services for Deaf and Hard-of-Hearing Students and Graduates
	Where Recent Graduates Are Working
	Employment by Sector of the Economy
	Occupations of Recent Graduates: Entry Status by Labor Category
	Occupations of Alumni by Labor Categories
	Labor Force Status and Earnings of Alumni
	Effect of College Graduation on Reduction in SSI and SSDI Payments
Dive	rsity and Pluralism
	Diversity and Pluralism Highlights
	Diversity and Pluralism Philosophy
	Admissions Activity by Ethnicity
	Ethnicity of Entering Students
	Ethnicity of Enrolled Students
	First-Year Student Persistence and Graduation Rates by Diversity Categories
	Graduates by College and Program Areas: Minority Status
	Affirmative Action Report: Faculty and Staff
	Affirmative Action Report: Faculty and Staff Applicants
	Affirmative Action Report: Faculty and Staff Hiring Results
	Affirmative Action Report: Faculty and Staff Termination Results
Rese	earch, Innovation & Creativity
	Research
	Innovation and Creativity at NTID
	Imagine RIT: Innovation and Creativity Festival
	Intellectual Property: Licensed Educational Materials, Patents and Inventions
Outr	each
	Outreach Highlights
	Pre-College Outreach
	Explore Your Future
	Explore Your Future – Enrollment by Location
	DeafTEC
	Employer Outreach

Contents (continued)

Faculty and Staff	155
Faculty and Staff Highlights	156
Average Salary: Faculty and Staff	157
Tenure-Track Positions and Faculty Rank	158
Degree Levels of Tenured and Tenure-Track Faculty	159
Age, Length of Service and Retirement Status of NTID Faculty and Staff	160
Faculty and Staff New Hires	161
Faculty and Staff Terminations	162
RIT/NTID Leadership	163
NTID Administrative Council	164
NTID National Advisory Group	166
NTID Foundation Board	168
RIT Officers	170
RIT Board of Trustees Active Trustees	171
Results of Financial Operations	175
Financial Operations Highlights	176
Financial Operating Results	177
Tuition, Room, Board and Other Fees	178
Financial Aid	179
Financial Aid (Domestic Students)	180
External Funding Sources	181
The NTID Foundation	182
NTID Annual Fundraising Results	184
NTID Endowment Programs	185
Scholarships, Endowed Funds and Estate Commitments	186
Grants and Contracts	190



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

December 18, 2015

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..."

Fifty years ago, on June 8, 1965, President Lyndon B. Johnson signed a bill drafted by New York Congressman Hugh L. Carey. With President Johnson's signature, that bill became Public Law 89-36, creating NTID. Three years later, NTID enrolled its first class of 70 students on the RIT campus, and our mission truly began:

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

Fifty years later, NTID is a close-knit community of 2,000 students, faculty and staff and an integral part of a world-renowned university. Most importantly, NTID is a highly respected academic institution that continues to fulfill our primary mission. NTID's most recent employment rate for graduates in 2014 is 94 percent, and the average employment rate over the past five years is 93 percent. In FY 2015, NTID students continued to have a higher persistence rate and graduation rate than the national persistence and graduation rates for all students, hearing and otherwise, at two-year and four-year colleges. NTID students were recognized at the state and national level, including a Fulbright Scholarship and at an Emerging Researchers National Conference in STEM. NTID faculty members continue to receive national distinctions, such as participation in the Fulbright Specialist Program and selection as a White House Champion of Change. NTID research continues to blaze trails for the deaf and hard-of-hearing community, with NSF grants funding student-led research and training on accessible multimodal interfaces as well as NTID's DeafTEC: Technological Education Center for Deaf and Hard-of-Hearing Students, an Advanced Technological Education National Center of Excellence. As you will see in this report, we have much to be proud of, but also much to continue to work toward, strive for and accomplish.

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

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

We thank you for your service to NTID and to the education of all our young people, Mr. Secretary, and wish you all the best in your next venture. The RIT/NTID community relies on the guidance and support the Department of Education has provided for the past 50 years and looks forward to their support in the years to come.

With warm regards,

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

Gerard J. Buckley, Ed.D. '78 President, NTID

Gerara J Buckley

Vice President and Dean, RIT

Cover Photos

RIT Tiger Walk

On August 19, 2015, RIT/NTID staff and faculty welcomed 395 new NTID students during the 11th annual Tiger Walk. RIT's Tiger Walk welcomes new students as they walk the path from the residence halls to the Convocation for New Students and Families ceremony, the official opening of the academic year. In the front cover photo, new NTID students show their Tiger Pride with NTID president and alumnus, Gerry Buckley, on their way to Convocation.

Franly Ulerio Nunez

Franly Ulerio Nunez from New York City graduated in 2015 with an associate degree in Laboratory Science Technology and received the Academic Achievement Award for students seeking an associate degree. In the back cover photo, he addresses his fellow graduates as the 2015 NTID college delegate for undergraduate students. During his time at NTID, he presented his research at the National Meeting of the American Chemical Society in San Francisco and completed a co-op at the Dow Chemical Company. He currently is pursuing a bachelor's degree in Biochemistry in RIT's College of Science.

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.

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, with international campuses in Eastern Europe and Dubai.

Enrollment

Total of 1.413 students enrolled as of fall 2015. Undergraduate: 1,167 deaf and hard-of-hearing students, 151 students enrolled in ASL-English Interpretation program. Graduate: 95 students (42 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 53 deaf and hardof-hearing students in the other colleges of RIT). These students are part of a university that includes more than 17,000 hearing students studying at the associate, baccalaureate, master's and doctoral levels.

Academic Calendar

The RIT academic year includes two 15-week semesters (fall and spring) and generally runs from August through May. There is an optional three-week intersession in January and a 10-week summer term.

Male/Female Ratio

53 percent male; 47 percent female.

Diversity

Of the 1,413 students enrolled, 36.6 percent are minority students and 3.3 percent are international students from 23 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 300 student clubs and organizations on campus. NTID's Student Life Team also sponsors a variety of co-curricular educational programs.

Communication/Support

NTID instructors use a variety of communication strategies while teaching, which may include sign language, spoken language (FM systems are available), fingerspelling, 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 world.

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

94 percent of deaf and hard-ofhearing FY 2014 graduates who sought jobs after graduation found one within a year.

Degree Programs

Students enrolled at NTID can earn associate degrees in 18 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.

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.

Research

Internationally prominent research programs focusing on teaching and learning; employment and career success; access technology; education research partnerships; cognitive, language and psychosocial aspects of the deaf experience; economic, demographic and policy studies related to the deaf and hard-of-hearing population; and technological education for deaf and hard-of-hearing students.

Annual Expenses 2015-2016

for Undergraduate/U.S. Citizens

Tuition	\$ 14,570	
Room	\$ 6,954	
Board	\$ 4,964	
Fees	\$ 528	
Total	\$ 27,016	

Financial Aid

Institutional grants and scholarships, federal and state grants, private scholarships and Vocational Rehabilitation awards are available to students. The average financial aid (excluding loans) per domestic student in FY 2015 was \$13,790.

^{*} A new program in mobile application development is pending New York State Education Department approval.

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

- NTID's most recent employment rate for graduates in 2014 is 94 percent. The average employment rate over the past five years is 93 percent.
- NTID's first-year persistence rates and graduation rates for both sub-baccalaureate students and baccalaureate students were higher than the national rates for two-year and four-year colleges.
- NTID's combined sub-baccalaureate and baccalaureate first-year persistence rate remained at 77 percent for the second year in a row.
- A record 22,241 hours of real-time captioning services were provided to students in FY 2015.
- ASL-English Interpretation student History Estill-Varner was named one of RIT's three Fulbright Scholars. History will be going to the Dominican Republic for her studies. Todd Pagano, associate dean for Teaching and Scholarship Excellence, was named to the Fulbright Specialist Program. The program, which provides Fulbright Specialists two- to six-week grants, promotes linkages between U.S. scholars and professionals in select disciplines and their counterparts at host institutions in more than 140 countries around the world.
- Annette Tavernese, a Master of Science in Secondary Education student, took home the top
 prize at the Emerging Researchers National Conference in STEM in Washington, D.C. Her
 presentation on the challenges faced by deaf and hard-of-hearing students pursuing degrees in
 STEM fields earned her top points in the science and math education graduate student category.
- In spring 2015, the National Science Foundation (NSF) awarded \$385,433 to an NTID professor and an RIT professor for a Research Experience for Undergraduates site for three summers (2015-2018), during which deaf, hard-of-hearing, low vision and blind students are paired with hearing and sighted students to do research and training on accessible multimodal interfaces.
- Epsilon Pi Tau is the leading international honor society for students and faculty in technology fields. The newest chapter was established at RIT/NTID and is the first all-deaf chapter of this honor society. Nineteen students and eight faculty were inducted in May 2015.
- NTID's Center on Access Technology was named the major technical sub-contractor in a
 partnership with VTCSecure, LLC to advance telecommunications access for the deaf, hard-ofhearing and speech disabled populations in the United States. The Federal Communications
 Commission awarded the contract to VTCSecure, with the subcontract going to RIT/NTID to
 focus on the technological aspects of the platform, which will provide high quality, open source
 text, voice and video.
- On June 8, NTID celebrated the 50th anniversary of the signing of Public Law 89-36, also known as the National Technical Institute of the Deaf Act, which authorized the establishment of NTID.
- This summer, Talila A. Lewis, a faculty member in NTID's Department of Liberal Studies, was one of nine disability advocates in the country selected as a "Champion of Change" by the White House, recognizing her work alongside the 25th anniversary of the signing of the Americans with Disabilities Act. Lewis is an activist and attorney whose research primarily focuses on creating equal access to the legal system for individuals who are deaf and for people with disabilities.
- The NSF renewed its pledge to funding resources for deaf and hard-of-hearing education by awarding an additional \$4 million to NTID to continue DeafTEC: Technological Education Center for Deaf and Hard-of-Hearing Students, an Advanced Technological Education National Center of Excellence. The gift is the second-largest NSF award in RIT history, second only to the \$4.45 million given to NTID to initially fund DeafTEC.
- This fall, NTID's enrollment is more diverse than ever, with almost 37 percent of enrolled students from a minority background.

Executive Summary

New Registrations	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Fall Admissions (Deaf and Hard-of-Hearing Students Only)					
Applications	902	989	833	796	860
Acceptances	439	504	507	464	488
Registrations	345	381	381	324	340
Other New Registrations					
AAS/BS ASL-English Interpretation	41	45	43	40	40
MS in Secondary Education	18	19	16	16	15
Total New Registrations	404	445	440	380	395
Enrollment (Deaf and Hard-of-Hearing Student	s Only)				
Career Exploration Studies	113	120	111	68	59
Sub-Baccalaureate Programs					
Career-Focused Programs	449	400	368	354	333
Associate+Bachelor's/Pre-Baccalaureate	204	198	190	202	232
Subtotal CES and Sub-Baccalaureate	766	718	669	624	624
Baccalaureate Programs at RIT	515	551	526	529	543
Graduate Programs at RIT	42	37	42	44	53
Subtotal Baccalaureate and Graduate at RIT	557	588	568	573	596
Subtotal Deaf and Hard-of-Hearing Students Only	1,323	1,306	1,237	1,197	1,220
Other Enrollments					
ASL-English Interpretation	160	167	147	146	151
MS in Secondary Education*	64	56	48	44	42
Subtotal Other Enrollments	224	223	195	190	193
Total Enrollment	1,547	1,529	1,432	1,387	1,413

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 2011	FY 2012	FY 2013	FY 2014	FY 2015
Withdrawn (All Students)	13%	14%	16%	13%	18%
Graduates					
Total Degrees Granted	288	355	424	344	285
Degree Level					
Certificate	15	6	13	0	0
Diploma	0	0	0	0	0
Associate (AOS)	41	52	48	46	38
Associate (AS/AAS)	82	107	104	82	62
Associate (Interpreting)	1	0	1	1	0
Bachelor's (Interpreting)	18	32	52	29	29
Bachelor's	97	118	168	144	116
Master's	11	10	21	8	19
Master's (MSSE)	23	30	17	34	21
Post-Graduation Employment					
Post-Graduation Employment	95	124	174	136	N/A*
Post-Graduation Employment Rate	91%	93%	94%	94%	N/A*
By Sector of the Economy					
Business and Industry	54%	65%	60%	61%	N/A*
Education/Non-Profit	31%	24%	31%	28%	N/A*
Government	15%	11%	9%	11%	N/A*
Cooperative Work Experiences	298	299	295	238	271
Access/Support Services					
Notetaking Hours	77,436	66,797	67,671	58,246	60,195
Tutoring Hours	19,395	18,039	16,559	15,661	14,212
Interpreting Hours	131,065	129,900	145,003	132,055	140,230
Real-Time Captioning Hours	21,493	19,516	18,263	21,601	22,241

^{*} Post-graduation employment numbers reflect status as of one year following graduation; employment numbers for September 1, 2014 through August 31, 2015 graduates will be reported next year.

Executive Summary (continued)

Outreach (Number of External Participants)	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
C-Print® Training	6	0	6	4	5
Digital Arts, Film and Animation	47	32	63	46	50
Explore Your Future	228	192	192	100	213
FutureQuest	102	125	196	N/A	N/A
Health Care Careers Exploration Camp	N/A	N/A	N/A	N/A	10
Interpreter Training*	63	132	104	59	73
Math Competition	105	115	83	79	93
NTID Center on Employment	677	613	413	417	568
National Science Fair	54	72	52	N/A	N/A
Notetaker Training	359	277	262	417	642
Project Fast Forward	55	25	87	78	113
SpiRIT Writing Contest	31	36	38	91	64
Steps to Success	23	21	23	12	13
TechGirlz/TechBoyz Camp	38	57	48	34	45

Financial Aid (Domestic Stude					
Grant-in-Aid	\$1,268,955	\$1,303,635	\$1,303,299	\$1,251,745	\$1,459,983
Vocational Rehabilitation	8,805,867	9,314,927	9,319,129	10,531,963	10,821,731
Pell Grants	3,130,369	2,972,676	2,796,483	2,751,344	2,662,380
State Grants	464,249	502,031	517,134	522,612	458,527
Federal Loans	5,671,152	6,058,928	5,476,048	5,163,359	4,775,031
Scholarships and Other	2,571,691	2,381,377	2,553,633	3,026,247	3,117,140
Total Financial Aid	\$21,912,283	\$22,533,574	\$21,965,726	\$23,247,270	\$23,294,792
Average Aid per Domestic Student (Excluding Loans)**	\$10,966	\$10,947	\$11,157	\$13,029	\$13,790

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

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

Domestic Student Rates*	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Tuition	\$11,583	\$12,393	\$13,512	\$14,040	\$14,570
Room	6,096	6,309	6,530	6,758	6,954
Board	4,317	4,491	4,648	4,810	4,964
Fees	453	474	492	512	528
Total	\$22,449	\$23,667	\$25,182	\$26,120	\$27,016
Fundraising Activity					
Cash to Endowment and					
Restricted Funds	\$1,460,336	\$935,832	\$1,321,580	\$1,348,092	**
Equipment and Software	\$141,740	\$29,380	\$57,117	\$69,697	**
Federal Funds Matched***	\$141,418	\$177,000	\$85,000	\$309,000	**



Participants in NTID's TechGirlz summer camp work together to build a remotecontrolled car. TechGirlz and TechBoyz camps are designed to help 7th–9th-graders learn about and consider careers in science and technology. Camp classes—held in English and in sign language—are certified by the New York State Department of Health. Classes incorporate National Science Education standards.

Any monies matched must be funded through operating funds efficiencies.

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.

The Education of the Deaf Act

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



Kyle Murbach, of Wheaton, Illinois, is enrolled in the five-year BS/MS Computing Security program. He completed an internship at the National Centers of Academic Excellence in Cyber Operations at the National Security Agency and was selected as one of RIT's Outstanding Undergraduate Scholars for 2015.

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 nonminority 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.]
- (3) (A) A summary of the annual audited financial statements and auditor's report ... as required under section 4353 of this title. [The audit of RIT is provided to the Secretary, as is a separate schedule for NTID.]
 - (B) A summary of the annual audited financial statements and auditor's report of NTID programs and activities of this title, and such supplementary schedules presenting financial information for NTID for the end of the federal fiscal year as determined by the Secretary. [The audit of RIT is provided to the Secretary, as is a separate schedule for NTID.]

Education of the Deaf Act (continued)

- (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 invention was made during the year covered by this Annual Report:

"Method for Determining Hearing Thresholds in the Absence of Pure-Tone Testing" – Bochner, Garrison.

This invention disclosure (RIT ID 2013-011-02), dated December 2012, had a non-provisional patent application filed June 11, 2015.

Jasmine Oregel '12, '13, of Santa Ana, California, graduated with an associate degree in Computer Aided Drafting Technology and a bachelor's degree in Packaging Science. She works as a packaging engineer for American Honda Motors Company, Inc., in Troy, Ohio.



Performance Indicators

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



Rachel Viacava, a Computer Integrated Machining Technology major from Cincinnati, Ohio, won the 2014-2015 Vanguard Student Recognition Award from the New York State Nontraditional Employment and Training Program, a program of the Center for Women in Government & Civil Society, University at Albany. She plans to pursue her bachelor's degree in Manufacturing Engineering Technology at RIT.

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; and
- 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
2007	1,250
2008	1,343
2009	1,450
2010	1,474
2011	1,521
2012	1,547
2013	1,529
2014	1,432
2015	1,387
2016	1,413

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

Fiscal Year	Target	Number	Status
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
2014	1,200	1,195	Target Not Met
2015	1,200	1,153	Target Not Met
2016	1,200	1,167	Made Progress From Prior Year

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 part-time students who are 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.

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

Fiscal Year	Baccalaureate	Sub- Baccalaureate	Total
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
2014	526	669	1,195
2015	529	624	1,153
2016	543	624	1,167

As seen in the above table, NTID experienced an increase in the undergraduate enrollment of students who are deaf and hard of hearing from 1,153 students during the 2014-2015 (FY 2015) academic year to 1,167 students in the 2015-2016 (FY 2016) academic year.

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

Fiscal Year	Target	Number	Status
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
2014	140	147	Target Surpassed
2015	160	146	Target Not Met
2016	160	151	Made Progress From Prior Year

Performance Indicators (continued)

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

Frequency of Data Collection: Annual

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

Target Context: NTID has reported that the ASL-English Interpretation programs receive more applicants than they are able to accept. NTID allowed these programs 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, and again to 140 students for FY 2012. Due to the continued increase in enrollment, the target was revised upward to 160 students in FY 2015 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	Status
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
2014	95	90	Target Not Met
2015	95	88	Target Not Met
2016	95	95	Target 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 part-time students who are taking their final courses toward completion of their degrees.

Target Context: In the FY 2008 Performance Plan, the target for the number of students enrolled in NTID's MSSE program, as well as students pursuing graduate degrees in the other colleges of RIT, was reduced from 120 students to 105 students. The target was further reduced from 105 students to 95 students for FY 2012 and subsequent years. In FY 2016, NTID had a total of 42 students in the MSSE program and 53 deaf and hard-of-hearing students in other RIT graduate programs, for a total of 95 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 2015 data will be reported in April 2016.

Measure 2.1 of 4: The percentage of first-time, full-time, degree-seeking subbaccalaureate 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	Status
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	66.8	Target Not Met
2013	70	68.0	Made Progress From Prior Year
2014	70	73.5	Target Surpassed

Source: Rochester Institute of Technology, Registrar Office records

Frequency of Data Collection: Annual

Data Quality: In April 2015, NTID reported to the Department the FY 2014 persistence rate of its sub-baccalaureate students, who returned from the 2013-2014 academic year to their second year in the 2014-2015 academic year. 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 73.5 percent. Currently, there are no sub-baccalaureate students enrolled in the ASL-English Interpretation programs.

NTID will report to the Department the FY 2015 persistence rate in April 2016, with a sub-set of disaggregated data on the persistence rates of sub-baccalaureate students who are deaf and interpreter education students, if applicable. Prior to FY 2008, this measure did not include interpreter education students.

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 58 percent, and two-year private colleges have an average persistence rate of 67 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.

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	Status
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	85.9	Target Surpassed
2013	85	90.8	Target Surpassed
2014	85	90.0	Target Surpassed

Source: Rochester Institute of Technology, Registrar Office records

Data Quality: In April 2015, NTID reported to the Department the FY 2014 persistence rate of its baccalaureate students, including interpreter students, who returned from the 2013-2014 academic year to their second year in the 2014-2015 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:

	All students	Deaf students	ASL-English Interpretation students
FY 2008	85.9%	85.7%	87.5%
FY 2009	88.0%	87.7%	89.5%
FY 2010	93.5%	92.5%	95.8%
FY 2011	88.2%	89.8%	84.2%
FY 2012	85.9%	82.6%	94.4%
FY 2013	90.8%	89.3%	95.7%
FY 2014	90.0%	90.6%	87.5%

NTID will report to the Department the FY 2015 persistence rate of its baccalaureate students in April 2016, with a sub-set of disaggregated data on the persistence rates of baccalaureate students who are deaf and interpreter education students.

Target Context: The target for the persistence rate of NTID's baccalaureate students is 85 percent. In comparison, IPEDS data indicate that four-year public and private colleges have an average persistence rate of 73 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.

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 subbaccalaureate students who graduate within 150% of the program-based length of time (desired direction: increase)

Fiscal Year	Target	Percentage	Status
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	40.5	Target Surpassed
2013	35	41.6	Target Surpassed
2014	36	36.5	Target Surpassed

Source: Rochester Institute of Technology, Registrar Office records

Frequency of Data Collection: Annual

Data Quality: In April 2015, NTID reported to the Department the FY 2015 percentage of its subbaccalaureate students (those who were initially enrolled in the 2008-2009 academic year), including interpreter education students, who graduated within 150 percent of the program-based length of time, along with a sub-set of disaggregated data on the graduation rates of sub-baccalaureate students who are deaf and interpreter education students. Prior to FY 2008, this measure did not include interpreter education students.

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

	All students	Deaf students	ASL-English Interpretation students
FY 2008	26.9%	29.3%	0.0%
FY 2009	37.4%	37.8%	33.3%
FY 2010	33.5%	29.6%	73.3%
FY 2011	46.0%	41.3%	81.0%
FY 2012	40.5%	37.3%	84.6%
FY 2013	41.6%	41.3%	100.0%
FY 2014	36.5%	36.5%	N/A

(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 2015 graduation rate of its sub-baccalaureate students in April 2016, 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 36 percent. An IPEDS analysis of public and private non-profit two-year institutions indicated an average graduation

rate of 31 percent for full-time, first-time degree-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 36 percent for FY 2014 is an ambitious, yet achievable, goal for NTID. The target will be increased in 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	Status
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	62.2	Target Surpassed
2013	62	70.3	Target Surpassed
2014	63	68.4	Target Surpassed

Source: Rochester Institute of Technology, Registrar Office records

Data Quality: In April 2015, NTID reported to the Department the FY 2014 percentage of its baccalaureate students (those who were initially enrolled in the 2008-2009 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.

(Note: There were no first-time, full-time, degree-seeking baccalaureate students enrolled in NTID's ASL-English Interpretation programs in Fall 2004, Fall 2005 or Fall 2006.)

NTID will report to the Department the FY 2015 graduation rate of its baccalaureate students in April 2016, 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 in 2014 is 63 percent. An IPEDS analysis of institutions of higher education show that four-year public colleges have an average of 45 percent graduation rate and that four-year private colleges have an average graduation rate of 53 percent. Based on the comparison with IPEDS data, the Department and NTID determined that the target of 63 percent for FY 2014 is an ambitious, yet achievable, goal for NTID. The target will be increased in subsequent years.

Performance Indicators (continued)

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 NTID gives to its students who are nearing graduation and immediately after graduation. In addition, all graduates receive an initial email contact from NTID during the first semester 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 2014, a total of 273 deaf and hard-of-hearing students graduated from NTID. Valid data existed on 252 graduates. Of the 250 living graduates, 136 students were employed (55%), 88 students were in higher education or training (35%), and 26 students were not employed or in higher education or training (10%). Of the 26 students not employed or in higher education or training, nine were actively looking for work.

Category of Graduate	Count
Employed	136
Unemployed (Seeking Employment)	9
Not Seeking Employment	17
Education (Within RIT)	65
Education (Outside RIT)	23
Unknown	21
Total	273

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	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	50	46	Made Progress From Prior Year
2013	50	58	Target Surpassed
2014	50	55	Target Surpassed

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 in FY 2010 and FY 2011 be equal to this average. The target has been revised downward by the Department to 50 percent for FY 2012 and subsequent years to be more consistent with the data submitted by NTID for FY 2009, 2010 and 2011.

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
2005	93
2006	95
2007	95
2008	90
2009	90
2010	90
2011	91
2012	93
2013	94
2014	94

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

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

Graduation			
Year	Target	Rate	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	45	46	Target Surpassed
2013	45	32	Target Not Met
2014	45	35	Made Progress From Prior Year

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 in FY 2010 and FY 2011 be equal to this average. The target has been revised upward by the Department to 45 percent for FY 2012 and subsequent years to be more consistent with the data submitted by NTID for FY 2009, 2010 and 2011.

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	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	5	8	Made Progress From Prior Year
2013	5	10	Target Not Met
2014	5	10	Target Not Met

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

Frequency of Data Collection: Annual

Target Context: The average rate of the 2005, 2006 and 2007 graduates, who were neither employed nor in advanced education or training full-time within one year after graduation is 8 percent. In FY 2010, the Department proposed that the target for this measure in FY 2010 and subsequent years be equal to this average. The target was revised downward by the Department to 5 percent for FY 2012 and subsequent years to reflect changes made in the two previous indicators on the percentage of students employed and/or in advanced education or training during their first year after graduation and each alumnus being counted only once. This allows the percentage across all three categories (Measures 3.1, 3.2, and 3.3) to equal 100 percent of the alumni being tracked by NTID.

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
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	209,564	146,600	Target Surpassed
2014	213,755	185,200	Target Surpassed
2015	218,244	226,200	Target Not Met
2016	222,827	(December 2016)	Pending

Source: National Technical Institute for the Deaf, Finance and Budget Office

Frequency of Data Collection: Annual

Data Quality: The FY 2015 data on the federal cost per graduate, as reported by NTID, is an average of the cost per graduate from FY 2010 to FY 2015. The federal cost per graduate includes graduates who receive associate, bachelor's and master's degrees from NTID.

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

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

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

Fiscal Year	Target	Cost (or date expected)	Status
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	251,800	176,900	Target Surpassed
2014	256,836	224,000	Target Surpassed
2015	262,230	277,100	Target Not Met
2016	267,737	(December 2016)	Pending

Source: National Technical Institute for the Deaf, Finance and Budget Office

Frequency of Data Collection: Annual

Data Quality: The FY 2015 data on the total educational cost per graduate, as reported by NTID, is an average of the cost per graduate from FY 2010 to FY 2015. 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.



Incoming NTID students with minimal or no ASL skills participate in the New Signers Program, a *Strategic Decisions 2020* initiative that gives new students the option of a one-week ASL-immersion experience before fall orientation begins.

Strategic Decisions 2020

FY 2015 marked the fifth year of NTID's implementation of *Strategic Decisions 2020*, the strategic plan for the next five years.

This year, a mid-term review committee was established to review progress made on the original goals and offer revisions as necessary.

The Strategic Decisions 2020 (SD 2020) mid-term review committee was convened in January 2015, cochaired by Marianne Gustafson, associate dean for Curriculum and Special Projects and Dr. Denise Kavin, special assistant to the president for SD 2020. The ten-member committee consisted of representation from across NTID including the Learning Consortium, Academic Affairs, Access Services, the Office of Finance and Budget, Communication Studies and Services, Outreach, and Communications, Marketing & Multimedia Services.

The SD 2020 document, page 1, reads:

"In Academic Year 2014-2015, a comprehensive formative evaluation will be conducted to determine if adjustments are needed for implementation plans and timelines to assure we realize our strategic decisions. Further, the assumptions when establishing our strategic decisions will be reviewed to determine if changing circumstances at RIT and around the country necessitate an adjustment to strategic decisions."

The committee was charged with the following:

- 1. To familiarize itself with various relevant materials.
- 2. To stay faithful to the six core areas of *SD 2020*: Students; Program and Curriculum Development; Communication; Access; Faculty/Staff; and Innovation, Scholarship and Research.
- 3. To determine remaining goals to be accomplished, remaining goals to be modified and new initiatives to align *SD* 2020 goals with RIT's strategic plan, while being mindful of resources.

Meetings consisted of discussions, review of relevant documentation and numerous articles and presentations and materials shared by guest speakers from various departments across NTID. This group also reviewed reports by previous *SD 2020* committees. Throughout its work, the committee remained mindful that the primary purpose of its work was not to evaluate *SD 2020* progress to date, or to write a new strategic plan, but rather, to determine how to re-focus the remaining *SD 2020* goals.

This summary of recommendations and new initiatives condenses the original mid-term report and is organized using the six topics and associated goals in *SD 2020*. These recommendations and new initiatives are currently under review at NTID.

STUDENTS

1. Establish Enrollment Targets

Recommendation: Adjust the enrollment targets for 2020, as noted below. **New initiatives:**

• The enrollment targets should be adjusted to the following:

	SD 2020	New
Career-Focused Degree Students	35%	37%
Associate+Bachelor's Degree Students	20%	18%
RIT Baccalaureate & Master's Degree Students	45%	45%

- Keep costs to students low through modest tuition increases, additional scholarships and other forms of financial assistance, and facilitating students' on-time graduation.
- NTID Admissions should continue collaboration with NTID Communications, Marketing and Multimedia Services to promote RIT/NTID programs to prospective students.
- Increase advising and retention efforts geared toward students in the 2.0 to 3.0 GPA range and students in their second and third years.

2. Improve Services to Under-Prepared Students

...NTID will implement intensive summer academic preparation programs in selected high-growth, ethnically diverse areas of the country. The goal of these programs is to expand efforts to serve students who are academically under-prepared...

Recommendation: Maintain goal and increase efforts.

- Continue development and revision of NTID's new Create Your Future (CYF) program.
- Continue to explore use of remote testing for English and math course placement.

3. Renew Commitment to Diverse Student Body

Recommendation: Modify goal and increase efforts in this area.

- New initiatives:
 Increase efforts to recruit international students, bringing percentage from 3 percent up to
- 6 percent.
 Expand the AALANA definition and wording to include Asian students and students with secondary/tertiary disabilities.
- Add metrics to measure progress to goal.
- Revise the Step Up! program for increased efficiency and for more positive results.

PROGRAM AND CURRICULUM DEVELOPMENT

1. Review and Update NTID Career-Focused Program Portfolio

Recommendation: Maintain goal and increase efforts.

New Initiatives:

- The SD 2020 mid-term review committee reaffirms the commitment of "giving special consideration to new programs in green technology, sustainability and health care."
- Increase efforts in investigating potential AOS degree programs including interdisciplinary and multidisciplinary studies.
- Establish a "market scan" group to identify job opportunities (AOS) in high growth areas.
- Work with coordinator for online learning to investigate establishing an online program.
- Use the relationships that DeafTEC has with partner community colleges and the National Science Foundation's Advanced Technological Education community to investigate opportunities for deaf and hard-of-hearing students in apprentice programs.
- Offer "stackable credentials" in the form of certificates that lead to a degree or through another innovative approach. This could serve NTID alumni seeking additional skills, and students who may not want to complete full degrees.

2. Expand 2+2/2+3 Transfer Degree Programs

Recommendations: Maintain the goal and efforts in this area.

3. <u>Investigate the Development of Deafness-Related BS/BA Degrees in Collaboration with Other</u> Colleges of RIT

Recommendations: Maintain goal and significantly increase efforts.

New initiatives:

- Establish a working group to collaborate with faculty to implement a BS/BA program in a deafness-related field.
 - Identify programs with high enrollment of NTID-supported students, particularly those that articulate with NTID AS/AAS or A+B programs.
 - Explore majors identified in the original SD 2020 report.
- Explore creation of new programs, or revisions to current programs, with the goal of offering programs such as BS in Accessibility, BS in Access Technologies or an HR Specialization related to employees who are deaf or hard of hearing.
 - Consider programs which prepare deaf graduates for leadership, advocacy and service.

4. Ensure Coordination among Technical Education, General Education and Co-Curriculum Programs (International, Community Service, Soft Skills, Deaf Studies/ASL Requirement)

Recommendations:

- International Component: Maintain goal and efforts.
- Community Service: Maintain goal and increase efforts.
- "Soft Skills" Development: Maintain goal and increase efforts, including new initiatives below.
- Deaf Studies/ASL Requirement: Revise goal as described in new initiative below.

New initiatives:

- Expand on models where community service has been incorporated into courses.
- Provide funds for transportation for students to engage in community service activities.
- Align "soft skills" development goal and associated initiatives with those in the RIT Strategic Plan 2015-2025 related to the development of "T-shaped" graduates who have both disciplinary depth and breadth across multiple skills and competencies.
- Follow up on data and assess effectiveness of current efforts to incorporate critical thinking, problem solving and job-related communication or to offer courses.
- Offer workshops or other creative educational experiences for students on presentation skills and other "soft-skills" development.
- Consider offering course(s) or workshops in financial literacy and budgeting skills.
- Consider increasing to 21 credits for AOS program, requiring a soft skills/communication course and reinstating the requirement that all AOS students take at least one ASL/Deaf cultural studies course.

5. <u>Expand Graduate Degrees to Prepare Professionals to Work with Individuals who are Deaf and</u> Hard of Hearing

Recommendation: This goal will be accomplished when the MS in Health Care Interpretation is approved by NYSED.

New initiatives:

- Provide fiscal and personnel support to faculty who want to explore adding additional program(s).
- Establish committee to investigate the possibility of creating an Ed.D. or Ph.D. program in a deafness-related discipline.

6. Expand NTID's Role as a National Resource Center of Excellence

Recommendation: Maintain goal and efforts in all areas.

7. Enhance Summer Orientation to RIT Deaf Community for Entering Students

NTID will offer ASL summer courses for those students who have been accepted to RIT/NTID and who do not sign.

Recommendation: Maintain the goal and efforts in all areas.

8. Enhance Student Learning and the Use of Educational Technology

NTID will continue to enhance the learning of D/HH students through: (1) creative uses of educational technology, taking advantage of our students' love of this medium; (2) innovation in curriculum and instructional strategies based on our classroom experiences; and (3) incorporating the most recent research regarding the enhancement of learning of students who are deaf or hard of hearing.

Recommendations: Maintain goal and increase efforts to enhance online learning.

New initiatives:

- Increase the number of personnel to enhance online learning opportunities at NTID, particularly
 online summer courses. Expand online continuing education courses, certificates and/or degrees
 for RIT/NTID alumni.
- Establish measurable outcomes.

COMMUNICATION

1. Educational Use of Languages in Support of Graduation Requirements

Recommendation: Continuation of current efforts.

2. Orientation to the RIT Deaf Community and Opportunity to Learn ASL

Recommendation: Continuation of current efforts.

3. Faculty, Staff and Students' Commitment to Continuous Learning

Recommendation: Continuation of current efforts.

New initiative:

Explore obtaining funding to establish a formal program in leadership training.

4. Signing in Public Spaces

Recommendation: Continuation of current efforts, with increased emphasis on goal.

5. Establish Flexibility in the Use of NTID's Direct Instruction Model

Recommendation: Continuation of current efforts.

New initiative:

• The Flexibility in Direct Instruction Model report stands, and should be reviewed regularly with the appropriate NTID personnel twice a year.

6. Communication Expectations for Faculty and Staff

Recommendations: The following initiatives should be undertaken:

New initiatives:

- Complete the investigation of additional and/or alternative assessment tools for measuring sign language skills, and begin implementation of new tools.
- Bring the Communication Expectation Recommendations report for faculty and staff to conclusion by May 2016.

7. Civil Discourse

Recommendation: Continuation of current efforts.

8. Communicating with External Publics

Recommendation: Continue current efforts.

ACCESS

1. Establish Principles of Access Services

Recommendation: Continuation of current efforts.

2. Promote Technology for Access and Learning

Recommendations: Continuation of all current efforts.

New initiatives:

- Recommit to the development of a career ladder for captionists.
- Develop opportunities for captionists to develop some competency in sign language.
- Strengthen efforts regarding access technologies. Pursue research projects, experiments and pilot studies re: voice recognition (e.g., Siri, Dragon, AppleWatch).
- Explore and/or expand the use of deaf interpreters on campus.
- Investigate the feasibility of establishing in-house Video Relay Interpreting services.
- Investigate use of voice recognition to transcribe instructor's verbal materials.

FACULTY/STAFF

1. Enhance Faculty/Staff Professional Development (PD)

Recommendation: Continue current efforts.

New initiatives:

- Revisit team teaching opportunities in NTID classrooms.
- Include graduate students in PD opportunities designed for NTID faculty and staff.
- Offer new PD workshops on various topics.

2. Achieve Balance in Tenure/Non-Tenure Positions

...NTID will follow RIT's lead in moving toward a balance of 50% tenured/tenure-track positions and 50% non-tenured (lecturer) positions by 2020.

Recommendation: Continue efforts, with new initiatives noted below:

New initiatives:

- Re-examine NTID's mentoring programs to determine the career advancement needs of minority, deaf and female faculty and staff and design new programs.
- Utilize research findings and recommendations by Connect@RIT ADVANCE project.

3. Enhance Quality Commitment for Access Service Providers

Recommendation: Continuation of current efforts.

INNOVATION, SCHOLARSHIP AND RESEARCH

1. Establish a Center-Based Model for the NTID Research Agenda

Teaching and Learning; Communication; Technology, Access, and Support Services; and Employment and Adaptability to Social Changes and the Global Workplace.

Recommendation: Maintain efforts, with new initiative below:

New initiatives:

Address succession planning for Research Center directors.

2. Support Discipline-Based Research

Recommendation: Maintain goal, with increased efforts.

3. Foster Undergraduate and Graduate Scholarship and Innovation

Recommendation: Maintain goal, with increased efforts. Undertake new initiatives below: **New initiatives:**

- Offer a 1-3 credit course in introduction to scientific research.
- Offer an independent study option in programs where a student has to write a paper and present at a conference.
- Encourage faculty to become involved in cross-disciplinary research with students.

4. Provide Space

New research and innovation incubator space will be provided, dedicated to housing both NTID Research Centers, and selected discipline-based research and innovation projects.

Recommendation: None. Goal accomplished.

5. Enhance NTID Institutional Research

Recommendation: None. Goal accomplished

Admissions and Enrollment

NTID had 395 total new students for FY 2016 (fall 2015).



RITchie, the RIT tiger mascot, shares a smile with Lauren Berger, left, and Kara Matchett, right, both Psychology majors from Rochester, New York.

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 made 431 recruitment visits during the FY 2015 admissions cycle. Visits this year included 379 mainstream schools, 44 schools for the deaf and eight college visits. This included 67 in New York state, 75 in the Northeast, 122 in the Midwest, 76 in the Southeast and 91 on the west coast.

The number of new students entering NTID in fall 2015 was 395. The total included 327 deaf and hard-of-hearing freshmen and transfers, 18 first-year deaf and hard-of-hearing graduate students (four in the Master of Science program in Secondary Education of Students who are Deaf or Hard of Hearing [MSSE] and 14 in other RIT master's programs) and 50 first-year hearing students (39 in the ASL-English Interpretation program and 11 in the MSSE program).

Overall, NTID's applicants increased by 3 percent from last year's 1,047 to 1,081 applicants for fall 2015 enrollment. Total enrollment was 1,413 compared to 1,387 for last year. The breakdown of the 1,413 students is as follows:

	Deaf and Hard-of-Hearing	Hearing	Total
Undergraduate Programs			
Career Exploration Studies	59	0	59
Career-Focused Associate Programs	333	0	333
Associate+Bachelor's Programs and Pre-Baccalaureate	232	0	232
Baccalaureate (ASL-English Interpretation)	1	150	151
Baccalaureate/Master's Programs in Other RIT Colleges	543	0	543
Subtotal NTID Undergraduate Programs	1,168	150	1,318
Graduate Programs at RIT	53	0	53
MSSE Program	15	27	42
Total Enrolled Students	1,236	177	1,413

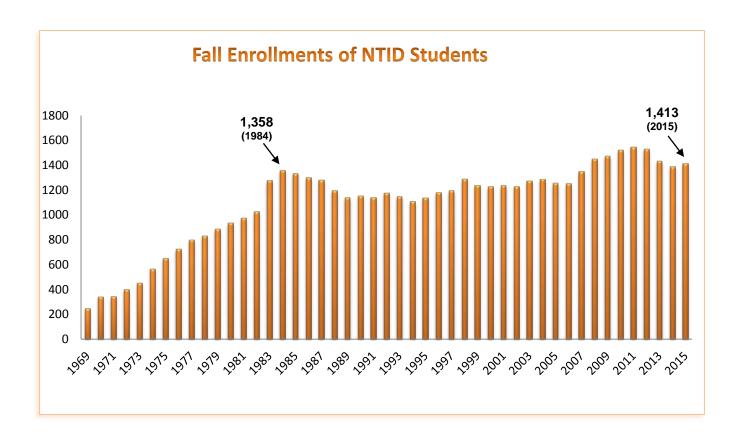
NTID's student population remains strong in both ethnic and geographic diversity. Minority students represent 39 percent of this year's fall 2015 entering class, compared to 37 percent of the total student body. Minority students have represented approximately 32 to 40 percent of the entering student population over the past five years. Additionally, minority students have represented approximately 29 to 34 percent of the entire student population over the past five years (for more information see the Diversity and Pluralism section). Domestic students come from all over the country, with 14 percent from the West, 19 percent from the South, 22 percent from the Midwest and 45 percent from the Northeast.

In addition, NTID enrolled 14 new international students. The total number of international students is 47, 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 395 new students and is serving a total of 1,413 students.

Admissions and Enrollment Highlights (continued)

NTID's fall 2015 enrollment of 1,413 continues to exceed 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 those to the ASL-English Interpretation or MSSE programs, increased significantly from last year.* The acceptance rate was 57 percent of applications. Registrations were 340, achieving a yield rate of 70 percent.

	Number of New Students							
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016			
Applicants	902	989	833	796	860			
% Increase or Decrease from Previous Year	-0.4%	+9.6%	-15.8%	-4.4%	+8.0%			
Accepted Applicants	439	504	507	464	488			
% Increase or Decrease								
from Previous Year	-8.0%	+13.0%	+0.1%	-8.5%	+5.2%			
Acceptance Rate (Percent of Total Applicants)	48.7%	50.9%	60.9%	58.3%	56.7%			
(Fercent of Total Applicants)	40.7 /6	30.976	00.976	30.376	30.7 /6			
Registrations	345	381	381	324	340			
Yield Rate								
(Registrations as a Percent								
of Accepted Applicants)	78.6%	76.8%	75.1%	69.8%	69.7%			

^{*} Overall, NTID's total applications increased by 3 percent from last year's 1,047 to 1,081 applicants for fall 2015 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 programs 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 an 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 226 SVP registrants for summer 2015, and 223 continued on to register for fall semester 2015 (FY 2016).

	Number of Students*							
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016			
SVP Students Accepted	323	349	346	295	317			
SVP Students Registered at Start of Program	269	269	268	212	226			
SVP Students Completing Program	268	268	266	212	225			
SVP Students Registered in Academic Programs for Fall Term	265	267	266	212	223			



Current NTID students help orient new NTID students as part of the Summer Vestibule Program.

^{*} 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 Term* (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 students enrolled in the ASL-English Interpretation program (151), or deaf, hard-of-hearing or hearing

students enrolled in the Master of Science program in Secondary Education (42). In addition, large numbers of hearing, deaf and hard-of-hearing students access a variety of part-time and noncredit-bearing coursework at NTID year-round.

PERIOD COVERED		LL RM		WINTER SPRING TERM TERM					MMER ERM	VEST	MMER TIBULE GRAM	
	Α	В	Α	В	С	Α	В	С	Α	В	Α	В
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		-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		-8.25%	1.007	-0.98%		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%	1,168	-3.55%	-10.57%	1,082	-1.90%	-7.36%	323	2.87%	268	-0.37%
FY 14: Oct. 13- Sep. 14	1,237	-5.28%	*	*	*	1,118	3.33%	-9.62%	259	-19.81%	212	-20.90%
FY 15: Oct. 14- Sep.15	1,197	-3.23%	*	*	*	1,054	-5.72%	-11.95%	308	18.92%	226	6.60%
FY 16: Oct. 15- Sep.16	1,220	1.92%	*	*	*							

NOTES: Column A = Number of student enrollments for the period covered

Column B = Percent change of enrollment from the same term in previous year

Column C = Percent change of enrollment from the previous term

-

^{*} Prior to FY 2014, RIT followed a quarter calendar. Beginning in FY 2014, RIT follows a semester calendar.

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 (prior to FY 2014) or semester (FY 2014 and beyond).

	FY 2012	FY 2013	FY 2014	FY 2015		FY 2016	
						Numb	er
					Percent	Full-Time	Total
Career Exploration	98%	98%	98%	100%	100%	59	59
Career-Focused and Associate+Bachelor's Degrees	98%	97%	95%	97%	98%	523	535
Associate Daulieloi 3 Deglees	30 /6	31 /0	3370	31 /0	30 /0	020	000
Pre-Baccalaureate	100%	100%	100%	100%	100%	30	30
Baccalaureate and Graduate	93%	93%	90%	94%	93%	554	596
ASL-English Interpretation	94%	97%	97%	95%	95%	143	151
Manda and Online and Inc.							
Master of Science in Secondary Education (MSSE)*	84%	82%	98%	77%	81%	34	42
Overall	95%**	95%	94%	95%	95%	1,346	1,413

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

^{*} 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 in Rochester, New York, to train speech pathologists to work with deaf and hard-of-hearing people.

International Student Recruitment

This year, applications from international students numbered 80 and, of those, 21 were accepted and 13 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 discourages 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.

		Num	ber of Stude	ents*	
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Applicant Continent of Origin					
Africa	7	24	5	16	16
Asia	6	16	15	25	40
Europe	5	4	1	1	2
North America	40	45	29	16	20
South America	1	2	0	2	2
Unknown	0	0	5	2	0
Total Applicants	59	91	55	62	80
Accepted Applicants	7	20	18	14	21
Acceptance Rate (Percent of Total Applicants)	12%	22%	33%	23%	26%
New Registrations	7	15	14	10	13
Yield Rate (New Registrations as a Percent of Accepted Applicants)	100%	75%	78%	71%	62%
Returning International Students	34	33	25	30	31
Total Enrollment (Returning International Students plus New Registrations)	41	48	39	40	44

^{*} 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 remains consistent with the previous year's data.*

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Characteristics of Entering Students					
Gender					
Male	64%	55%	60%	58%	59%
Female	36%	45%	40%	42%	41%
Mean Age at Entry	21	20	21	20	21
Parents' Hearing Status					
Both Hearing	**	83%	77%	77%	77%
At Least One Parent Deaf	**	17%	23%	23%	23%
Origin of Entering Students United States by Region: 100% of West	U.S. students di 13%	stributed acro	ss four regions	16%	18%
Midwest	28% 20%	23% 21%	20% 22%	23% 24%	24% 20%
South					
Northeast	39%	41%	47%	37%	38%
Distribution of United States and					
United States	98%	96%	96%	97%	96%
International	2%	4%	4%	3%	4%
School Background of Entering	Students				
First Time in College	81%	80%	72%	79%	78%
Transfer from Other Colleges	12%	13%	17%	13%	14%
Previously Enrolled at RIT	5%	4%	5%	4%	4%
Graduate Students	2%	3%	6%	4%	4%

^{*} 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.

^{**} Prior to FY 2013, parents' hearing status was collected and recorded using different methodology.

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

		FY 2016*			
	International	U.S.	Overall		
Demographics					
Gender					
Male	61%	58%	58%		
Female	39%	42%	42%		
Entry Age, All Students	26	22	22		
Entry Scores					
Hearing Level (Pure Tone Average)	101.2 dB	95.3 dB	95.5 d		
ACT Composite Score	17.4	19.6	19.5		
Program Area					
Career Exploration	0%	5%	5%		
Career-Focused Associate Degrees	39%	28%	28%		
Associate+Bachelor's Degrees	19%	20%	20%		
Other Colleges of RIT Baccalaureate/Master's	42%	47%	47%		
FY 2016 Status of Students Enrolled FY 2015					
Still Registered	73%	68%	68%		
Withdrawn	11%	17%	16%		
Graduated	16%	15%	15%		

^{*} Undergraduate students only. 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 was used to evaluate educational achievement for admission to NTID. In 1996, the decision was made to replace the Stanford Achievement Test with the American College Test (ACT). In today's college admissions process, the College Board SAT and ACT tests are used equally for decisions based on a concordance chart. Presented below are the mean scores for the ACT based on that concordance.

American College Test (ACT)*	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
ACT English	15.1	15.8	14.9	14.7	16.8
ACT Reading	18.1	18.5	17.7	17.5	19.7
ACT Mathematics	18.3	18.6	18.3	18.1	19.5
ACT Science Reasoning	19.7	19.7	19.3	18.5	20.5
ACT Composite	18.0	18.6	19.5	18.1	19.6

Scores reported include deaf and hard-of-hearing undergraduate students, except for students in the ASL-English Interpretation programs. Specific data on ASL-English Interpretation and MSSE 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 25.8, and represent 29.1 percent of NTID's entering class of 2015. The mean ACT composite score for students entering associate+bachelor's programs is 20.1, and represents 18.1 percent of NTID's entering class. The mean ACT composite score for students entering career-focused associate programs is 15.7, and represents 37.1 percent of NTID's entering class. Lastly, the mean ACT composite score for students entering career- exploration

programs is 14.9, and represents
15.7 percent of NTID's entering class. The
average ACT composite score of 19.6 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-ofhearing students graduating from
baccalaureate/master's programs throughout RIT
came through NTID first, which means they
graduated in spite of the fact that their entering
ACT scores were in the 15-19 range.

Degree Level	Percentage of Deaf and Hard-of-Hearing Students by Degree Level	ACT Composite Mean
Bachelor's in Other RIT Colleges	29.1%	25.8
NTID		
Associate+Bachelor's Programs	18.1%	20.1
Career-Focused Associate Programs	37.1%	15.7
Career Exploration	15.7%	14.9
Total*	100%	
Average Score of All Entering Students*		19.6

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

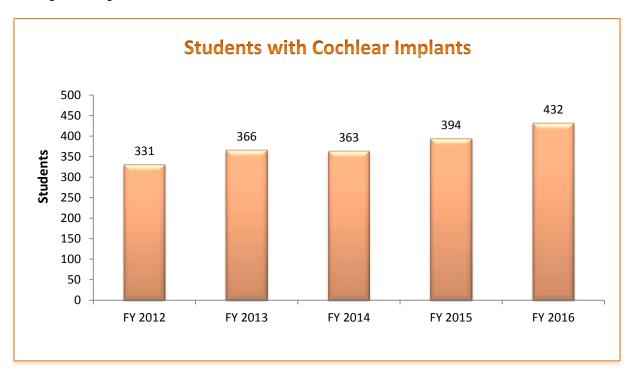
Hearing Assessment and Cochlear Implant Information

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 94.0 dB.

The Communication Studies and Services
Department has three 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 432 in fall 2015.

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Total Number of Deaf Students*	1,354	1,331	1,255	1,213	1,236
Students with Cochlear Implants	331	366	363	394	432
Percent with Cochlear Implants	24.4%	27.5%	28.9%	32.5%	35.0%
Average Hearing Level	93.5 dB	94.9 dB	90.2 dB	95.9 dB	95.5 dB



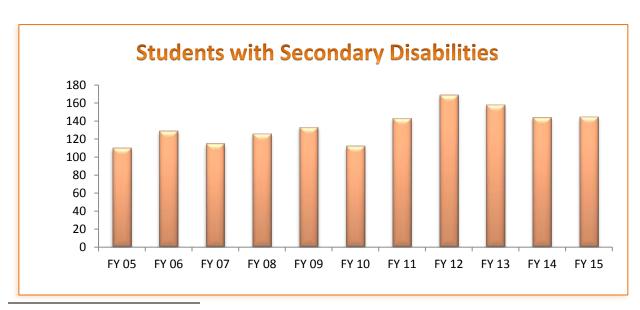
^{*} This figure includes all deaf and hard-of-hearing students, undergraduate and graduate.

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." FY 2016 totals will be reported next year, as students with secondary disabilities could enroll in the spring semester. 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 has a committee of faculty and staff that focuses on the accommodation of deaf and hard-of-hearing students specifically with visual disabilities, a population that is increasing.

Number and Percent of Students Receiving Secondary Disability Services			
Fiscal Year	Total Deaf Students*	Students with Secondary Disabilities	Percent
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%
2013	1,269	158	12%
2014	1,195	144	12%
2015	1,153	145	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

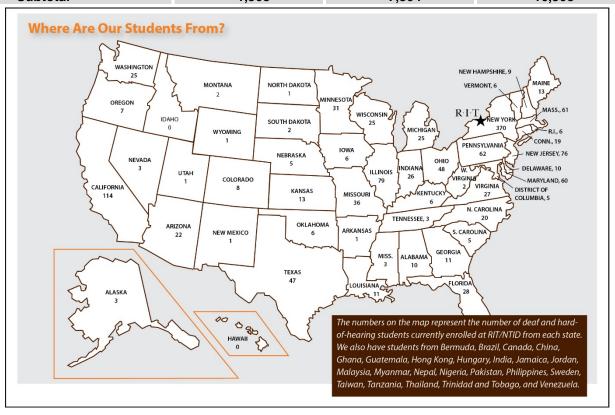
NTID students enrolled as of fall 2015 come from 48 states. A total of 24 countries are represented among current international students.

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 2016	Graduates to Date as of Fall 2015	Cumulative Students to Date
Alabama	10	35	71
Alaska	3	11	25
Arizona	22	38	118
Arkansas	1	32	69
California	114	401	895
Colorado	8	65	125
Connecticut	19	209	393
Delaware	10	34	78
District of Columbia	5	17	43
Florida	28	199	461
Georgia	11	77	184
Guam	0	0	2
Hawaii	0	28	42
Idaho	0	4	16
Illinois	79	471	965
Indiana	26	113	275
Iowa	6	61	114
Kansas	13	48	113
Kentucky	6	45	130
Louisiana	11	55	117
Maine	13	51	121
Maryland	60	186	469
Massachusetts	61	359	722
Michigan	25	295	595
Minnesota	31	109	225
Mississippi	3	6	26
Missouri	36	173	344
Montana	2	7	18
Nebraska	5	39	77
Nevada	3	9	23
New Hampshire	9	59	106
New Jersey	76	395	745
New Mexico	1	27	74
New York	370	2,180	4,325
North Carolina	20	72	161
North Dakota	1	19	36

^{*} Includes current and withdrawn students and graduates.

Home State or U.S. Territory (Domestic Students)	Number in Student Body FY 2016	Graduates to Date as of Fall 2015	Cumulative Students to Date*
Ohio	48	408	752
Oklahoma	6	21	50
Oregon	7	57	112
Pennsylvania	62	587	1,161
Puerto Rico	0	9	19
Rhode Island	6	40	84
South Carolina	5	24	54
South Dakota	2	13	24
Tennessee	3	51	99
Texas	47	196	492
Utah	1	14	28
Vermont	6	41	91
Virgin Islands	0	1	4
Virginia	27	151	322
Washington	25	82	185
West Virginia	2	31	67
Wisconsin	25	118	250
Wyoming	1	4	7
Other**	2	15	204
Subtotal	1,363	7,804	16,308



^{*} 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 2016	Graduates to Date as of Fall 2015	Cumulative Students to Date*
Australia	0	1	1
Bahamas	0	1	1
Bangladesh	0	0	1
Belgium	0	1	1
Bermuda	1	2	3
Bolivia	0	1	1
Brazil	1	0	1
Bulgaria	0	1	1
Cameroon	0	0	2
Canada	14	169	311
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
Fiji	0	0	1
Ghana	1	5	6
Greece	0	1	2
Guatemala	1	0	1
Honduras	0	1	1
Hong Kong	1	0	1
Hungary	1	1	1
India	6	21	30
Ireland	0	1	2
Jamaica	1	0	6
Japan	0	4	6
Jordan	2	0	2
Kenya	0	0	1
Korea	0	0	3
Lebanon	0	0	1
Malaysia	1	2	3
Mexico	0	1	3
Myanmar	1	0	1
Nepal	2	1	3
Nigeria	2	1	4
Norway	0	0	2
Pakistan	1	3	4
Philippines	2	2	5
Portugal	0	1	1
Saudi Arabia	0	2	3

^{*} Includes current and withdrawn students and graduates.

Origin of Students and Graduates (continued)

Country (International Students)	Number in Student Body FY 2016	Graduates to Date as of Fall 2015	Cumulative Students to Date*
Singapore	0	4	4
Somalia	0	0	1
South Africa	0	1	1
Sweden	1	0	1
Switzerland	0	1	1
Taiwan	1	4	6
Tanzania	2	2	6
Thailand	1	5	7
Trinidad and Tobago	1	1	2
Turkey	0	1	1
Uganda	0	1	1
United Arab Emirates	0	0	1
United Kingdom	0	2	3
Venezuela	1	1	1
Vietnam	0	0	1
Zambia	0	0	2
Zimbabwe	0	1	2
Other	3	25	31
Subtotal	50	274	503
Total	1,413	8,066	16,811

As of fall 2015, NTID has 47 international students enrolled based on visa status.

	Number	Percent
U.S. Students	1,366	96.7%
International Students	47	3.3%
Total	1,413	100.0%

^{*} Includes current and withdrawn students and graduates.

Academic Programs

In Fall 2015, NTID had 624 students enrolled in its associate-level programs, 151 students enrolled in its ASL-English Interpretation program, 42 students enrolled in its M.S. in Secondary Education program and 596 students enrolled in baccalaureate and graduate programs at RIT.



History Estill-Varner, an ASL-English Interpretation and Global Studies double major from Independence, Missouri, was one of three RIT students to win a Fulbright scholarship for FY 2016. She will travel to the Dominican Republic to collaborate with national organizations to build a sustainable interpreter training program and assessment model to ensure that interpreters of Dominican Sign Language, LESDOM, provide quality services to deaf Dominicans.

Academic Program Highlights

This fiscal year, Academic Affairs continued the implementation of *Strategic Decisions 2020 (SD 2020)*. The academic departments continue to: 1) explore 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.

This fiscal year marked the second year of the semester system at RIT. Students matriculated prior to FY 2013 continued to follow quarter-system graduation requirements.

Strategic Decisions 2020 Enrollment Targets

The enrollment targets set in *Strategic Decisions 2020* were: 35 percent career-focused programs, 20 percent associate+bachelor's degree programs and 45 percent baccalaureate/master's programs. At the beginning of AY 2015-2016 the enrollment percentages for deaf and hard-of-hearing undergraduates were 32 percent career-focused, 18 percent associate+bachelor's degree programs and 50 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.

First Year Experience/Career Exploration Studies and Summer Vestibule Program

First Year Experience (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, 225 students attended SVP and participated in a variety of activities, including career exploration, adjusting to college life programs and course placement assessments. Also housed within FYE, the Career Exploration Studies program (CES) allows students the opportunity to explore technical programs while satisfying necessary core and/or prerequisite coursework. During AY 2014-2015, CES served 58 students in the fall and 60 students in the spring; 72 percent of CES students were accepted into a major within two semesters.

Career-Focused Associate Degrees

NTID offers career-focused degrees in the areas of Business, Computing, Engineering Technologies, Laboratory Science Technology and Visual Communication. The programs within these clusters are designed to lead directly to employment in high-demand technical jobs. NTID's *SD 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 3D graphics, mobile technology, green technology, sustainability and health care. *SD 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 2015-2016, there were 392 deaf and hard-of-hearing students enrolled in career-focused programs, including students enrolled in AOS and non-associate+bachelor's AAS degrees as well as students in Career Exploration Studies.

In AY 2014-15, the Visual Communications Studies (VCS) formally received approval from New York State Department of Education (NYSED) to change the department's name and the academic program offered by the department to Design & Imaging Technology. The new names better enable the

department to identify and communicate program content and outcome goals to potential students, parents and vocational rehabilitation (VR) counselors. The VCS department continues to implement a student success and retention strategy that includes a formal faculty tutoring assignment aimed at first-year students and a variety of faculty, staff and student social interaction events. Department faculty and students are becoming more involved in the scholarship and research aspects of university teaching, and have presented work in exhibits, art competitions and conference presentations. Four students completed their AAS degrees and eight students completed their AOS degrees. Faculty continued final development of the proposal for a new AAS program, 3D Graphics Technology (3DGT), which will have a transfer articulation agreement with the 3D Digital Graphics BFA program and be the first-ever articulation agreement between NTID and the College of Imaging Arts and Sciences (CIAS) at RIT. This proposal will be submitted for approval by the institute committees in AY 2015-16 and NYSED approval by the summer of 2016.

The Business Studies Department continues to enjoy steady enrollments in the AOS and AAS programs. Twenty-two students completed cooperative work experiences in AY 2014-2015.

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. Since the semester conversion occurred, both programs are modifying the curriculum to strengthen its content and technical electives. Two more aspects that will come into play are placements in cooperative work experiences and acquiring state-of-the-art equipment in order to enhance instruction delivery. First, cooperative work experiences remain (to a certain degree) a challenge for CADT; faculty members may be looking into options to improve placements. CIMT is doing well in this area. In addition, the department continues to advocate for the completion of co-ops by existing students in order to satisfy their degree requirements for all programs. Secondly, both programs have sought advanced technology and equipment for their programs. CIMT obtained MasterCAM, and precision grinding equipment, tools and components so that faculty can provide instruction. In addition, CIMT is offering a new technical elective course called CAD Applications to support or feed MasterCAM skill sets. CADT obtained FARO Focus 3D, a 3D laser scanner, which scans exact indoor and outdoor architectural measurements in three dimensions.

In order to enhance the process by which students may choose to enroll in DES programs and to expand the scope of employment marketability, DES completed a major curriculum conversion from a quarter to semester model, explored more than 40 skill sets for future potential program niches and considered expanding the existing programs. As a result, DES is seeking a new possible niche to add on to their program offerings. Several niches explored at the department and institute levels recently are biomedical equipment repair technology, renewable energy and (most recently) photonics. This process still is in the early phase and the direction has not been determined.

In AY 2014-15, an AAS program in Mobile Application Development (MApp) in the Information and Computing Studies (ICS) Department was approved by the Institute Curriculum Committee and submitted to NYSED for final approval as of May 2015.

During the 2014-15 academic year, the Department of Liberal Studies (DLS) faculty identified two key areas for curriculum change. Based on the recommendations, Intermediate Reading and Writing I and II (NENG 112 and 113) will add an additional hour of instruction and course credit beginning in Fall 2016. Faculty will incorporate more critical thinking and rhetorical analysis into the Intensive English course sequence (NENG 221, 222, 231 and 232) to position students for success in the RIT University Writing Program. DLS continues its collaborative efforts with the RIT University Writing Program and RIT's College of Liberal Arts to prepare students for success in the semester English and general education courses. DLS administers the NTID Study Abroad program, which sent associate degree students to Chile and Costa Rica to work with deaf communities.

Several science courses have been developed or revamped over the past year to complement NTID's technical programs in engineering and computer studies. Physics of Light (NSCI 200) provides students in the Computer Integrated Machining Technology AOS program an understanding of electromagnetic

radiation, the reflection and refraction of light, and the particle and wave natures of light. Concepts of College Physics (NSCI 270) prepares any student in an NTID program for future study in the baccalaureate-level College Physics course sequence offered by RIT's College of Science. The existing general science course Scientific Basis of Social Responsibility (NSCI 282) has been redesigned with a strong focus on environmental science, thanks to the recent hire of a faculty member with expertise in this area, and Developmental Human Anatomy (NSCI 283) now will become a regular course offering as a result of another faculty hire.

Associate+Bachelor's Degrees

A key feature of NTID's educational portfolio is the number of transfer associate degrees that provide seamless transition to RIT baccalaureate programs. There now are eight 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 baccalaureate level.

At the beginning of the 2015-2016 academic year, 232 students were enrolled in these and prebaccalaureate programs. This number is slated 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 previous target of 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).

While the VCS Department has developed a transfer articulation agreement with RIT's College of Imaging Arts and Sciences (CIAS) for the proposed 3D Graphics Technology AAS program, there are no formal associate+bachelor's agreements with the other BFA or BS programs in the CIAS. There is a long history of students making the transition from the NTID VCS Design & Imaging Technology associate degree program into a CIAS BFA or BS program. In AY 2014-15, 10 VCS program students were accepted in a CIAS bachelor's degree program.

NTID's AS in Applied Liberal Arts (APPLA_AS) remains the largest associate+bachelor's degree program. The program prepares students for entry into any of 12 baccalaureate majors in RIT's College of Liberal Arts (CLA). A growing number of APPLA-AS graduates are also successfully transferring to other RIT colleges. DLS continues to work closely with RIT's College of Liberal Arts and RIT's Undergraduate Admissions Office to streamline the transfer of its AS students into CLA baccalaureate programs as well as other baccalaureate programs across RIT.

In the Business Studies Department, the associate+bachelor's degree programs continue to successfully graduate students who are accepted into RIT's Saunders College of Business and the International School of Hospitality and Service Management in RIT's College of Applied Science and Technology. The Administrative Support Technology program continues to experience success with students transferring to and graduating from RIT's School of Individualized Study. Current department numbers show 52 percent of students in AS and BS degree programs and 48 percent in AOS/AAS degree programs.

The Department of Engineering Studies has two students in the newly implemented Civil Technology program for the second year, resulting in a total of three students since July 2014. NTID is recruiting and marketing this program for the upcoming academic year.

In the Information and Computing Studies Department, the students enrolled in the associate+bachelor's and bachelor's degree programs continue to thrive. Current numbers show 33 percent of students enrolled in associate+bachelor's programs and 67 percent in associate degree (AAS & AOS) programs.

Students who complete the AAS degree in Laboratory Science Technology (LST) continue to matriculate into BS-level academic programs within RIT. LST graduates and departmental pre-baccalaureate students also have been choosing to enter BS-level programs in the College of Science (Chemistry,

Biochemistry, Biology, Environmental Science), the College of Health Sciences Technology (Biomedical Sciences) and the College of Applied Science and Technology (Packaging Science). Work is ongoing to introduce articulation agreements with these various baccalaureate programs and develop new degree options for students who start in an NTID science program. Currently, a number of students who have completed the LST AAS degree and have gone on to receive BS degrees at RIT are enrolled in graduate work in biochemistry, bioinformatics and environmental science.

American Sign Language and Interpreting Education (ASLIE)

ASLIE enrolled 151 students, including 40 new students, in the fall of 2015 for the bachelor's degree program in ASL-English Interpretation, meeting the targeted admissions number for the program.

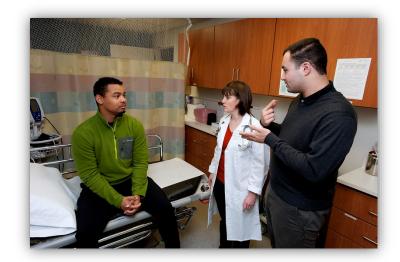
In AY 2014-2015, the ASL-English Interpretation program graduated 29 students. Forty-three percent of the seniors responded to a Senior Satisfaction Survey (13/30). Ninety-two percent of these students responded very favorably (agree or strongly agree) regarding their overall satisfaction with what they had learned in the degree program. When asked whether they would recommend this program to other interested students, 100 percent of the students responded favorably (ranging from neutral to strongly agree); 93 percent responded agree to strongly agree. Students' responses also reflected a high degree of satisfaction with the program faculty.

The interpreting program under ASLIE offered ASL II, IV and V during the fall semester and ASL III, V and VI during the spring semester for interpreting students. In AY 2014-2015, the interpreting program had an enrollment of 96 in the fall semester and 108 students in the spring semester.

In spring 2015, a major accomplishment for the interpreter preparation program was the approval of a proposal for an MS degree program in Health Care Interpretation. The aim of this program is to address the national shortage of sign language interpreters who are prepared to work in healthcare settings. The goals of the program are to prepare graduates to effectively interpret for deaf consumers (patients and family members) in healthcare environments, effectively interpret for deaf health professionals in academic and clinical settings and demonstrate administrative skills enabling them to analyze, conduct

and consult on the effective and efficient provision of interpreting services in healthcare institutions.

The Certificate in Healthcare Interpreting (CHI) program, pictured here, is in its fifth year of delivery as a blended on-line program with a one-week on-site start up. This nine-month program accepts and graduates 15 students annually, all of whom are nationally certified ASL/English interpreters. The feedback from these graduates is overwhelmingly favorable and has led to NTID being viewed as a national leader in the field of healthcare interpreting.



ASLIE's ASL program offers RIT's College

of Liberal Arts (CLA) ASL courses *Beginning ASL I, II, Intermediate ASL I, II* and *Advanced ASL I, II* for RIT students who want to take ASL as an elective or to fulfill their liberal arts immersion and minor. The requirement for an ASL immersion is to take any three courses from ASL and Deaf Cultural Studies. In AY 2014-2015, the CLA program had an enrollment of 277 in the fall semester and an enrollment of 261 students in the spring semester. During the summer, ASLIE offered *Beginning ASL I* and *II* following a blended course structure, and *Beginning ASL I* and *II* online. This was the second time ASLIE offered online and blended ASL courses. In total 12 students took summer ASL courses.

The ASL program also offered evening courses: *Introduction to ASL and Deaf Culture I* and *II* in fall and spring semesters. The courses are designed for RIT students, faculty, staff and community members interested in a basic introduction to ASL and Deaf culture. In AY 2014-2015, the Introduction to ASL and Deaf Culture program had an enrollment of 12 students in the fall semester and 10 students in the spring semester.

The ASL program also provided ASL courses for NTID students as part of the ASL/Deaf Studies requirement. In AY 2014-2015, 18 students were enrolled to take *Beginning ASL I* in the fall semester, eight students were enrolled to take *Beginning ASL II* in the spring semester and nine students were enrolled to take *Structure of ASL* in the spring semester.

Two ASLIE faculty also provided instruction in the Master of Science program in Secondary Education of Students who are Deaf or Hard of Hearing. *Structure of ASL* was offered in the fall semester and *Language Acquisition and Learning* was offered in the spring semester. In AY 2014-2015, ASLIE served 33 MSSE students.

ASLIE and the interpreter preparation program at Hogeschool Utrecht University (Holland) successfully continued their student/faculty exchange. In fall 2014, three students from Utrecht University spent 10 weeks with ASLIE, attending ASL/Deaf culture/interpreting-related coursework and activities. In summer 2015, eight ASLIE students attended a five-week program at Utrecht University, studying NGT (sign language of the Netherlands)/Dutch spoken language, Deaf culture and interpreting-related coursework. In addition, a faculty exchange occurred in which an ASLIE ASL instructor taught ASL at the Hogeschool for four weeks in January and in the spring an NGT instructor from the Netherlands shared their language/culture with the ASLIE department. Based on student feedback from participants, the student exchange program continues to be successful.

In addressing one of the initiatives in *SD 2020*, ASLIE offered a New Signers Program to incoming NTID students with minimal or no ASL skills for the fourth year in a row. The New Signers Program is an innovative and original program designed to encourage the transition of students with no ASL skills to an ASL-immersion experience. Last summer, 29 incoming freshmen participated in this week-long program. Two separate sections were offered – one for NTID students accepted into NTID programs, and the other for NTID students accepted into RIT programs. For each section, two instructors co-taught full days, focusing mainly on in-class instruction, along with various experiential and extra-curricular activities around campus. Participants stayed in dorms, which provided more impetus for the group to bond and practice their skills with four orientation assistants – one of whom was a former NSP participant – to guide them in ASL-based activities and interaction. The New Signers Program is positioned to gain momentum and continue as a valued and intrinsic part of NTID culture in coming years.

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) graduated 21 students during the 2014-2015 academic year, its 21st year. All of these MSSE graduates are eligible to receive initial certification from New York State (NYS) in an academic content area (grades 7–12) and/or in education of students who are deaf or hard of hearing (grades K–12) if they meet all of the certification requirements, including the NYS teacher certification exams. Those who do not have certification either need to take additional NYS teacher certification exams and complete the edTPA (Teacher Performance Assessment) or choose to pursue certification from the states in which they are teaching. All of the graduates are eligible to receive provisional certification from the Council on Education of the Deaf.

For the 2015-2016 academic year, the MSSE program had an enrollment of 42 students, of whom 15 (36 percent) are deaf or hard of hearing and three (8 percent) are members of minority groups. It is anticipated that at least 18 students will graduate from the program during the 2015-2016 academic year. There are an additional two students who have completed their coursework during the quarter system and hope to finish their capstone projects during this academic year.

The MSSE program continues 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 School of Individualized Study. The specifics related to this program can be found at www.ntid.rit.edu/msse-4plus2.

MSSE is accredited by the Council for the Accreditation of Teacher Preparation (CAEP) 2013-2020, and also approved by the Council on Education of the Deaf (CED), 2014-2019.

Study Abroad Experiences

RIT established a goal of engaging 10 percent of the RIT/NTID student population in international study experiences on an annual basis (approximately 140 students). The biggest challenge was to develop innovative international study experiences that meet the unique communication, social and cultural needs of RIT/NTID in a cost-effective manner, and to do so, NTID has developed two models.

The first model is an NTID faculty-led study abroad experience (e.g., Chile, Costa Rica and Japan). The second model sends students to an affiliated university with established curriculum (offered by the affiliated university and/or NTID faculty), with housing and access services provided (i.e., The Siena School of Liberal Studies). Both models were piloted during the 2013-2014 academic year, with very strong positive responses.

These programs are offered for six general education credits under NDLS 280: International Studies Seminar. They are open to all NTID-coded students at RIT, including the MSSE and ASLIE programs. To date, five study abroad experiences have been completed; two trips to Chile, two trips to Costa Rica, and one trip to the Siena School in Siena, Italy. A sixth trip to Japan is slated for January 2016. A trip to Israel is being tentatively planned for 2017.

NTID anticipates that almost 40 NTID-supported students will participate in study abroad opportunities in AY 2015-16. This includes about 25 students in NTID's study abroad programs, five students in RIT programs with interpreting support and up to eight students in NTID's Department of American Sign Language and English Interpretation who will attend the Institute for Sign Language and Deaf Studies at Hogeschool Utrecht in the Netherlands.

Communication Studies and Services (CSS)

The Communication Studies and Services Department (CSS) is comprised of faculty and staff with expertise and training in the areas of communication, speech-language and audiology. Faculty and staff 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 and ASLIE, where a Cued Speech complementary course is provided to those enrolled in the interpreting education program. In these areas, faculty and staff provided 29 credit hours of instruction for 94 students in AY 2014-2015.

Audiology and speech-language clinical services were provided to the RIT community throughout the 2014-2015 academic year. Faculty and staff provided 3,135 hours of individual speech-language instruction to 113 students, and 2,642 hours of audiology services to 559 students and others at RIT.

The audiology and speech-language department also provides walk-in services in the Spoken Language Learning and Practice Lab (SLLPL) and the Hearing Aid Shop. During the 2014-2015 academic year, the speech-language discipline served an additional 138 students during 525 hours of on-call services, while the audiology discipline provided 390 hours of on-call services in the Hearing Aid Shop, serving more than 1,474 members of the RIT community.

CSS also supports students with advisors to the Conversation Practice Group, the Vision Support Committee and the Cochlear Implant Club. CSS also is a co-sponsor of a grant from the Department of Education to train master's degree students in Speech-Language Pathology from Nazareth College in Rochester, New York, to work with deaf and hard-of-hearing students. Furthermore, CSS annually accepts a full-time extern pursuing their doctoral degree in the field of Audiology. The externs come from various accredited universities throughout the United States.

NTID Learning Center

The NTID Learning Center (NLC), pictured here, provides a variety of resources (tutoring space, computers for student and faculty use, Video Production Studio, studying tools and individual/group study space) in supporting the college success of NTID students.

This year, individual students signed up to use NLC computers 25,046 times for a total of approximately 147,365 hours. The NLC was busy supporting course-related activities for a total of 1,834 hours. This "tracking" of computer use behavior is made possible with in-house software installed on all NLC PCs that tracks how the computer is being used and records the length of time users are logged on.



Since AY 2006-2007, the NLC has loaned laptops (Windows and Mac) to students for 24-hour lending. This year, due in part to 15 new replacement laptops, laptops were borrowed 2,464 times, which is a 61 percent increase when compared to AY 2013-2014. Also, the NLC made calculators (TI-83, TI-89 and TI-84+) available to students for 24-hour lending. Students borrowed calculators 541 times.

To support learning outside of the typical classroom, the NLC offers individual and small group tutoring and studying in mathematics, English, accounting, interpreting and Spanish. This year, 35 tutors (faculty and students) provided 5,715 hours in a variety of curricular areas.

In addition to laptops and calculators, the NLC has a number of resources available for faculty, staff and students to borrow at the resource desk, such as smartphone chargers, headphones, memory card reader, webcams, PowerPoint clicker and Wacom pen tablet. The NLC provides a reference area with books provided by faculty for students to use for their courses. In AY 2014-2015 books were loaned out a total of 162 times.

In addition to resources available at the resource desk, the NLC also provides a video production studio, established in 2007 as a video production and editing resource for the NTID community. The studio was reserved for a total of 313 hours in AY 2014-2015. This area is used by interpreting students, deaf and hard-of-hearing students and faculty who want to use state-of-the-art video and editing equipment for classwork and projects.

The Sprint Relay Experimental Distance Learning/Access Demonstration Lab, housed within the NLC and the newly implemented flipped classroom studio, supported by the NLC, hosted 170 courses, workshops and other sessions for a total of 549 hours. The Sprint Relay Lab supported various activities, including conducting experimental classroom technology projects as well as video/lecture-capturing for flipped classroom course development for archiving and subsequent "anytime/anywhere" access by students.

The NLC continues to support the administration of Summer Vestibule Program (SVP) writing tests and the administration of the Liberal Arts Placement Test (LAPT) each semester. The NLC staff provided a number of tours for incoming freshmen and others such as foundation boards and national and international universities.

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 2015-2016, 548 students (44 percent of the total deaf and hard-of-hearing student enrollment) were enrolled in baccalaureate programs in one of the other colleges of RIT. NTID faculty and staff provide tutoring, direct instruction, academic advising and counseling for these students. In addition, interpreting, notetaking and C-Print® services are offered through NTID's Department of Access Services.

Outcomes Assessment

NTID conducted student learning outcomes assessment (OA) in all academic programs as well as in several general education and academic support areas during AY 2014-15. In addition, NTID completed the RIT Progress Report for all academic degree programs based on AY 2013-2014 results.

The fifth annual RIT Progress Report, completed in January 2015, used a web-based reporting format and required program chairs and directors to respond to a series of questions and report on program-level student learning outcomes listed in their AY 2013-2014 Outcomes Assessment Plans. This was the first outcomes assessment Progress Report on semester-based programs taught at RIT. Program information was aggregated by college and at the university level, 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 15/15 programs completing the report. NTID contributed favorably toward the RIT rate of 98 percent of programs completing assessments. Additionally:

- 100 percent of NTID programs met or exceeded established benchmarks for at least one student learning achievement, compared to the RIT level of 92 percent; and
- 87 percent of NTID programs indicated use of assessment results to guide program planning improvements, compared to the RIT level of 92 percent. This was the first time RIT used a rubric to designate whether a program had used results.

NTID program chairs and directors used RIT's online outcomes assessment management system, TaskStream, for annual assessment reporting, which forms the basis for the aforementioned RIT Progress Reports. They continued to use their approved semester-based Outcomes Assessment plans. NTID OA plans identify program goals, critical student learning and program outcomes, data sources/measures, performance benchmarks and timelines. Key findings and use of results were entered along with recommendations.

Highlights from AY 2014-2015 OA reports illustrate how outcomes assessment data collection and analysis are used to influence decision-making. Note that this year programs still were in transition as they dealt with a mix of students who took some courses under the quarter system while meeting semester-based program requirements.

ASL and Interpreting Education Department (ASLIE)

ASL-English Interpretation: Benchmarks were exceeded on all seven outcomes assessed this
year. 100 percent of students received ratings of satisfactory or better on the ASL Competency
Rubric and Poster Presentation Evaluation and 92 percent demonstrated successful interpreting
competency from ASL to English. Practicum supervisors rated 88 percent of students as
demonstrating satisfactory entry-level work habits and overall interpreting ability. Ninety percent

of seniors expressed satisfaction with the program and all students who sought employment after graduation were working.

Business Studies Department

- Accounting Technology: Benchmarks were exceeded for four measures and met for three
 measures. A new problem-based measure, used to assess how well students could perform the
 function of the accounting cycle, gave the faculty better information regarding student
 achievement than the previous tool. Successful scores on the accounting capstone rubric related
 to interpersonal business skills and teamwork reflect the increase in the number of times students
 are practicing these skills in the program prior to the assessment term.
- Administrative Support Technology (AST): Exceeded the benchmark for three outcomes, met the
 benchmark for four, and did not meet the benchmark for one assessed outcome. Co-op
 supervisors rated students very highly for their ability to learn quickly, apply technical knowledge
 and transfer theory to employment situations. One student was unable to meet the
 speed/accuracy keyboarding outcome, but all students earned an acceptable rating score on the
 e-Portfolio Rubric, indicating competence in choosing and applying computer software to create
 business documents.
- Business AS: Benchmarks were exceeded for three of the five outcomes and met for the other
 two. Ninety-three percent of students met the benchmark on the Student Learning Assessment
 Test given in Managerial Accounting and 89 percent demonstrated appropriate interpersonal
 business skills and teamwork. Students exceeded the benchmark for identifying and applying
 creative methods for idea generation and created a business plan outline for a new
 product/service. All of the students who graduated and applied for admission to a BS program
 were accepted.
- Business Technology AOS: For the second time, this group has been assessed independently from the AAS students in Accounting or AST and results were better than the initial assessment cycle. Students exceeded benchmarks on six outcomes and met the benchmarks on two. One hundred percent of the students met the keyboarding benchmark, so the program may raise the accuracy expectations for the next assessment period. One hundred percent of students earned acceptable ratings on the rubrics for the e-Portfolio, the marketing project and interpersonal skills, which are strong results for AOS students.
- Hospitality & Service Management (AS): Benchmarks were exceeded for two of the three
 assessed outcomes and not met for the other. The number of students enrolled in some of
 the courses is still low, so faculty will continue to monitor the results in courses where
 measures are taken. All four of the students who graduated from the program and applied for the
 BS were accepted.

Career Exploration Studies Department

 Career Exploration Studies (CES): Among CES students who remain enrolled at NTID, benchmarks were exceeded for passing the Level A reading/writing and mathematics courses within two semesters. The percentage of CES students being accepted into a major within two semesters improved to greater than 90 percent.

Communication Studies and Services Department

- Communication Outcomes: Based on co-op supervisors' ratings, benchmarks were met for students demonstrating competency in face-to-face communication during cooperative work experiences. Ratings for e-mail communication were below criterion level for the first time since co-op ratings have been used for assessment.
- Speech-Language, Aural Rehabilitation and Audiology Services: Benchmarks were exceeded for all four outcomes, though some of the outcomes were not applicable to one or more disciplines. Students indicated a high level of satisfaction with speech-language and audiology services and reported a self-perceived benefit. Ninety-five percent and 100 percent of students were rated by their instructors as demonstrating progress toward communication goals in aural rehabilitation and speech-language, respectively. On formal pre-/post-testing based on stated goals, the percentages were more varied, but the benchmark of 80 percent of students showing improvement was exceeded.

Engineering Studies Department

- Applied Mechanical Technology: This is a small program that was able to report results for the
 first time this assessment cycle. Benchmarks were exceeded for three outcomes and met for two
 others. Ninety-two percent of students earned appropriate grades in key courses preparing them
 to apply for enrollment in the BS program. A persistent issue was discovered regarding a
 prerequisite course, which has led to low enrollment.
- Computer-Aided Drafting Technology: Students met benchmarks for 14 assessed outcomes and did not meet benchmarks for four others. Most benchmarks were met regarding 2D technical drawings, Building Information Modeling projects and reports, field measurements input to CAD, research of technical information, portfolio creation and team projects. Struggles continued in identification of construction materials through a vocabulary exam, and faculty will provide more vocabulary practice.
- Computer-Integrated Machining Technology: Results were mixed, with students meeting the
 benchmarks set for two outcomes, exceeding benchmarks for five outcomes and not meeting
 benchmarks for four outcomes. Final grades and final project evaluations were high for use of
 CAD/CAM software, interpretation of blueprints and specifications and application of
 mathematical concepts and engineering graphics to solve machining problems. Faculty will
 monitor courses that require students to achieve a competency-based score so that outcomes in
 the future are based on more than one test.

Information and Computing Studies Department

- Applied Computer Technology AS: Benchmarks were exceeded for demonstrating fundamental
 programming and web skills, and met for student satisfaction outcomes. Benchmarks were not
 met for course grades in the BS-level client programming course, but this assessment will be
 changed for AY 2015-2016 to better reflect student success in the AS program. The graduation
 benchmark was not met for students graduating from the BS program after completing the AS,
 but the first cohorts are still in the seven-year window used to track graduation rates.
- Applied Computer Technology AOS/AAS: The assessment plan was reviewed this year; based on the experience of teaching in the semester system, revisions were made. Some of the assessment measures collected in the ACT technical capstone course were eliminated and for several outcomes the benchmarks or courses were changed. The findings showed that benchmarks were exceeded for nine of the assessed outcomes. For example, more than 85 percent of students demonstrated expected levels of competency related to installing, configuring, securing and troubleshooting networks, IT troubleshooting and customer support and clearly presenting technical information to a peer audience. Co-op supervisors rated 100 percent of students as satisfactory or better in applying technical knowledge and skills. The benchmark was met for being an effective team member, and approached for graduates finding employment.

Liberal Studies Department

Applied Liberal Arts (AS): Benchmarks were approached (but not met) for the three assessments
used to measure success in the program's writing and general education course requirements
and the professional courses students take in their intended College of Liberal Arts (CLA)
baccalaureate program. However, the benchmark was exceeded for acceptance into CLA or
equivalent BS program, which is the primary goal of the AS program in Applied Liberal Arts.

Master of Science in Secondary Education Department

• Master of Science in Secondary Education of Students who are Deaf or Hard of Hearing: Thirty-five measures included in the semester plan were assessed; benchmarks were exceeded for 12 measures, met for 20 and not met for three. The benchmark for passing the NYSTCE certification tests was exceeded for students who took tests in New York. Some students choose to pursue certifications in the states where they are teaching after graduation. Students met or exceeded the criteria levels for teaching performance, writing lesson plans, assessing student learning and demonstrating classroom management skills. For the same outcomes when adapting to meet the diverse needs of their students, all but one student met the expected competency level. Overall, there was continued improvement in students achieving the expectations for the program.

Science and Mathematics Department

• Laboratory Science Technology (LST): Benchmarks were again exceeded in all 14 assessed general skill and technical competence areas and met for student satisfaction. The concerted effort to emphasize safety has led to six years of 100 percent of students meeting safety expectations. Other notable achievements included the findings that 100 percent of students also met outcomes for effective technical communication of lab results, wrote professional resumes, demonstrated use of analytical instrumentation, and demonstrated biological and biotechnology-related techniques. Additionally, 100 percent of students received favorable ratings from their coop supervisors and 100 percent of graduates who sought employment were working.

Visual Communications Studies Department

• Design and Imaging Studies: Benchmarks were exceeded for six of the eight outcomes assessed, met for one and not met for the other. Students exceeded expectations for working collaboratively, demonstrating appropriate writing and use of technical vocabulary, exhibiting competence in graphic design or production of graphic media, assembly and maintenance of a portfolio, use of appropriate software and hardware for graphic media projects and design and production of graphic media for campus and community organizations. Criteria was met for communicating effectively about design and production concepts during co-op, and not met for students on co-op being competitive for the job market. Advisory board consultation will be utilized to encourage faculty to remain abreast of current job trends.

Enrollment by Degree Programs

In fall 2015, 58 percent of NTID's 1,413 students were enrolled in a broad array of programs within NTID. Forty-two percent were enrolled in other colleges of RIT, including 53 students in graduate programs. Of the 1,413 students, 1,220 are deaf and hard-of-hearing students in traditional undergraduate and graduate programs (excluding

MSSE and Interpreting students). Forty-two percent of deaf and hard-of-hearing students (596) 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
NTID Career Exploration Studies	
Career Exploration (UND)	32
Career Prep Foundation (UND)	27
Subtotal	59
NTID Career-Focused	
Non-Degree Student (NONDEG)	8
Accounting Technology (AAS)	17
Applied Computer Technology (AAS)	35
Applied Computer Technology (AOS)	32
Design & Imaging Technology (AAS)	32
Design & Imaging Technology (AOS)	64
Business Technology (AOS)	52
Computer-Aided Drafting Technology (AAS)	10
Computer-Aided Drafting Technology (AOS)	23
Computer-Integrated Machining Technology (AOS)	40
Engineering Technologies (UND)	6
Laboratory Science Technology (AOS)	14
Subtotal	333
Associate+Bachelor's Degrees	
Administrative Support Technology (AAS)	22
Applied Computer Technology (AS)	33
Applied Liberal Arts (AS)	38
Applied Mechanical Technology (AAS)	26
Business (AS)	30
Civil Technology (AAS)	5
Hospitality and Service Management (AS)	5
Laboratory Science Technology (AAS)	43
Subtotal	202

NTID ASL-English Interpretation (NONDEG) 6 ASL-English Interpretation (NONDEG) 145 Subtotal 151 NTID Master of Science in Secondary Education (MSSE) Graduate Teacher (NONDEG) 6 Secondary Education of Students who are Deaf/Hard of Hearing (MS) 36 Subtotal 42 NTID Pre-Baccalaureate Students Pre-Baccalaureate Engineering (UND) 6 Pre-Baccalaureate Liberal Arts (UND) 3 Pre-Baccalaureate Visual Communication (UND) 13 Subtotal 30 NTID Subtotal 817 Baccalaureate Students In Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 3 Electrical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 25 Packaging Science (BS) 11 Subtotal 74		Number of Students
ASL-English Interpretation (BS) Subtotal NTID Master of Science in Secondary Education (MSSE) Graduate Teacher (NONDEG) Secondary Education of Students who are Deaf/Hard of Hearing (MS) Subtotal A2 NTID Pre-Baccalaureate Students Pre-Baccalaureate Engineering (UND) Pre-Baccalaureate Liberal Arts (UND) Pre-Baccalaureate Visual Communication (UND) Pre-Baccalaureate Visual Communication (UND) Subtotal NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) International Engineering Technology (BS) Annufacturing Engineering Technology (BS) International Engineering Technology (BS) Ackaging Science (BS)	NTID ASL-English Interpretation	
Subtotal 151 NTID Master of Science in Secondary Education (MSSE) Graduate Teacher (NONDEG) 6 Secondary Education of Students who are Deaf/Hard of Hearing (MS) 36 Subtotal 42 NTID Pre-Baccalaureate Students Pre-Baccalaureate Engineering (UND) 6 Pre-Baccalaureate Liberal Arts (UND) 3 Pre-Baccalaureate Science (UND) 8 Pre-Baccalaureate Visual Communication (UND) 13 Subtotal 30 NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 3 Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 14 Manufacturing Engineering Technology (BS) 14 Manufacturing Engineering Technology (BS) 15 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11	ASL-English Interpretation (NONDEG)	6
NTID Master of Science in Secondary Education (MSSE) Graduate Teacher (NONDEG) 6 Secondary Education of Students who are Deaf/Hard of Hearing (MS) 36 Subtotal 42 NTID Pre-Baccalaureate Students Pre-Baccalaureate Engineering (UND) 6 Pre-Baccalaureate Liberal Arts (UND) 3 Pre-Baccalaureate Science (UND) 8 Pre-Baccalaureate Visual Communication (UND) 13 Subtotal 30 NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 3 Electrical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11	ASL-English Interpretation (BS)	145
Graduate Teacher (NONDEG) Secondary Education of Students who are Deaf/Hard of Hearing (MS) Subtotal A2 NTID Pre-Baccalaureate Students Pre-Baccalaureate Engineering (UND) Pre-Baccalaureate Liberal Arts (UND) Pre-Baccalaureate Science (UND) Pre-Baccalaureate Visual Communication (UND) Subtotal NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Mechanical Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) Packaging Science (BS)	Subtotal	151
Graduate Teacher (NONDEG) Secondary Education of Students who are Deaf/Hard of Hearing (MS) Subtotal A2 NTID Pre-Baccalaureate Students Pre-Baccalaureate Engineering (UND) Pre-Baccalaureate Liberal Arts (UND) Pre-Baccalaureate Science (UND) Pre-Baccalaureate Visual Communication (UND) Subtotal NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Mechanical Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) Packaging Science (BS)		
Secondary Education of Students who are Deaf/Hard of Hearing (MS) Subtotal A2 NTID Pre-Baccalaureate Students Pre-Baccalaureate Engineering (UND) Pre-Baccalaureate Liberal Arts (UND) Pre-Baccalaureate Science (UND) Pre-Baccalaureate Visual Communication (UND) Subtotal NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Mechanical Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS)	• • • • • • • • • • • • • • • • • • • •	
NTID Pre-Baccalaureate Students Pre-Baccalaureate Engineering (UND) 6 Pre-Baccalaureate Liberal Arts (UND) 3 Pre-Baccalaureate Science (UND) 8 Pre-Baccalaureate Visual Communication (UND) 13 Subtotal 30 NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 4 Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 14 Mechanical Engineering Technology (BS) 15 Mechanical Engineering Technology (BS) 16 Mechanical Engineering Technology (BS) 16 Mechanical Engineering Technology (BS) 17 Mechanical Engineering Technology (BS) 16 Packaging Science (BS) 11	,	_
NTID Pre-Baccalaureate Students Pre-Baccalaureate Engineering (UND) 6 Pre-Baccalaureate Liberal Arts (UND) 3 Pre-Baccalaureate Science (UND) 8 Pre-Baccalaureate Visual Communication (UND) 13 Subtotal 30 NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 4 Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 14 Mechanical Engineering Technology (BS) 15 Packaging Science (BS) 11	• ,	
Pre-Baccalaureate Engineering (UND) Pre-Baccalaureate Liberal Arts (UND) Pre-Baccalaureate Science (UND) Pre-Baccalaureate Visual Communication (UND) 13 Subtotal NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Mechanical Engineering Technology (BS) Packaging Science (BS) 11	Subtotal	42
Pre-Baccalaureate Engineering (UND) Pre-Baccalaureate Liberal Arts (UND) Pre-Baccalaureate Science (UND) Pre-Baccalaureate Visual Communication (UND) 13 Subtotal NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Mechanical Engineering Technology (BS) Packaging Science (BS) 11		
Pre-Baccalaureate Liberal Arts (UND) Pre-Baccalaureate Science (UND) Pre-Baccalaureate Visual Communication (UND) 13 Subtotal 30 NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Manufacturing Engineering Technology (BS) Packaging Science (BS) 11		
Pre-Baccalaureate Science (UND) Pre-Baccalaureate Visual Communication (UND) Subtotal NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Manufacturing Engineering Technology (BS) Packaging Science (BS)	<u> </u>	
Pre-Baccalaureate Visual Communication (UND) Subtotal NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) Packaging Science (BS)	Pre-Baccalaureate Liberal Arts (UND)	3
Subtotal 817 NTID Subtotal 817 Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 4 Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 15 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11		8
NTID Subtotal Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Manufacturing Engineering Technology (BS) Mechanical Engineering Technology (BS) Packaging Science (BS)	Pre-Baccalaureate Visual Communication (UND)	13
Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 4 Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11	Subtotal	30
Baccalaureate Students in Other RIT Colleges College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 4 Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11		
College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 4 Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11	NTID Subtotal	817
College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 4 Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11		
College of Applied Science and Technology Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 4 Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11	Baccalaureate Students in Other RIT Colleges	
Civil Engineering Technology (BS) 7 Computer Engineering Technology (BS) 4 Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11		
Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Manufacturing Engineering Technology (BS) Mechanical Engineering Technology (BS) Packaging Science (BS)	College of Applied Science and Technology	
Computer Engineering Technology (BS) Electrical Engineering Technology (BS) Electrical/Mechanical Engineering Technology (BS) Environmental Sustainability Health & Safety Management (BS) International Hospitality and Service Management (BS) Manufacturing Engineering Technology (BS) Mechanical Engineering Technology (BS) Packaging Science (BS)		
Electrical Engineering Technology (BS) 3 Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11	Civil Engineering Technology (BS)	7
Electrical/Mechanical Engineering Technology (BS) 6 Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11	Computer Engineering Technology (BS)	4
Environmental Sustainability Health & Safety Management (BS) 3 International Hospitality and Service Management (BS) 14 Manufacturing Engineering Technology (BS) 1 Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11	Electrical Engineering Technology (BS)	3
International Hospitality and Service Management (BS) Manufacturing Engineering Technology (BS) Mechanical Engineering Technology (BS) Packaging Science (BS) 14 25 11	Electrical/Mechanical Engineering Technology (BS)	6
Manufacturing Engineering Technology (BS)1Mechanical Engineering Technology (BS)25Packaging Science (BS)11	Environmental Sustainability Health & Safety Management (BS)	3
Mechanical Engineering Technology (BS) 25 Packaging Science (BS) 11	International Hospitality and Service Management (BS)	14
Packaging Science (BS) 11	Manufacturing Engineering Technology (BS)	1
	Mechanical Engineering Technology (BS)	25
Subtotal 74	Packaging Science (BS)	11
	Subtotal	74

	Number of Students
Saunders College of Business	
Business Administration-Accounting (BS)	8
Business Undeclared (UND)	2
Finance (BS)	6
International Business (BS)	3
Management (BS)	10
Management Information Systems (BS)	11
Marketing (BS)	5
New Media Marketing (BS)	5
Subtotal	50
College of Science	
Applied Mathematics (BS)	2
Applied Statistics (BS)	2
Biochemistry (BS)	6
Bioinformatics (BS)	1
Biology (BS)	13
Chemistry (BS)	6
Environmental Science (BS)	5
Imaging Science (BS)	1
Molecular Bioscience and Biotechnology (BS)	6
Physics (BS)	2
Subtotal	44
College of Imaging Arts and Sciences	
3D Digital Graphics (BFA)	6
Film and Animation (BFA)	2
Fine Arts-Studio (BFA)	1
Glass (BFA)	1
Graphic Design (BFA)	22
Illustration (BFA)	4
Industrial Design (BFA)	9
Interior Design (BFA)	5
Media Arts and Technology (BS)	3
Medical Illustration (BFA)	3
Motion Picture Science (BS)	1
New Media Design (BFA)	5
Photographic Arts and Sciences (UND)	1
Photographic and Imaging Arts (BFA)	12
Photographic and Imaging Technology (BS)	2
Professional Photographic Illustration (BFA)	1
Visual Media (BFA)	1
Subtotal	79

	Number of Students
College of Liberal Arts	
Advertising and Public Relations (BS)	3
Communication (BS)	4
Criminal Justice (BS)	20
Economics (BS)	4
International and Global Studies (BS)	7
Journalism (BS)	1
Liberal Arts Exploration (UND)	2
Museum Studies (BS)	4
Political Science (BS)	6
Psychology (BS)	34
Public Policy (BS)	2
Sociology and Anthropology (BS)	3
Subtotal	90
Kate Gleason College of Engineering	
Biomedical Engineering (BS)	8
Chemical Engineering (BS)	2
Computer Engineering (BS)	6
Electrical Engineering (BS)	9
Engineering Exploration (UND)	3
Industrial Engineering (BS)	1
Mechanical Engineering (BS)	13
Subtotal	42
Golisano College of Computing and Information Sciences	
Applied Networking and System Administration (BS)	2
Computer Science (BS)	18
Computing Exploration (UND)	3
Computing Security (BS)	6
Game Design and Development (BS)	4
Information Technology (BS)	31
Networking and System Administration (BS)	6
New Media Interactive Development (BS)	8
Software Engineering (BS)	8
Subtotal	86

	Number of Students
University Studies	
University Studies (UND)	12
Subtotal	12
School of Individualized Study	
Applied Arts and Sciences (BS)	35
Subtotal	35
Student Affairs	
College Restoration Program	5
Subtotal	5
College of Health Sciences and Technology	
Biomedical Sciences (BS)	20
Diagnostic Medical Sonography (BS)	1
Nutrition Management (BS)	1
Physician Assistant (BS)	4
Subtotal	26
Subtotal Baccalaureate Students in Other Colleges	543



Dylan Panarra, an Industrial Design major from Jackson, New Jersey, is an NTID Student Ambassador and a leader of the Sigma Nu fraternity at RIT.

	Number of Students
Graduate Students in Other RIT Colleges	
College of Applied Science and Technology	
College of Applied Science and Technology	4
Facility Management (MS)	1
Hospitality-Tourism Management (MS)	2
Human Resources Development (MS)	7
Packaging Science (MS)	1
Service Leadership and Innovation (MS)	1
Subtotal	12
Occupations Octions of Bost's con-	
Saunders College of Business	•
Business Administration (MBA)	2
Business Administration in Accounting (MBA)	1
Entrepreneurship & Innovative Ventures (MS)	1
Finance (MS)	1
Subtotal	5
College of Imaging Arts and Sciences	
Fine Arts Studio (MFA)	1
Visual Arts (MST)	1
Visual Communication Design (MFA)	1
Subtotal	3
College of Liberal Arts	
Criminal Justice (MS)	1
Experimental Psychology (MS)	1
Subtotal	2
College of Science	
Applied and Computational Mathematics (MS)	1
Applied Statistics (MS)	1
Bioinformatics (MS)	2
Chemistry (MS)	1
Environmental Science (MS)	3
Subtotal	8
Kate Gleason College of Engineering	
Electrical Engineering (MS)	1
Mechanical Engineering (MS)	1
Subtotal	2

	Number of Students
Golisano College of Computing and Information Sciences	
Computer Science (MS)	2
Computing Security (MS)	3
Computing and Information Science (PhD)	1
Human Computer Interaction (MS)	3
Information Science and Technology (MS)	3
Subtotal	12
Golisano Institute for Sustainability	
Architecture (M. Arch.)	3
Subtotal	3
School of Individualized Study	
Professional Studies (MS)	6
Subtotal	6
Subtotal Graduate Students in Other Colleges	53
Total	1,413

	Legend
2M	Double Major
AAS	Associate of Applied Science
AOS	Associate of Occupational Science
AS	Associate of Science
BFA	Bachelor of Fine Arts
BS	Bachelor of Science
CT	Certificate
M. Arch.	Master of Architecture
MBA	Master of Business Administration
MFA	Master of Fine Arts
MS	Master of Science
MST	Master of Teaching
NONDEG	Non-Degree
PhD	Doctor of Philosophy
UND	Undeclared

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.

	Fall	
	ган	Spring
Accounting Technology	9.8	10.4
Administrative Support Technology	8.3	7.4
American Sign Language	9.0	8.5
Applied Computer Technology	8.8	10.0
Applied Computer Technology – Technical Computing	7.3	7.5
Applied Mechanical Technology	12.3	6.5
ASL-Deaf Culture	12.0	10.0
ASL-English Interpretation	11.3	10.3
Career Development	11.8	9.0
Communication Studies	9.8	8.3
Computer-Aided Drafting Technology	8.6	8.4
Computer-Integrated Machining Technology	7.8	7.4
English	10.9	10.4
General Arts & Imaging	9.3	7.8
General Business	11.7	11.4
Graphic Design	8.3	6.7
Graphic Production	6.7	7.6
Humanities and Social Science	12.3	14.2
Laboratory Science Technology	9.6	11.0
Liberal Studies	10.5	11.3
Master of Science in Secondary Education	10.9	15.4
Mathematics	10.2	8.8
Science	9.6	12.0
Overall Average	9.9	9.6

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 2015.

		Number of	f Students
	Number of Sections	Deaf and Hard-of- Hearing	Hearing
Saunders College of Business			
Computer-Based Analysis	1	28	0
Leadership	2	0	17
Power and Influence	2	0	17
Subtotal	5	28	34
College of Imaging Arts and Sciences			
Survey of Western Art & Architecture I	2	25	0
Survey of Western Art & Architecture II	1	15	0
The Fine Print Workflow	1	1	18
Subtotal	4	41	18
College of Liberal Arts			
Advanced American Sign Language I	1	3	2
American Sign Language Literature	1	2	10
Beginning American Sign Language I	17	32	277
Beginning American Sign Language II	8	20	117
Beginning Spanish IA	1	8	0
Capstone Seminar	1	1	0
Communication	1	17	0
Computer Crime	2	3	42
Deaf Art & Cinema	2	25	23
Deaf Culture in America	3	32	66
Diversity in the Deaf Community	2	27	35
Ethics, Values and Public Policy	1	20	0
Foundations of Sociology	4	48	0
Intermediate American Sign Language I	4	10	33
Intermediate American Sign Language II	2	7	8
Introduction to Criminal Justice	1	21	0
Introduction to Psychology	6	67	68
Introduction to Visual Arts	2	34	0
Major Issues in Criminal Justice	1	5	27
Oppression in the Lives of Deaf People	2	26	26
Science, Technology and Values	4	70	0
Senior Project in Psychology	2	2	0
Social Psychology	1	5	27

Educational Support: Teaching (continued)

		Number of Students	
	Number of Sections	Deaf and Hard-of- Hearing	Hearing
College of Liberal Arts (continued)			
Special Topic: Modern Language	1	0	12
Theatre Ensemble	1	1	10
U.S. Themes	2	17	0
Subtotal	73	503	783
College of Science	,	,	_
Environmental Science Thesis	1	1	0
General and Analytical Chemistry II Lab	2	2	46
Independent Study: Mathematical Models	1	1	0
Math Undergraduate Research	2 2	4	0 37
Organic Chemistry Lab I	3	1	3 <i>1</i> 44
Solar System Astronomy Lab		3	50
Stellar Astronomy Lab Subtotal	3 14	3 13	177
Subtotal	14	13	177
Interdisciplinary Studies			
Critical Reading and Writing	8	114	0
Writing Seminar	13	149	0
Subtotal	21	263	0
Contantan Internal Invieto Athletica and Decreation			
Center for Intercollegiate Athletics and Recreation	4	0	7
Country Line Dance	1 2	32	7 41
Insanity Kundalini Yaga	2	32	
Kundalini Yoga Turbo Kick	2	26	61 50
Ultimate Frisbee	2	∠0 1	50 57
Yoga	2	3	50
Subtotal	11	66	266
2			
Total	128	914	1,278

American Sign Language-English Interpretation Program

The degree program in ASL-English Interpretation graduated 29 students in 2014-2015, all with BS degrees. Forty new students matriculated into the program in September 2015. Currently, 17 percent of total enrollment are students from ethnic

minority backgrounds. Since its inception, the Department of ASL and Interpreting Education has graduated 728 students. Of that number, 466 have graduated with an AAS degree, 254 with a BS degree, and eight with a certificate.

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Fall Applicants	229	250	224	211	188
Accepted	49	51	51	49	50
Registrations	41	45	43	40	40
Enrollment					
AAS	0	1	0	0	0
BS	156	162	143	143	148
Non-Matriculated	4	4	4	3	3
Total Enrollment	160	167	147	146	151
Employment Report					
Graduates	32	34	30	29	*
Employment Rate	100%	100%	100%	*	*
1 - 7 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	120,0				

In addition to the interpreting program, ASL and Interpreting Education faculty also provide the following programs:	FY 2015 Enrollment
ASL courses in RIT's College of Liberal Arts (CLA)	550
Faculty Staff Sign Language program, open to all RIT and NTID employees	216
ASL courses for deaf students, NTID	35
Master of Science in Secondary Education Program, NTID	33
Introduction to ASL and Deaf Culture	22
New Signers Program	29
Global Understanding Program Fall Semester – Hogeschool, the Netherlands students to NTID	3
Global Understanding Program Summer – NTID interpreting students to Hogeschool, the Netherlands	8

-75-

^{*} As of the writing of this report, the employment information for FY 2015 and FY 2016 and graduation information for FY 2016 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 21st year. To date, 347 students have graduated from the program. One hundred percent of the FY 2014 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 semesters 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 RIT's College of Science, College of Engineering and College of Liberal Arts as well as RIT's School of Individualized Study. The specifics related to this program can be found at www.ntid.rit.edu/msse-4plus2.

Thirty-three applications for admission for fall 2015 were received. Seventeen were offered admission. Of those, 15 matriculated into the program. For the 2015-2016 academic year, the MSSE program has a total enrollment of 42 students: 27 second-year or returning students and 15 first-year students. Of the 42 matriculated students, 36 percent are deaf or hard-of-hearing and 13 percent are minority.

MSSE Student Data

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Fall Applications	43	49	38	40	33
Acceptances	26	30	16	19	17
New Registrations	18	19	16	16	15
Deaf and Hard-of-Hearing					
Enrollment	12	25	18	16	15
			40		10
Total Enrollment*	64	56	48	44	42
F					
Employment Report					
Craduates	20	4.5	24	24	**
Graduates	30	15	34	21	
Employment Date	1000/	1000/	1000/	**	**
Employment Rate	100%	100%	100%		

^{*} Included from FY 2007 to date are non-matriculated students (between four and 15 per year) taking courses offered by the Master of Science program in Secondary Education, but who are part of a grant-supported joint program between NTID and Nazareth College in Rochester, New York, 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 2015 and FY 2016 and graduation information for FY 2016 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 bachelor's degree programs).

During FY 2015:

- 271 students were enrolled in cooperative work experiences
- 58 academic programs had students on cooperative work experiences
- 13 faculty and staff visited 35 students at their job sites during the summer

		nvolved in periences*			
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Sub-Baccalaureate					
NTID	107	96	105	90	94
Percent of Total Co-op Enrollment	36%	32%	36%	38%	35%
Baccalaureate/Master's					
College of Applied Science and Technology	50	57	64	40	52
Saunders College of Business	36	34	38	18	27
Golisano College of Computing and Information Sciences	34	41	29	33	45
Kate Gleason College of Engineering	14	11	16	18	19
College of Health Sciences and Technology	N/A	6	5	1	5
College of Imaging Arts and Sciences	13	11	7	10	9
College of Liberal Arts	35	37	25	22	19
College of Science	9	6	6	6	1
Subtotal	191	203	190	148	177
Percent of Total Co-op Enrollment	64%	68%	64%	62%	65%
Total Co-op Enrollment	298	299	295	238	271

^{*} 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.

Student Support Services

NTID students have access to a variety of support services, including audiological services, speech and language services, mental health counseling, career counseling, academic advising, self-advocacy training, wellness activities, substance abuse services and more.



The Jan Strine Memorial Labyrinth is new for students in 2015. Jan Strine was an assistant professor at NTID for 30 years and taught a wellness and spirituality course in RIT's Instructional Wellness Program. The labyrinth, located in RIT/NTID's Frisina Quad, provides a place for students to walk, reflect, pray, meditate and relax.

Student Support Services Highlights

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

- <u>Audiological services</u> include hearing evaluations, hearing aid trials, fittings, cochlear implant
 mapping and individual listening therapies that focus on the development of receptive
 communication skills. RIT students, faculty and staff, NTID-supported alumni and those enrolled in
 RIT's Osher Lifelong Learning Institute are served.
- Speech and language services are offered to students who want to enhance their use of spoken
 English and their general communication competence. Individual and group experiences provide
 opportunities to improve communication in conversations, group discussions and formal
 presentations. The Spoken Language Learning and Practice Lab enables students to use computer
 technology for speech and language analysis and visual feedback.
- Mental health counseling and psychotherapy are provided to deaf, hard-of-hearing and hearing students on campus at the RIT Office of Counseling & Psychological Services. 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. In AY 2014-2015, 215 deaf and hard-of-hearing students were seen for these services.
- Personal and career counseling and academic advising. Upon entry, every NTID-supported student is assigned to a counselor/academic advisor from the NTID Department of Counseling and Academic Advising Services. These professional counselors/advisors play an important role in helping students maximize their educational opportunities. NTID associate-level students receive personal and career counseling and academic advising from their assigned counselor/advisor. NTID-supported bachelorlevel students also receive personal and career counseling from their assigned NTID counselor. The academic advising for bachelor-level students is provided by the advisor in their home college. In AY 2014-2015, 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 frequently serve as guest lecturers in Freshman Seminar classes and other courses related to various aspects of college success. This department also manages a full-service Career Resource and Testing Center, which provides a number of career assessment tools and resources. These include 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. NTID counselors/advisors also work in collaboration with other service providers on campus to help students access services and experiences that promote academic growth, as well as enhance personal and social development.
- The Student Life Team (SLT) continued its tradition in FY 2015 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 and Academic Advising Services Department, the NTID Center on Employment, NTID Student and Academic Services, Department of Public Safety 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, spiritual/religious and civility exploration workshops, self-advocacy and community accountability mentoring programs, social and cultural programs, fraternity and sorority event collaborations and club/organization advising are avenues of outreaching and networking with students. SLT values the ongoing partnership with NTID alumni to offer every student a greater sense of his/her purpose as a global citizen.
- 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 exploring, developing and implementing wellness concepts, principles and behaviors in 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

Student Support Services Highlights (continued)

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 topics, presentations in residence halls, Red Barn activities, intramural programs, institute workshops and personal mentoring.

- Financial aid for domestic students was provided in FY 2015 to NTID students in the form of Vocational Rehabilitation awards, grants-in-aid, federal and state grants, scholarships and federal loans through RIT's Financial Aid and Scholarships Office. In all, 417 students received NTID merit scholarships, 80 received RIT merit scholarships, 714 received NTID endowed scholarships and 95 students received scholarships from external funding sources. In addition, the NTID Financial Services Office provided privately funded short-term loans to students who encountered emergency situations.
- Summer Vestibule Program (SVP) is an orientation program for entering NTID students designed to transition them to college life. In 2015, 225 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 always is a memorable experience as the students bond and make friends as they begin their collegiate career.
- <u>First Year Experience</u> incorporates a "freshman seminar" required for incoming first-year students and designed to further assist them in their transition to RIT/NTID. Twenty-one sections were offered with an average class size of 13 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.
- <u>Career Exploration Studies</u> (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 2014-2015, CES served 47 students in fall and 57 students in spring. Seventy-two percent of CES students were accepted into a major within two semesters.
- <u>Substance and Alcohol Intervention Services for the Deaf (SAISD)</u> 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) provides a variety of resources (tutoring, computer, video production, studying tools and individual/group study space) in supporting the college success of students. Since FY 2007, the NLC has loaned laptops to students for 24-hour lending. To support learning outside of the typical classroom, the NLC offers individual and small group tutoring and studying in mathematics, English, accounting, interpreting and biochemistry. The NLC continues to support the administration of SVP writing tests and the quarterly administration of the Liberal Arts placement tests and provided a number of tours for incoming freshmen and visitors from other institutions such as foundation boards and universities. 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 2014-2015	
	Hours of Service Tutoring/Advising	Class Sections Served	Total Student Registrations
College of Applied Science and Technology (CAST)	*	336	688
College of Imaging Arts and			
College of Imaging Arts and Sciences (CIAS)	940	412	754
Saunders College of Business (SCB)	1,988*	191	515
Kate Gleason College of Engineering (KGCOE)	430*	189	246
College of Liberal Arts (CLA)	1,157	684	2,518
Callana of Haalth Caianasa and			
College of Health Sciences and Technology (CHST)	773	82	270
College of Science (COS)	6,674*	522	1,390
Colinga College of Computing and			
Golisano College of Computing and Information Sciences (GCCIS)	2,250*	292	592
Total	14,212	2,708	6,973

Natalie Snyder, of Rockville, Maryland, is pursuing a bachelor's degree in Biomedical Sciences. She is an NTID student ambassador and a math and physics tutor at the NTID Learning Center. She is pictured here with her father as one of the students honored at the 2015 RIT Outstanding Undergraduate Scholar ceremony.



^{*} Hours for CAST are reported under SCB, KGCOE, COS and GCCIS.

Student Access Services

NTID's Access Services staff provide access services in the classroom as well as outside the classroom for events such as student government meetings, extracurricular programs, guest lecturers and entertainers.



Interpreter Nicole Crouse-Dickerson, left, interprets for a presenter at the New York Cyber Security and Engineering Technology Association's fall conference at NTID. NTID and RIT's College of Applied Science and Technology co-hosted the event, which featured sign language interpreting and real-time captioning. The conference was free to all attendees, including students.

Student Access Services Highlights

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

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

- **Sign language interpreting** provided by 120 staff members—the largest staff of professional interpreters of any college program in the world as well as freelance, apprentice and student interpreters. Students also may request interpreters for non-academic activities such as athletic events, religious services, student government meetings, student clubs 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 of 55 real-time captionists was trained in a computer-assisted system developed 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.
- 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 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 effectively 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 2015, is 13 years. This experienced resource, and similar expertise developing now in real-time captioning, affords NTID students unparalleled access to the array of educational opportunities RIT provides. Continued innovation and application of new technologies promise even better services in years ahead.

To ensure the extraordinary expertise of its staff remains, Access Services expanded employment and mentorship of apprentice interpreters, sharing the exceptional resources and expertise of NTID with interpreters developing as specialists in post-secondary education. With growing demand for services and increasing retirements of veteran staff, Access Services hired 28 interpreters, nearly 25 percent of its staff within the past two years. A rich professional development program supports their skill development.

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)	10,755	5,414	1,637	269
Saunders College of Business (SCB)	9,441	5,140	1,565	174
Golisano College of Computing and Information Sciences (GCCIS)	12,351	6,245	2,551	241
Kate Gleason College of Engineering (KGCOE)	3,766	3,097	1,191	122
College of Health Sciences and Technology (CHST)	2,165	2,047	989	62
College of Imaging Arts and Sciences (CIAS)	20,724	10,336	2,101	347
School of Individualized Study (SOIS)	1,530	598	114	31
College of Liberal Arts (CLA)	22,185	12,237	5,410	421
College of Science (COS)	18,644	14,137	5,427	443
Student Affairs Division (STUAF)	2,714	113	161	138
Golisano Institute Sustainability (GIS)	821	311	313	13
NTID Students with Approved Accommodations*	887	520	0	41
FY 2015 Total Hours	105,983	60,195	21,459	2,302

^{*} 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.

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 student 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 2015	In Hours	-Class %* \$	Sections	Non-Cla		Administr Activi		Overall	Total
1 1 2013	Hours	/0	Dections	Aouvi	.	Addivi	-y		
Fall	49,992	80%	851	9,603	15%	2,564	4%	62,159	100%
Winter	176	9%	3	958	49%	817	42%	1,951	100%
Spring	52,122	79%	840	11,457	17%	2,429	4%	66,008	100%
Summer	3,693	37%	45	5.178	51%	1,241	12%	10,112	100%
FY 2015 Total	105,983	76%	1,739	27,223	19%	7,051	5%	140,230	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%
FY 2012 Total	97,232	75%	2,032	25,766	19%	6,902	6%	129,900	100%
FY 2013 Total	111,757	77%	2,262	26,878	19%	6,368	4%	145,003	100%
FY 2014 Total**	99,173	75%	1,660	26,223	20%	6,659	5%	132,055	100%

^{*} Percentages are rounded to the nearest percent.

^{**} Reduced number of sections and hours required in FY 2014 result from RIT's move to a semester-based academic calendar.

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 orientations and meetings.

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

FY 2015	In Hours	-Class	ections	Non-Cla Activit		Administ Activi		Overall	Total
1 1 2013	Tiours	/0 Jt	CUOIIS	7101111	· y	710111	ıty	Overan	Total
Fall	11,042	98%	255	148	1%	3	0%	11,226	100%
Winter	28	62%	2	0	0%	17	38%	45	100%
Spring	10,103	98%	239	178	2%	32	0%	10,313	100%
Summer	286	43%	13	304	46%	70	11%	865	100%
FY 2015 Total	21,459	96%	509	626	3%	156	1%	22,241	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%
FY 2012 Total	19,092	98%	592	254	1%	171	1%	19,516	100%
FY 2013 Total	17,782	98%	577	265	1%	216	1%	18,263	100%
FY 2014 Total**	21,140	98%	489	351	2%	110	1%	21,601	100%

^{*} Percentages are rounded to the nearest percent.

^{**} Reduced number of sections required in FY 2014 result from RIT's move to a semester-based academic calendar.

Access Services: Staff Training

NTID Access Services offers interpreter, notetaker and C-Print® training to its staff and student employees. 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. Staff members enjoy in-service training courses, seminars and workshops throughout the year designed to increase knowledge and skills.

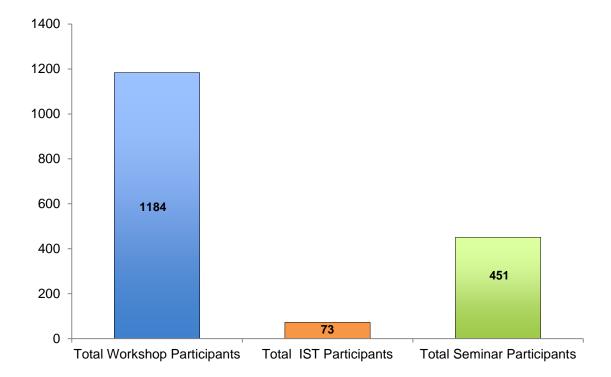
		Nu	mber Enrol	led	
Programs	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
In-Service Training for Interpreters	63	132*	104	59	73
Notetaker Training	359	277	262	417	642
Real-Time Captionist Training	6	0	6	4	5
Total	428	409	372	480	720

Access Services Professional Development Program Participants

Workshops: 1,184

In-Service Trainings (IST): 73

Seminars: 451



^{*} 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 2014 graduates, 94 percent of those seeking employment were employed in 2015.



RIT/NTID alumna Maya Ariel '12, a financial management specialist with the U.S. Department of Defense in Indianapolis, Indiana, discusses her employer's job and co-op opportunities with current students at NTID's Job Fair.

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, 93 percent of graduates who chose to enter the labor force found employment that is commensurate with the level of their education and training. Figures for 2014 graduates show that 94 percent, or 136 of the 145 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 2013, deaf and hard-of-hearing graduates from NTID far outearn those graduating from other institutions of higher education. Specifically, at age 50, \$58,000 is the median salary for those graduating from NTID with a bachelor's degree, which is \$17,000 more than those graduating from NTID with an associate degree, and \$37,000 more than those graduating from other institutions of higher education. NTID deaf and hard-of-hearing graduates also experience higher rates of employment over their lifetimes than those graduating from other institutions of higher education.

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 semester and review their individual plan of employment that was developed with their vocational rehabilitation counselor, if receiving VR support, and plan of study for degree completion.

NTID's Retention Committee is dedicated to identifying retention issues that impact students' persistence from first-year transition through graduation. The AY 2014-2015 Retention Committee focused on reviewing the Step Up! mentoring program for the past five years (2009-2013), analyzing exit interview results from the Counseling and Academic Advising Services Department, examining other institutional systems that promote student retention and identifying strategies to increase the retention of NTID transfer students.

Persistence is a continuing concern for NTID. However, NTID's first-year retention and overall graduate rates continue to exceed national averages when compared to hearing students in associate and bachelor's degree programs in other colleges and universities. Notwithstanding these positive comparisons, NTID continues to work at improving its persistence to graduation rate.

For AY 2014-15, RIT/NTID awarded 285 associate, bachelor's and master's degrees. Of those graduates, 35 percent earned associate degrees, 51 percent earned bachelor's degrees and 14 percent earned master's degrees. Thirty-four percent of degrees were granted to minority students.

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 814 students who were first-time, full-time, degree-seeking in the years 2012, 2013 and 2014. Data in the table below indicate that for the most recent three-year period, 77 percent of new students persisted to the second year. Disaggregated rates can be found on the following page.

	First-Year Pers	sistence 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%
2010, 2011, 2012	827	597	72%
2011, 2012, 2013	855	658	77%
2012, 2013, 2014	814	623	77%

^{*} Three-year averages for first-time, full-time, degree-seeking students registering for fall term. 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 a 90 percent persistence rate for first-year NTID students across four-year degree programs. Students admitted to NTID have ACT composite scores that are comparable to students in two-year colleges with open 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 (39 percent for students admitted into sub-bachelor-level programs and 69 percent for those in bachelor-level programs) are much higher than public colleges with traditional or selective admission standards.

National and NTID Persistence Rates							
Colleges	First-Year Persistence Rate*	Graduation Rate*					
Two-Year Institutions	F00/	200/					
Two-Year institutions	59%	29%					
NTID Sub-Baccalaureate**	72%	39%					
Four-Year Institutions	79%	59%					
Other RIT Colleges (NTID Baccalaureate)**	90%	69%					

^{*} Source of national estimates: www.nces.ed.gov

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

Degrees Granted: FY 2011 to FY 2015

During the past five years, NTID has awarded an average of 338 degrees annually. The number for FY 2015 was 285. 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 2015, 73 of the 285 graduate and undergraduate degrees and certificates (34 percent) were granted to students from minority backgrounds.*

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

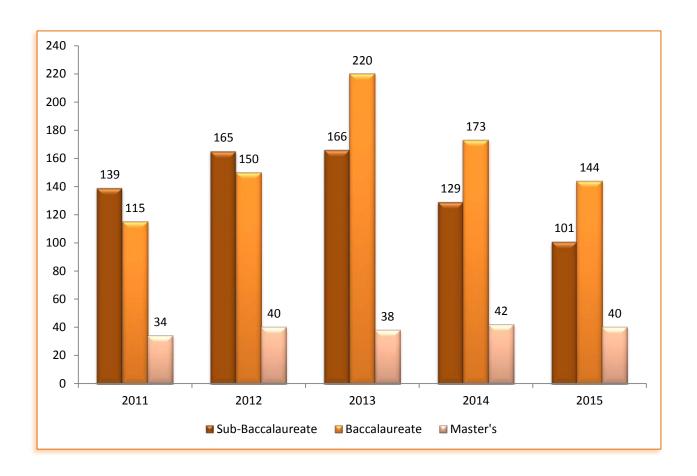
Sub-Baccalaureate Certification

- An Associate in Occupational Studies (AOS) degree requires 45-52 semester 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 15 semester credit hours in the NTID general education curriculum, as well as other required semester credit hours determined by their program of study.
- 2. An Associate in Applied Science (AAS) degree permits students to enter their careers directly upon graduation, or in many cases, to transfer to a baccalaureate program in the other colleges of RIT. Completion of this degree requires 48-52 semester credit hours of technical instruction. In addition to the technical courses, students must complete 24 semester credit hours in general education courses, primarily offered through RIT's College of Liberal Arts as well as other required credit hours as determined by their program of study.
- 3. The Associate in Science (AS) degree is an associate+bachelor's degree for students seeking admission to bachelor-level studies. This degree requires completion of 60-63 semester 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 RIT's other eight colleges. A bachelor's degree requires completion of 120-128 semester credit hours.
- 5. A *Master's* degree is awarded to students who complete all required courses to graduate from a twoor three-year graduate program in one of RIT's other eight colleges. The credit requirements vary among programs, but a minimum of 30 semester credit hours at the graduate level is required.

^{*} Minority status is either unknown for 72 of these 285 graduates or the graduate has international visa status.



	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Sub-Baccalaureate*	48.3%	46.5%	39.2%	37.5%	35.4%
Baccalaureate*	39.9%	42.3%	51.8%	50.3%	50.5%
Master's**	11.8%	11.2%	9.0%	12.2%	14.1%

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 2015, 53 percent were through programs offered by NTID and 47 percent through the other colleges of RIT. Historically, 66 percent of the degrees have been awarded from NTID and 34 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	2015	CUMULATIVE*		
			(FY 1970 – FY 201		
	Number of Graduates	Percentage of Graduates	Number of Graduates	Percentage of Graduates	
TID					
Career-Focused and Associate+Bachelor's Degrees	101	36%	4,170	52%	
ASL-English Interpretation Bachelor	29	10%	254	3%	
ASL-English Interpretation Associate ASL-English Interpretation Certificate	0	0% 0%	466 8	6% 0%	
Master of Science in Secondary Education	21	7%	347	5%	
Subtotal NTID	151	53%	5,245	66%	
ther Colleges of RIT**					
College of Applied Science and Technology	16	6%	601	7%	
Saunders College of Business	25	9%	416	5%	
Golisano College of Computing and Information Sciences	13	5%	297	4%	
Golisano Institute of Sustainability	1	0%	1	0%	
Kate Gleason College of Engineering College of Health Sciences and	3	1%	87	1%	
Technology	4	1%	19	0%	
College of Imaging Arts and Sciences	20	7%	592	7%	
College of Liberal Arts	22	8%	479	6%	
College of Science	9	3%	168	2%	
School of Individualized Study	21	7%	143	2%	
Subtotal Other Colleges	134	47%	2,821	34%	
otal	285	100%	8,066	100%	

^{*} 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

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

Time Required to Complete a Degree: Graduates FY 2015

First Degree Category	Average Active Terms*	Average Active Years*
Bachelor's degree	12.4	4.2
AS/AAS degree	9.3	3.1
AOS degree	8.9	3.0



Chinkee Gratrix, of Vancouver, Washington, recently completed her Laboratory Science Technology degree and is now pursuing her bachelor's degree in Chemistry at RIT's College of Science. For her summer co-op, she was a toxicology lab technician at the Monroe County Medical Examiner's office in Rochester. New York.

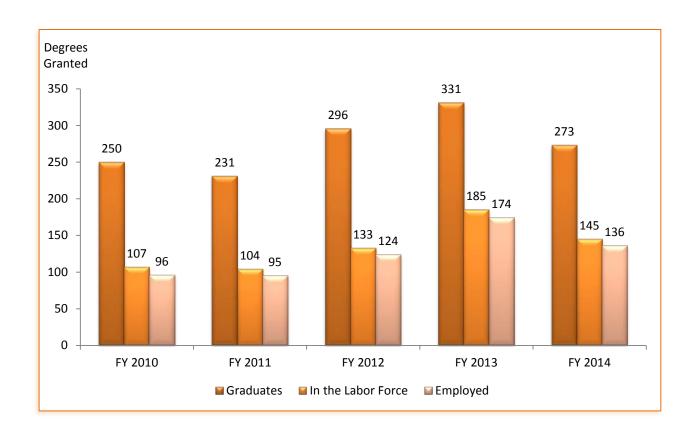
^{*} Does not include terms when students were withdrawn or on leave of absence.

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 2014*, 273** deaf and hard-of-hearing students graduated, and 145 chose to enter the labor force. One hundred thirty-six were employed, while nine were unable to find employment. Therefore, 93.79 percent (136/145) found employment. NTID's employment rate over the past five years as calculated above is 93 percent. Of the 128 remaining graduates from 2014, 88 are continuing their education toward advanced degrees either at RIT or elsewhere. 17 are not looking for employment and 21 have an unknown status.



^{*} As of the writing of this report, the employment information for 2015 is incomplete; therefore, NTID reports employment rates of 2014 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 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 2015:

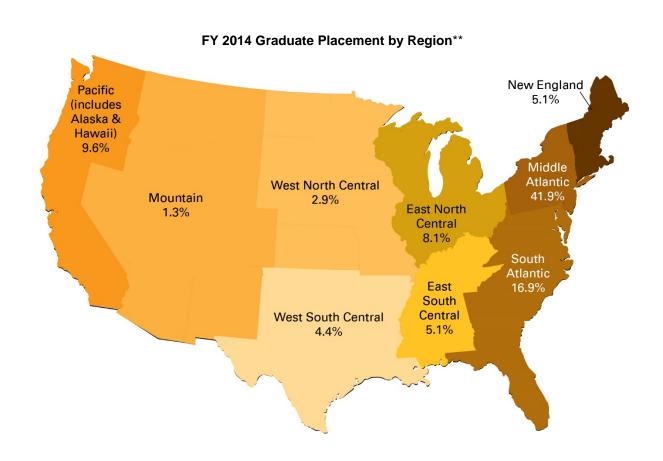
- NCE personnel appeared as guest presenters to discuss the job search process in 10 sections of various technical programs.
- A video for students entitled "Do a Co-op" was completed.
- The 14th annual NTID Job Fair was held in October 2014 with 43 employers attending and more than 300 students and alumni participating.
 - Employer Panel for Students representatives from NSA, Sorenson, NAVSEA, Texas Instruments and Whirlpool provided an overview of their company and discussed the types of training and skills they seek.
- Seven students and one NCE staff member attended the Career Opportunities for Students with Disabilities conference in Philadelphia, Pennsylvania, in November 2014.
- Come and Learn about Jobs in the Fast-Growing Health Care Field a panel of four deaf professionals shared their success stories, as well as, some of their valuable insights about the secrets to success in this fast-growing career area in November 2014.
- Deaf and Hard-of-Hearing Workers in the Health Care Field the Employers' Perspective a panel of three hiring managers discussed what they look for in qualified candidates in April 2015.
- NCE personnel provided more than 3,000 hours of student and graduate employment advising.
- Students sought individualized job search assistance at various campus locations.
- Nineteen students took advantage of one session offered to review and advise on résumés.
- To inform students about NCE services, NCE participated in several interactive events each semester for students, along with other NTID departments and student groups.

Where Recent Graduates Are Working

In FY 2014, 36 percent of U.S. NTID graduates accepted jobs in their home states as their first jobs after graduation, while 21 percent found employment in the Rochester area and

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

	Percent of Placed Graduates				
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014*
Area					
Rochester	17%	17%	23%	24%	21%
Home State	24%	43%	38%	38%	36%
Other	59%	40%	39%	38%	43%
Total	100%	100%	100%	100%	100%
Number of Graduates Placed	96	95	124	174	136



^{*} Placement numbers for FY 2015 graduates are incomplete and will be reported next year.

^{**} In addition, 2.2 percent are working internationally and 2.5 percent are working in unknown locations.

Employment by Sector of the Economy

Of the last cohort of graduates tracked for employment, 61 percent have acquired jobs in business and industry, 28 percent in education/non-profit and 11 percent in government.

Sector	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014*
Business/Industry	57%	54%	65%	60%	61%
Education/Non-Profit	27%	31%	24%	31%	28%
Government	16%	15%	11%	9%	11%
Total	100%	100%	100%	100%	100%



Guillermo Burgos, an Administrative Support Technology major from New York City, learns more about job opportunities with IBM at NTID's Job Fair.

^{*} Placement numbers for FY 2015 graduates are incomplete and will be reported next year.

Occupations of Recent Graduates: Entry Status by Labor Category

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 15 categories. Percentages among the various

categories are somewhat different than seen in the FY 2014 Annual Report. This year shows moderate changes over many occupational categories. The top three categories from last year remain in the top three for the current year.

Occupations of Working 2014 Graduates*	%	Sample Job Titles Held by 2014 Graduates within Category
Arts, Design, Entertainment, Sports & Media	17.4%	Graphic Designer, Actor, Media Coordinator, Videographer
Office & Administrative Support	15.2%	Clerk, Page, Program Assistant
Computer & Mathematics	11.6%	Website Developer, Technical Support, Software Developer
Education, Training & Library	8.7%	Job Coach, Tutor, Teacher Aide
Architecture & Engineering	6.5%	Engineering Technician, Packaging Engineer
Life, Physical & Social Science	6.5%	Clinician, Lab Assistant, Research Scientist
Sales & Related	6.5%	Telesales Specialist, Retail Clerk, Beauty Products Salesperson
Food Preparation and Serving Related	5.1%	Bakery Clerk, Bartender
Production Occupations	5.1%	Package Handler, Machinist
Health Services	4.3%	Loss Prevention Associate, Residential Coordinator
Business & Financial Operations	3.6%	Accountant, EEO Investigator
Installation, Maintenance & Repair	2.9%	Copy Technician, Maintenance Technician
Farming, Fishing & Forestry	1.4%	Vegetation Analyst
Management Occupations	0.7%	Owner
Personal Care & Service	0.7%	Childcare Worker
Total	100%	

^{*} Five of the FY 2014 employed graduates had either unknown job titles or titles too ambiguous for categorization.

Occupations of Alumni by Labor Categories

NTID alumni from graduation years 1999–2014 were surveyed in 2014.

The following table reports on the occupations of employed NTID alumni using the Standard Occupational Coding system (SOC) used by the U.S. Department of Labor. Occupations are grouped into 13 major categories.

In 2014, the percentage of alumni working in Community and Social Services more than doubled compared with the 2010 alumni survey. Also, there were more alumni in Business & Financial Operations, and fewer alumni in the Education, Training & Library category.

The next alumni survey will be completed in 2019.

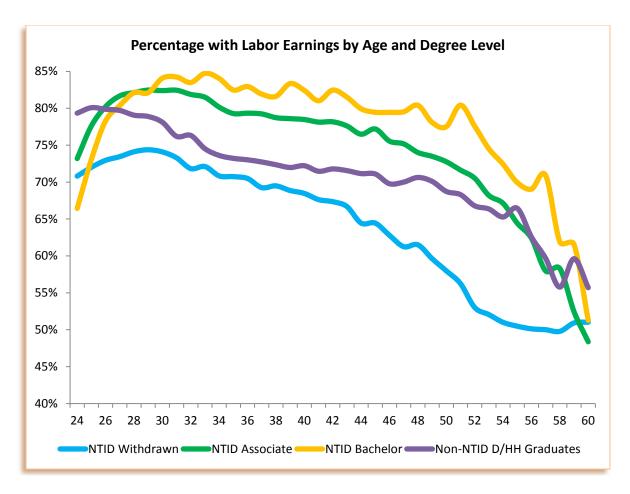
Occupations of Working Alumni*	%	Sample Job Titles Held by Alumni within Category
Community and Social Services	27.8%	Outreach Coordinator, Public Health Analyst, Residential Counselor
Business & Financial Operations	14.4%	Accountant, Billing Analyst, Management Analyst, Contracting Officer
Computer & Mathematics	13.4%	Information Assurance Analyst, IT Systems Analyst, Software Engineer, User-Interface Designer
Education, Training & Library	12.4%	Admissions Counselor, Instructional Faculty, Paraprofessional Teacher
Office & Administrative Support	9.3%	Administrative Assistant, Purchasing Specialist, Conference Administrator
Architecture & Engineering	6.2%	Capital Project Engineer, Facilities Engineer, R&D Assistant
Arts, Design, Entertainment, Sports & Media	4.1%	Creative Designer, Media Artist, Product Designer
Life, Physical & Social Science	3.1%	Chemical Lab Technician, Lab Manager, Lab Technician
Production Occupations	3.1%	CNC Operator, Setup Operator, Screen Printer
Management	2.1%	Supervisor, Business Owner
Sales & Related	2.1%	Customer Relations Representative, Sales Floor Team Member
Transportation & Material Moving	1.0%	Forklift Operator
Protective Services	1.0%	Security Officer

^{*} There were several job categories not represented by any of the graduates.

Labor Force Status and Earnings of Alumni

The figures below represent the changing employment conditions of deaf and hard-of-hearing alumni from age 24 to 60. Data represented in these figures are from a 2012 study with the Social Security Administration and Cornell University. Findings indicate that individual graduates benefit significantly from the curricula offered through NTID, regardless of graduating.

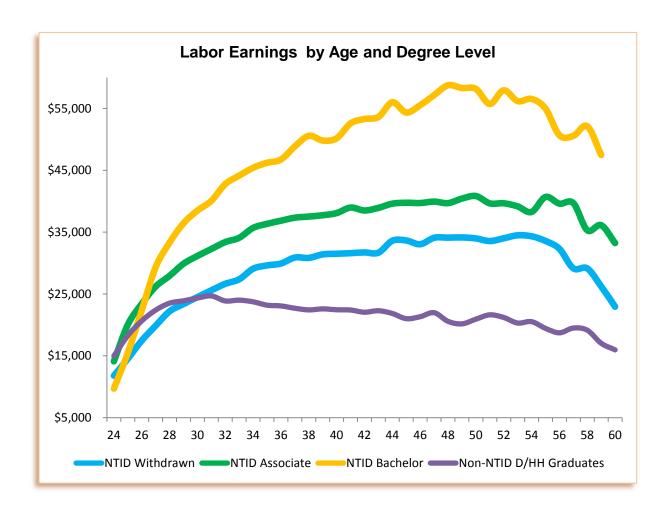
However, within the NTID alumni population, the magnitude of the benefit does depend on educational attainment. Deaf and hard-of-hearing graduates from RIT show the highest percentage generating income across the majority of working years, as compared with those deaf and hard-of-hearing graduates from other institutions of higher education.



Labor Force Status and Earnings of Alumni (continued)

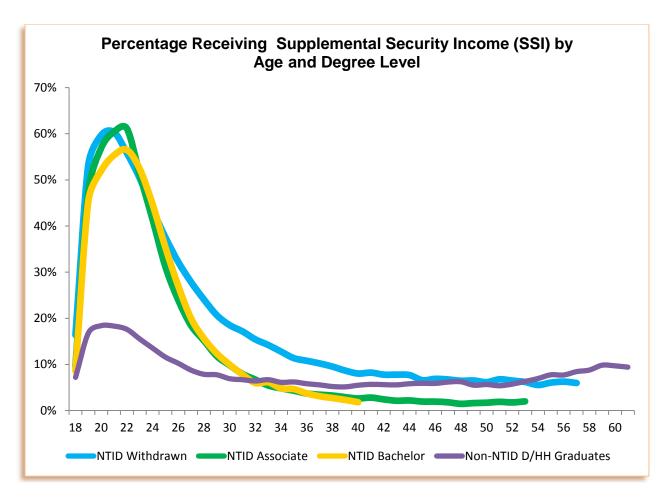
Research in collaboration with the Social Security Administration and Cornell University demonstrates the impact that an RIT/NTID education has on producing income for various categories of individuals. At age 50, NTID deaf and hard-of-hearing bachelor's degree graduates earn on average \$17,000 more than those with

sub-bachelor's degrees, who in turn earn \$7,000 more than those who withdrew prior to degree completion from NTID, who earn \$13,000 more than deaf and hard-of-hearing graduates from other institutions of higher education. Increased earnings result in greater federal tax contributions.



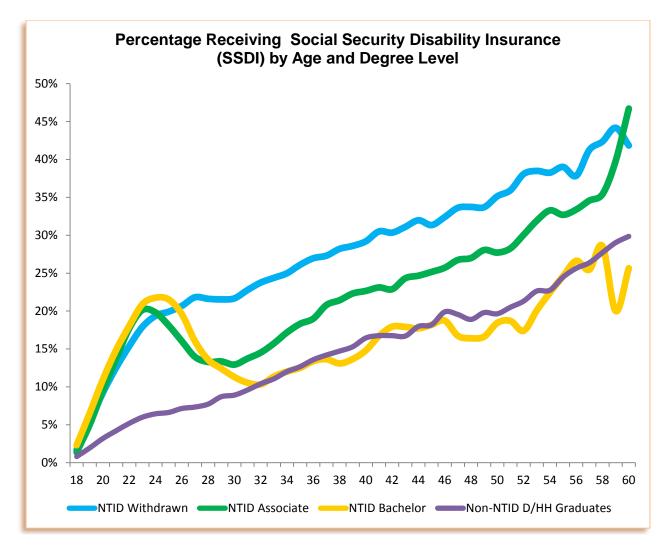
Effect of College Graduation on Reduction in SSI and SSDI Payments

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) and the Social Security Disability Insurance (SSDI) programs. At age 40, NTID deaf and hard-of-hearing graduates collect SSI at a rate of less than 2 percent, as compared to 8 percent for deaf and hard-of-hearing graduates from other institutions of higher education.



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

While a smaller percentage of deaf and hard-ofhearing students collect SSDI in their collegiate years, by age 50, 18 percent of NTID deaf and hard-of-hearing bachelor's degree graduates collect SSDI, as compared with 20 percent of deaf and hard-of-hearing graduates from other institutions of higher education. As made evident by the chart below, the impact that a degree has on SSDI payment collection is substantial.



Diversity and Pluralism

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



Ronny Cuevas, an Applied Computer Technology major and NTID's Latin American Deaf Club president from Pennsauken, New Jersey, expresses his vision of diversity at an event during RIT/NTID's Brick City Homecoming weekend in October 2015.

Students

As of fall 2015, the number of U.S. deaf and hard-of-hearing minority students at NTID is 419*, one of the larger numbers in the past five years. FY 2016 highlights follow:

• Thirty-nine percent of the fall entering class is from minority groups. The percentage in the total student body is 37 percent, which is more than triple what it was 20 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 46 employees from ethnic minority populations, 23 are Black or African American, 11 are Hispanic of any race and 12 are other minorities.

Of 530 total number of employees, 93 are deaf or hard of hearing.

Of the 126 employees who are deaf or hard of hearing or are members of a minority group, 99 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. In the past year, 18 percent of all hires 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 college's plan of work. Department heads and faculty and staff members are making concerted efforts to recruit, hire and retain individuals from these categories.



Talila A. Lewis, a faculty member in the Department of Liberal Studies at RIT/NTID, was one of nine disability advocates from across the U.S. selected as "Champions of Change" by the White House. Lewis is an activist, attorney and founder and director of Helping Educate to Advance the Rights of the Deaf, or HEARD. HEARD is an all-volunteer, nonprofit organization that works to create equal access to the legal system for individuals who are deaf by addressing wrongful convictions, abuse of incarcerated deaf people, recidivism rates for deaf people and increased representation of deaf people in the justice, legal and corrections professions.

^{*} 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.

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, a changing student body and 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.

- RIT's Office of Diversity and Inclusion advocates for and advances 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.
- 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.
- 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. The featured keynote presenter in January 2015 was Soledad O'Brien, noted news reporter and documentarian who happens to have a son with hearing loss. Some of her most thought-provoking work has been about diversity, specifically first-person experiences detailed in the Black in America and Latino in America series programs, the recent documentary *Bringing the War Home* and coverage of the aftermath of Hurricane Katrina.
- Diversity training is offered regularly through the RIT Center for Professional Development as well as within the college in advance of each faculty search, supported by RIT's Office of Faculty Recruitment and Retention.

Diversity and Pluralism Philosophy (continued)

- RIT's Office of Faculty Recruitment and Retention recognized NTID's significant accomplishments in diversity hiring by giving the college the Changing Hearts and Minds Award for 2015. NTID's hires for the 2014-2015 academic year represented 57 percent of total AALANA hires and 28 percent of the total female hires across the university. Kathryn Schmitz, associate dean for Academic Administration and college liaison for NTID, also was recognized for her hands-on leadership and influence in the spirit of inclusion and diversity. In addition, NTID's search committees were recognized for an outstanding job in submitting their search criteria rating forms and associated data for inclusion in RIT's institutional analysis.
- RIT's Office of Faculty Recruitment and Retention also runs an annual Future Faculty Career Exploration Program, a recruitment strategy designed to enlarge the future faculty pipeline by establishing significant meaningful relationships with prospects from underrepresented and underserved populations at RIT. In October 2015, NTID hosted three participants, one in American Sign Language and second language acquisition, one in engineering education and one in political science. This program has resulted in two hires by NTID in recent years.
- The NTID Diversity Group promotes 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.



Thomastine Sarchet, associate director for NTID's Pre-College Education Network, received the 2015 Isaac L. Jordan Sr. Staff Pluralism Award, which recognizes a staff member who demonstrates passion and commitment to furthering the goals of diversity and pluralism across the RIT campus and into the greater community. Sarchet was described by one nominator as "the go-to person for international students who have enrolled in the Master of Science in Secondary Education program. She mentored these students [in navigating] our American cultural 'quirks' and made them feel welcomed and supported. Regardless [of whether students] are deaf, hearing, LGBT, [or] of different races, she will make every effort to make everyone feel valued in our community."

Admissions Activity by Ethnicity

Forty-six percent (284) of this year's 860 deaf and hard-of-hearing applicants were students from minority backgrounds. The FY 2016 entering class of deaf and hard-of-hearing students included 126 minority students, who represent 42 percent of the newly admitted deaf and hard-of-hearing students.

	FY 2012*	%	FY 2013*	%	FY 2014*	%	FY 2015*	%	FY 2016*	%
Total Applicants	902		989		833		796		860	
Non-Minority	341	61%	296	51%	350	58%	339	58%	327	54%
Minority	220	39%	284	49%	253	42%	246	42%	284	46%
Acceptances	439		504		507		464		488	
Non-Minority	228	66%	202	55%	265	60%	272	63%	246	57%
Minority	119	34%	167	45%	177	40%	159	37%	186	43%
Registrations	345		381		381		324		340	
Non-Minority	174	64%	156	57%	205	62%	192	62%	177	58%
Minority	96	36%	117	43%	127	38%	111	38%	126	42%



Students enjoy food and festivities at NTID's 2015 Apple Festival, an annual celebration welcoming students and introducing them to clubs and services on campus.

^{*} 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 2016 entering class included 137 minority students, who represent 39 percent of the entire incoming class. The FY 2016 entering class of deaf and hard-of-hearing students included 126 minority students, who represent 42 percent of the newly admitted deaf and hard-of-hearing students.

	FY 2014	%	FY 2015	%	FY 2016	%
Deaf and Hard-of-Hearing Undergraduate and Graduate Students						
American Indian or Alaska Native	0	0.0%	*		*	
Asian	34	10.2%	29	9.8%	27	8.9%
Black or African American	38	11.4%	32	10.8%	33	10.9%
Hispanic of Any Race	42	12.7%	42	14.2%	52	17.2%
Native Hawaiian or Other Pacific Islander	0		*		*	
White	205	61.7%	185	62.5%	177	58.4%
Two or More Races	13	3.9%	8	2.7%	13	4.3%
Non-Resident Alien (International)	14		10		13	
Unknown Race/Ethnicity	35		18		24	
Subtotal Minority Deaf and Hard-of- Hearing Undergraduate and Graduate Students	127	38.3%	111	37.5%	126	41.6%
Subtotal Deaf and Hard-of-Hearing Undergraduate and Graduate Students	381		324		340	

	FY 2014	Percent Minority	FY 2015	Percent Minority	FY 2016	Percent Minority
Other Enrollments		_		_		
ASL-English Interpretation	43	13.2%	40	13.9%	40	20.5%
Master of Science in Secondary Education	16	20.0%	16	0.0%	15	23.1%
Total Minority Enrollments	135		116		137	
Total Enrollments	440		380		395	
Overall Percent Minority		34.7%		33.9%		38.6%

Ethnicity of Enrolled Students

Minority enrollment at NTID has steadily increased from 8 percent in FY 1988 to 37 percent in FY 2016, more than four times what it was 27 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 2014	%	FY 2015	%	FY 2016	%
Deaf and Hard-of-Hearing Undergraduate and Graduate Students						
American Indian or Alaska Native	*		*		*	
Asian	88	8.7%	99	9.7%	115	10.9%
Black or African American	120	11.8%	113	11.1%	120	11.49
Hispanic of Any Race	133	13.1%	137	13.5%	151	14.3%
Native Hawaiian or Other Pacific Islander	*		*		*	
White	646	63.7%	639	62.8%	637	60.39
Two or More Races	23	2.3%	28	2.8%	31	2.9%
Non-Resident Alien (International)	39		40		44	
Unknown Race/Ethnicity	184		140		120	
Subtotal Minority Deaf and Hard-of- Hearing Undergraduate and Graduate Students	369	36.4%	378	37.2%	419	39.7%
Subtotal Deaf and Hard-of-Hearing Undergraduate and Graduate Students	1,237		1,197		1,220	
	FY 2014	Percent Minority	FY 2015	Percent Minority	FY 2016	Perce Minor
Other Enrollments						
ASL-English Interpretation	147	14.9%	146	15.8%	151	17.3%
Master of Science in Secondary Education**	48	12.1%	44	6.7%	42	13.3%

388

1,432

32.6%

397

1,387

Total Minority Enrollments

Overall Percent Minority

Total Enrollments

446

1.413

36.6%

34.3%

^{*} 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 2012-2014 Cohort	Black or African American	Asian	Hispanic of Any Race	Non-Resident Alien (International)	White
Cohort Count	77	73	104	16	406
Conort Count	11	73	104	10	400
Persisted to Second Year	57	69	74	12	310
First to Second Year Persistence Rate	74%	95%	71%	75%	76%

Six-Year Graduation Rates for First-Time Full-Time Freshmen*

Three-Year Moving Averages

Fall 2007-2009 Cohort	Black or African American	Asian	Hispanic of Any Race	Non-Resident Alien (International)	White
Cohort Count	84	52	86	15	525
Graduated Within Six Years	28	32	24	12	252
Six-Year Graduation Rate	33%	62%	28%	80%	48%

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.

	Numb	uates	
	Minority	Non- Minority	Total***
NTID			
Career-Focused and Associate+Bachelor's Degrees	34	39	101
ASL-English Interpretation	*	14	29
Master of Science in Secondary Education	*	13	21
Other Colleges of RIT**			
College of Applied Science and Technology	*	10	16
Saunders College of Business	7	16	25
Golisano College of Computing and Information Sciences	*	6	13
Golisano Institute of Sustainability	*	*	1
Kate Gleason College of Engineering	*	*	3
College of Health Sciences and Technology	*	*	4
College of Imaging Arts and Sciences	6	11	20
College of Liberal Arts	7	10	22
College of Science	*	*	9
School of Individualized Study	6	11	21
Total***	73	140	285

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. Minority status was unknown for 28 faculty and staff members.

FY 2015

	Total Employees	Female	Black or African American	Hispanic of Any Race	Other Minority	Deaf and Hard of Hearing
Faculty*	169	85	8	**	7	54
Percent		50%	5%	**	5%	32%
Exempt Staff*	117	70	6	**	**	25
Percent		59%	6%	**	**	21%
Executive/ Administrative Manager*	53	22	**	**	**	15
Percent		42%	**	**	**	28%
Non-Exempt Staff						
C-Print®	46	43	**	**	**	**
Percent		93%	**	**	**	**
Interpreter	120	107	**	**	**	**
Percent		89%	**	**	**	**
Technical/						
Clerical	78	68	5	**	**	13
Percent		87%	7%	**	**	17%
Total	530	374	23	11	12	93
Percent		71%	5%	2%	3%	18%

^{*} Of the 53 executive/administrative managers, 23 are included on the faculty line and 30 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 already are 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, 2014 – September 30, 2015

	Number of							
	Positions Posted	Total Applicants	Female	Black or African American	Hispanic of Any Race	Other Minority	White Male	Unknown
Faculty	26	198	87	23	14	34	73	1
Exempt Staff	40	830	547	55	37	50	204	0
Non-Exempt Staff*	30	817	635	41	26	49	141	7
Total	96	1,845	1,269	119	77	133	418	8

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

Affirmative Action Report: Faculty and Staff Hiring Results

During FY 2015, individuals from an ethnic minority or who were deaf or hard of hearing totaled 18 percent of all new hires and women, 72 percent. Individuals may appear in more than one Affirmative Action category. Two new hires were individuals of unknown ethnicity.

FY 2015

	Total New Employees	Female	Black or African American	Hispanic of Any Race	Other Minority	Deaf and Hard of Hearing
Faculty	17	10	*	0	*	*
		59%	*	0%	*	*
Exempt Staff	12	8	*	0	*	*
		73%	*	0%	*	*
Non-Exempt Staff						
C-Print®	7	4	*	0	*	*
		80%	*	0%	*	*
Interpreter	17	11	*	0	*	*
		85%	*	0%	*	*
Technical/Clerical	6	5	*	0	*	*
		83%	*	0%	*	*
Total	59	38	*	0	*	*
		72%	*	0%	*	*

^{*} Frequency counts small and not reported for confidentiality.

Affirmative Action Report: Faculty and Staff Termination Results

During FY 2015, 9 percent of terminations were individuals from ethnic minorities and 60 percent were women. In the chart below, individuals may appear in more than one Affirmative Action category.

FY 2015

	Total Terminated Employees	Female	Black or African American	Hispanic of Any Race	Other Minority	Deaf and Hard of Hearing
Faculty	19	7	*	*	*	*
		34%	*	*	*	*
Exempt Staff	6	3	*	*	*	*
		50%	*	*	*	*
Non-Exempt						
Staff**	20	17	*	*	*	*
		85%	*	*	*	*
Total	45	27	*	*	*	3
		60%	*	*	*	7%

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

Research, Innovation & Creativity



Greyson Watkins, left, a fourth-year Computer Security major from Durham, North Carolina, shows off the student-developed Wavio product at RIT's Effective Access Technology Conference. Watkins' team won NTID's "The Next Big Idea" competition and was accepted into RIT's Saunders Summer Start-up Program. Wavio is a wireless sound recognition system for deaf and hard-of-hearing homeowners.

NTID Research Overview

NTID determines topics for research on the basis of research priorities derived from both internal and external sources, including the NTID National Advisory Group and the U.S. Department of Education. NTID also seeks public input on its deafness-related research priorities through direct mailings of questionnaires to individuals and stakeholder organizations, focus groups at national professional meetings, publications and websites. The results of these solicitations are used to identify strategically important research topics.

In addition to ongoing programmatic research, NTID faculty contribute to special institutional projects established in response to immediate needs identified by the NTID administrative team and long- and short-term projects related to Performance Indicators established by the U.S. Department of Education. Two new research centers were established in January 2012 utilizing funds provided by the RIT vice president for Research: the Research Center for Teaching and Learning (RCfTL) and the Research on Employment and Adapting to Change: Center for Studies on Career Success (REACH).

RCfTL and **REACH** are not bound by a single question, domain or approach, but its members share interests in a clearly definable topic that is judged to have applied implications for one or more NTID audiences as stated in the NTID mission. In addition to serving as an intellectual home within Rosica Hall, RCfTL and REACH provide resources (e.g., expertise, mentoring, methodologies, equipment, supplies, space) during the early stages of project development and ongoing collaboration. Each center secured external funding from NSF to help support their initiatives.

These new centers joined two existing research centers as well as two other research and training programs.

The NTID **Center on Access Technology (CAT)** is charged with investigating, evaluating and reporting on the most effective and efficient use of access technologies and training individuals in their use in order to accelerate the widespread implementation of best practices within deaf education at the postsecondary level.

NTID's **Center for Education Research Partnerships (CERP)** seeks to establish and join research partnerships concerning development and learning among deaf and hard-of-hearing students across the lifespan and in various educational settings.

The **Deaf Studies Laboratory (DSL)** investigates cognitive, language and social aspects of the deaf experience. It aims to bring more deaf individuals into a variety of fields of research in an American Sign Language-based student-centered environment, partnering with many universities and centers nationally and internationally.

The **Collaboratory on Economic, Demographic and Policy Studies** seeks to describe the demographic and economic conditions of the deaf and hard-of-hearing population in the U.S., with emphasis on the impact education has on improving these conditions. Projects use data from the Social Security Administration, the Bureau of the Census and the Department of Education to define the status of the population of deaf and hard-of-hearing people in the U.S. and collaborate with other organizations in this goal.

NTID Research Units

Research Center for Teaching and Learning (RCfTL)

Rather than follow the traditional model of one director and several co-directors, three faculty (Susan Foster, Sara Schley, Chris Kurz '95) share equally in the work of the center as co-directors. Starting with the 2015-2016 AY, RCfTL added Carol Marchetti as a center faculty associate for Cross-Disciplinary Research. This is a collaborative assignment at NTID and for Carol Marchetti of RIT's College of Science's School of Mathematical Sciences. This assignment provides formal recognition and support for

Marchetti's work in deaf education and a framework for collaboration that could serve as a model for RIT. It is a three-year renewable assignment, with collaborative workspace in the RCfTL. Expectations include collaborating with and supporting NTID faculty on research projects associated with the RCfTL, particularly those involving external grant submissions; encouraging involvement of deaf and hard-of-hearing undergraduate and MSSE students in research; and outreach to faculty in other RIT colleges to promote collaboration on projects related to deaf education.

The vision statement of the center is as follows:

The primary mission of the RCfTL is to create a sustainable setting in which diverse teams of faculty and students conduct research that will improve deaf education, expose students to research practice and prepare a future generation of NTID educational researchers and scholars. A secondary mission is to facilitate the development of collaborative partnerships between NTID faculty and faculty in the other colleges of RIT focused on education of deaf and hard-of-hearing students. The primary and secondary missions include four goals:

- Identify and support applied research focused on (1) learning styles of the increasingly diverse
 population of deaf and hard-of-hearing students, and (2) best practices for instruction of these
 students. Research will address these topics across all ages of students and instructional and
 learning environments, with a primary focus on middle, secondary and postsecondary settings.
- Develop teams that draw faculty from across the university and, when possible, other universities
 nationally and internationally. Teams reflecting diverse levels of experience and methodologies
 are encouraged.
- Engage RIT/NTID students in research teams to expose them to the field of applied research and possible careers as researchers.
- Implement a cyclical "seed to harvest" model of growth and sustainability. Project teams supported with initial start-up funds will be expected to secure external funding within three years, which in turn will provide funding to maintain the initial projects and contribute seed funds to support new teams and start-up projects.

Seed Funding Initiatives.

During AY 2012-13 and 2013-14, the RCfTL put out a call for small, early-stage proposals to study educational access and success for deaf and hard-of-hearing students. Projects ranged from \$3,000 to \$10,000 based on scope and resources required. Through a competitive review process, nine research teams received RCfTL mini-grants (four during 2012-2013, five during 2013-2014). All projects included NTID faculty, often working in partnership with faculty from other colleges of RIT (CLA, KGCOE, COS). Four of these projects have resulted in the submission of proposals for external funding thus far, and proposals by two other funded teams were completed by August 2015. Three of the four proposals submitted were not funded; they will be revised and resubmitted based on reviewer feedback. The fourth proposal was funded for \$396,986 and will run from September 2014 through August 2017:

 RCfTL co-director Susan Foster collaborated with RCfTL mini-grant recipient Carol Marchetti to submit a proposal to NSF's IUSE program (grant #1432566, \$399,986, Sept. 2014-August 2017).
 Submitted February 2014. PI C. Marchetti, Co-Pls S. Foster, J. Jackson, & K. Mousley. Title: Communication, Access, and Persistence among Deaf and Hard of Hearing Students in Foundational Statistics Courses.

In AY 2014-2015, RCfTL staff/faculty focused efforts on supporting the NTID president and Office of the Associate Dean for Research, Scholarship Portfolio Development Initiative (SPDI) submissions. Codirectors were involved in writing and submitting five proposals, three of which were selected for funding:

- Stinson, Mike (PI), Beiter, K. (Co-PI), Foster, S. (RCfTL mentor), Kushalnagar, P., Kushalnagar, R., Pelz, J. Accessible Technology to Support Visual Attention, Retention, and Procedural Learning.
- Atkins, S. (PI), Foster, S. (RCfTL mentor). Examination of Social Networks of Deaf Entrepreneurs: A Pilot Study.
- Schlehofer, D. (PI), Foster, S. (RCfTL mentor), Blizzard, D. (Co-PI), Cuculick, J. (Co-PI), Kushalnagar, P., Barnett, S. MD (Consultant). Health Literacy of Deaf and Hearing Female Students at RIT: A Mixed Method Approach.

Each of the projects met the center goals (as well as SPDI goals) as follows:

- Two of the three projects formed collaborative teams between NTID and other RIT colleges, including
 the College of Imaging Science and the College of Liberal Arts with substantial input from NTID
 faculty. The remaining team is made up of junior and senior NTID faculty working cooperatively.
- All teams include one or more deaf or hard-of-hearing NTID faculty members in active roles, such as PIs.
- All teams identified realistic and appropriate sources for external funding and have agreed to complete a proposal for a specific funding competition over the next three years.

Center co-directors collaborated on writing and submitting two RIT internal Provost's Learning Innovation Grant proposals. Neither was funded; however, the projects are being revised and submitted to external grant agencies.

Project teams (including students) have presented on their projects both within and outside of RIT/NTID. Examples of venues include poster sessions at the RIT/NTID Research Fest, National Council of Teachers of Mathematics Annual Conference and Exposition and the Effective Access Technology Conference.

Two seed-funded projects were completed in AY 2014-2015:

- Increasing Access to Complex Concepts for Deaf and Hard-of-Hearing Students Carol Marchetti (COS), Jane Jackson (NTID) and Penny Arndt (NTID). This seed project was quite successful, ending in an NSF grant for \$457,000 (details below).
- Investigation of Strategies to Improve the Success of Deaf and Hard-of-Hearing Students
 Transitioning into Baccalaureate Studies in STEM Disciplines Matt Lynn (NTID), Sandra Connelly
 (COS), Annemarie Ross '05 (NTID), Denise Lengyel (NTID), Karen Tobin '00 (NTID). This project
 submitted an article for publication which is under review. A grant proposal is under development to
 the NSF IUSE program.

Major and Federal Grant Writing Efforts.

AY 2014-2015 was a busy one regarding successfully funded grant writing activities in the RCfTL:

- NSF Division of Undergraduate Education Award No. DUE-1432566, Thinking CAP: <u>Communication</u>, <u>Access</u>, & <u>Persistence Among Deaf And Hard Of Hearing Students In Foundational Statistics Courses. \$399,985, 9/1/14-8/31/17 Project Team: PI C. Marchetti, co-Pls S. Foster, J. Jackson, K. Mousley, SP's G. Blatto-Vallee, J. McClive.
 </u>
- IES, PI: R. Hoffmeister, "Development of an American Sign Language STEM Concept Learning Resource (ASL-CLeaR) to Enhance STEM Concept Learning for Deaf Children." Chris Kurz: Senior Personnel and Consultant.

 NSF Directorate for Education and Human Resources (EHR) Core Research. Facilitating Knowledge Building in Cooperative Learning of Statistics in Mixed Teams with Deaf/Hard of Hearing and Hearing Students. Project Team: PI M. Stinson; co-PIs, L. Elliot, C. Marchetti, and J. Rentsch \$499,999, 9/1/15-8/31/18.

Several other grant proposals were written and submitted during AY 2014-2015 or at the start of AY 2015-2016, and are either under review or were not funded:

- RIT Office of the VP for Research, Signature Interdisciplinary Areas. Hands Waving: A Signature Project on Access and Inclusion at RIT. Submitted: Oct. 1, 2015. \$944,462. Under review. Project Team: S. Schley (PI), M. Stinson, J. Cuculick, D. Schlehofer, A. Ross, D. Kavin, G. Behm, T. Sarchet, N. Hair, J. DeCaro, L. Wild, S. Ackerman, J. Behm, R. Peterson (CoPIs).
- US Dept. of Education, Institute of Education Sciences. Multi-Channel Instructional Technology in Postsecondary Contexts: Implications for DHH students and Specific Learning Needs. Submitted: Aug. 6, 2015. \$1,106,405. Under review. Project Team: S. Schley (PI), V. Hanson, M. Stinson, R. Kushalnagar, C. Marchetti, D. Schlehofer, S. Foster, M. Schrlau (CoPIs).
- NSF Improving Undergraduate STEM Education (IUSE). Effective STEM Inclusion: Broadening Educational Engagement and Access of Undergraduate Deaf and Hard of Hearing Students.
 Submitted: 1/13/15, Total funds requested: \$ 595,505. Not funded; encouraged to revise and resubmit Jan. 2016. Project Team: PI S. Schley; co-PIs J. Cuculick, S. Foster, V. Hanson.
- NSF Cyberlearning and Future Learning Technologies. Guided Learning for American Sign Language Acquisition. Submitted: 12/06/2014. Total funds requested: \$340,602. Status: Not funded. Project Team: PI A. Savakis, A., Co-PI K. Kurz, Co-PI C. Kurz, Co-PI G. Behm, & Co-PI D. Metaxas; SP P. Hauser.
- NSF Research on Education and Learning (REAL). Effects of Signing Dictionaries on Grade 4-8
 Deaf and Hard of Hearing Students' Solutions to Mathematics Word Problems. Submitted: January
 2014. Total funds requested: \$428,344. Status: Not funded. Project team: PI Vesel; co-Pls H. Lang,
 C. Kurz.

Recent Publications/Presentations/Workshops:

- Schley, S. (in press). "Hendrick Hudson Board of Education v. Rowley" (in press). *Encyclopedia of Deaf Studies and Culture*, Sage Reference.
- Schley, S. & Stinson, M. (Oct. 2015, Under review). Collaborative writing in the post-secondary classroom: Online, in-person and synchronous group work with deaf, hard of hearing, and hearing students. Submitted to *Journal of Postsecondary Education and Disability*.
- Lynn, M., Connelly, S., Ross, A., & Schley, S. (Sept. 2015, Under review). The influence of learning style and hearing status on student success in introductory baccalaureate-level science courses. Rochester, NY. Submitted to *American Annals of Deafness*.
- Schrlau, M., Stevens, R., & Schley, S. (2015, Under review). Inverting Core Courses in the Undergraduate Mechanical Engineering Curriculum: Heat Transfer. Proposal to submit paper to "Flipped Classrooms in STEM Education," a special issue of *Advances in Engineering Education*.
- Kurz, C., & Cuculick, J. (2015). International Deaf Space in Social Media The Deaf Experience in the United States. In M. Friedner and A. Kusters (Eds.), *It's a Small World: International Deaf Spaces and Encounters*, pp.225-235, Washington, D.C.: Gallaudet University Press.
- Kurz, C., & Kurz, K. (2015). Deaf faculty perspectives: Doctoral study experience. In B.K. Eldredge, D. Stringham, F. Fleischer, & K. Morton (Eds.), *Deaf Studies Today! Montage*. Proceedings of the Third Biannual Deaf Studies *Today!* Conference, Utah Valley University, Orem (pp.109-120). Orem: UT: Utah Valley University. (Refereed)

- Foster, S. & Brown, P. (2015). Increasing Multidisciplinary Team Skills for Professionals in Deaf Education: Implementing a Cross-disciplinary Curriculum. Presentation given at the 22nd International Congress on the Education of the Deaf. Athens, Greece, July 6-9, 2015.
- Brown, P., DeCaro, P., Foster, S., Hadjikakou, K., Lampropoulou, V. Lorentzon, L. & Perlusz, A. (2015). Panel presentation given at the 22nd International Congress on the Education of the Deaf. Athens, Greece, July 6-9, 2015. Panelists include P. DeCaro, S. Hadjikakou,
- Foster, S. & Kavin, D. (2015) Deaf and Hard of Hearing Women in Academia: Conversations about Career Pathways, Networking and Mentoring. Poster at the NTID Scholarship Symposium, NTID, May 28, 2015.
- Foster, S. & Kavin, D. (2015). Pathways of Deaf and Hard of Hearing Women to Careers in Academia: Stories of Talent, Persistence, Creativity, and Resilience. Presentation given at the Western Social Science National Conference. Portland, OR. April 8-11, 2015.
- Foster, S., Blizzard, D., Crawford, K., & Kavin, D. (2015). Uniting Diverse Women Faculty Through the Shared Experience of Marginalization. Presentation given at the annual conference of the Association for Women in Science, Baltimore Md. May 31-June 2, 2015.
- Kidd, D., Blatto-Vallee, G., & Marchetti, C. (2015, July). "Broadening Access to Mathematics Education: Effective Tools, Methods, and Technologies," Pre-Conference Workshop at the *HI-TEC 2015 Conference*, Portland, OR.
- Kidd, D., Blatto-Vallee, G., & Marchetti, C. (2015). "Broadening Access to Mathematics Education: Effective Tools, Methods, and Technologies," *Best Practices for Technician Education, Proceedings of the HI-TEC 2015 Conference.*
- Kurz, C. & Lane-Outlaw, S. (2015, August). *Optimizing conceptual understanding and literacy: The role of sign language*. Chinese University of Hong Kong, Hong Kong, China.
- Kurz, C. & Lane-Outlaw, S. (2015, August). *How visual language and visual learning support early language and cognitive development.* Chinese University of Hong Kong, Hong Kong, China.
- Kurz, C. & Nguyen, H. (2015, September). *Developing deaf-centric instructional materials*. (5 full days; 45 participants). Krousar Thmey, Phnom Penh, Cambodia.
- Kurz, C. & Lane-Outlaw, S. (2015, August). *Evidence-based sign bilingual education practices mathematics and science*. (One day; 32 participants). Chinese University of Hong Kong, Hong Kong, China.
- Lane-Outlaw, S., & Kurz, C. (2015, August). *Evidence-based sign bilingual education practices language and literacy*. (One day; 34 participants). Chinese University of Hong Kong, Hong Kong, China.
- Marchetti, C., Foster, S., Long, G., Stinson, M. (2015, August). "Broadening Access to Team Work: Effective Tools and Strategies," Interactive Presentation at the *RIT 2015 Teaching and Learning Symposium*.
- Kurz, C. A., Searls, J. M., & Smith, S. (2015, July). *The emergence of physical education and competitive sports in American schools for the deaf.* IX Deaf History International Conference, University of Edinburgh, Scotland.
- Kurz, C. (2015, July). *Mathematical literacy citizenship: Deaf experience*. 22nd International Congress on the Education of the Deaf Conference. Athens. Greece.
- Kurz, C. & Lane-Outlaw, S. (2015, July). *Interactive non-fiction literacy for deaf students: Deaf Pioneer series app.* 22nd International Congress on the Education of the Deaf Conference, Athens, Greece.
- Kurz, K, Kurz, C., & Sanders, C. (2015, July). *Modern sign language teachers of the deaf: Current trends and issues*. 22nd International Congress on the Education of the Deaf Conference, Athens, Greece.
- Chapple, K. *, Dong, Y.*, Wong, A.* (2015, October). "Creating Tools for Learning Statistics: Project Summary and Perspective of Student Researchers," Student Poster Presentation at the *New York Cyber Security and Engineering Technology Association* Fall Conference, Rochester, NY.

Research on Employment and Adapting to Change: Center for Studies on Career Success (REACH)

The primary goal of REACH is to conduct research on employment and factors of change, as well as career success for deaf and hard-of-hearing people. This includes conducting scholarly research on the

^{*} Student researcher.

employment and career outcomes of deaf college graduates and the examination of multiple factors that contribute to their career and life success. These factors include readiness for college, academic performance in college, personal characteristics, career growth, career change and related decision-making activities.

Since September 1, 2013, the REACH Center has been awarded two research grants from the National Science Foundation (NSF) for a combined total of \$834,706. Since its inception in January 2012, the REACH Center has submitted five grant proposals (these included one revision, three new grant proposals and one preliminary proposal). Two of the five proposals were awarded funding for a success rate of 40 percent.

- NSF Grant BCS-1251342 (\$300,502), September 2013 to February 2017. Deaf Learners' Acquisition of English Verbs and their Component Properties. PI Gerald P. Berent, Co-Pls R. Kelly, J. Albertini, K. Schmitz, S. Van Horn.
- NSF Grant DRL-1420063 (\$534,204), September 2014 to August 2017. Stereotype Threat Effects on Deaf and Hard-of-Hearing Students. PI Ronald R. Kelly, Co-Pls G. Berent, P. Hauser, and J. Jamison (University of Rochester).
- Grant writing activities:
 - January 10, 2014. Grant proposal submitted to NSF REAL (DRL-1420063). Stereotype Threat Effects and Deaf and Hard-of-Hearing College Students' Academic Performance. R. Kelly PI and Director, Co-PIs J. Jamison (U of R), P. Hauser, & G. Berent. Requested for 36-month research project. Amount requested: \$344,057. Negotiated amount approved/awarded = \$534,204. Status: Awarded. Funding effective September 1, 2014 to August 31, 2017.
- Conducting two current National Science Foundation research projects supported/funded with NSF grants:
 - September 1, 2013 to February 2017. National Science Foundation Grant BCS-1251342 (\$300,502), Deaf Learners' Acquisition of English Verbs and Their Component Properties.
 PI/Project Director G. Berent. Co-PIs R. Kelly, J. Albertini, K. Schmitz, and S. Van Horn (RIT Student Affairs).
 - During Year 1 (AY 2013-2014): collected data from the following number of participants in the defined college student populations (total N = 303)
 - Deaf/hard of hearing (n =133)
 - Second-language hearing (n =122)
 - Native hearing speakers of English (n = 48))
 - During Year 2 (AY 2014-2015) collected data from the following number of participants in the defined college student populations (total N = 306)
 - Deaf/hard of hearing (n = 116)
 - Second-language hearing (n = 145)
 - Native hearing speakers of English (n = 45)
 - September 1, 2014 to August 31, 2017. National Science Foundation Grant DRL-1420063 (\$534,204). Stereotype Threat Effects and Deaf and Hard-of-Hearing College Students' Academic Performance. R. Kelly PI and Director, Co-PIs J. Jamison (U of R), P. Hauser, & G. Berent.
 - During Year 1 (AY 2014-2015) collected data from the following number of participants in the defined populations regarding perceived stereotypes of DHH people
 - Deaf/hard-of-hearing college students (n = 80)
 - Hearing college students with frequent contact with DHH students (n = 96)
 - Hearing college students with infrequent to no contact with DHH students (n = 177)
 - Online hearing people in the general population (n = 858; n = 424)

- Intersession January 13, 2015. Replicating Other Studies as a Viable Scholarly Strategy:
 Conducting Publishable Research Without Grant Support. Eight faculty members attended.
 - People often erroneously assume they have to generate "original" research ideas, when in fact all research builds on previous findings. Extending previous research findings to new populations through replication is an ideal strategy to develop a personal or collaborative research agenda. This two-hour workshop provided a number of examples of published research that were based on other studies conducted with hearing populations and then replicated with deaf and hard-of-hearing students. In addition to the examples, guidelines were provided for what tasks (including an IRB review) needed to be accomplished from start to finish in replicating a study with deaf and hard-of-hearing students, what new lit review and information needed to be included in a manuscript based on the results of the replicated study and how to select and submit a manuscript to an appropriate journal.
- Provided consultation/advice on research design, statistical analysis and publication to:
 - Twenty-four NTID faculty
 - Three external faculty from other universities

Dissemination:

- Kelly, R. R., Quagliata, A. B., DeMartino, R., & Perotti, V. (In press, 2016). 21st century deaf workers: Going beyond just employed to career growth and entrepreneurship. In M. Marschark, V. Lampropoulou, & K. Skordilis (Eds.) *Diversity in deaf education*. New York, NY: Oxford University Press.
- Kelly, R. R., Quagliata, A. B., DeMartino, R., & Perotti, V. (2015, July). Deaf workers: Educated and employed, but limited in career growth. In *Proceedings of the 22nd International Conference* on Education of the Deaf. Athens, Greece.
- Kelly, R. R., Quagliata, A. B., DeMartino, R., & Perotti, V. (in process, 2016). The Influence of Self-Efficacy on the Career Outcomes of Deaf College Graduates and Their Hearing Peers.
 Manuscript under revision in response to reviewer comments.

Center on Access Technology (CAT)

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 in order to improve access to personal communication within educational environments, social settings and the workplace (www.rit.edu/ntid/cat). CAT is charged with investigating, evaluating and reporting on the most effective use of access technologies and to train individuals in order 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.

Examples of research activities include:

<u>CAT Innovation Lab</u>. 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, services and more. A multi-year collaboration with a business partner continued in FY 2015 to conduct research and assessment on innovative uses of technology. Projects include:

- <u>Designing and Building a Smart Cane Prototype for People who are Deaf-Blind</u>. Continuing development of a "Smart Cane" device that aids a deaf-blind person to navigate surroundings. The advanced cane provides real-time force feedback guidance. The novelty of Gary Behm's IBM invention (US 8,077,020 B2 Method and Apparatus for Tactile Haptic Device to Guide User in Real-time Obstacle Avoidance) relies on exploiting the features of a tactile haptic device to enable real-time obstacle avoidance by deaf-blind users. Blind people may benefit from it as well.
- <u>See-through Life-size Interactive Monitor (SLIM)</u>. To apply a technical solution that allows the instructor to communicate and write/display information on the monitor board at the same time without losing eye contact with deaf and hard-of-hearing students in the classroom.
- Making Laboratory & Medical Instruments More Friendly for Deaf and Hard-of-Hearing Students.
 To develop a prototype sound recognition system that would discriminate sounds from different laboratory and/or medical instruments and send alert messages via email or text messaging.
- <u>Notification Device and System</u>. To develop a lightweight, portable device for a smartphone to allow deaf or hard-of-hearing students to use it for notifications (phone, email, text) and wake-up calls through Bluetooth technology.
- Various notification devices. Currently have several under development.
- <u>Subcontract for the FCC Access to Communication for Everyone program</u>. Developing the front end of a new VRS product in the U.S. (approximately \$400,000 to date in funding). The project is expected to have a minimum duration of five years.

Deaf STEM Community Alliance: Supporting Postsecondary Deaf and Hard-of-Hearing Students in Science, Technology, Engineering and Mathematics. Investigators: Elliot, L., DeCaro, J. and Clymer, E.W. Funded by the NSF, this project completed its fifth year of funding during FY 2015. The project is creating a unique Virtual Academic Community (VAC), a cyber-infrastructure that will host remote access and support services, an electronic resource library and a communication network 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 2014 including an AAA-rated accessible website according to the WEC Web Content Accessibility Guidelines (www.rit.edu/ntid/dhhvac/), more than 80 remote tutoring sessions and recruitment of a core of deaf and hard-of-hearing professionals in STEM careers to serve as mentors for the students. The program is designed to increase graduation rates of deaf and hard-of-hearing STEM majors in postsecondary education in the long term. Grant team members are creating a model that demonstrates how an online environment can support deaf and hard-of-hearing students in mainstream settings. Cornell University (Ithaca, N.Y.) and Camden County College (Blackwood, N.J.) are working with NTID to pilot a national model.

Analyzing the Use of C-Print® Mobile Technology in STEM Lab Settings across Multiple Postsecondary Sites: Year Five. Investigators: Stinson, M., Elliot, L., & Francis, P. The purposes of this project are: (a) to expand the types of venues in which the C-Print® mobile technology-based service is used at RIT, other universities and a community college; and (b) to conduct experimental investigations to evaluate the extent to which the service aids students' access and learning in STEM labs at the postsecondary level. The research goal is to examine the effects of the use of C-Print® mobile on the academic performance of deaf and hard-of-hearing students in laboratory sections of STEM courses and on their confidence and interest in their STEM major. A grant of \$395,000 has been awarded from NSF for this project.

Center for Education Research Partnerships (CERP)

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). 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 13 presentations for outside audiences during the academic year, including three keynote addresses. CERP collaborated with colleagues at over a dozen schools and universities in the U.S. and abroad through ongoing research, joint publications and grant proposals and the publishing of six books (and one book translation). Beyond this sharing of knowledge related to deaf education, CERP activities bring greater visibility to RIT/NTID, thus creating additional opportunities for both collaborations and extramural funding. This year, CERP responded to more than 700 requests for information and/or assistance. CERP's Educating Deaf Children website (www.educatingdeafchildren.org) had over 55,000 visitors and a new site, Raising and Educating Deaf Children: Policy, Practice, and Outcomes (www.raisingandeducatingdeafchildren.org) had over 34,000 visitors. Both websites are supported by donations from private foundations and schools for the deaf. Over this past academic year, in addition to the six books, CERP members have published (or have in press) eight peer-reviewed journal articles and six peer-reviewed book chapters.

This year, CERP continued work on a \$2.3 million research grant from the National Institute for Deafness and Other Communication Disorders (NIDCD) for a project entitled *Language, Learning, and Cognition among Deaf Students with and without Cochlear Implants*. CERP also holds a subcontract from SRI International, partnering in a project for the U.S. Department of Education on transition of deaf and hard-of-hearing high school students.

Three new grant proposals have been submitted to support CERP educational research activities, and an additional proposal with colleagues at the University of Edinburgh to support research into working memory among deaf students (following up on recent CERP publications) is under review at the Leverhulme Foundation (UK).

<u>CERP Research Findings</u>. 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 language and cognitive foundations of learning by deaf and hard-of-hearing students with and without cochlear implants. The grant from NIDCD is providing insights and longitudinal exploration of ways in which spoken language and sign language interact with cognitive abilities to affect student learning, psychosocial functioning and academic outcomes. 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."

Deaf Studies Laboratory (DSL)

The Deaf Studies Laboratory's (DSL) mission is to produce innovative research on the cognitive, language and psychosocial aspects of the deaf experience. DSL aims to widely disseminate basic science and translational research in order to enhance the academic performance and psychological well-being of deaf individuals. DSL also aims to provide an active learning environment, which offers mentoring and collaborative opportunities to faculty and students, in order to ultimately increase the number of deaf and hard-of-hearing individuals in biomedical and behavioral science careers.

This laboratory originally was established in 2003 at RIT's College of Liberal Arts to provide deaf and hard-of-hearing students with hands-on social science research experiences in an accessible American Sign Language environment. The laboratory moved to NTID in 2006 and has received more than \$3.5 million in grant funding since then.

Collaboratory on Economic, Demographic and Policy Studies

The NTID Collaboratory on Economic, Demographic and Policy Studies was established in 2012 and seeks to describe conditions of the deaf and hard-of-hearing population in the United States, with emphasis on the impact that education has on improving these conditions. Projects will use data from a variety of sources to define the status of the population and will seek to collaborate with other organizations to meet its goals.

Accomplishments to date include the following:

- Prepared a report for the North Carolina School for the Deaf at Morganton Foundation Inc., which in collaboration with Life Enriching Communities is exploring the viability of developing a senior living community for deaf and hard-of-hearing residents of North Carolina and surrounding states.
- Released the first report in history that accurately described the size of the deaf and hard-of-hearing population in the Rochester, New York, metropolitan area, in comparison with similar-sized metropolitan areas.
- Released a report identifying the economic benefits of completing a degree from the National Technical Institute for the Deaf. This report has been cited by *InFocus* Magazine, the *Rochester Business Journal*, and the *Democrat and Chronicle*.
- Gerard G. Walter and Richard Dirmyer. "The Effect of Education on the Occupational Status of Deaf and Hard of Hearing 26-to-64-Year-Olds." *American Annals of the Deaf* 158.1 (2013): 41-49.
- Assisted in the preparation and submission of a research proposal to the Social Security
 Administration's competition for a Disability Research Consortium. A collaborative proposal was
 submitted with RAND and Cornell University. (\$50,000)
- Prepared and submitted a research proposal to the National Science Foundation: 12-545 Research on the Science and Technology Enterprise. (\$174,793)
- Prepared and submitted a research proposal to the Association for Institutional Research: On Parity?
 An Analysis of the Impact of Deafness on Career Success. (\$20,839)
- Prepared an eBulletin for Raising and Educating Deaf Children: Foundations for Policy, Practice, and Outcomes, on the topic of educational attainment and field of study with respect to deaf and hard-of-hearing people as compared to hearing people.
- Presented a paper titled Disability and Salary Equality: The Influence of Education, Gender and Race at the Academy of Management 2015 Annual Meeting in Vancouver, British Columbia.

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.

Laboratory Science Technology (LST) Undergraduate Research: Science of Electronic Cigarettes

The research group completed a National Institutes of Health (NIH) grant to study the health impact of electronic cigarettes. While much more is known about the health impact of traditional tobacco cigarettes, little is known about electronic cigarettes. Cigarette vapor was generated using a custom-made smoking machine. Samples were collected on special filters and run through a detailed extraction procedure before being analyzed by gas chromatography-mass spectrometry (GC-MS). The research group submitted an NIH R01 proposal to continue this work and has published the first article on this project, which was authored by NTID faculty and students (Pagano, T.; DiFrancesco, A.G.; Smith, S.B.; George, J.; Wink, G.; Rahman, I.; and Robinson, R.J. "Determination of Nicotine Content and Delivery in Disposable Electronic Cigarettes Available in the United States by Gas Chromatography-Mass Spectrometry." *Nicotine & Tobacco Research*, (accepted, in press, 2015)). NTID student, Gloria Wink, also presented this research at the recent national meeting of the American Chemical Society in Denver, Colorado. (March, 2015). The study was also adapted for classroom use at NTID and the pedagogical tool was also recently published (citation: Pagano, T.; Bida, M.R.; and Robinson, R.J. "Laboratory Activity for the Determination of Nicotine in Electronic Cigarette Liquids Using Gas Chromatography-Mass Spectrometry." *Journal of Laboratory Chemical Education*, 2015, 3(3): 37-43).

LST Undergraduate Research: Fluorescence Analyses of Teas, Wines, Samples of Archeological Significance and Quenching Mechanisms

The research group previously published a series of articles on a novel method for the detection of phenols in a variety of samples. The multidimensional fluorescence method with advanced chemometric analysis is now being investigated as a method for measuring the biochemical components of tea and wine samples, as well as bitumen samples from an archaeological dig site. The group's studies have shown that the method is effective in tea and wine studies and can even work toward predicting the geographic differences in the origin of bitumen samples used in trade in approximately 200 to 600 A.D. The tea and wine analysis projects were presented by NTID students E. Berroa and A. Sankoh at the local undergraduate research conference of the American Chemical Society (April 2015) and NTID student F. Ulerio-Nunez at the national meeting of the American Chemical Society in San Francisco, California (August 2015). An article on the quenching mechanisms of fluorescence spectroscopy was authored by NTID faculty T. Pagano and one of his research students (citation: Pagano, T.; Carcamo-Ortiz, N.; and Kenny, J.E. "Investigation of the Fluorescence Quenching of 1-Aminoanthracene by Dissolved Oxygen in Cyclohexane." *Journal of Physical Chemistry A*, 2014, 118(49): 11512-11520). The group currently has a manuscript in preparation on the archeological sciences project.

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

This research project focused 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. NTID students were involved in several presentations on this research project in AY 2014-2015, culminating in a published article coauthored by NTID student A. Sankoh (citation: Smith, S.B.; Miller, A.C.; Merchant, C.R.; and Sankoh, A.F. "Local Site Variation in Stopover Physiology of Migrating Songbirds near the South Shore of Lake Ontario is Linked to Fruit Availability and Quality." *Conservation Physiology*, 2015, 3: 1-14.).

Digital Language Laboratory for Interpreting Instruction

The NTID American Sign Language and Interpreting Education Department uses a computer-based digital laboratory for ASL-English Interpretation 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 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.

Cochlear Implant Support

The number of students at RIT/NTID with cochlear implants has grown exponentially, from 29 students in 1999 to 432 in the fall of 2015. To accommodate the needs of these students, in 2008 NTID added two additional individual sound-dampened therapy rooms to the Cochlear Implant Center. The therapy rooms contain computer stations equipped with innovative aural educational software programs and telecommunications equipment that students use to improve their spoken English Language recognition. In addition NTID's latest hires in Audiology have been trained to map cochlear implants, increasing the capacity for providing this support service.

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 the NTID Learning Center was converted to The Sprint Relay Experimental Distance Learning/Access Demonstration Lab in the summer of 2007. The lab is being used as a beta testing site for adapting and evaluating alternative instructional and access technologies in support of remote learners who are deaf or hard of hearing. It also provides a forum for information exchange among RIT/NTID faculty, students, instructional designers, technologists, researchers and access service providers. Projects have included:

- Flipped classroom pre-recorded lectures of math and English courses for students to watch before attending classes;
- Classroom/Lecture capturing recording of math, English, interpreting and sign language courses and in-class exercises for archiving and providing anytime, anywhere access for students outside of a classroom:
- Web and video conferencing with remote locations such as India, Mongolia, South Africa and Chile;
- Multi-point video and phone conferencing supporting faculty collaboration;
- 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 performance review;
- Recording mock/practice interviews to assist graduating students with real-world experiences; and
- Recruiting high school students at remote locations using application sharing and web conferencing.

The Sprint Relay Lab features:

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

These 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.

Innovative Teacher Education

The microteaching component of all methods courses 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 through the technical support from the NTID Learning Center as well as the NTID Performing Arts program. Deaf actors have been hired to 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 middle or 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 student actors provide feedback to the teacher-candidates after the end of the lesson. The experience 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.

In addition to microteaching, the teacher-candidates also are required to observe veteran teachers in live classroom situations as part of their 100-hour practicum requirement. This provides the opportunity to allow the free flow of ideas and strategies between the seasoned teachers and teacher-candidates.

During the 2014-2015 academic year, the MSSE program was involved in a grant-funded project with Nazareth College in providing MSSE teacher-candidates and speech-language pathology candidates opportunities for interaction and collaboration in working with students who are deaf or hard of hearing in a variety of educational programs. The course instructors from both colleges developed a curriculum with the goal of increasing awareness of the roles and responsibilities of the teachers of deaf/hard-of-hearing students and the speech-language pathologists and to discuss strategies for collaboration across the disciplines in services for deaf and hard-of-hearing students.

Speech-to-Text Services

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

provide more than 21,000 hours of classroom service per academic year. The system allows captionists to transcribe to text what teachers and students say in class. Research continues, currently focusing on the use of tablet PCs to allow the integration of graphical information along with the text and the use of mobile devices (e.g., smart phones) to transmit real-time captioning over a cellular network in non-traditional learning environments.

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 120 sign language interpreters, more than 400 student notetakers each semester and 55 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 fifth and final year of support in 2015. Through RIT/NTID's Center on Access Technology (CAT), educators from partner countries will participate in workshops in Rochester, New York, and RIT/NTID experts will visit schools in foreign countries to assist in educating faculty and staff there. The entire project is now being transitioned to the ASEAN Region and CAT will provide contracted services to the new grant recipient.

NTID Performing Arts

For its 40th season in AY 2014-2015, the NTID Performing Arts program presented three main stage productions and special events that involved more than 500 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 more than 5,000 people from throughout New York State as well as schools and community groups from neighboring states. This season included the funny, heart-warming production of "Almost Maine," the award-winning production of "Hairspray" and RIT's College of Liberal Arts production of "How I Learned to Drive."

Special events held in Panara Theatre this year included a presentation and book signing with Jim Craig, United States Olympic hockey goalie and gold medal winner, a special presentation and book signing with the author Andrew Solomon and a presentation from the deaf French artist, Arnaud Balard. Additional performances included two performances by the RIT Vis Viva Dance Company, two performances by RIT 8 Beat Measure a cappella group, a cappella group Brick City Singers and the "Chill Beats" evening of a cappella from different groups on campus.

The NTID Performing Arts program also supported the NTID Math Competition, the RIT Gospel Ensemble, RIT/NTID Student Life Team's movie night and Tiger Media's two evenings of movies for students. In the 1510 Black Box Theatre Lab, NTID's MDC Players performed "Finding Grandma Kat," NTID's Dangerous Signs performed "Halloween" and the RIT Players performed "Take Five."

Other events supported by Panara Theatre were a special performance by PUSH Physical Theatre through RIT Osher Adult Learners, NTID Performing Arts' annual Holiday Show for two performances, a special visual captioning project for future use in the theater and a special screening of *Resistance* presented by Congresswoman Louise Slaughter. In addition to these events from the RIT community, NTID also supported the Pittsford Musical Group in their performances of "Next To Normal." The local Touch of Dance Studio also took the stage for their annual dance performance in June.

During AY 2014-2015, more than 575 students registered for and attended Performing Arts classes. Fifteen students were awarded performing arts scholarships and two students received a performing arts certificate this past year. There are many more students well on their way to earning a certificate. In total, approximately 7,855 people were served by NTID Performing Arts activities during the 2014-2015 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). 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/ntid/ccs/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 website, 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: https://www.ntid.rit.edu/educational-materials/?controller=product&product_id=34.

Deaf Studies Archive

The RIT/NTID Deaf Studies Archive (https://library.rit.edu/depts/archives/ritntid-deaf-studies-archive) documents RIT's central role in educating people who are deaf or hard of hearing in the United States and draws from Rochester's significant deaf community. The main focus of the archive is Deaf culture, studies, education, theater and artists. This significant archive of primary resources, artwork, videos and books documents the founding and growth of NTID and highlights the many remarkable contributions of deaf, hard-of-hearing and hearing individuals affiliated with NTID. The Rochester area enjoys a vibrant deaf community, and the Deaf Studies Archive represents the first time an effort has been made to preserve some record of this culture. From the papers of distinguished faculty to artwork by alumni to the records of a local deaf theater group, this growing archive showcases the many talented and dedicated individuals affiliated with NTID and beyond. The Deaf Studies Archive is located in the RIT Archives in the Wallace Center and is curated by the NTID librarian and the RIT archivist. The NTID librarian also teaches Deaf Studies classes.

RIT ASL-Deaf Studies Community Center (RADSCC)

The RIT ASL-Deaf Studies Community Center continues to promote education, understanding and participation in the RIT deaf community by all members of the RIT community. A variety of events ranging from weekly ASL classes to regular community meetings and special Rochester-area group gatherings are hosted in the new location in RIT's Wallace Center.

Dyer Arts Center

The RIT/NTID Joseph F. and Helen C. Dyer Arts Center hosted 11 exhibits in FY 2015. Exhibit subject matter included BFA student thesis artwork, NTID's Department of Visual Communication Studies faculty artwork and a celebration of 25 years of Deaf View Image Art (De'VIA). The De'VIA exhibition coincided with RADSCC's annual banquet. De'VIA artists from all over the country attended the banquet and various events over the course of three days. The center also hosted a photo exhibit and fundraiser for the Jennifer Van Atta Hayes Memorial Endowment Scholarship fund, which benefits NTID students. Various events were held in the center as well, including a student fashion show, which drew a crowd of more than 100 faculty, staff and students, a painting party led by De'VIA artist Ellen Mansfield and other art events hosted by NTID student organizations. The Dyer Arts Center also received seven donated artworks in FY 2015 that will be added to NTID's permanent collection. In April, Tabitha Jacques, pictured below, became the director of the center. She aims to increase its online presence, collaborate with the NTID community on creative ways to use the space and connect more people with deaf and hard-of-hearing artists.



Imagine RIT: Innovation and Creativity Festival

Innovation and creativity were center stage on the RIT campus on May 2, 2015, when the university held its eighth annual Imagine RIT: Innovation + Creativity Festival. The event showcased RIT's unique blend of technology and the arts.

More than 25,000 people came to campus on May 2, 2015, for the annual Imagine RIT: Innovation + Creativity Festival, a one-day celebration of RIT's unique blend of technology and the arts. As in years past, the festival, which hosted more than 400 student, faculty and staff exhibits, demonstrations and performances, featured a strong NTID presence. NTID students, faculty, staff and alumni created and staffed 34 exhibits across campus.

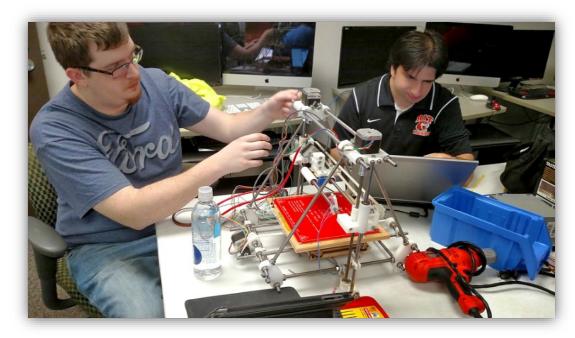
A sampling of NTID student, faculty and staff exhibits includes:

- "Let It Go" Music Video Performed in ASL music video of the popular song "Let It Go" from the Disney-animated motion picture "Frozen," performed in American Sign Language with an all-deaf cast and crew. The video stars two graduates from NTID and involves other alumni in the production, which RIT/NTID helped sponsor. Disney has released dozens of versions of "Let It Go" in various languages, but this is the first in American Sign Language.
- Celebrating 100 Years of Einstein's Relativity The exhibition used three-dimensional printed models to explain Einstein's general relativity theory and a live visual demonstration of how gravity distorts the path of light.
- C-Print Captioning Technology: An NTID Innovation! This exhibit showcased C-Print[®], a keyboard-based real-time captioning technology and service that was invented at NTID and is still developed here today. Attendees experienced what it is like to receive captioning as an access service in the classroom and experience using the technology as a service provider. The technology developers and researchers responded to questions and interacted with attendees.
- **Hz Innovations: Sound Recognition System** The system combines intelligent sound recognition technology with simple hardware, in the comfort of your own home and in the palm of your hand. The microphones, bridge and app are an all-in-one system that will revolutionize the interaction of sound for deaf people, anyone with a hearing loss and savvy technology lovers everywhere.
- Improve Communication Access with Swivl Technology Oftentimes hearing students will record lectures using small tape recorders for future studying reference. Deaf/hard-of-hearing people do not have this accessibility and may prefer to use video cameras. The dilemma is setting up the location of the video camera and deciding between full view or close-up view. Swivl technology offers an alternative to maximize student accessibility. Visitors viewed Swivl technology and saw how the camera followed the movement of a person.
- Making 3D Printers to Learn New Technology The NTID Information and Computing Studies
 department offered an elective to build 3D printers in the 2015 spring semester. Ten students built
 printers from kits that started as a box of nuts and bolts. As they built them, they learned about
 science, technology, engineering, arts and math. Students demonstrated their printers and explained
 how they are built and how they print.
- Rochester Bridges to the Doctorate The Rochester Bridges to the Doctorate program prepares deaf and hard-of-hearing aspiring scientists for a doctoral degree in a biomedical or behavioral science discipline.
- **Sign De Garden** Student innovators shared their plans to create the first deaf-owned and operated restaurant in Rochester, New York.
- Smart Cane Systems Integration An intelligent mobility cane for deaf-blind users that senses obstacles and delivers tactile feedback to the user via the handle. Visitors were able to hold the cane and feel how it works for users.
- STEM Signs Dictionary Project Development of a standardized version of technical and scientific concepts used in STEM programs and workplaces, soon to become a national online resource.

Imagine RIT: Innovation and Creativity Festival (continued)

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 a hub for innovation and entrepreneurship.



NTID students work on a 3D printer they are building from scratch. The students exhibited four printers and shared their experiences at the Imagine RIT: Innovation and Creativity Festival.

Intellectual Property: Licensed Educational Materials, Patents and Inventions

NTID educational materials are categorized into two groups. Materials developed before the October 1997 RIT Intellectual Property Policy was implemented are unlicensed materials. 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 Communications, Marketing and Multimedia Services
- Let's Communicate (brochure)
 Distributed through NTID Communications, Marketing and Multimedia Services
- Tips for Communicating (brochure)
 Distributed through NTID Communications, Marketing and Multimedia Services
- Project Access Workshop Planner's Guide
 Distributed through NTID Communications, Marketing and Multimedia Services

Licensed Educational Materials

- Attention Deficit Scales for Adults Sign Language Version
 Distributed through NTID Communications, Marketing and Multimedia Services
- ASL at Work
 Distributed by Dawn Sign Press
- ASL Dictionary and Inflection Guide (online subscription)
 Order online at www.ntid.rit.edu/dig
- ASL Dictionary and Inflection Guide (iOS application and Android application)
 Order online through the Apple Store at https://itunes.apple.com/us/app/id510152499 or through Google Play at https://play.google.com/store/apps/details?id=digmob.rit.edu.asldictionaryfromntid&hl=en
- 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 Communications, Marketing and Multimedia Services
- NTID Speechreading (DVD and supplementary materials)
 Distributed through AUDITEC
- Processing Skills Development (ASL texts)
 Distributed through Barnes & Noble @ RIT and NTID Communications, Marketing and Multimedia Services

Intellectual Property (continued)

- The Heart of the Hydrogen Jukebox (DVD)
 Distributed through NTID Communications, Marketing and Multimedia Services
- The HeART of Deaf Culture (online subscription)
 Distributed through NTID Communications, Marketing and Multimedia Services



NTID Performing Arts presented the play, "Almost, Maine," about love with all its unexpected twists and turns in the frozen woods of Maine.

Outreach

A primary goal of NTID's Pre-College Outreach programs is to better prepare deaf and hard-of-hearing middle and high school students for college.



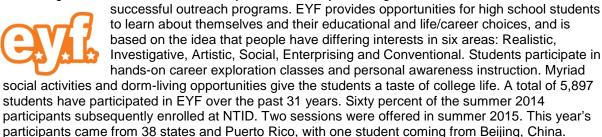
At Explore Your Future, a week-long career exploration and evaluation program for deaf and hard-of-hearing students about to enter their junior or senior year of high school, Scott Smith, M.D., leads students through a patient diagnosis exercise. Smith is NTID's new research associate professor for health care careers.

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.

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 2015, NTID faculty and staff conducted eight outreach programs: the SpiRIT Writing Contest for students in grades 10–12; 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; the Digital Arts, Film and Animation Competition for students in grades 9–12 and Health Care Careers Exploration Camp, a new summer program for students in grades 9–11.
- Explore Your Future (EYF), a week-long career exploration and evaluation program for deaf and hardof-hearing students about to enter their junior or senior year of high school, is one of NTID's most



Other Outreach Activities

- C-Print® 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 2014 through September 2015, there were approximately 2,977 email dialogues and 253 phone call discussions with C-Print Product Development. The C-Print website received 13,160 visits from October 2014 to September 2015. 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 153 and for software totaled 72 from October 2014 through September 2015. In addition, the C-Print Mobile client became available for download in the iTunes and Google Play stores.
- The NTID Office of Alumni and Constituent Relations plans and implements strategies for engaging alumni and other constituents through social and professional development events, volunteer opportunities and other activities, both campus-based and in targeted regions around the country. With counsel from and collaboration with the NTID Alumni Association Board of Directors, Alumni and Constituent Relations works to build and maintain connections between NTID and its more than 8,000 alumni. Over the past year, more than 800 alumni and guests participated in more than 30 alumni activities and events across the country and internationally including receptions, workshops and networking opportunities.

Outreach -144-

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 of any race and American Indian or Alaska Native students.

In 2015, RIT/NTID welcomed more than 470 middle school and high school students and their parents from all over the country to eight pre-college outreach efforts—three 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 2015 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 45 years of expertise in access services, program development and the application of technology to ensure that students will possess the skills and knowledge necessary to be active participants in the 21st century American workforce.

Digital Arts, Film and Animation Competition

Deaf and hard-of-hearing students in grades 9–12 submitted 50 entries to the 2015 Digital Arts, Film and Animation Competition in four different categories: Web page design, graphic media, photo illustration and film. Three winners were selected and received cash prizes and plaques.



Math Competition

RIT/NTID's national Math Competition for middle school students challenges math skills, develops self-confidence and rewards achievements. In April 2015, 93 students from 27 middle schools participated in the competition at NTID. Cash prizes were given to the top three teams and individual winners. The intent of the competition is to foster interest in mathematics.

SpiRIT Writing Contest

RIT's 10th annual SpiRIT Writing Contest for deaf and hard-of-hearing students attracted 64 students in grades 10–12 from around the United States in July 2015. 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.



TechGirlz and TechBoyz Camps



Sixteen deaf and hard-of-hearing girls and 29 deaf and hard-of-hearing boys in grades 7–9 attended TechGirlz/TechBoyz in 2015 to explore their interests in science, technology, engineering and mathematics. This is the 10th year for TechGirlz and the fifth year for TechBoyz. The week-long summer camps held in July 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.

-145- Outreach

Health Care Careers Exploration Camp

New this summer to the NTID Outreach program line-up was the Health Care Careers Exploration Camp, a program for deaf and hard-of-hearing students entering 10th–12th grade in the fall. This program allowed students the opportunity to learn about various careers in health care in order to discover what types of careers fit their interests. The students attended medical demonstrations and area medical facilities, were part of hands-on demonstrations and became CPR/first aid certified.



Steps to Success



Steps to Success 2015 was held in partnership with St. Francis School for the Deaf in New York City. Thirteen families who have middle-school-aged deaf or hard-of-hearing African-American, Latino, or Native American children registered for the program to learn about best practices and ways to prepare for postsecondary careers.

Pre-Colleç	ge Outreach AY 20	14-2015	
	Total	Mino	
	Participants	Number	Percent
Explore Your Future	213	73	34%
SpiRIT Writing Contest	64	27	42%
Digital Arts, Film and Animation	50	20	40%
Math Competition	93	19	21%
Steps to Success	13	13	100%
Health Care Careers Exploration Camp	10	6	60%
TechGirlz/TechBoyz Camp	45	17	38%



High school students gain experience in a microbiology lab as part of NTID's inaugural Health Care Careers Exploration Camp.

Outreach -146-

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 college'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 5,897 students have participated in EYF over the past 31 years. Sixty percent of summer 2014 participants subsequently enrolled at NTID. Two sessions were offered in summer 2015. This year's participants came from 34 states, the District of Columbia, Puerto Rico and China.

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Number of Participants	228	191	192	100	213
Percentage of Minorities	29%	30%*	34%	32%	34%
Percentage Enrolling at NTID	47%	53%	31%	60%	N/A**



High school juniors and seniors conduct a lab experiment as part of Explore Your Future camp. In 2015, 213 students attended EYF.

-147- Outreach

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

^{*} Students from EYF 2015 currently are in the process of applying to NTID.

Explore Your Future – Enrollment by Location

Summer 2015 EYF students represented 34 states, the District of Columbia, Puerto Rico and China.

Home State or Country	Number in EYF Summer 2015
Arizona	3
California	17
Colorado	2
Connecticut	10
Delaware	1
District of Columbia	1
Florida	9
Georgia	1
Illinois	14
Indiana	4
lowa	1
Kansas	2
Kentucky	1
Maryland	14
Massachusetts	11
Michigan	11
Minnesota	7
Missouri	7
Nebraska	2
New Hampshire	3
New Jersey	10
New Mexico	1
New York	28
North Carolina	3
Ohio	6
Pennsylvania	11
Rhode Island	2
South Carolina	3
Tennessee	1
Texas	16
Vermont	1
Virginia	2
Washington	1
West Virginia	1
Wisconsin	4
Puerto Rico	1
Beijing, China	1
Total	213

Outreach -148-

DeafTEC

The National Science Foundation (NSF) Advanced Technological Education (ATE) National Center of Excellence grant, *DeafTEC: Technological Education Center for Deaf and Hard-of-Hearing Students*, was awarded in August 2011. A four-year renewal of the award was received in August 2015. The largest NSF awards in RIT's history, DeafTEC establishes the first ATE center to support individuals who are deaf or hard of hearing. DeafTEC's goal is to successfully integrate more deaf and hard-of-hearing individuals into the workplace in highly skilled STEM technician

jobs in which these individuals are currently underrepresented and underutilized. Through regional partnerships, a comprehensive clearinghouse of online resources and a national dual credit program, DeafTEC provides deaf and hard-of-hearing students, as well as their teachers, counselors, employers and coworkers, with the resources that will help those individuals succeed, both in the classroom and on the job.

Regional Partnership Model: The goal of the DeafTEC partnership model is to build a mutually supportive professional community in selected regions of the country that will improve access to technological education and employment for deaf and hard-of-hearing students. DeafTEC has established this train-the-trainer partnership model by selecting one high school, one community college and one or more employers within four regional areas: California, Florida, Texas and, added in 2015, the Midwest region based in Illinois. DeafTEC's regional partners are:

California

California School for the Deaf, Riverside Ohlone College, Fremont Cisco Systems Inc., San Jose Solar Turbines Incorporated, San Diego Qualcomm, San Diego

Midwest

Hinsdale South High School, Darien, Illinois Harper College, Palatine, Illinois AT&T, Chicago, Illinois Motorola Solutions, Inc., Chicago, Illinois

Florida

Florida School for the Deaf and the Blind, St. Augustine St. Petersburg College, St. Petersburg ConMed Linvatec Corporation, Largo Lockheed Martin, Orlando

Texas

Texas School for the Deaf, Austin Austin Community College, Austin The Dow Chemical Company, Seadrift Lockheed Martin, Dallas IBM, Austin

The DeafTEC partnership model involves personnel from each regional partner attending train-the-trainer professional development activities that prepares them to offer the four DeafTEC workshops described below. The trainers then offer these workshops to high school teachers, college faculty and employers within their regions:

- 1. Working Together: Deaf and Hearing People workshop is designed to help employers develop the sensitivity and skills to successfully integrate deaf employees into the workplace.
- Project Access workshop sensitizes teachers in mainstreamed settings to the challenges faced by deaf and hard-of-hearing students and shares Universal Design for instruction strategies and best practices for instruction that will benefit all students in the classroom.

-149- Outreach

- Promoting Student Success in Math through Best Practices workshop provides high school and college math instructors with a toolbox of effective strategies for teaching math to deaf and hardof-hearing students.
- 4. Writing in the Disciplines workshop assists STEM instructors in bringing a Writing in the Disciplines (WID) approach to their STEM classes, which provides students with writing practice that both improves their writing and enhances their learning in the discipline.

To date, DeafTEC has offered a total of 11 train-the-trainer sessions to 137 participants.

Partner-Led Professional Development. In FY 2015, DeafTEC partners offered a total of 40 workshops to 539 participants.

- Nineteen *Project Access* workshops to 261 educators
- Eleven Writing in the Disciplines workshops to 128 educators
- Two Promoting Student Success in Math Through Best Practices workshops to 11 educators
- Eight Working Together workshops were offered by industry partners to 117 employees

To date, DeafTEC partners have offered 84 workshops to a total of 1,336 attendees.

Dissemination of DeafTEC Resources. In FY 2015, DeafTEC Regional Partners gave 14 presentations to a variety of audiences to share DeafTEC's resources related to best practices for teaching deaf and hard-of-hearing students for a total of 38 presentations over the grant period.

Other partner activities:

- **Co-op Positions.** During the summer, a computer-integrated machining technology student worked in a co-op position at Solar Turbines.
- Shadow at Solar Turbines. As a result of Solar Turbines' involvement in DeafTEC, three
 deaf and hard-of-hearing bachelor's degree engineering students from RIT attended a
 "Shadow Day" at Solar Turbines in San Diego.

Website Development. The DeafTEC website (www.deaftec.org/) serves as a national resource on technical educational and technician careers for deaf and hard-of-hearing students, their parents, teachers and future employers. The website contains sections related to the following resources:

- STEM Career Awareness. Materials related to Information Technology, Engineering/Manufacturing and Lab Science careers have continued to be added to the website along with high-quality videos of deaf professionals talking about how they prepared for these careers and how they succeeded on the job. To date, DeafTEC's STEM Career Awareness videos have won two national Telly Awards.
- **Best Practice in Teaching**. This section of the website focuses on helping instructors understand and address the challenges deaf and hard-of-hearing students face in mainstream classes, and presents strategies that teachers can use to meet these challenges and improve their teaching. This material continues to be updated and expanded.
- Math Resources. The video collection of algebra tutorials has continued to grow this year, with a current total of 65 video tutorials created specifically for deaf and hard-of-hearing students. All of the lessons are fully captioned, signed in ASL and voiced.
- writing in the Disciplines (WID) Resources. WID resources have been expanded. A new video series has been completed that contains three videos that present testimonials from deaf and hard-of-hearing students and NTID faculty on the importance of writing in STEM courses. The purpose of these videos is to encourage and motivate deaf and hard-of-hearing students to improve their English skills, an area in which many of them struggle. Videos have also been added from the WID workshop about how to help students write lab reports and how to use a structured revision system to provide students with constructive feedback.

Outreach -150-

- **Employers' Resources:** Development of learning modules for employers to help them learn how best to successfully integrate deaf and hard-of-hearing individuals into their workplaces has begun with the assistance of a professional instructional developer. When completed, these modules will be made available online on the DeafTEC website.
- STEM ASL Video Dictionary Project. The first two phases of the STEM ASL Video Dictionary, presenting signed technical vocabulary in the area of IT and Lab Sciences, is now available on the DeafTEC website. The dictionary, created with Geoff Poor, a professor in the NTID American Sign Language and Interpreting Education Department, presents technical signs developed and vetted by experts across the country. This project is being supported, in part, by a gift from the Dow Chemical Company.
- Website Affiliates Section. This private section of the website, created for all DeafTEC stakeholders, continues to be updated and expanded. It includes material presented at various train-the-trainer events for use by regional partners, reports and all of DeafTEC's evaluation tools. It also includes an archive of all professional development events offered by regional partners. This provides both a repository for the providers of the events, and the opportunity for them to share their material with other trainers.

Other DeafTEC Initiatives

Epsilon Pi Tau National Honor Society. With support from DeafTEC, the new Delta Xi chapter of Epsilon Pi Tau National Honor Society was established at NTID for associate-level students studying technology. At a ceremony, pictured here, in May 2015, 19 students and eight faculty members were inducted into Epsilon Pi Tau. This is the first EPT chapter in the nation dedicated to deaf and hard-of-hearing students and NTID's first national honor society.



Project Fast Forward Project Fast Forward originally was established in 2006 with 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 goal of the project is to build a pathway for deaf and hard-of-hearing students to transition from high school to college in selected STEM disciplines by allowing deaf and hard-of-hearing high school students to take dual-credit courses, earning RIT/NTID college credit while they are still in high school.

- School Partners. During the academic year 2014-2015, dual credit courses were offered at three new schools and seven established schools. Two additional schools were recruited to teach dual-credit courses beginning in academic year 2015-2016. Current partner schools are:
 - o Florida School for the Deaf and the Blind, St. Augustine, FL
 - Lexington School for the Deaf, Jackson Heights, Queens, NY
 - Vines High School, Plano, TX
 - Plano Senior High School, Plano, TX
 - o Rochester School for the Deaf, Rochester, NY

-151- Outreach

- University High School, Irvine, CA
- Eastern North Carolina School for the Deaf, Wilson, NC
- Learning Center for the Deaf, Framingham, MA
- Maryland School for the Deaf, Frederick, MD
- Texas School for the Deaf, Austin, TX
- o WT Woodson High School, Fairfax, VA
- Mill Neck Manor School for the Deaf, Mill Neck, NY
- o Murry Bergtraum High School, New York, NY
- o California School for the Deaf, Fremont, CA
- o California School for the Deaf, Riverside, CA
- Cypress Ridge High School, Houston, TX
- o William Boone High School, Orlando, FL
- o Indiana School for the Deaf, Indianapolis, IN
- Western Pennsylvania School for the Deaf, Pittsburgh, PA
- Alabama School for the Deaf and Blind, Talladega, AL
- o Hindsdale South High School, Hindsdale, IL
- Martlon School for the Deaf, Los Angeles, CA
- North Carolina School for the Deaf, Morganton, NC
- McNeill High School, Round Rock, TX
- Dual-Credit Courses. For the 2014-2015 academic year, the following courses were developed for high schools to teach, and earn their students RIT/NTID college credit:
 - 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
 - Page Layout I: An introduction to page layout applications to produce pages and documents to given specifications
 - Raster/Vector Graphics: Introduces the skills needed for the successful production and manipulation of raster and vector images using image creation and production software
 - PC Hardware I: An introduction to the fundamental hardware concepts of personal computer (PC) systems, including their structure and components
 - o *Blueprint Reading:* An introduction to the skills necessary to read and interpret fundamental engineering drawings of details, subassemblies and assemblies
 - Engineering Graphics: Introduces basic skills needed to create professional
 2D drawings using AutoCAD software for mechanical, architectural and
 civil drawings
 - Processes of Science: Environmental Studies: An introduction to science processes using the content of environmental studies as a vehicle to establish an appreciation of the scientific method, critical thinking and problem solving
- Courses Taught and Credit Earned. During 2014-2015, 21 course sections were taught at
 partner high schools with 111 deaf and hard-of-hearing high school students enrolled in those
 courses. The following is the total number of Project Fast Forward dual-credit courses taught
 and students served through Project Fast Forward from fall 2007 to spring 2015:
 - o 111 dual-credit course sections were taught by 29 teachers in their high schools.
 - o 609 registrations were recorded in Project Fast Forward courses.
 - o 504 unique deaf and hard-of-hearing students participated in the program.
 - o 105 deaf and hard-of-hearing students took more than one course.
 - 64 percent of high school students taking the dual-credit courses passed. This is due to both students' inability to pass a course, but also to high school teachers not following the NTID course curriculum and dual-credit program requirements.
 - 1,170 RIT/NTID credits were awarded to deaf and hard-of-hearing students.

Outreach -152-

For the academic year 2015-2016, 16 additional dual-credit courses were taught in the fall, with several more scheduled for the spring semester.

Professional Development. Offered to high school teachers and guidance counselors from
partnering high schools. Teachers received technical training on course content and teaching
methodologies and on improving access for deaf students in mainstream classrooms. Both
teachers and counselors also received training on selected STEM career opportunities for
deaf and hard-of-hearing individuals and on the dual-credit program.

In July 2015, training was offered to six new Project Fast Forward high school teachers, one established teacher teaching a new course and four new guidance counselors. Over nine summers, 2007-2015, the following numbers of teachers and counselors have participated in summer professional development:

- 50 teachers attended the summer training in order to prepare to teach dual-credit courses in their high schools, with some teachers coming multiple times.
- 81 training sessions on course content have been offered.
- 28 guidance counselors attended summer professional activities to work with students taking the dual-credit courses in their high school.

-153- Outreach

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 568 employer representatives received training through the NTID Center on Employment (NCE) in AY 2014-2015.

Employer Training and Educational Programs

NTID's Center on Employment conducted, delivered and presented 24 programs for 568 human resources professionals and company representatives.

NTID Job Fair

The 14th annual NTID Job Fair was held in October 2014 with 43 employers attending and more than 300 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

Thirteen NTID faculty and staff visited 35 students on cooperative education assignments and their supervisors in nine states.

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

- Accommodated 20 employers in recruitment visits and 14 on-campus orientations; 23 résumé packages requested
- Consulted with 116 alumni and other deaf and hard-of-hearing adults seeking job search assistance
- Completed St. Louis, Missouri, trip, which included two Working Together: Deaf & Hearing People workshops and one employer orientation in April 2015
- Supported two engineering students and one machining student plus one faculty member in participating in the Solar Turbines Training Academy/Shadow Day in San Diego, California, in November 2014

NCE Marketing Highlights

- Presented Disability Etiquette 101: Effective Communication What Do I Say and Do? and exhibited at the United States Business Leadership Network Conference in October 2014 in Orlando, Florida
- Presented Making It Happen: Fostering Success in the Workplace for Employees Who are Deaf and Hard of Hearing through the DC Metro Business Leadership Network Webcast in September 2015
- Exhibited at SHRM Diversity & Inclusion, SHRM Talent Management, National Association for Health Care Recruitment, and National Industrial Liaison Group
- Posted student/recent graduate success stories on the NCE website at least once a month
- Reviewed and revised the program marketing pieces, NCE brochure and NCE website (www.ntid.rit.edu/nce/) to ensure content was up to date

Outreach -154-

Faculty and Staff

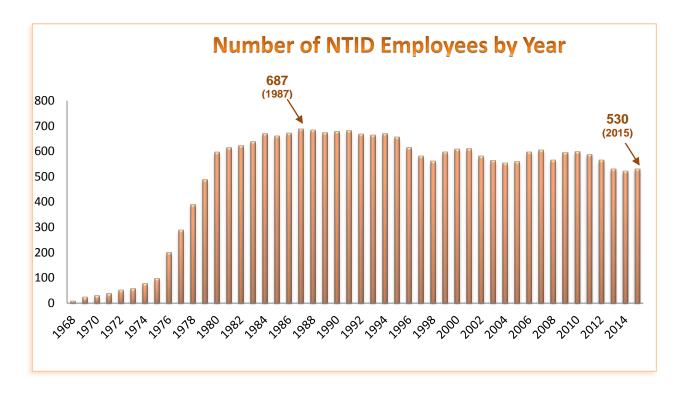
As of fall 2015, 33 percent of NTID's workforce was eligible for retirement.



NTID Visual Communication Studies lecturer Heather Smith, far left, and department chair Kurt Stoskopf, far right, congratulate some of their department's 2015 graduates.

Attracting and retaining the most capable and dedicated faculty and staff in order 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 2015, NTID employed 530 faculty and staff, up from 521 in fall 2014.



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 2014 – September 2015
Faculty*		
Professor	25	\$111,806
Associate Professor	43	\$93,391
Assistant Professor	35	\$71,496
D: : 1/0 : 1 :	40	405.505
Principal/Senior Lecturer	19	\$65,595
Lecturer	47	\$58,939
Subtotal Faculty	169	\$78,953
,		¥1.5,555
Staff		
Exempt Staff**	117	\$66,219
Non-Exempt Staff***	244	\$44,912
Subtotal Staff	361	\$51,778
Total	530	\$60,424

-157-Faculty and Staff

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 and clerical positions 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 2015, senior-level faculty members (professor and associate professor) comprised 68 percent of all ranked tenure-track faculty as compared to 47 percent in FY 1985. Of the 103 tenure-track positions, 82 percent are tenured. The number of tenure-track positions has decreased from 244 to 103 over the past 31 years.

	N	umber of T	FY 2016 Faculty with Tenure				
Rank	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Number	Percent
Professor	35	34	31	28	25	25	100%
Associate Professor	56	52	49	45	43	41	95%
Assistant Professor**	51	48	37	35	35	18	51%
Instructor/Lecturer	1	4	0	0	0	0	0%
Total Positions	142	138	117	108	103	84	82%



Dr. Bonnie Jacob, left, assistant professor in NTID's Science and Mathematics department, works with students Daniel Saavedra, center, a Packaging Science major from Rockford, Illinois, and Peter Yeung, right, an Information Technology major from West Haven, Connecticut, on a mathematical problem that recently was the subject of an article accepted for publication.

^{*} 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 2015, 97 percent of full-time, tenure-track faculty members held graduate degrees.

FY 2015 Highest Degree Level Achieved Tenure and Tenure-Track Faculty*								
	Number	Percent						
Doctorate	50	49%						
Master's	49	48%						
Bachelor's	4	3%						
Total	103	100%						



Dr. Peter Hauser, right, director of NTID's Rochester Bridges to the Doctorate program, celebrates a National Science Foundation grant that will improve mentorship opportunities for deaf students interested in sign language research with selected student, Jessica Contreras, left, of Eagle River, Arkansas.

-159- Faculty and Staff

^{*} Includes ranked administrators.

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

NTID's faculty and staff average 50 years of age with 15 years of service at NTID. As of October 2015, 33 percent are eligible for retirement.**

	Percent		Average Length	Age of Faculty/Staff			i	Currently in	
Full Average Time Age	of Service	<u><</u> 54	55-61	62-64	65-69	<u>></u> 70	Retirement Transition		
Professor	100%	64.6	33.3	1	5	2	14	3	1
Associate Professor	100%	58.5	27.6	13	10	10	8	2	3
Assistant Professor	100%	51.2	14.6	23	8	3	1	0	1
Principal/Senior Lecturer	100%	51.8	15.2	9	7	2	1	0	0
Lecturer	96%	42.2	6.4	42	3	2	0	0	0
Exempt Staff	96%	48.8	14.4	78	28	5	4	2	1
Technical/Clerical	90%	52.6	15.1	44	24	0	9	1	1
Interpreter	86%	45.1	14.1	88	16	3	1	2	0
Real-Time Captionist	43%	48.6	8.2	34	10	1	1	0	0



NTID honored the 21 individuals who retired in FY 2015 at a special reception. One-third of NTID's workforce is eligible for retirement.

^{*} 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 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Full-Time:								
Faculty	6	11	3	11	16			
Exempt Staff	13	7	2	3	11			
Non-Exempt Staff*	13	7	4	14	18			
Total Full-Time	32	25	9	28	45			
Part-Time:								
Faculty	0	0	0	0	1			
Exempt Staff	0	1	2	0	1			
Non-Exempt Staff*	4	5	10	3	12			
Total Part-Time	4	6	12	3	14			
Total	36	31	21	31	59			

Joseph Hill joined NTID's American Sign Language and Interpreting Education department as an instructional/support faculty member in August 2015.



 $^{^{\}star}$ $\,$ Includes technical and clerical positions, C-Print $\!^{\!8}\!$ captionists and interpreters.

-161- Faculty and Staff

Faculty and Staff Terminations

The faculty and staff turnover rate, 8.5 percent, is a decrease from last year. Retirements of current faculty and staff are expected to rise as the employee base ages.

	FY 2011	FY 2012	FY 2013	FY 2014	FY 20	15
Full-Time/Part-Time					Percent	Number
Faculty	6.6%	8.2%	15.1%	8.8%	11.2%	19
Exempt Staff*	9.0%	17.6%	10.6%	9.2%	5.1%	6
Non-Exempt Staff**	9.8%	7.2%	6.9%	9.5%	8.2%	20
Total	8.5%	9.7%	10.4%	9.2%	8.5%	45

-162-

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

RIT/NTID Leadership



NTID President Gerry Buckley '78 congratulates 2015 graduating honorees at the NTID Awards Luncheon. Front row, left to right: Christine Gerard, an Applied Computer Technology major from Bloomfield Hills, Michigan; Mason Chronister, an Administrative Support Technology major from Red Lion, Pennsylvania; back row, left to right: Kayla Stanley, an ASL-English Interpretation major from Bellport, New York; Carly Leannah, an MSSE major from Green Bay, Wisconsin; Buckley; Chelsea Powers, an MSSE major from Massapequa, New York, and Franly Ulerio Nunez, a Laboratory Science Technology major from New York, New York.



Dr. Gerard J. Buckley '78President, NTID;
Vice President and
Dean, RIT



Dr. Stephen AldersleyAssociate Vice President for Academic Affairs



Alvin Boyd '07 Special Assistant for Diversity and Inclusion



Dr. Pamela Carmichael '04 Executive Director of Communications, Marketing and Multimedia Services



Marianne Gustafson Associate Dean for Curriculum and Special Projects



Linda L. Hoke Assistant to the President and Office Manager



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



Dr. Gary LongInterim Associate Dean of Research

^{*} The following individuals also served on the NTID Administrative Council in FY 2015: Dr. Linda Bryant – Interim Associate Dean for Student and Academic Services, and Dr. Denise Kavin – Special Assistant for Strategic Decisions 2020 Implementation.



Steven Morse, CPA '86Assistant Vice President for Finance and Budget



Dr. Todd PaganoAssociate Dean for
Teaching and Scholarship
Excellence



Dr. Rico PetersonAssistant Dean and Director,
NTID Access Services



Mark Rosica Interim Associate Dean for Student and Academic Services



Dr. Kathryn Schmitz '95Associate Dean for
Academic Administration



Erwin Smith
Assistant Vice President
for Information Technology
and College Operations

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-ofhearing 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

Joyce Bender

CEO, Bender Consulting Services

Andrew N. Brenneman '88

Senior National Account Executive, Sprint Nextel

Lisa Dallos

Founder, High10Media

Dr. Catherine Hunt

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

Dr. Christopher Lehfeldt

Associate Dentist

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

Dr. Harold M. Mowl, Jr.

Retired Superintendent/CEO, Rochester School for the Deaf; Chair

Leeanne Seaver

Owner, Seaver Creative Services, Inc.

Michael Tecklenburg

Counsel to House Democratic Leader Nancy Pelosi

Dr. Olga Welch

Dean, Duquesne University School of Education

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



On June 8, 1965, President Lyndon B. Johnson sat at a desk in the White House Rose Garden to sign a bill drafted by New York Congressman Hugh L. Carey. With President Johnson's signature, that bill became Public Law 89-36, creating the National Technical Institute for the Deaf. NTID celebrated the 50th anniversary of that signing this summer.

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:

Gary Behm '81

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

Dr. Gerard J. Buckley '78

President, NTID; Vice President and Dean, RIT

Shraddha Chaplot

Greengineer/Hardware Test Engineer, Cisco Systems, Inc.

Michael Ellis

National Director, Sprint Nextel

Frederick Feldman '77

President, Yula Corp.

Sean P. Flanagan

Sr. Customer Business Manager, Bayer Consumer Care

Sue Flanagan

Volunteer Event Coordinator

Eric Gjerdingen '92

Gordon Hewitt '73, '75

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

Wendee Jaeger

Edward Latimer, M.D.

Psychiatrist

Jeff McCaw '89

Chief Financial Officer, Goodwill Industries International

Barbara Montan

Anthony Napoli '01

Case Manager, Environmental Protection Agency

Ken Peterson

Partner, Kolnichi, Peterson, Wirth, LLC

Maria Peterson

Owner, FitCore, Inc.

Kate Phillips

Chris Prilenski

NTID Foundation Board (continued)

Brandi Rarus '91

Account Executive, CSD, Inc.

James Stefano

President, Synergy Global Solutions, Inc.

Ricky Thomas

President, Maguire & Moore Capital Advisors, Inc.

Christopher D. Wagner '94

Vice President of Customer Experience, ZVRS, LLC Chair

George D. Webb

Retired Senior VP of Operations, Great West Life Insurance Company

Sandra Weintraub

Steven J. Weintraub, M.D.

Medical Director, Department of Anesthesia, North Shore LIJ

Dr. William W. Destler

President

Karen Barrows

Secretary of the Institute and Chief of Staff

Dr. Gerard J. Buckley '78

President, NTID; Vice President and Dean, RIT

Dr. Lisa Cauda

Vice President, Development and Alumni Relations

Dr. Jeremy Haefner

Provost and Senior Vice President for Academic Affairs

Dr. Sandra Johnson

Senior Vice President for Student Affairs

Dr. Katherine J. Mayberry

Vice President for Strategic Planning and Special Initiatives

Kevin McDonald, J.D.

Vice President and Associate Provost for Diversity and Inclusion

Dr. James G. Miller

Senior Vice President, Enrollment Management and Career Services

Dr. Daniel Ornt

Vice President, Institute of Health Sciences and Technology; Dean, College of Health Sciences and Technology

Dr. Ryne Raffaelle

Vice President for Research and Associate Provost for Outreach Programs

Deborah M. Stendardi

Vice President, Government and Community Relations

Dr. James H. Watters

Senior Vice President, Finance and Administration

Eric J. Bieber

President and CEO, Rochester Regional Health System

Brooks H. Bower

BS '74; Chairman and Chief Executive Officer, Papercone Corp. East

Andrew N. Brenneman

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

Charles S. Brown, Jr.

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

Judy B. von Bucher

William A. Buckingham

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

David J. Burns

Senior Advisor, The Association for Manufacturing Technology

Ann L. Burr

Chairman, Frontier Communications of Rochester, Senior Vice President, Customer Experience

Richard M. Dastin

MS '92; Corporate Vice President and Chief Development Engineer, Xerox Services

William W. Destler

President, Rochester Institute of Technology

Robert A. Dobies

Retired Vice President, ExxonMobil Chemical Company; also serves as RGHS Representative

Nancy L. Fein

BS '76; Vice Chair, Board of Trustees, Rochester Institute of Technology; Retired Group Vice President, Toyota Customer Service, Toyota Motor Sales, USA

Marianne Goff

Women's Council Representative, Rochester Institute of Technology

Arthur A. Gosnell

Chairman and Chief Executive Officer, Stonehurst Capital LLC

Brian H. Hall

MBA '78; Chair Emeritus, 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.

RIT Board of Trustees Active Trustees (continued)

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.

Thomas F. Judson, Jr.

Chairman and Chief Executive Officer, The Pike Company

Richard A. Kaplan

Chief Executive Officer, Torvec Inc.

Joyce B. Klemmer

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

Eric J. Kuckhoff

MS '84; Vice President, Cargill, Inc.; also serves as RIT Alumni Association Representative

Austin W. McChord

BS '09; Founder and CEO, Datto, Inc.

Essie L. Calhoun McDavid

Retired Chief Diversity Officer and Director, Community Affairs Vice President, Eastman Kodak Company; also serves as NTID National Advisory Group Representative

Roosevelt Mercer, Jr.

Vice President, Government, Commercial & International Initiatives, Harris Corporation

Robert D. Moore, Jr.

BS '91; Chief Executive Officer, EagleDream Technologies

Harold M. Mowl, Jr.

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

Henry D. Navas

MBA '74; MS '77; Retired, Cisco Systems

Brian P. O'Shaughnessy, Esq.

BS '81, MS '84; Attorney at Law, RatnerPrestia

Sandra A. Parker

Retired 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, Global Technical Leadership, Sales & Distribution, IBM Corporation

Robert W. Rice

BS '94, MBA '97; President and Managing Partner, BayFirst Solutions LLC; also serves on NTID Foundation Board

RIT Board of Trustees Active Trustees (continued)

Susan J. Riley

BS '81; Chief Financial Officer, Vestis Retail Group, LLC

Richard E. Sands

Chairman, Constellation Brands, Inc.

Janet F. Sansone

Retired Chief Management Officer, The United States Government Printing Office

Stephen L. Schultz

AS '88, BS '89; Chief Technology Officer, CryptoLabs

Frank S. Sklarsky

BS '78; Executive Vice President and Chief Financial Officer, PPG Industries, Inc.

Kevin J. Surace

BT '85; Former Chairman of the Board, Serious Energy

Sharon Ting

President, Ting & Associates, Inc.

Harry P. Trueheart III

Chairman Emeritus, Nixon Peabody LLP

Donald J. Truesdale

BS '87; Vice Chair, Board of Trustees, Rochester Institute of Technology; Partner, Goldman, Sachs & Co.

Kim E. VanGelder

BS '86; Chief Information Officer and Senior Vice President, Eastman Kodak Company

Chester N. Watson

BS '74; Retired General Auditor, General Motors Corporation

Christine B. Whitman

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



Susana Flores, a Museum Studies major from Antioch, California, recently completed a co-op at the American School for the Deaf in Hartford, Connecticut, preserving their historical artifacts, developing a cataloging system in their library and conserving paintings and manuscripts from the 1800s and 1900s.

Financial Operations Highlights

Overall, FY 2015 was a very productive year for NTID, both programmatically and financially. NTID continued to rebuild after sequestration as evidenced by a modest 0.7 percent increase in total expenses over FY 2014 levels; this increase in expenses was absorbed by an increase in NTID's Federal appropriation of 1.0 percent.

Total Personnel Compensation for FY 2015 increased nearly \$2.0 million (or 4.7%) over FY 2014. This increase is a result of merit increases awarded to faculty and staff and the one-time accounting adjustments made to tuition waiver expense and NTID's vacation accrual.

Cross-Registered Tuition direct expenditures increased by approximately 10 percent over last year as a result of an increase in the credit-hour rate charged by RIT for NTID-supported students enrolled in academic programs/courses in RIT colleges other than NTID.

Overhead paid to RIT decreased by approximately \$1.7 million (or 12.6%) over FY 2014 as a result of continued prudent fiscal management by RIT.

Support Expenditures increased by approximately \$1.2 million over FY 2014. This increase was primarily the result of an increase in temporary worker costs, equipment rental costs and moderate increases in costs across various support expenditure categories.

Revenue increased by approximately \$600,000 (or 0.7%) over FY 2014 primarily as a result of an increase in NTID's Federal appropriation of \$659,000 (or 1.0%).

NTID's FY 2015 financial results demonstrate its continued commitment to excellent stewardship of resources and sound financial management and oversight.

Financial Operating Results

	FY 2014	FY 2015	Variance \$	Variance %
EXPENSES				
Personnel Compensation				
Expenditures				
Salaries and Wages	\$31,352,877	\$32,052,720	\$699,843	2.2%
Benefits	10,879,507	12,160,500	1,280,993	11.8%
Total Personnel Compensation	\$42,232,384	\$44,213,220	\$1,980,836	4.7%
RIT Services Expenditures				
Direct:				
Residence Halls/Food Service,				
Student Services	\$7,391,290	\$7,267,449	\$(123,841)	-1.79
Cross-Registered Tuition	8,673,972	9,569,614	895,642	10.3%
Physical Plant Services	2,511,691	2,454,258	(57,433)	-2.3%
Indirect:				
Overhead	13,544,046	11,833,396	(1,710,650)	-12.6%
Total RIT Services	\$32,120,999	\$31,124,717	\$(996,282)	-3.1%
Other Expenditures				
Support Expenditures	\$5,217,047	\$6,389,475	\$1,172,428	22.5%
Grant Cost Shares	259,518	171,693	(87,825)	-33.8%
Financial Aid	2,655,009	2,658,783	3,774	0.1%
Capital	918,909	606,264	(312,645)	-34.0%
Matching Endowment	85,000	309,000	224,000	263.5%
Plant Fund	8,781,484	7,412,267	(1,369,217)	-15.6%
Total Other	\$17,916,967	\$17,547,482	\$(369,485)	-2.1%
Total Expenses	\$92,270,350	\$92,885,419	\$615,069	0.7%
REVENUE				
Federal Appropriation	\$66,291,000	\$66,950,000	\$659,000	1.0%
Non-Federal Funds	25,979,350	25,935,419	(43,931)	-0.2%
Total Revenue	\$92,270,350	\$92,885,419	\$615,069	0.7%

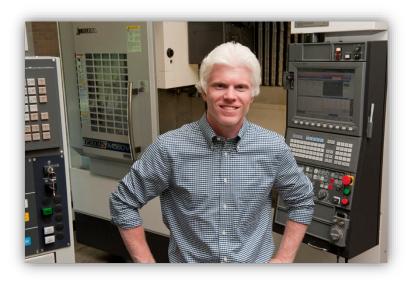
Tuition, Room, Board and Other Fees

The tuition rate increased by 3.9 percent while the rates charged for room, board and fees increased by 3.5 percent for a total combined rate increase of 3.7 percent. These non-federal resource collections constituted 28 percent of NTID's total operating revenue.

Rates Charged Students

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Tuition	\$10,719	\$11,583	\$12,393	\$13,512	\$14,040
Room	5,862	6,096	6,309	6,530	6,758
Room	5,002	0,090	0,309	0,330	0,730
Board	4,182	4,317	4,491	4,648	4,810
Fees	753	453	474	492	512
Total	\$21,516	\$22,449	\$23,667	\$25,182	\$26,120
	7 _1,511	, , , , ,	4 23,323	4-3, 13-	7=2,1=2
Collections	\$24,247,625	\$24,698,576	\$25,222,569	\$25,979,350	\$25,935,419
Enrollment (Fall)	1,521	1,547	1,529	1,432	1,387
Collections Per Student	\$15,942	\$15,965	\$16,496	\$18,142	\$18,699

Christopher Fenn, an Industrial Engineering and Engineering Management master's student, recently completed a co-op at General Electric-Aviation in Baltimore, Maryland. As a supply chain intern, he assisted with the transition of an engine composite program from a facility in another state back to the Baltimore facility.



Financial Aid

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



ASL-English Interpretation graduate Brittany Amari, of Sussex, New Jersey, celebrates with her parents. She currently is pursuing her Master of Science in Secondary Education of Students who are Deaf or Hard of Hearing at NTID.

Financial Aid (Domestic Students)

Financial aid awards to domestic students totaled almost \$23.3 million in FY 2015, a 0.2 percent increase from FY 2014. Institutionally sponsored aid and state and federal support increased in FY 2015 by 6.7 percent and 1.1 percent, respectively. Loans taken out by domestic students

decreased in FY 2015 by 7.5 percent, while the number of awards, including loans, increased by 2.8 percent compared to FY 2014. Overall, the average financial aid (excluding loans) per domestic student increased by 5.8 percent in FY 2015.

SOURCE OF AID	2014 2015		2015		
	A 1 . ±		A	A	AMOUNT
	Awards*	Amount	Awards*	Amount	DIFF %
INSTITUTIONALLY SPONSORED SUPPORT					
Grant-in-Aid:					
NTID Grant-in-Aid	312	\$1,151,696	350	\$1,360,033	18.1%
RIT Grant-in-Aid	30	100,049	32	99,950	-0.1%
Subtotal Grant-in-Aid	342	\$1,251,745	382	\$1,459,983	16.6%
Scholarships:					
NTID Merit	473	\$1,479,113	417	\$1,279,250	-13.5%
RIT Merit	80	158,230	80	158,833	0.4%
NTID Endowments	480	972,577	714	1,366,411	40.5%
External Groups	126	359,889	95	238,223	-33.8%
Subtotal Scholarships	1,159	\$2,969,809	1,306	\$3,042,717	2.5%
Subtotal Institutionally Sponsored Support	1,501	\$4,221,554	1,688	\$4,502,700	6.7%
STATE AND FEDERAL SUPPORT					
Grants:					
Pell Grants	631	\$2,751,344	613	\$2,662,380	-3.2%
State Grants	230	522,612	225	458,527	-12.3%
Subtotal Grants	861	\$3,273,956	838	\$3,120,907	-4.7%
Other Federal Support:					
Vocational Rehabilitation	933	\$10,531,963	927	\$10,821,731	2.8%
Federal Work Study	29	56,438	41	74,423	31.9%
Subtotal Other Support	962	\$10,588,401	968	\$10,896,154	2.9%
Subtotal State and Federal Support	1,823	\$13,862,357	1,806	\$14,017,061	1.1%
LOANS	= 4.4	A. 757.000	400	A4 705 005	4.00/
Subsidized Federal Student Loan	511	\$1,757,030	496	\$1,725,225	-1.8%
Unsubsidized Federal Student Loan	559	2,663,798	534	2,350,695	-11.8%
Parent PLUS Loans	78	742,531	72	699,111	-5.8%
Subtotal Loans	1,148	\$5,163,359	1,102	\$4,775,031	-7.5%
TOTAL ALL FINANCIAL AID	4,472	\$23,247,270	4,596	\$23,294,792	0.2%
Domestic Student Enrollment		1,388		1,343	-3.2%
Average Financial Aid per Student		\$16,749		\$17,345	3.6%
Average Financial Aid per Student Excluding Loans		\$13,029		\$13,790	5.8%

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

Financial Aid -180-

External Funding Sources



NTID's Sebastian and Lenore Rosica Hall and HBT Architects—the firm responsible for the building's design—were recognized by the American Institute of Architects' Rochester, New York, chapter with a 2015 design award. Rosica Hall is devoted to innovation and research by RIT/NTID students, faculty and staff. The William G. McGowan Charitable Fund awarded a \$1.75 million grant for construction of the building.

The NTID Foundation

NTID received \$1,742,115 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, 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 2015 include:

\$500,000 and Above Level:	The Nippon Foundation Mr. Andrew R. Jacobson '90, '96, Estate
\$100,000 - \$499,999 Level:	Mr. Marion L. Navrat, Estate
\$25,000 - \$99,999 Level:	Cisco Systems, Inc. Daisy Marquis Jones Foundation Ms. Jeanne M. Colombo Interpretek Mr. Andrew R. Jacobson '90, '96
\$5,000 - \$24,999 Level:	Adrian Blue and Catherine Rush Anderegg Family Foundation Inc. Dow Chemical Co. Foundation Dr. and Mrs. James J. DeCaro Helen Keller National Center Jephson Educational Trust Mary S. Mulligan Charitable Trust Dr. and Mrs. Ronald R. Kelly Dr. and Mrs. Steven J. Weintraub, M.D. Mr. Benjamin H. Hayes Mr. Andrew N. Brenneman '88 Mr. E. Randall Stuckless Mr. Robert W. Rice '94, '97 ZVRS
\$1, 000 - \$4,999 Level:	American School for the Deaf Baird Foundation Dr. and Mrs. Gerard J. Buckley '78 Dr. and Mrs. Harold M. Mowl, Jr. Dr. Matthew A. Lynn Dr. Pamela L. Carmichael '04 Drs. Robert J. '70 and Susan M. '74 Mather Dr. Richard V. Burkhauser Dr. Robert I. Harris Frank B. Sullivan Memorial Foundation, Inc. Hamilton Relay Kathryn L. Schmitz, Ph.D. '95 Mr. and Mrs. Gordon J. Hewitt '73, '75 Dr. and Mrs. T. Alan Hurwitz Dr. and Mrs. Terry Feigenbaum Dr. Thomas G. Raco Dr. Vincent A. Daniele End 2 End Promotions, LLC Richard W. Peterson, Ph.D. Rochester Area Community Foundation Western Pennsylvania School for the Deaf

Stefano La Sala Foundation, Inc. Sorenson Communications, Inc. Ms. Patricia M. Albanese '00 Ms. Marianne M. Gustafson Ms. Kathleen G. Darroch '86 Ms. Katherine T. Hoheusle '00 Dr. Karey T. Pine '93 Ms. Gayle M. Macias '06 Ms. Colleen M. Freeman Mrs. Sidonie Merkel Roepke '79, '81, '83, '84 Mrs. Meredith M. Crane Mr. and Mrs. John '85 and Loriann '88 Macko Mr. Anthony S. Napoli '01 KKM, LLC Webb Family Foundation Mr. Bernard Hurwitz and Mrs. Stacy Lawrence '93, '96 Mr. Christopher D. Felo '77, '79, '86, '00 Mr. Christopher D. Wagner '94 \$1,000 - \$4,999 Level: Mr. and Mrs. Daniel J. Schreiner Mr. David W. Donahue Mr. Erwin J. Smith Mr. James J. Stefano Mr. Frederick G. Feldman '77 Mr. William S. Hayes, III Mrs. Angela S. Officer '88 Mr. and Mrs. William Urich Mr. William F. Meagher, Jr. Mr. Thomas M. Otto-Bruc '04 Mr. Steven M. Morse '86 Mr. Michael S. Servé '76 Mr. John T. Reid '79 Ms. Katharine F. Gillies '91 Mr. Jonathan S. Miller Mr. and Mrs. Richard Hymes Drs. Christopher '95 and Kim Kurz '93, '95 Mr. and Mrs. Sean Flanagan

NTID Annual Fundraising Results

Through the ongoing support of the NTID Foundation, the college's development program continues to be successful. The substantial sums that NTID raises demonstrate NTID's commitment to seeking alternative sources of public and private

support. In FY 2015, NTID development activity generated \$1,348,092 for endowment and restricted purposes. Of that amount, \$309,000 was matched with federal dollars and directed toward NTID's endowed scholarship funds.

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Endowment and Restricted Funds	\$2,975,368	\$1,460,336	\$935,832	\$1,321,580	\$1,348,092
Equipment and Software	\$1,028,004	\$141,740	\$29,380	\$57,117	\$69,697
Total	\$4,003,372	\$1,602,076	\$965,212	\$1,378,697	\$1,417,789



NTID's performance of the musical "Hairspray" featured a cast of deaf and hearing actors signing, singing and performing roles simultaneously.

NTID Endowment Programs

A total of \$618,000, including matching federal funds* of \$309,000, was added to the Federal Matching Endowment Fund corpus in 2015. The market value of NTID's Federal Matching Endowment portfolio stands at \$50,887,328.

The market value of NTID's total endowments, which include privately raised funds prior to the establishment of the Federal Matching Endowment program, is \$56,008,306.

Value as of September 30, 2015

	Contributed Value	Market Value
Funds Subject to Federal Investment and Spending Guidelines		
Private	\$6,536,050	\$10,277,028
Federal	\$5,929,205	\$9,240,832
Subtotal	\$12,465,255	\$19,517,860
Funds No Longer Subject to Federal Investment and Spending Guidelines	\$15,761,890	\$31,369,468
Total Federal Endowment	\$28,227,145	\$50,887,328
Other Endowments	Contributed Value	Market Value
Private	\$1,891,940	\$5,120,978
Total Endowments	\$30,119,885	\$56,008,306

Any monies matched must be funded through operating funds efficiencies.

Scholarships, Endowed Funds and Estate Commitments

The generosity of a large number of friends of NTID has resulted in the following scholarships, endowed funds and estate commitments benefiting NTID students.

Barlow Endowed Scholarship Fund

Alice Beardsley Memorial Endowed Scholarship Fund for Interpreting Students at NTID

Ned Behnke Memorial Endowed Scholarship Fund

Frank P. Benz Jr. Memorial Scholarship

Doris W. Blanchard Endowed Scholarship Fund

Farid Bozorgi Memorial Endowed Scholarship Fund

Bernard Bragg Deaf Theatre, Signed Arts and Deaf Cinema Endowment Fund

Andrew and Mary Brenneman Annual Scholarship

Gladys Brooks Endowed Fund for the Laboratory Science Technology Program

Dr. Gerard Buckley Student Leadership Endowment

Caption First Scholarship at NTID

Citicorp/Citibank Endowed Scholarship Fund at NTID

Dr. Karen K. Conner Annual Scholarship Fund

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

Dreyfus Foundation Laboratory Science Technology Endowed Student Support Fund

Dorothy E. Ann Fund (D.E.A.F.) Endowed Scholarship Fund

Mr. and Mrs. Joseph F. Dyer Endowed Scholarship Fund

Joseph F. and Helen C. Dyer Arts Center Endowed 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

Curt and Jean Feuer Scholarship at NTID

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

Scholarships, Endowed Funds and Estate Commitments (continued)

Allen and Gloria Gopen Endowed Scholarship Fund

Debbe A. Hagner Endowed Lecture at NTID

Mildred F. Hall Endowed Scholarship Fund

Hamilton Relay Scholarship

Jennifer Van Atta Hayes Memorial Endowed Scholarship

William Randolph Hearst Endowed Scholarship Fund for Financially Disadvantaged Students

Dr. Mary Jane Hellyar Endowed Scholarship Fund

Frank Horton Endowed Scholarship Fund

William "Dummy" Hoy OTB Endowed Scholarship

T. Alan and Vicki T. Hurwitz Family Endowed Scholarship Fund

Ralph Hymes Endowed Scholarship Fund

Linda A. lacelli Endowed Student Support Fund

Interpretek Endowed Scholarship Fund

Andrew Jacobson Annual Scholarship

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

M. L. Navrat Endowed Scholarship Fund for NTID

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

Scholarships, Endowed Funds and Estate Commitments (continued)

NTID Emergency EYF Student Scholarship Fund

NTID Endowed Scholarship in the Visual Arts Disciplines

NTID Foundation Endowed Scholarship Fund

NTID Merit Scholarship Fund

NTID Performing Arts Endowed Scholarship Fund

NTID President and Dean's Scholarship for Academic Excellence

NTID Science and Engineering Careers Endowed Scholarship Fund

NTID Student Leadership Endowed Fund

NTID Visual Communications Endowed Scholarship Fund

NYS Federation of Home Bureaus, Inc. Endowed Scholarship Fund in Honor of Martha Perry

Milton H. and Ray B. Ohringer Endowed Scholarship Fund

Robert F. Panara Endowed Scholarship Fund

Shirley M. Panara Memorial Endowed Fund

Pulver Family Endowed Scholarship Fund

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

Edward L. Scouten Endowed Fund for English Literacy

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

Dr. Frank B. Sullivan Memorial Exemplary Business Student Award

Frank B. Sullivan Memorial Scholarship

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

Al Van Nevel Memorial Foundation Scholarship for Excellence in Business Studies at NTID

Scholarships, Endowed Funds and Estate Commitments (continued)

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
James Ventimiglia Memorial Printing Award Endowed Fund
Elizabeth W. Williams Endowed Fund for the Performing Arts

Skip Flanagan, a Psychology major from Framingham, Massachusetts, joined Boston Red Sox greats Jim Lonborg and Lou Merloni this summer for the 22nd annual Abbot Financial Management Oldtime Baseball Game in North Cambridge, Massachusetts. Proceeds from the game established the William "Dummy" Hoy Old-time Baseball Endowed Scholarship, which is awarded to a deaf or hard-of-hearing student from New England who will attend RIT.



Grants and Contracts

During FY 2015 NTID had 35 new grant proposals totaling \$16,631,310 that were submitted for funding. Eighteen, totaling \$6,781,480, were funded; nine are still pending; eight were not

funded. As of September 30, 2015, the annual reimbursed expenditures of all grants and contracts at NTID totaled \$3,960,141 with a total value of \$20,525,517 over the lives of the projects.

Project Title	Grant Provider	Year	Amount FY 2015	Total Value
Collaborative Research: Real-Time Captioning by Groups of Non-Experts	National Science Foundation	3 of 3	\$31,471	\$113,554
Factors Associated with Positive High School and Post-High School Outcomes for Deaf and Hard-of-Hearing Students	Department of Education – SRI International	2 of 2	\$8,254	\$77,703
Addiction Treatment Services for Deaf and Hard-of-Hearing Individuals	NYS Office of Mental Health - Rochester Psychiatric Center	3 of 5	\$91,027	\$276,988
Language, Learning, and Cognition Among Deaf Students With and Without Cochlear Implants	National Institutes of Health	3 of 4	\$519,454	\$2,259,296
Future Quest and Technical Job Training	BNY Mellon	4 of 4	\$11,977	\$20,000
Specialty Preparation for Speech Language Pathologist	Department of Education	1 of 1	\$46,545	\$111,326
Pre-College Education Network (P-CEN) – Year 3	The Nippon Foundation	1 of 1	\$10,500	\$767,500
Pre-College Education Network (P-CEN) – Year 4	The Nippon Foundation	1 of 1	\$339,318	\$817,800
Pre-College Education Network (P-CEN) – Year 5	The Nippon Foundation	1 of 1	\$322,906	\$848,615
Substance and Alcohol Intervention Services for the Deaf	NYS Office of Mental Health – Rochester Psychiatric Center	1 of 1	\$29,634	\$162,132
Investigation of CISCO Technologies and Access Solutions	CISCO Systems Inc.	6 of 6	\$3,617	\$60,620
Deaf STEM Community Alliance: Supporting Postsecondary Deaf and Hard-of-Hearing Students	National Science Foundation	4 of 5	\$264,644	\$1,770,022
DeafTEC: Technological Education Center for Deaf and Hard-of-Hearing Students	National Science Foundation	4 of 4	\$1,075,705	\$4,459,327
Analyzing the Use of C-Print Mobile Technology in STEM Lab Settings Across Multiple Postsecondary Sites	National Science Foundation	5 of 5	\$67,756	\$465,966

Grants and Contracts (continued)

Accountability Initiative with Special Emphasis on Recruitment of STEM and Minority Teachers of Deaf and Hard-of-Hearing Students	Department of Education	4 of 5	\$415,529	\$1,247,197
Nippon Project	The Nippon Foundation	3 of 3	\$17,395	\$700,000
Stereotype Threat Effects on Deaf and Hard-of-Hearing College Students	National Science Foundation	2 of 3	\$142,868	\$534,204
Deaf Learners' Lexical Acquisition of English Verbs and Their Component	National Science Foundation	3 of 4	\$81,444	\$300,502
Rochester Bridges to the Doctorate Program (R25) for Deaf and Hard of Hearing	Department of Health Services	2 of 2	\$258,723	\$501,466
Facilitating Knowledge Building in Cooperative Learning	National Science Foundation	1 of 3	\$4,356	\$499,830
CTEA: Enhancing Technical Skills Related to Health Sciences and Sustainability	Department of Education	1 of 1	\$34,218	\$38,578
Rochester Prevention Research Center	Department of Health Services	1 of 1	\$59,194	\$77,651
REU Site: Accessible Multimodal Interfaces	National Science Foundation	1 of 3	\$91,284	\$385,433
FCC CLIN1: User Interface	Federal Communication Commission	1 of 1	\$30,000	\$30,000
Renewal of DeafTEC: Technological Education Center for Deaf and Hard-of- Hearing Students	National Science Foundation	1 of 4	\$2,322	\$3,999,807
Total			\$3,960,141	\$20,525,517

