

**LEVERAGING HIGHER EDUCATION TO IMPROVE
EMPLOYMENT OUTCOMES FOR PEOPLE WHO
ARE DEAF OR HARD OF HEARING**

FIELD HEARING

OF THE

**COMMITTEE ON HEALTH, EDUCATION,
LABOR, AND PENSIONS**

UNITED STATES SENATE

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

ON

**EXAMINING LEVERAGING HIGHER EDUCATION TO IMPROVE EMPLOY-
MENT OUTCOMES FOCUSING ON PEOPLE WHO ARE DEAF OR HARD
OF HEARING**

OCTOBER 11, 2011 (Washington, DC)

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LEVERAGING HIGHER EDUCATION TO IMPROVE EMPLOYMENT OUTCOMES FOR PEOPLE WHO ARE DEAF OR HARD OF HEARING

TUESDAY, OCTOBER 11, 2011

U.S. SENATE,
COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS,
Washington, DC.

The committee met, pursuant to notice, at 1:11 p.m., at the Kellogg Conference Center, Gallaudet University, 800 Florida Avenue, N.E., Washington, DC, Hon. Tom Harkin, chairman of the committee, presiding.

Present: Senators Harkin and Enzi.

OPENING STATEMENT OF SENATOR HARKIN

The CHAIRMAN. The Senate Committee on Health, Education, Labor, and Pensions will come to order.

First, I want to thank all of you for being here now at this very important meeting. We want to make sure that all people have jobs in the future. How do you say "good jobs?" Good jobs? OK. Good jobs. Good jobs.

[Laughter.]

[Applause.]

Also, we are making history here today. I will let the interpreter work, OK?

[Laughter.]

We are making history. It's the first time, first time a congressional committee has met for an official hearing and every witness is deaf. First time.

[Applause.]

I will make an opening statement, short, I hope, and then I will turn it over to Senator Enzi for his opening statement.

But let me just say how proud I am to be back at Gallaudet. This is a wonderful school and has a rich history. And I have so many fond memories of my involvement with Gallaudet, none more important than the Deaf Now movement. I forgot how long ago that was. What year?

VOICE. 1988.

The CHAIRMAN. Oh, that is a long time ago.

[Laughter.]

But it was a wonderful experience, a wonderful experience. And now Gallaudet has moved on and still doing new things. I am very proud of that.

The title of this hearing is “Leveraging Higher Education To Improve Employment Outcomes for People Who Are Deaf or Hard of Hearing.” This is the fourth in a series of hearings that Senator Enzi and I have had to increase the employment participation rate for all people; for all individuals with disabilities.

At this hearing, we are focusing on persons who are deaf or hard-of-hearing, in part because they have achieved greater success in the labor market than other groups identified by the U.S. Census Bureau as having disabilities. According to the 1-year estimates from the Census Bureau’s 2010 survey, for 18- to 64-year-olds with hearing disabilities, just over 48 percent were employed. Of the 3.9 million working-age adults with hearing disabilities, a little under 2 million of them were working.

The next highest employment rate by disability category was the rate for people with vision disabilities, about 37 percent of whom were employed in 2010. Overall, the employment rate for persons with disabilities is about 33 percent in America. I mean, it is awful when we hear unemployment statistics that we have, what, 9 percent unemployment. Maybe some people say it is as high as 16 percent unemployment.

But for people with disabilities, it is over 60 percent unemployment, and for people with hearing disabilities, it is, about 52 percent. So you have to put that in perspective.

My notes say that Wyoming, Senator Enzi’s home State, is very good. The employment rate for people with hearing disabilities was 72.4 percent in Wyoming. My State, Iowa, it was 64 percent. Wyoming was No. 1, followed by North Dakota at 72 percent. Iowa was No. 4. I have to do some more work in my State.

Let us not gloss over the fact, though, that while we might be proud that people with hearing disabilities are better employed, let us keep in mind that there is still 52 percent unemployment, and that is unacceptable. That is just unacceptable. But if Wyoming can get 72 percent, why can’t the rest of the country get 72 percent?

I will close with this. In the last couple of years, 3 years, the number of adults with disabilities that dropped out of the labor force was 804,000. The number of workers without disabilities went down by 400,000. So, in the last 3 years, for every person losing work in America, 2 people with disabilities lost their job.

When we think about going forward and getting employment back, then the rate of employment for people with disabilities has to be twice that of people without disabilities. You see what I mean. We have to make an extra effort to make sure that it is not just one-for-one, but that we actually do more work in getting people with disabilities back into the labor force as we begin to move forward and increase employment in our country.

Beyond that, we also want to think about the skills and the education level that people with disabilities need for the future workforce. When my brother went to the Iowa School for the deaf, he was told he could be one of three things. He could be a baker, he could be a cobbler, or he could be a printer’s assistant. That was all.

Well, he didn’t want to be any of those things. Times have changed a lot, and he was able to go on and use his skills to have a wonderful life and a good job. But it wasn’t because of what he

was taught. It was sort of self-learned or learned on the job as he progressed through life.

But now we have to make sure that our schools—Gallaudet, NTID, other schools—that we make sure that kids have the skill set for the new kinds of jobs in the future and to make sure that we (society) provides the support services so that individuals who are hard-of-hearing or who are deaf can use their skills to the maximum. And technology has done a lot to help that, but we have to make sure that those support services are in place so that people can achieve their highest potential.

I want to thank President Hurwitz, whose father went to school with my brother at the Iowa School for the deaf and who, himself, is from Sioux City, IA. I thank him for hosting us here today and for NTID, for being here.

On our second panel, we have employees who have gone on to have really good jobs at IBM and Sprint, and they are showing how they can make sure that workplaces are accommodating of individuals with disabilities. Leila Hanaumi will also be on our second panel, a senior here at Gallaudet. I met her today and also met her earlier in my office.

She will tell us—what does the younger generation need? What are the aspirations, the goals of the younger generation of those who are hard-of-hearing or who are deaf?

We are going to have, I think, some really good testimony, and I look forward to it. And with that, I will turn it over to Senator Enzi for his opening statement.

OPENING STATEMENT OF SENATOR ENZI

Senator ENZI. Thank you, Mr. Chairman.

And thank you, Dr. Hurwitz and Dr. Buckley and your staffs and all they have done to help arrange today's field hearing. Chairman Harkin and I are very appreciative that each of you, as well as the students and faculty of Gallaudet have graciously agreed to host this—

[Buzzer.]

[Laughter.]

It is very pleasing to see so many students here today, too. You recognize that education does make a difference.

We each believe that it is important that the committee have opportunities like this. Not only does it give us a chance to see first-hand where the real work in education is taking place, it gives those most impacted by our decisions the opportunity to participate.

Also, many Americans are struggling to find work. Unemployment affects certain groups of individuals at a far greater rate even in the best of times. And this is the fourth in an ongoing series of hearings focused on barriers to employment for individuals under-represented in the workforce. Today, we will focus on what higher education is doing to improve employment opportunities for people who are deaf and hard-of-hearing.

The significance of a college education for everyone has never been more obvious. As the most recent employment data show, individuals with a college degree have an unemployment rate that is

nearly half the national average. For people who are deaf and hard-of-hearing, the difference is even more pronounced.

According to some estimates, an astounding 60 percent of the people who are deaf are unemployed today. However, as Dr. Buckley and Dr. Hurwitz will testify, more than 90 percent of the National Technical Institute for the deaf and Gallaudet students who have chosen to enter the workforce are employed or furthering their education in graduate school.

Furthermore, college graduates who are deaf are dramatically less dependent on Federal support, including Supplemental Security Income and Social Security Disability Insurance. Clearly, deafness is a barrier that can be overcome by education.

But institutions like Gallaudet and NTID are successful not just because they provide an education. They also create opportunities by working with employers and demonstrating the value of hiring their students.

Today, we hope to learn more about what each school is doing to overcome these barriers. We want to learn about their partnerships with private industry. We want to know what is working, as well as what challenges still have to be addressed.

I am already aware of the difficulty faced by people who are deaf and hard-of-hearing. My first daughter lost the ability to hear a wide range of tones due to complications arisen from being born nearly 3 months premature.

After struggling to just survive, she grew up not able to hear like others. But our little girl is a fighter, and she was determined not to let her limited hearing prevent her from living her life. Among other things, she learned to read lips. And today, she is a marvelous public school educator in Wyoming, where her experience includes being a principal in Chugwater, WY.

She was also involved in a program in which she helped to teach teachers how to teach better. And as any of you are thinking about being teachers can believe, the ability to read lips in a classroom is a good thing for a teacher.

I look forward to today's testimony and learning about the wonderful work of each of these institutions, as well as how employers are working to put the many talents of students to use.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Senator Enzi.

Let us introduce our first panel. Dr. Hurwitz became the 10th president of Gallaudet on January 1, 2010. Before that, he was president of the National Technical Institute for the deaf, NTID, and vice president and dean of the Rochester Institute of Technology. Dr. Hurwitz also served in a variety of other roles at NTID between 1970 and 2009.

He is a former president of the National Association of the deaf, has lectured extensively, and has been widely published. Dr. Hurwitz earned a B.S. in electrical engineering from Washington University in St. Louis, an M.S. in electrical engineering from St. Louis University, and a Doctorate of Education from the University of Rochester.

Our second witness, Dr. Gerard Buckley, became president of NTID on January 1, 2011. He is NTID's first alumnus president. Congratulations! I didn't know that. Dr. Buckley has more than 30

years of experience in higher education, more than 20 years at NTID.

Prior to coming to NTID in 1990, Dr. Buckley led Gallaudet University's regional center in Overland Park, KS. He holds a B.S. in social work from NTID, an M.S.W. from the University of Missouri, and a Doctorate of Education from the University of Kansas.

Dr. Buckley, we welcome you, too.

And so, Dr. Hurwitz, we will start with you. Both of your written testimonies are made a part of the record in their entirety, and we would appreciate it if you could sum it up in 5 to 9—if you go over 10 minutes, I will get nervous.

[Laughter.]

**STATEMENT OF T. ALAN HURWITZ, Ph.D., PRESIDENT,
GALLAUDET UNIVERSITY, WASHINGTON, DC**

Mr. HURWITZ. [The following testimony was delivered through an interpreter.] I was told that I had 10 minutes. So I will do my best to stick within those time restraints.

Chairman Harkin, Ranking Member Enzi, and distinguished committee members of the HELP Committee, July 13, 1990 was a day the U.S. Senate passed the historic Americans with Disabilities Act. Senator Harkin, at that time, you made this dedication.

You said,

“I want to dedicate the ADA to the next generation of children, of children with disabilities and their parents. We say whatever you decide is your goal, go for it. The doors are opening, and the barriers are coming down.”

Senator Enzi, on the 20th anniversary of the enactment of the ADA, you issued a statement. And the statement said,

“We will continue to ensure that the chance to live the American dream is an avenue of opportunity that is available to everyone without exception.”

Senators, just take a look around this room. Here, in this audience, in Senator Harkin's words, is the next generation. In fact, I call them “the ADA generation.” These are the young people who truly believe that the ADA stands for “American dream for all.”

I would like to ask all of the students who are here in the audience to stand and be recognized.

[Applause.]

Nowhere else do college students who are deaf or hard-of-hearing routinely become president of academic clubs, editors of university publications, captains of the sports teams, presidents of student government organizations, or lead figures in theatrical plays.

Several student leaders are here with us today, and I know that nowhere else in higher education do students find a fully immersive experience, where they can fully enjoy opportunities to develop their leadership skills for the workplace. Likewise, nowhere else in higher education do students find a fully immersive bilingual education that provides education in both American Sign Language and English.

All of us recognize the critical role in what Senator Enzi described as an avenue of opportunity. Our faculty and staff are committed to empowering our students. We want our students to lever-

age their experience and to improve their employment opportunities.

You have my warm thanks and the warm thanks of our community for making these opportunities possible. All of us are pleased and honored to have you here. We welcome you and the other witnesses to our wonderful campus, and I am delighted to share this panel with my very good friend and colleague, President Buckley from NTID, the National Technical Institute for the deaf. As Senator Harkin said, I worked at NTID for four decades before joining Gallaudet.

We hope that at the end of this hearing that all of you will continue to talk about the conversations that we have here today at Gallaudet. I strongly believe that Gallaudet University and NTID are outstanding examples of a wise government investment.

Today, I will be sharing with you some of the outcomes and returns on that investment. I will also talk about the challenges and opportunities that we face regarding this ADA generation's expectations.

Let me broadly describe our diverse student population. You know, diversity for us is not just a list of differences. Instead, it means that we accept students who are deaf or hard-of-hearing from all groups, from all backgrounds, and from all communication preferences.

Let me share with you the outcome data from a survey of recent graduates. Ninety-eight percent of graduate level alumni and 82 percent of bachelor's level alumni stated that they worked full- or part-time 1 year after graduation, and 95 percent of graduate level alumni and 69 percent of bachelor's level alumni stated that Gallaudet prepared them for their occupation.

But let me just say we cannot rest. We must explore new future pathways. Every day we ask ourselves in what new ways can we give our students wings to soar?

We are delighted to announce that we are beginning to develop four new undergraduate programs. These undergraduate programs are pre-law, pre-medicine, pre-architecture, and pre-business. These can transform the lives of students who come to Gallaudet for this undergraduate work. They then can apply to graduate schools and enter those rewarding professions.

We will give wings to future generations of students. We will give them the self-confidence to envision success of those great professions.

Are there any barriers or challenges? Of course, certainly, there are, and they are fully described in my written testimony. But let me highlight three for you.

First, to succeed in the classroom and in the workplace, our students require communication accessibility through qualified interpreters and technological solutions. And at Gallaudet, we provide both.

Second, individuals who are deaf and hard-of-hearing are not well-represented in the healthcare field, despite recognized shortages. In June 2010, four partners came together and formed the Task Force on Healthcare Careers for Deaf and Hard of Hearing Community Members: Gallaudet University, the National Technical Institute of the Deaf—and again, we are working strongly to-

gether, as strong partners on this project—the Rochester General Health Systems, and the University of Rochester Medical Systems.

We ask the HELP Committee to work with us. We believe that you can ensure Federal programs targeting diversity in the healthcare workforce specifically include individuals who are deaf or hard-of-hearing, and you should also include other persons with disabilities, along with minority and disadvantaged students. You also can establish an information clearinghouse that would provide information about access and accommodations in healthcare fields.

Third, we are all aware of the barriers to career advancement into management that our graduates face. In response, Gallaudet is developing a master's of public administration degree. It is designed for individuals to work in public and nonprofit organizations.

The Office of Personnel Management is a very strong supporter of this program proposal. We turn to the HELP Committee for advice, for counsel, and ensuring that Federal employees who are deaf or hard-of-hearing can participate in these offerings.

I would like to close with the words from Abraham Lincoln, who signed the Gallaudet charter almost 150 years ago. "The Government exists," as he says, "to lift artificial weights from all shoulders, to clear the paths of laudable pursuit for all, to afford all an unfettered start, and a fair chance in the race of life."

On behalf of all of us at Gallaudet University, thank you for your support. Together, we can provide that fair chance. We can make the American dream a reality for all, including the ADA generation.

Thank you.

[The prepared statement of Mr. Hurwitz follows:]

PREPARED STATEMENT OF T. ALAN HURWITZ, PH.D.

SUMMARY

Gallaudet University as an institution of higher education has been teaching deaf and hard-of-hearing students for nearly 150 years. The education and opportunities we provide have produced generations of successful graduates. Gallaudet strives to continue that tradition, in many ways, including increasing the expectations of, and opportunities for, our students. One of our current projects that aims to accomplish this is the establishment of four new professional programs that will create more deaf lawyers, doctors, architects and business people. By encouraging students to enter these professions, we will show that we have high expectations about what they can aspire to and achieve. Furthermore, they will be able to break down barriers to employment as members of these professions, and reduce oft-held misconceptions and erroneous stereotypes held about deaf people.

Gallaudet assists students in a myriad of ways in their transition from our campus to the workforce. Academically, our standards have increased and persistence rates have risen, ensuring that more of our students will have the degrees necessary to obtain employment. We also have a Career Center that provides different services including, but not limited to, mentoring for students and hosting job fairs, which give students the opportunity to meet with prospective employers. Additionally, Gallaudet has a much higher rate of student internship placement as compared to the national average, with the majority of our seniors doing an internship prior to graduation. These internships provide them with hands-on training prior to their transition to careers. Furthermore, the ability for students to have unfettered communication access on our campus gives them the opportunity to be actively involved in student life and organizations, allowing them to develop valuable life and leadership skills that will greatly aid them in the workforce.

Gallaudet is an example of best practices in the use of the most current technologies, as we strive to continue reducing barriers for deaf and hard-of-hearing students. We show the endless possibilities of what can happen when students attend

school in an atmosphere of equal access. This creates an inclusive environment where they can thrive, become leaders and then transition to the workforce. This idea, and the successes of Gallaudet, could be replicated across higher education to achieve greater employment outcomes for students with disabilities.

As a historic institution with a tradition of educating deaf and hard-of-hearing students, Gallaudet University has been successful in preparing our graduates to enter the workforce. We have used the resources given us and produced a valuable return on investment: capable, confident, workers. We are always striving to do even better, and will continue to raise the bar and increase the opportunities for our students. This generation of youth, raised in the era of the Americans with Disabilities Act, will expect nothing less.

Chairman Harkin, Ranking Member Enzi, and distinguished members of the committee. It is an honor for me to appear today to testify on leveraging higher education to improve employment opportunities for people who are deaf or hard-of-hearing. You have my warm thanks, and the warm thanks of people who are deaf or hard-of-hearing for the leadership you have shown on so many issues for this population, and particularly on the issue of employment. I applaud the outstanding leadership of Chairman Harkin and Ranking Member Enzi in promoting the rights of people with disabilities in all aspects of everyday living.

In addition, all of us here at Gallaudet University are also pleased and honored to welcome you to our wonderful campus for this hearing. We continue to be grateful for the ongoing support you and others in Congress have shown to Gallaudet University, and the significant investment you have made and continue to make to ensure that deaf and hard-of-hearing students have the best higher education available that will provide them with entry to significant employment opportunities. We are delighted to share that Gallaudet experience with you while you are on campus today.

My name is T. Alan Hurwitz, and I am the president of Gallaudet University. I have been president of this storied institution since January 2010. Before coming to Gallaudet, I was president and dean of the National Technical Institute of the Deaf (NTID) at the Rochester Institute of Technology (RIT), and also vice-president of RIT. I am fortunate to have had the privilege over many years to be heavily involved in advancing the rights of deaf and hard-of-hearing people as well as people with other disabilities. I have served on the board of many organizations and am past president of the National Association of the Deaf, the World Organization of Jewish Deaf, and the Rochester School for the Deaf.

I strongly believe that Gallaudet University and the National Technical Institute for the Deaf are outstanding examples of a government investment that makes extraordinary use of the Federal resources that each member of this committee works so hard to provide to these institutions.

Allow me to provide a brief review of the long, successful history of Gallaudet University, which will bolster that statement.

In 1864, our congressional charter was signed by President Abraham Lincoln. This is a heritage that we take very seriously and a unique historical distinction that generates great pride at our university. President Lincoln believed in equality of opportunity and stated so—although not within the context of Gallaudet University—as follows in 1861 at the onset of the Civil War.

“This is essentially a People’s contest. On the side of the Union it is a struggle for maintaining in the world that form and substance of government whose leading object is to elevate the condition of men—to lift artificial weights from all shoulders, to clear the paths of laudable pursuit for all, *to afford all an unfettered start and a fair chance, in the race of life.* Yielding to partial, and temporary departures, from necessity, this is the leading object of the government for whose existence we contend.”¹ (Italics added.)

Gallaudet continues, nearly 150 years later, to provide that “unfettered start and a fair chance, in the race of life” to enable deaf and hard-of-hearing students from a variety of backgrounds to receive advanced education, which leads to successful employment.

At the time Gallaudet was created, education for all in America was not fully realized. In 1870, 20 percent of the population of the United States was illiterate while

¹A familiar quote that appears at many locations, including this Lincoln Legacy site of the National Park Service: <http://www.nps.gov/liho/historyculture/legacy.htm>.

80 percent of African-Americans were illiterate.² While literacy figures for people who were deaf and hard-of-hearing are not available for that period, we can be sure that the literacy rate was unacceptably low, perhaps similar to the rate cited for African-Americans. However, deaf education had long been encouraged in the United States, with the founding of the first permanent deaf school in 1817 in Hartford, CT. The subsequent establishment of Gallaudet would provide higher education for deaf students, which would better empower them for the job market.

Today, Gallaudet University enrolls 1,546 undergraduate and graduate level students, and 262 elementary and secondary school students (in the Model Secondary School for the Deaf and the Kendall Demonstration Elementary School respectively), for a total of 1,808 students.³ Many additional students enroll in our English Language Institute and in our Professional Studies programs. With students from nearly every State and over 20 countries, we are an international university serving the deaf population of many parts of the world.

For the record, allow me to include the Gallaudet Mission and Vision Statement.

Mission

Gallaudet University, federally chartered in 1864, is a bilingual, diverse, multicultural institution of higher education that ensures the intellectual and professional advancement of deaf and hard-of-hearing individuals through American Sign Language and English. Gallaudet maintains a proud tradition of research and scholarly activity and prepares its graduates for career opportunities in a highly competitive, technological, and rapidly changing world.—*Approved by the Board of Trustees—November 2007*

Vision

Gallaudet University will build upon its rich history as the world's premier higher education institution serving deaf and hard-of-hearing people to become the university of first choice for the most qualified, diverse group of deaf and hard-of-hearing students in the world, as well as hearing students pursuing careers related to deaf and hard-of-hearing people. Gallaudet will empower its graduates with the knowledge and practical skills vital to achieving personal and professional success in the changing local and global communities in which they live and work. Gallaudet will also strive to become the leading international resource for research, innovation and outreach related to deaf and hard-of-hearing people. Gallaudet will achieve these outcomes through:

- A bilingual learning environment, featuring American Sign Language and English, that provides full access for all students to learning and communication;
- A commitment to excellence in learning and student service;
- A world-class campus in the Nation's capital;
- Creation of a virtual campus that expands Gallaudet's reach to a broader audience of visual learners; and
- An environment in which research can grow, develop, and improve the lives and knowledge of all deaf and hard-of-hearing people worldwide.—*Approved by the Board of Trustees—May 2009*

What is the role of the National Technical Institute for the Deaf and Gallaudet University in preparing students who are deaf or hard-of-hearing for the workforce?

Since its establishment, Gallaudet has built on its mission and vision and has helped deaf and hard-of-hearing people gain employment—the focus of our hearing today. It has led the way for the world in higher education for deaf people. We take enormous pride in the many alumni who have left our university and gone on to prominence, often with a focus in their lives on “giving back” to others less fortunate who were not able to obtain the start Gallaudet provided to them. For example:

- The husband and wife team of Olof Hanson and Agatha Tiegel Hanson were both graduates of Gallaudet, Olof in 1886 and Agatha in 1893. Olof would go on to a highly successful career in architecture and Agatha, one of the first known women to graduate from Gallaudet, during a time when the number of women in higher education was minimal, was a successful teacher of students who were deaf.⁴

² SOURCE: U.S. Department of Commerce, Bureau of the Census, Historical Statistics of the United States, Colonial Times to 1970.

³ Preliminary Fall 2011, 15-day student census numbers.

⁴ Gallaudet University Deaf Collections and Archives.

- Another alumni, Andrew Foster, the first known African-American to graduate from Gallaudet, in 1954, took his education into the workplace and established 31 schools and 2 centers for deaf children in 13 African nations.⁵
- Gregory Hlibok, who graduated in 1989, was named chief of the Disability Rights Office for the Federal Communications Commission in November 2010.
- Sean Virnig, class of 1997, was recently selected as the first deaf superintendent of the California School for the Deaf in Fremont, CA. It is one of the largest schools for the deaf in the country. In his spare time, he runs Rawland Bicycles, a company he started up that sells innovative products that he himself designs.
- Leah Katz-Hernandez graduated in 2010 and is serving as an HSC Foundation Youth Transitions Fellow at the American Association of People with Disabilities.
- Vivienne Schroder, who received both her Bachelor's and Master's degrees from Gallaudet, graduating with her MA in Mental Health Counseling in 2011, is the Dean of Student Life at the Arizona State Schools for the Deaf and Blind.

There are countless similar stories of success of Gallaudet graduates, many of them "firsts" in their own right, each reflecting on our goal of producing well-rounded students who will succeed in life and in the workforce after gaining at Gallaudet the skills and confidence needed to overcome societal barriers.

SUCCESES

As an institution of higher education, we have seen a great deal of success regarding the employment of our students. Gallaudet conducts annual surveys of graduates to determine employment experience, employment fields by occupational category, internship participation, whether the employment involves service to people who are deaf or hard-of-hearing and satisfaction with their preparation. Excerpts of data from the most recent survey indicate the following highlights⁶:

- Of alumni, 98 percent of graduate degree alumni and 82 percent of bachelor's degree alumni, stated they worked either full-time or part-time 1 year after graduation.
- The percentage of alumni pursuing additional education or working full or part-time during the year after graduation increased over the past 3 years.
- Of graduate degree alumni who participated in an internship, 98 percent stated the internship helped them very much or some for employment after graduation; while 71 percent of bachelor's degree alumni said the same thing.
- Of alumni, 95 percent of graduate-level alumni and 69 percent of bachelor's level alumni stated that Gallaudet prepared them for their occupation very well or adequately.
- Graduates were working in an entire cross section of employment areas including the following from the Occupational groups from the U.S. Bureau of Labor Statistics, Standard Occupational Classification: management occupations; business and financial occupations; life, physical, and social science occupations; community and social services occupations; education, training, and library occupations; art, design, entertainment, sports, and media occupations; healthcare support occupations; personal care and service occupations; sales and related occupations; and office and administrative support occupations.

These statistics show the success that Gallaudet has had in preparing our students for the workforce. The resources that are received and used to educate these students are effective at providing our graduates with a bright future in their chosen careers.

While there is a great deal of success with our students, I also want to use this opportunity to identify a number of the barriers our students face and describe how Gallaudet is working to bring down those obstacles, and identify areas of need regarding those barriers in which the committee can be helpful.

NEW OPPORTUNITIES AND PATHWAYS

Providing our students with the means to obtain high quality and well-paying jobs is pivotal to us as an institution of higher education. We want Gallaudet graduates to not only get jobs, but to have fulfilling, enriching careers that will benefit them, and society. We know too well that the "professions" are far underrepresented in the numbers of people who are deaf and hard-of-hearing entering professional schools to gain access to these careers.

One of the goals in the Gallaudet Strategic Plan is as follows:

⁵ Ibid.

⁶ Gallaudet University Annual Survey of Recent Graduates, 2009.

“By 2015, refine a core set of undergraduate and graduate programs that are aligned with the institutional mission and vision, leverage Gallaudet’s many strengths, and best position students for career success.”

As we consider additions to our undergraduate curriculum, let me report on new pathways that we will follow. As a university focusing on the Liberal Arts, we will build in new ways on the strength of what we offer, enabling future students to take advantage of our Liberal Arts education. How can we turn those strengths into theirs? How can we give these students wings to soar?

We are delighted to announce that we are beginning the process of developing four new programs that will better position our graduates to receive advanced degrees and gain professional employment. These programs are:

1. Pre-Law;
2. Pre-Medicine;
3. Pre-Architecture; and
4. Pre-Business.

These programs can transform the lives of students who pursue them. We can offer a significant service to students who will come to us for undergraduate work in the Liberal Arts, Sciences, and Technologies. When they graduate they can apply to graduate schools to enter these rewarding professions. We will have provided programs intended to guide graduates into professional graduate schools.

Imagine the service we can provide to future generations of deaf and hard-of-hearing students. These offerings will raise the educational aspirations of these youthful students throughout the country. How? By raising the expectations of young deaf and hard-of-hearing students, we will instill in them the potential of coming to us, graduating, transferring to a professional school, and then transitioning to work. Imagine the impact!

- More deaf lawyers.
- More deaf doctors.
- More deaf architects.
- More deaf business people.

Our vision is to increase the numbers of deaf and hard-of-hearing individuals in these professional areas, stimulating improvement in their economic well-being and promoting better societal understanding of deaf and hard-of-hearing adults. We will have given wings to future generations of deaf and hard-of-hearing students. What are we giving them? It is the gift of the self-confidence to envision themselves succeeding in these great professions.

These four new programs will do more than just provide our graduates with the skills they need to receive advanced degrees and thrive in highly professional careers. It will show deaf and hard-of-hearing teenagers, and their family and friends around the country, that Gallaudet believes in them and has high expectations of them. Gallaudet knows they can achieve and should aim high. We know that they can become lawyers, doctors, architects, and businesspeople; they can achieve whatever they can dream. We know that people who are deaf or hard-of-hearing are already members of these professional fields; but we also know from personal experience that their numbers are terribly small. These programs will increase those numbers, providing deaf people with high levels of training and skills, and also raising the bar of expectation for these youth.

Let me briefly describe our vision for each of these programs.

- The Pre-Law program will allow this Nation to see a growth in the number of deaf lawyers who will be able to assist both deaf and hearing clients in all aspects of legal matters as they obtain advanced legal knowledge. Rather than limit these individuals to the practice of disability law, we will encourage these individuals to enter all fields in which lawyers ably work—even including politics.

- A Pre-Medicine degree will of course empower our students to become doctors, thus providing multiple benefits by increasing the job options for people who are deaf and hard-of-hearing, by providing the population who are deaf or hard-of-hearing with access to health care provided by these graduates, and finally benefiting the general population who will be served by these individuals.

- A Pre-Architecture program will give students the opportunity to put their visual skills to work as they create and plan the buildings and cities of the future. “DeafSpace” is the concept that begins by describing people who are deaf and hard-of-hearing as inhabiting a rich sensory world that relies on visual and tactile sensibilities for spatial awareness and way-finding. The on-going work at Gallaudet in DeafSpace will provide one of the pillars for the foundation of our Pre-Architecture program. We know the work in the area of DeafSpace, like so many other recent changes initially designed to help a small segment of the population, will in reality

be found to contribute to universal design, and will benefit the larger society. Our Deaf Space Design Guidelines document fills what we believe is a void in the Americans with Disabilities Act (ADA) by providing design guidelines created for deaf and hard-of-hearing individuals.

- Last, our Pre-Business degree will give more of our students the tools they need to continue their education in MBA programs, and then use their entrepreneurial spirit to begin their own companies or become recognized industry leaders.

It is our intention that all of these programs will provide our students with the opportunity to participate more fully in the American dream through economic empowerment.

Gallaudet understands these programs and other potential new programs cannot be optimized by standing alone; for that reason, we are leveraging our relationship with the Consortium of Universities of the Washington Metropolitan Area, which we intend will allow us to offer some of these, and other, programs jointly with those other universities. This collaborative effort is expected to allow each respective institution to provide their respective skills and knowledge in ways that utilize each one's strengths. Through course offerings on our own campus, as well as at other schools in the Consortium, our students will be able to receive the best education and training in these fields.

BARRIERS TO PROFESSIONAL EDUCATION

At the same time, we are aware of significant barriers to entry to professional schools. We do not doubt the capabilities of our students to succeed in these programs, but we are well aware of the added cost—particularly in the provision of access to communications, usually through interpreters or real-time text services—which will continue to prevent the entrance of qualified students to these graduate programs. Unfortunately we do not have a ready answer for the committee, but certainly we do pledge to work with the committee on solutions which may resolve these barriers.

BARRIERS TO HEALTH CARE CAREERS

Gallaudet is proud to be a partner with the National Technical Institute for the Deaf, the Rochester General Health System, and the University of Rochester Medical System in the “Task Force on Health Care Careers for the Deaf and Hard-of-Hearing Community” which was formed in June 2010. The description of this group below is taken from their interim report delivered in June 2011. [I will provide a copy of the report for your review and consideration].

“The Task Force mission is to provide recommendations that will increase career opportunities for Deaf and Hard-of-Hearing individuals in health care professions. Such professions include those positions typically requiring associate degree level training through those requiring graduate and professional education in a variety of health care fields (including medical and pharmacological technologies, clinical care, research, administrative and IT support). The Task Force was created in response to a national demand for more skilled health care professionals, a need to improve the quality of health care services for underserved citizens who are D/HH, and an acknowledgment of the significant employment barriers that exist for qualified D/HH individuals in the health care industry. The Task Force also supports and furthers current Department of Labor goals that focus on increasing employment and career advancement opportunities for all workers and professionals with disabilities.”⁷

The Report recognizes that unemployment is particularly high among the deaf and hard-of-hearing population at a time of acute shortages in health professions. The report also highlights several compelling needs and includes several short-term recommendations for addressing these needs. Those recommendations are provided in the following five areas, quoted from that report, which provide information on barriers to success in this field. The five areas are:

1. **Develop and implement a coordinated plan of information dissemination** regarding health care careers and needed academic preparation for deaf and hard-of-hearing students and their parents, educators and other professionals working with deaf and hard-of-hearing individuals, gatekeepers in educational institutions, and health care employers.

⁷“Building Pathways to Health Care Careers for the Deaf and Hard of Hearing Community,” unpublished Interim Report, Short-Term Recommendations, Task Force on Health Care Careers for the Deaf and Hard-of-Hearing Community, June 2011.

2. **Enhance educational curricula and training programs** to assist deaf and hard-of-hearing individuals in preparing for and obtaining employment in health care professions.

3. **Adapt existing employer training programs** to address health care organizations' ability to support the success of deaf and hard-of-hearing employees and ensure that such modified programs are available to a broad spectrum of current and prospective organizations that employ or could employ deaf and hard-of-hearing health care workers.

4. **Promote improved access services for deaf and hard-of-hearing individuals** within school and workplace settings by supporting the identification and development of best practices with respect to specialized interpreting for deaf and hard-of-hearing individuals in health care fields and the increasing array of available technological applications.

5. **Initiate contact with relevant local, State, and Federal agencies** to inform them about the Task Force goals and recommendations and, as appropriate, ensure that the language of "eligibility criteria" for specific funding opportunities relevant to Task Force recommendations is inclusive of deaf and hard-of-hearing individuals and the institutions that serve them.

While many of these activities can, and will, be supported and put into place by the four sponsoring institutions, there are others which are dependent on outside assistance, such as the HELP Committee, for support. This Task Force has been funded primarily by Gallaudet and NTID, with the funds supporting regular travel to meetings, faculty and staff time for the 28 members and support staff, and travel costs for the voluntary appearances of many outside professionals at Task Force meetings. When the group completes its assignment in several months, the internal funding will no longer be available, and the implementation of its recommendations will be left to those four institutions to fund; assistance of the HELP Committee could make a difference in the completion of this work.

I would like to highlight two related issues that can be addressed through congressional action.

- First, the report highlights the need to maximize information dissemination about career opportunities in the health care fields to deaf and hard-of-hearing students and their parents and to expand and improve the pipeline for such individuals to appropriate educational opportunities and from education to careers in the health care fields. Too often, deaf and hard-of-hearing students have not enjoyed opportunities to work in health care as volunteers, interns, emergency service workers, nor have they had opportunities to shadow and be mentored by professionals in health care fields like others have experienced. I request that you and your staff work with the Task Force to ensure that our deaf and hard-of-hearing students qualify for Federal diversity training programs such as Area Health Education Centers and explore options to provide career exploration opportunities and information about career opportunities to deaf and hard-of-hearing students comparable to those provided to minority and disadvantaged students under existing programs.

- Second, the report highlights the need to promote accessibility and technological solutions that ensure meaningful and effective access. In order for deaf and hard-of-hearing students to enter the "pipeline" to educational programs and achieve ongoing career success, they must be able to access information and instructional processes required to achieve desired goals. While access to education and employment opportunities, especially the use of sign language interpreters, are required by the ADA and Section 504 of the Rehabilitation Act, the reality is that lack of access continues to hinder deaf and hard-of-hearing individuals from entering into and succeeding in health care fields. I request that you and your staff work with the Task Force to identify Federal programs that will allow the deaf and hard-of-hearing community to establish information clearinghouses and adopt other strategies to provide information to health care providers about access and technological solutions that facilitate access and accommodation in health care fields and create opportunities for replication of best practices.

BARRIERS TO CAREER ADVANCEMENT INTO MANAGEMENT

We are all aware of various "ceilings" that prevent the advancement of one or another group into management or prevents the movement from lower management into upper management. People who are deaf or hard-of-hearing face similar barriers.

Gallaudet is developing a program, the Masters of Public Administration (MPA) degree, specifically designed for one segment of this population—deaf and hard-of-hearing individuals working in public and non-profit sector organizations.

The program is especially appropriate for deaf and hard-of-hearing professionals working in Federal Government agencies. The faculty working on the development of this program have worked closely with, and have the support of, the Federal Office of Personnel Management's Eastern Management Development Center (EMDC) in Shepherdstown, WV. We are working to create a collaborative relationship between EMDC and the Masters of Public Administration program that would allow MPA students from the Federal workforce to take their elective courses through the EMDC.

Once approved and offered, we believe this program will prepare individuals who are deaf and hard-of-hearing who work in public sector organizations to lead with a sense of direction, to focus on results, to develop others' capability to perform, and to serve with integrity.

Once this program is approved, we would appreciate the opportunity to turn to the HELP Committee for advice and counsel on ensuring that Federal employees who are deaf and hard-of-hearing have the opportunity to participate in this offering.

What training and opportunities are available for students of these two schools to facilitate the transition from school to work, and promote economic self-sufficiency?

An understanding of our student body will be helpful in understanding what we do regarding transition from the university to work and regarding promoting economic self-sufficiency.

Our 99 acres in northeast Washington, DC are a microcosm of American society. We have students with a variety of backgrounds, who come from across the Nation, and the world, to attend our University. Just as American society has experienced challenges throughout our history and emerged better and stronger, our school has as well, because of the challenges that deaf and hard-of-hearing students face on a daily basis.

One of these challenges has been to address paternalism and low expectations. Low expectations lead students to believe they are not capable and discourages them from reaching their full potential. The impact is felt while at the university, during the transition to work, and while fully at work. At Gallaudet, we constantly strive to address these issues, and continually increase what is expected of our students. We have raised our admission and academic standards. For example in 2006 we had 31 percent of our students whose English levels required their placement in a "conditional" status; by 2011 that number had dropped to 16 percent. In 2006 our average ACT English score, math score, and reading score were 14.0, 16.9, and 16.8. By 2011 those three scores had risen to 17.6, 17.9, and 19.7.

Furthermore, as the caliber of students who are enrolling has risen, our graduation rates have improved, as has persistence. For example, our retention from year 1 to year 2 rose from 54 percent in 2006 to 70 percent this year. Increasing our standards has not led to decreasing enrollment, showing that if we have high expectations for the Nation and the world to see, deaf and hard-of-hearing students will rise to the challenge.

As the Nation's school placement of deaf and hard-of-hearing students, mainstreamed compared to attendance at a State school for the deaf, evolves, Gallaudet finds that students are coming here with a wide variety of educational background and communication languages. A larger percentage of our undergraduate students come from mainstream schools than in the past; for example, 4 years ago 68 percent came from schools for the deaf, and that number is now 56 percent. The same is true for students who transfer to Gallaudet from other colleges. Many of these new students do not know American Sign Language.

Gallaudet is a bilingual institution, and we provide these students the tools to become bilingual through innovative programs like JumpStart and the New Signers program. Our intention is that all of our students can become fluent in both American Sign Language and English. We are also witnessing an increasing number of Deaf Blind/Low vision students attending our university. Furthermore, the percentage of students of color as a part of the total student population is on the rise.

It is clear that Gallaudet has been very effective in serving a very diverse population of students while continuing to raise our admission and academic standards. These students represent the future workforce of our country.

FACILITATING THE TRANSITION THROUGH A CAREER CENTER

The Gallaudet University Career Center is a service unit that supports our commitment to the education of our students and employers about how to work with individuals who are deaf and hard-of-hearing. It accomplishes its mission by providing students, alumni, employers, faculty, and staff with expert advising, leader-

ship in experiential education, current information and resources, and networking opportunities on and off campus, as well as on-line.

Staffed by career services professionals, information is shared both within the university and between students and employers at career events such as Job Fairs. In fact, while this hearing is occurring, our Career Center is sponsoring a job fair on campus to place students with companies who are here seeking employees. This is always an exciting time on campus, as the transition from the university to work is on the minds of our students. We also provide facilities that allow students to research participating employers in advance, as well as view on-line employer profiles, which provide information like available positions and majors recruited by the company.

Employer information sessions offer students a convenient way to learn about prospective employers and start building relationships with key recruiting contacts. On-campus interviews are commonplace. A “professional network” allows students to find a professional mentor who can provide career advice and insight from our database of alumni mentors and volunteer career advisers.

Workshops are offered throughout the year on topics like mock interviews and appropriate business attire to help students develop and refine career-related skills.

FACILITATING THE TRANSITION THROUGH INTERNSHIPS

A strength of Gallaudet in providing employment opportunities for our students is our placement of students into internships. The Career Center reports that 80 percent of graduating seniors completed at least one internship prior to graduation, much higher than the national average of 52 percent. Gallaudet uses internships to provide our students with on-the-job, hands-on experience. This gives them the skills they will need that will greatly aid them in their careers.

Allow me to illustrate with details of some Gallaudet student internship experiences.

- Krista Brown, from Illinois, did an internship at the Sidwell Friends Academy in Washington, DC, where she assisted in teaching a class of 24 first graders. Originally, the students did not know how to work with an interpreter, but eventually they learned how to communicate with Krista, and that was an enriching experience for them. In the future, Krista would like to open a charter school in Chicago, IL.
- Leila Hanaumi, from California and our student witness today, did an internship as a reporter with the Deaflympics in Taipei, Taiwan in 2009. She is also currently interning with a professor at Gallaudet, working on starting a new company.
- Dylan Hinks, also from California, landed a prestigious internship with the American Association of People with Disabilities this past summer. He was the AAPD fellow in the office of Congressman Ed Markey.
- Briana Johnson of Georgia, did an internship through Gallaudet’s Capitol Hill Internship program, in the office of Senator Sherrod Brown. Briana assisted with constituent correspondence, and her experience inspired her to want to attend law school in the future.
- Robert Siebert, from Minnesota, did an internship with the Gallaudet Administration and Finance Internship program in the summer of 2010. He worked with the associate director of Real Estate Development in the Program Development office. This past summer, he was an intern with Volkswagen in Herndon, VA.
- Rami Traurig of Maryland did an internship with the James Madison University’s Department of Chemistry’s Research Experience for Undergraduates program. The REU program is sponsored by the National Science Foundation. As an intern, Rami, a biology major, assisted with collecting and analyzing water samples from areas in the Shenandoah Valley and the George Washington National Forest.

These students are well on their way to becoming successful in their careers, just as Mike Ellis and Seth Bravin—both witnesses today—and so many other Gallaudet alumni.

We recently initiated a Capitol Hill Internship Program that places Gallaudet students in Federal offices, particularly with Members of Congress. These programs allow deaf and hard-of-hearing students to gain valuable job and life experience as well as gaining a crucial understanding of how our government functions.

Placing our students in internships not only provides them with crucial job training, it educates employers about the capabilities of deaf and hard-of-hearing people. One of the barriers to employment for deaf people is that employers and the public in general often have low expectations and negative stereotypes about the abilities of deaf people. We place our students in internships to show that they are capable and competent and can thrive once given the opportunity. Our students, through internships, break down the misconceptions held about deaf people.

In addition to internships, Gallaudet University provides a variety of study-abroad options for students, which allows them to develop an appreciation of the shrinking global environment in which we now work and live.

FACILITATING THE TRANSITION THROUGH OTHER VENUES

Gallaudet understands that providing academic support and internship opportunities are crucial to successful future employment. But there are many other skills that must be developed outside these venues that will allow our students to compete successfully in the workplace. These skills involve working in teams, making real-life decisions that impact themselves and others who work with them, interacting with and learning from people different from themselves in non-controlled environments, and obtaining leadership experience.

These characteristics are the hallmark of the Gallaudet experience unmatched anywhere in the world.

- Through student organizations, our students can thrive in an environment where each one can experience unfettered communications with one another and one where they can become leaders, organizers, and follow their dreams and initiatives to make the world a better place. Deaf and hard-of-hearing students at Gallaudet can become club presidents, editor of the newspaper, and president of the student government association. If these same students attended another university, their opportunities for such experiences would be limited dramatically. These experiences in leadership roles will help our graduates become leaders in their employment and in the communities in which they live.

- As mentioned earlier, study abroad programs give students the opportunity to broaden their horizons and better understand the world. Our First Year Study Tour provides this knowledge early in their university experience.

- Our athletic programs allow students to grow as well, as they work hard, both on and off the field, to achieve great things. The opportunities for leading as team captains would be non-existent or very limited at other universities.

These student life activities provide students with valuable life skills that will aid them in succeeding in the workplace. Higher education is not only valuable for classroom time, but what is learned outside of that space is incredibly important. Surely as former college students ourselves, we can never forget the late night discussions in dorm rooms, student body government meetings, and spontaneous debates in hallways. These are possible only in an environment where students are given the opportunity to gather and directly communicate with each other and learn the joys, and yes, the frustrations of becoming responsible adults and civic partners of our Nation.

As you can see, Gallaudet University prepares students for the employment world in a myriad of ways. From classroom learning that provides them knowledge and information, to social and leadership opportunities that supplies them with life skills, and internships that give them hands-on experience, Gallaudet makes it possible for deaf students to enter the workforce and have successful careers. Those opportunities will only increase as Gallaudet continues to innovate and grow as, for example, the establishment of our four new “pre-” programs demonstrate.

Are there any communications technologies used by NTID and Gallaudet University that have broader societal use and application?

Gallaudet has long been a leader in using up to date technology to enhance the experience of our students. Tools like CART, VRS and other technologies provide access to those attending Gallaudet, and are efforts that other universities could learn from, in order to better provide access to their students and employees. As we serve a variety of students, from those who primarily use visual language, to those who mix both visual and auditory communication, Gallaudet has expertise in the best technological practices for this population. We can educate employers on the technologies available in order to assist them in hiring deaf and hard-of-hearing people.

For example, we have the Technology Access Program (TAP) that researches communication technology for the benefit of industries, the government and deaf consumers and seeks to provide equity in communications for deaf and hard-of-hearing people. Additionally, there is often informal experimentation taking place among Gallaudet students, faculty and staff, with smartphone applications and other technologies that will provide more access and better employment opportunities for our graduates.

With the advent of new technologies, many barriers that previously existed for deaf students are evaporating. Textual communication is becoming a large part of the world, as texting, email, instant messaging and social media have become frequent means of communication. Furthermore, the ADA helped video relay services

to flourish, breaking down more barriers to employment of deaf people. Our graduates are entering a world where employers are learning that familiar technology—well beyond the constraints of email—exist and can remove barriers to working with deaf and hard-of-hearing employees. This technology allows employers to concentrate on hiring and work practices that can, if used properly, significantly reduce barriers to employment and advancement. However, it is the existence of stereotypes which are much more difficult to erase.

These technologies do much more than simply allow people to communicate with one another; social media in particular, provides tools for people to be considered as equals on the Internet. The stereotypes that exist when people encounter each other face-to-face disappear when they interact with one another in this medium. Take for example a deaf intern who is not readily able to participate in impromptu hallway conversations with co-workers and thereby misses out on the social lubricant that helps the gears of work run smoothly. Through textual communications and social media however, the deaf intern is able to forge a bond with fellow co-workers through common-shared interests whether it be sports, clothes, the arts, and even music. It is through this social lubricant conducted through the electronic medium that will further facilitate the face-to-face interaction between this deaf intern and fellow co-workers in ways that were simply not possible before.

What practices can be replicated across higher education for better inclusion of individuals with disabilities to better prepare them for the workforce?

Gallaudet serves as a living example of how an institution of higher education can specifically address the needs of students whose abilities are different from that of a large segment of our population. Our programs are specially designed to serve this population, as is wisely mandated by the Education of the Deaf Act. At Gallaudet, inclusion happens in the fullest sense in that our students face no barriers in participating in all aspects of university life. It is through this collegiate experience that our students gain the knowledge and confidence necessary to succeed once they earn their degree and depart the world of academia.

At the same time, we are very well aware that this kind of experience is a “once in a lifetime” opportunity. Hence, we provide all the tools to prepare them for inclusion in the larger world of work. This is done through internships, offering of consortium courses, participating in classroom activities that engage outside participants and the neighboring community, having them compete against their non-deaf peers in events such as mock trials to see how they measure up, and so on.

Gallaudet University serves as an example of a public-private partnership that truly works. It is through the investment of Federal dollars and the prudent management of these resources that we are able to provide a program that meets the national mission. It is in this spirit that the Federal Government should consider how this type of arrangement can be expanded to serve others with disabilities in higher education settings. Just like the fact that not everyone who is deaf chooses to go to Gallaudet, not everyone who has a specific disability would choose to go to a certain college. But imagine if you will, for example, that blind college students could choose to attend an institution that had the Federal support to develop an environment that minimizes or removes barriers for blind people. These blind students would not have to spend a great deal of their time worrying about accommodations that are rightfully theirs. Rather, they would be better able to focus on their educational experience, knowing that access is readily achievable anywhere, anytime.

It is also important to recognize that Gallaudet is pleased to offer a strong research base at our university. Another of the goals of our strategic plan is to become: “the epicenter of research, development and outreach leading to advancements in knowledge and practice for deaf and hard-of-hearing people and all humanity.”

We want to lead in research which will lead to better understanding of deaf and hard-of-hearing people, ultimately resulting in better employment. One example is the Visual Language, Visual Learning (VL2) program at Gallaudet. Funded by a competitive grant from the National Science Foundation, this program, one of six Science of Learning centers, conducts cognitive scientific research into how deaf people develop language and literacy, in order to better understand how everyone, deaf and hearing, learn visually. Understanding how a minority processes the world can benefit society, as evidenced by VL2. This concept could be replicated for higher education for other populations; analysis of their capabilities could provide information about the human experience.

FINAL COMMENT

In many ways, today's Gallaudet students possess greater awareness and confidence in succeeding in the world of work as compared to past generations of stu-

dents. When I stand on the stage in May 2012 performing what is indeed the greatest joy of any university president, the conferring of degrees, I will be handing degrees to many undergraduate students who were born after the passage of the greatest civil rights legislation for people with disabilities in the history of our Nation. These students have grown up in a world where the paradigm of having a disability is not an abnormality to be ashamed of, but a difference to be embraced and valued. They are what I call the ADA generation. This ADA generation is not reserved exclusively to those who are considered disabled by others, it is a generation of all young Americans who share the same hopes and desires to achieve the American dream. This is why I am confident that although barriers continue to exist, the future has never been brighter for those who are deaf or hard-of-hearing. I have been fortunate to be in a profession where I talk to young adults on a daily basis and get a glimpse into the future of our country and I know that the ADA generation will help forge a more equitable workplace for disabled people as they advance into positions of leadership.

The Gallaudet Middle States Accreditation report in 2000 states that many institutions say that they have mission, but Gallaudet truly has a mission. We accept deaf and hard-of-hearing students with a broad range of academic experiences and abilities. Unlike other institutions that accept students within a narrow bandwidth of academic skills as indicated by their standardized test scores, our top students scores are as much as twice as high as those in the low end of the range. Those who are not as fortunate as others and have scores that reflect it, have experienced low expectations from others, received substandard education, and encountered barriers on a daily basis that impede their learning opportunities. Because of Gallaudet's unique mission, we have the programs, the people, and the tools to help these students succeed and find employment. At the end of their Gallaudet experience, each student that stands on the stage with me and receives their degree is equal to another, regardless of where they started at Gallaudet. Each one will enter the world with a hard-earned college degree that is their license and pathway to gainful employment. This is Gallaudet's mission and one we accomplish well.

As was written by President Lincoln 150 years ago, the government exists to "... to lift artificial weights from all shoulders, to clear the paths of laudable pursuit for all, to afford all an unfettered start and a fair chance, in the race of life."

This is just as true today as it was when Lincoln penned these words in 1861. Gallaudet is proud to be a partner with the U.S. Government in providing the foundation for success that each student require in order to have meaningful careers and fulfilling and enriching lives.

The CHAIRMAN. Thank you. Thank you.

[Applause.]

Thank you, Dr. Hurwitz.

And now we will turn to Dr. Buckley. As I said, your statement will be made a part of the record in its entirety, and you can just sum up.

Thank you.

STATEMENT OF GERARD J. BUCKLEY, Ph.D., PRESIDENT, NATIONAL TECHNICAL INSTITUTE FOR THE DEAF, VICE PRESIDENT AND DEAN, ROCHESTER INSTITUTE OF TECHNOLOGY, ROCHESTER, NY

Mr. BUCKLEY. Mr. Chairman, Senator Enzi, thank you very much for the opportunity to share and discuss the importance of employment outcomes for deaf and hard-of-hearing students.

We are honored to be a part of this historic occasion, and we salute Gallaudet University for hosting this event. And we look forward to a long partnership with Gallaudet and working with you to [inaudible].

I would like to describe our program at NTID. We are a little bit different than Gallaudet University. We are established on the mainstream campus with 1,354 students. Fourteen percent of our students are from the West, and 45 percent are from the Midwest.

Twenty-two percent are from the South. Thirty-nine percent are from the Northeast.

We have students from 49 States. I am working on Montana still. We are missing one. I apologize. Seventy-two percent of our students are first-time college students. But 20 to 25 percent are transfers from other colleges where their needs have not been met, and then they join our community.

Most of our students are from mainstream programs. Twenty-three percent of our students are cochlear implant users. Twenty-nine percent of our students are from minority backgrounds, and 11 percent of our students have secondary disabilities.

The RIT campus has become a model of communication accessibility for deaf and hard-of-hearing people in this Nation, with 120 full-time interpreters and 55 captioners. The number of hearing students enrolled in ASL classes at our campus has gone up 4 times in the last 5 years. We now have 2,200 hearing students on our campus studying sign language.

For the second time in recent history, the RIT hearing student body, along with the deaf student body, has elected a deaf student to be the president of the student government. Deaf and hard-of-hearing students on our campus are part of the rich diversity of our campus that prepares the American workforce for the future.

A fundamental reason that NTID has been successful is that we have remained focused on our primary mission, which is to prepare young people for employment in the world of work. Everything we do at NTID is driven by the need to prepare students for successfully competing in a global economy. We work closely with employers all over the Nation to achieve this goal.

RIT is one of the Nation's leading career-oriented universities that is seeking to prepare the next generation of America's workforce in the technical areas and the professional areas, and NTID's role is to make sure that deaf and hard-of-hearing people fully participate in that preparation.

One way that RIT prepares students for the world of work is through our cooperative education experience, which is required for students to go out and work as part of their education program. All students are required to go out for 10 weeks and work in the workplace. They recognize their areas in need of improvement and come back to the campus and work on those before they graduate.

Every year, we have 200 to 250 deaf students go throughout the Nation working in co-ops throughout the country, and we are very proud of them. We also have faculty that follow up with them and visit them on the work site in order to get feedback for how we can improve our academic programs on the campus.

Today, there are many Gallaudet students here. But today, I am proud to introduce two students from NTID who join me.

Maya Ariel is a business administration management major from New Jersey who is also a very talented actress. Marvelous. She recently completed her first co-op at the U.S. Department of Agriculture this summer in the marketing area, and she recently has accepted a co-op in Indiana this summer with Dow Chemical Corporation.

The second student here is Hannah Worek. Hannah is a criminal justice major from Rochester who aspires—who will go to law

school when she graduates. She is a student athlete. She also is the 13th member of her family to attend RIT/NTID. We are very proud of her. This summer, she worked for a property management company in New York City and reported directly to the CEO.

If these two students look familiar, it is because these students appeared on the ABC program called "What Would You Do?" this past December. It was shown again during the summer. It was an 8-minute segment in the show where the students were hired as actors to go in and apply for a job at a coffee shop. The manager of the coffee shop said, "I am sorry. We don't hire deaf people here."

The intent was to see if the customers in the coffee shop would object. Sadly, very few people objected, despite the blatant discrimination. What was even more of concern was that several HR professionals who were in the coffee shop as customers actually were witnessed giving advice to the boss of that coffee shop on how to discriminate legally.

NTID is using the ABC experience to educate employers, HR professionals, and our students about the reality of workplace discrimination, prepare them for the future. Tonight, we are returning back to Rochester, where tomorrow we will be hosting our 11th annual employer job fair, with more than 40 companies from throughout the United States that are coming to campus to interview our students, including Apple Computer, Cisco, Sprint, and IBM.

The committee has asked us what practices should be replicated related to workforce inclusion. Our experience at NTID suggests six critical areas—outreach to employers to make sure they are prepared to work with and provide accommodations to deaf and disabled individuals. Regular interaction with employers to make sure that they know what skills the students have and also that the academic programs that are serving disabled individuals are matching the demands of the workplace world.

We must encourage a spirit of innovation in our young disabled community citizens so they are prepared to compete for the world of work.

We must continue to do more outreach to middle schools and high school students to prepare them to compete in the science, technology, engineering, and math. The research shows very clearly that if our students earn a degree in that area, the gap between them and their nondisabled peers is lessened.

We must encourage more collaboration, as Gallaudet University and NTID have committed to working together, to improve the employment picture for deaf people in the future.

We must continue to support and demonstrate the return, the ROI, the return on the investment in support from the Government. We know through our research studies, it is very clear that graduates are less dependent on the Federal programs, such as SSI, SSDI. We also know that our graduates return many times the investment the Federal Government has made in them through the form of taxes they pay throughout their careers.

Thank you for the opportunity to share what we have learned at NTID about how to employ—how to improve employment outcomes. We are deeply appreciative at NTID of the support we receive from Congress. We are committed to maintaining our focus on enhancing the employment picture for deaf people in the future.

Thank you very much.
 [The prepared statement of Mr. Buckley follows:]

PREPARED STATEMENT OF GERARD J. BUCKLEY, PH.D.

SUMMARY

In the 1960s, it became apparent that an institution with a technical and professional emphasis was needed for people who were deaf and hard-of-hearing. In 1965, Public Law 89-36 established a National Technical Institute for the Deaf (NTID). The Rochester Institute of Technology (RIT) was chosen as the host institution for NTID, and the first 70 students were admitted in 1968. This fall, NTID's enrollment is higher than it has ever been, with 1,547 students—1,354 of which are deaf or hard-of-hearing.

Flexibility informs every aspect of NTID's preparation of students for the workforce—flexibility in terms of academic programs, communication preferences, support services, and professional experiences. Students can complete a technical associate degree at NTID, enter an associate + bachelor's degree program, or complete baccalaureate or graduate degrees at RIT with the support of NTID access services. Those access services include faculty tutors, advisors, note takers, captionists, on-site audiologists, and speech-language pathologists, as well as the largest staff of full-time interpreters of any college in the world.

RIT/NTID's focus on career education and preparation for career success through experiential learning and cooperative work experiences provides key advantages for deaf and hard-of-hearing students in securing employment after graduation. Cooperative work experiences, or co-ops, are an integral part of academic programming at NTID. Employment specialists at the NTID Center on Employment assist students in securing 10-week work experiences that augment their studies. NTID's annual Job Fair is in its 11th year and has grown from featuring 17 employers to over 40 employers, specifically recruiting deaf and hard-of-hearing graduates. The NTID Center on Employment identifies new employers with which to build relationships by networking and exhibiting at human resources conferences, using the community and professional contacts of parents of new NTID students, helping alumni encourage their employers to recruit from NTID, and inviting companies to visit campus, meet our students, and learn about the technical programs we offer and skills we are developing. The NTID Center on Employment also initiates and delivers consultation, training, followup and other support services to employers. Through these services, employers become aware of the needs of deaf and hard-of-hearing people and facilitate graduates entering the workforce.

Students are also encouraged to engage in innovation and research. Following RIT's leadership in this area, NTID is increasing its emphasis on innovation and creativity, both in the curriculum and in other activities across campus. Last year, NTID awarded to faculty and staff innovation grants related to student services or scholarship/research projects, requiring them to include students as active team members. NTID faculty, staff, and students participate annually in Imagine RIT, an innovation and creativity festival that is attended by over 30,000 people.

Changes at RIT also help NTID remain dynamic as the premier technical institute for the deaf and hard-of-hearing. RIT's expertise is focused in the science, technology, engineering, and math (STEM) fields, and it has recently added a College of Health Sciences and Technology as well as the Golisano Institute for Sustainability. To support these technical fields of study, RIT's campus strives to offer state-of-the-art equipment and facilities.

NTID's model has been successful. Over the last 5 years, our job placement rate for graduates is 90 percent. Research conducted using Social Security Administration and Internal Revenue Service data indicates deaf and hard-of-hearing graduates from RIT/NTID have higher employment rates and higher earnings than deaf and hard-of-hearing students not graduating from RIT/NTID. By age 50, deaf and hard-of-hearing bachelor degree graduates from RIT/NTID earn on average \$6,021 more than those with associate degrees; who in turn earn \$3,996 more on average than those who withdraw; who earn \$4,329 more than those who are not admitted.

Communication technologies that facilitate communication for and with people who are deaf and hard-of-hearing are just as much for the general hearing public as they are for deaf students and graduates in that they foster communication between both groups. C-Print is a speech-to-text captioning system developed at NTID, as a communication access service option for deaf and hard-of-hearing students in educational environments. This technology has not only provided access to students who are deaf but also serves to reinforce materials presented in classrooms for those who hear. Presently, the NTID Center on Access Technology is working with various

companies to develop devices that will use off-the-shelf technology to create innovative applications for people who are deaf that might have broader applications as well.

Despite all the employer outreach NTID initiates, there continues to be prejudice and ignorance about hiring and working with deaf and hard-of-hearing individuals. NTID will continue to conduct outreach to employers to help them understand hearing loss, accommodate deaf and hard-of-hearing employees, and ease communication. Other challenges continue to be ensuring that NTID students, like hearing students, keep pace with the changing job market and technical skills needed in the workplace. RIT and NTID work to address those challenges by creating new academic programs in “hot job” categories, using employer feedback to tweak existing academic programs, and making sure equipment and facilities continue to be state-of-the-art. Appropriate academic preparation for college is another challenge for some deaf and hard-of-hearing students. NTID tries to improve that preparation through its outreach programs that connect with middle and high school students and alert them to what they need to do to prepare for college and career success.

The extensive employer outreach and education that the NTID Center on Employment does on behalf of students who are deaf or hard-of-hearing could be replicated by other institutions on behalf of students with disabilities in general. Requiring a co-op experience is a practice that other higher education institutions could also adopt to better prepare students, with or without disabilities, for the workforce. Finally, the outreach NTID conducts at the pre-college level could be used at other postsecondary institutions to help prepare and generate interest in young people with disabilities for college and the workforce.

Mr. Chairman and members of the committee, I am pleased to present the following invited testimony regarding the topic of “Leveraging Higher Education to Improve Employment Outcomes for People who are Deaf or Hard of Hearing.”

BACKGROUND

In the 1960s, it became apparent that an institution with a technical and professional emphasis was needed for people who were deaf and hard-of-hearing. In 1965, Representative Hugh Carey and Senator Lister Hill introduced the companion bills that would become Public Law 89–36, signed by President Lyndon B. Johnson, establishing a National Technical Institute for the Deaf (NTID). Over 20 postsecondary institutions expressed an interest in being the sponsoring institution for NTID, with eight submitting formal proposals. In 1966, the Rochester Institute of Technology (RIT), founded in 1829, was selected for being the only institution meeting all of the mandated requirements. RIT had a national reputation for its technical programs, a history of incorporating cooperative work experiences with education (since 1912), existing partnerships with business and industrial leaders, and connections to deafness through its own past admittance of deaf students, several of whom had graduated from the nearby Rochester School for the Deaf.

RIT/NTID first admitted students, 70 of them, in 1968 and graduated its first class of 54 students in 1971. I began my academic career at NTID in 1974 and went on to graduate with a B.S. in Social Work from RIT in 1978. I then went on to complete a Master's in Social Work at the University of Missouri and a Doctorate in Special Education at the University of Kansas. I spent 10 years heading Gallaudet University's Regional Center at Johnson County Community College in Kansas before returning to my alma mater as a faculty member and administrator. In January of this year, it was my honor to become NTID's first alumnus president. I have also served in the past as president of the American Deafness and Rehabilitation Association and a member of the National Advisory Board of NIH's Institute on Deafness.

OUR STUDENTS

Much has changed since that first group of 70 students came to NTID. This fall, NTID's enrollment is higher than it has ever been, with 1,547 students—1,354 of which are deaf or hard-of-hearing. This fall's enrollment includes students from 49 States and 19 foreign countries.

More of our students are coming from mainstream high schools, and we have seen a dramatic increase in the number of students enrolling with cochlear implants—from 75 students (6 percent) in fiscal year 2002 to 305 students in fiscal year 2011 (23 percent). Similarly, our students are increasingly ethnically diverse, with 29 percent of them from minority backgrounds (up from 25 percent in fiscal year 2007). Over the last decade, we have also seen an increase in the number of students with

secondary disabilities. They represented 11 percent of the student population in fiscal year 2011 compared to 5 percent in fiscal year 2000.

RIT and its hearing student population have also changed as a result of having NTID students on campus for the last 43 years. RIT's total enrollment this fall is 17,652 students. Those students are represented by RIT Student Government, whose current president is Greg Pollock, a former NTID Student Congress President and deaf student pursuing his bachelor's degree in professional and technical communication. This year and last year, Greg was the only student to give a speech at the RIT Convocation for New Students and Families, which he did in American Sign Language or ASL (with voicing and captioning provided by NTID Access Services staff). Many RIT students become interested in ASL as a result of NTID. The number of students taking ASL has more than tripled at RIT over the past 4 years—this year, 2,193 students enrolled in ASL classes in just the fall, winter and spring quarters. RIT students organize the No Voice Zone, where they meet regularly (often in late evening) to teach, laugh and learn about deaf culture. Another example of the integration of NTID within RIT is the opening of the RIT American Sign Language and Deaf Culture Community Center last year, right in the center of campus at RIT's Student Alumni Union.

FULFILLING OUR MISSION

Flexibility informs every aspect of NTID's preparation of students for the workforce—flexibility in terms of academic programs, communication preferences, support services, and professional experiences. Students who are deaf or hard-of-hearing can be admitted directly into baccalaureate degree programs at RIT, while receiving all the support and access services NTID offers. They can enter pre-baccalaureate programs individually tailored to prepare them for entry into baccalaureate degree programs or enroll in the associate + bachelor's degree program. Students can also pursue associate degrees in various technical programs. RIT also offers a variety of Master's and Ph.D. programs, should NTID students wish to continue as graduate students.

Regardless of degree program, deaf and hard-of-hearing students enrolled at NTID or supported by NTID as they pursue a degree at RIT are able to take advantage of myriad access services designed specifically for them. There are faculty tutors, advisors, note takers, and captionists, as well as the largest staff of full-time interpreters of any college in the world. On-site audiologists provide services related to hearing and hearing aids, cochlear implants and FM systems. Speech-language pathologists offer a broad range of speech and language services. 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.

Cooperative work experiences, or co-ops, are an integral part of academic programming at NTID. Employment specialists at the NTID Center on Employment assist students in securing 10-week work experiences that augment their studies. Employment specialists or faculty members visit many students and their supervisors at their co-ops to assess progress and resolve any workplace issues. Most academic programs require one to three cooperative assignments. For example, RIT's Student Government President Greg Pollock worked in the Public Affairs Department of Dow Chemical's Business Services Group in Michigan. Finance student Erick Hoens worked as a branch intern for J.P. Morgan Securities in New York City. Mechanical Engineering student Kelly McNabb worked on polymer blends for fuel cell technology at Tufts University in Massachusetts. Medical Illustration student Mitsuyoshi Yabe worked as a medical illustration intern at the University of California at San Diego. Applied Computer Technology student George White worked as an engineering aide at the Aviation and Missile Research Development and Engineering Center in Alabama. Biomedical Sciences and Diagnostic Medical Sonography student Abbi Simons worked as a marine botany anatomist at the Smithsonian Institution National Museum of Natural History here in D.C. These are just some examples of the hands-on job experiences that NTID students have at major companies and institutions nationwide. Requiring a co-op experience is a practice that other higher education institutions could adopt to better prepare students, with or without disabilities, for the workforce.

Following RIT's leadership in this area, NTID is increasing its emphasis on innovation and creativity, both in the curriculum and in other activities across campus. We encourage our faculty to actively involve students at all levels in scholarship and innovation activities. Last year, NTID awarded to faculty and staff innovation grants related to student services or scholarship/research projects, requiring them to include students as active team members. NTID faculty, staff, and students participate annually in Imagine RIT, an innovation and creativity festival that is at-

tended by over 30,000 people. At Imagine RIT, NTID Laboratory Science Technology students present their research; the NTID Electric Bike Club shows off their no-carbon-emission bicycles; and students present applications they have developed for deaf and hard-of-hearing users of smartphones and PDAs. Also, this Friday, October 14, NTID will celebrate a groundbreaking ceremony for Rosica Hall, a first-of-its-kind facility specifically designed to foster innovation, research and entrepreneurship among our deaf and hard-of-hearing students.

Changes at RIT also help NTID remain dynamic as the premier technical institute for the deaf and hard-of-hearing. RIT is one of the largest producers in the country of baccalaureate degrees in the STEM (science, technology, engineering, and math) fields. It has recently added a College of Health Sciences and Technology as well as the Golisano Institute for Sustainability, featuring the world's first doctorate in sustainable production. To support technical fields of study, RIT's campus offers wireless computer access, smart classrooms with state-of-the-art computers and multimedia-based technologies, computer graphics and computer-aided drafting labs, microelectronics and computer engineering facilities, digital printing presses, laser optics labs, a robotics program and fully networked residence halls.

NTID also aims to provide deaf and hard-of-hearing middle school and high school students with educational experiences designed to encourage them to seek postsecondary education. NTID conducts a SpiRIT Writing Contest; a National Science Fair for deaf and hard-of-hearing students in grades 6 through 11; Explore Your Future summer camp for upperclass high school students; TechGirlz and TechBoyz summer camps for junior high students; Steps to Success weekend camp for African-American, Latino-American and Native-American students; a math competition for middle school students; and a Digital Arts, Film and Animation Competition for high school students. NTID also assists employers and secondary and postsecondary educational institutions that work with students who are deaf or hard-of-hearing through the efforts of our Postsecondary Education Programs Network—Northeast Region center. NTID's Project Access initiative is designed to help educators incorporate basic strategies to foster better learning for mainstreamed deaf and hard-of-hearing students. Many other outreach activities are aimed at deaf and hard-of-hearing adults who are post-college and now employed. These kinds of outreach activities could be used at other postsecondary institutions to help prepare and generate interest in young people with disabilities for college and the workforce.

OUTCOMES

In the late 1970s, it became increasingly clear to NTID that self-reported questionnaires completed by graduates were inadequate for assessing the impact of an NTID education on employment outcomes. As a result, institutional partnerships have been forged over time with the Internal Revenue Service, the Social Security Administration, and disability employment and public policy experts at the School of Ecology at Cornell University. NTID has not only developed memoranda of agreement with these Federal agencies, but also data sharing agreements that ensure complete confidentiality of exchanged information. The resulting program of research generated and supported by these partnerships and agreements is described as "unique throughout higher education and rehabilitation services" by Dr. Richard Burkhauser, who is an internationally recognized public policy expert at Cornell University.

By providing the social security numbers (serving as individually unique identifiers) of its graduates to appropriate Federal agencies, NTID has obtained aggregate statistics on yearly earnings, employment participation, and participation in Federal assistance programs such as Supplemental Security Income (SSI), and Social Security Disability Insurance (SSDI). Analyses of these aggregate data have revealed the return on investment for students who attend RIT/NTID. For example, deaf and hard-of-hearing bachelor degree graduates return to the Federal treasury an average of \$6,632 per year in Federal taxes during their first 25 years of employment. This figure exceeds, by \$2,063, the annuitized amount of \$4,569 required to pay back the Federal investment for their education (Clarq, J.R. & Walter, G.G., 1998; Schley et al., 2011). Using longitudinal data collected through this same program of research, NTID also has documented the effects of successive degree levels from RIT for deaf and hard-of-hearing individuals. For example, 2006 research showed that each successive degree level translates to an average \$10,000 increase in taxable yearly earnings.

Additionally, research conducted in 2006 compared a group of NTID deaf and hard-of-hearing graduates with three other groups: those students who were denied admission, those who were accepted but chose not to attend, and those who enrolled but did not persist to graduation. In each of these cases, it was clear that grad-

uating as an NTID-supported student at RIT meant on average a significant increase in earnings. Further observations include the decreased dependency on Federal assistance programs such as SSI and SSDI for those individuals who graduate from RIT/NTID, as compared to those who do not (NTID Annual Report 2010, http://www.ntid.rit.edu/sites/default/files/annual_report_2010.pdf). This resulted in a lower expenditure of Federal funds on deaf and hard-of-hearing students who attend and graduate from RIT/NTID.

In short, deaf and hard-of-hearing graduates from RIT/NTID have higher employment rates and higher earnings than deaf and hard-of-hearing students not graduating from RIT/NTID. By age 50, deaf and hard-of-hearing bachelor degree graduates from RIT/NTID earn on average \$6,021 more than those with associate degrees; who in turn earn \$3,996 more on average than those who withdraw; who earn \$4,329 more than those who are not admitted.

Over the last 5 years, our job placement rate for graduates is 90 percent. Michael Anthony, a 2010 graduate with a B.S. in Computer Science and Game Design and Development, is now working for Microsoft as a Software Development Engineer for Xbox. Monica Donovan, a 2006 graduate with a B.S. in Visual Media, started her own photography business. Lawrence Dorsey, a 2008 graduate with an associate degree in Computer Integrated Machining Technology, is a machinist for Rock Island Arsenal. Alex Johnson, a 2011 graduate with a B.S. in Mechanical Engineering, is part of a New Engine Development Team with GE Aviation. Melissa Skyer, who went on to get an M.S. in Environmental Science in 2006, is an environmental specialist with Southern California Gas, Natural Resources & Land Planning Group of Environmental Services. Right here in DC, we have Christopher Samp, a 2010 graduate with his M.S. in Public Policy, who is now working as a congressional staffer for Senator Dick Durbin.

BUILDING AND MAINTAINING RELATIONSHIPS WITH EMPLOYERS

RIT/NTID's focus on career education and preparation for career success through experiential learning and cooperative work experiences provides key advantages for deaf and hard-of-hearing students in securing employment after graduation. NTID's annual Job Fair is in its 11th year and has grown from featuring 17 employers to over 40 employers, specifically recruiting deaf and hard-of-hearing graduates. The NTID Center on Employment identifies new employers with which to build relationships by networking and exhibiting at human resources conferences, using the community and professional contacts of parents of new NTID students, helping alumni encourage their employers to recruit from NTID, and inviting companies to visit campus, meet our students, and learn about the technical programs we offer and skills we are developing.

The NTID Center on Employment also initiates and delivers consultation, training, followup and other support services to employers. Through these services, employers become aware of the needs of deaf and hard-of-hearing people and facilitate graduates entering the workforce. For instance, in fiscal year 2010, the NTID Center on Employment presented programs to 521 human resources professionals, including the workshop "Working Together: Deaf and Hearing People." This workshop has been given on-site to companies like Honda, Procter and Gamble, the Walt Disney Company, The Dow Chemical Company, and the CIA to help employers understand hearing loss, accommodate deaf and hard-of-hearing employees, and ease communication. NTID also produces several brochures and other materials to educate employers and facilitate communication, such as the *Let's Communicate* brochure with basic signs and tips for communicating with ASL users and the DVD *I Can Work for You!*, featuring students and graduates talking about their successful co-op and employment experiences. The extensive employer outreach and education that the NTID Center on Employment does on behalf of students who are deaf or hard-of-hearing could be replicated by other institutions on behalf of students with disabilities in general.

NTID's relationship with employers directly affects the educational programs we provide. NTID's co-op visitation program enables faculty and staff to visit students while on their co-op education assignments. During that visit, faculty are able to observe firsthand the job environment and the NTID student's responsibilities in that environment, which allows them to evaluate what skills that student needed to acquire at NTID in order to be successful. Similarly, every employer participating in NTID's co-op program has an opportunity to provide feedback on what technical or communication skills its co-op student needs to improve before graduation. NTID's academic programs also have employer advisory groups in which employers in the field can review the curriculum for that program and offer suggestions.

Recently, the National Science Foundation provided funding for RIT/NTID to establish DeafTEC: Technological Education Center for Deaf and Hard-of-Hearing Students, an Advanced Technological Education National Center of Excellence. There are approximately 40 advanced technological education centers across the country, and DeafTEC will be the first ever established to serve individuals who are deaf or hard of hearing. In addition to serving as a national resource for high schools and community colleges that educate deaf and hard-of-hearing students in STEM-related programs, DeafTEC will assist employers hiring deaf and hard-of-hearing individuals. Through its comprehensive Web site, DeafTEC will serve as a clearinghouse for information related to technical education and technician careers for deaf and hard-of-hearing students, including career awareness materials, teaching strategies for improving student access to learning, developmental math and English curricula, and information for employers to help them provide a more accessible workplace.

COMMUNICATIONS TECHNOLOGIES

Communication technologies that facilitate communication for and with people who are deaf and hard-of-hearing are just as much for the general hearing public, or broader society, as they are for deaf students and graduates in that they foster communication between both groups. Because of the low incidence of deafness, most technologies utilized by people who are deaf have come from the adoption or adaptation of technologies for people who hear, with the exception of various assistive listening devices.

In the early 1980s, NTID researcher Dr. Ross Stuckless adapted the “steno-type system” utilized by court recorders to provide real-time captioning for classroom use. The success of this application in RIT classrooms led to the development and deployment of C-Print. C-Print is a speech-to-text system developed at NTID, as a communication access service option for deaf and hard-of-hearing students in educational environments. It was developed by researchers to improve the classroom experience for students at both the secondary and college levels. This technology has not only provided access to students who are deaf but also serves to reinforce materials presented in classrooms for those who hear.

Presently, the NTID Center on Access Technology is working with various companies to develop devices that will use off-the-shelf technology to create innovative applications for people who are deaf. For example, a proprietary smartphone application and micro-circuit is being licensed to a corporation for a notification device. Additionally, a Bluetooth-based device/micro-circuit application is being developed for athletic events where deaf and hearing people compete together. Further, a video-based see-through white board system is being developed for use by deaf people teaching students who are deaf so that the teacher always faces the students. These are three applications of off-the-shelf technologies that are being innovatively applied for use with people who are deaf.

CHALLENGES FOR THE FUTURE

Despite all the outreach NTID, Gallaudet University, and other entities conduct with employers, there continues to be prejudice and ignorance about hiring and working with deaf and hard-of-hearing individuals. Earlier this year, ABC’s television show *What Would You Do?* featured NTID students Hannah Worek and Maya Ariel acting as if they are trying to get jobs at a coffee shop. An actor portraying the manager of the coffee shop told the young women that they would not be hired simply because they are deaf. The show looked at how the general hearing public who witnessed the discrimination would react. Sadly, in this instance, only a few individuals spoke out against the management. What is worse, several customers who identified themselves as HR professionals advised the managers on how to discriminate in ways that could not be easily detected or proven. Almost 5 million viewers tuned in, and NTID is using the show as another launch pad to provide outreach and education to human resource professionals and employers.

Other challenges continue to be ensuring that NTID students, like hearing students, keep pace with the changing job market and technical skills needed in the workplace. RIT and NTID work to address those challenges by creating new academic programs in “hot job” categories, using employer feedback to tweak existing academic programs, and making sure equipment and facilities continue to be state-of-the-art. Appropriate academic preparation for college is another challenge for some deaf and hard-of-hearing students. NTID tries to improve that preparation through its outreach programs that connect with middle and high school students and alert them to what they need to do to prepare for college and career success.

NTID has a strategic plan for the next 10 years that establishes key initiatives responding to existing challenges and shaping future opportunities. We want to improve services to underprepared students by working with regional partners to create intensive summer academic preparation programs in select high-growth, ethnically diverse areas of the country. We are pursuing enrollment targets and admissions and programming strategies that will result in increasing numbers of our graduates achieving baccalaureate degrees and higher, while maintaining our focus and commitment to quality associate-level degree programs that lead directly to jobs. We will continue our commitment to admit and support qualified African-American, Latino-American, and Native-American students; qualified students who use ASL, spoken English, and both ASL and spoken English; and qualified students with secondary disabilities and diverse learning characteristics. In response to employers' emphasis on "soft skills" as being key to workplace success, we will create more opportunities for the integration of soft skills (such as time management, teamwork, critical thinking, ethical and civil behavior, independence, etc.) into course objectives.

We are also mentoring deaf and hard-of-hearing NTID employees to have the honor, as I do, of serving NTID as faculty, administrator and now president. I am excited to lead NTID as we build on our rich history, navigate new and existing challenges, and continue to prepare our students for employment in the workforce and enrichment in their communities.

The CHAIRMAN. Thank you, Dr. Buckley. Thank you.

[Applause.]

Thank you very, very much.

So you have 2,200 hearing students studying sign language?

Mr. BUCKLEY. For credit.

The CHAIRMAN. For credit. See, I learned sign language when I was growing up. I forgot many signs. Maybe I should go to your school.

[Laughter.]

Mr. BUCKLEY. The biggest complaint I receive from hearing students on campus is that we don't have enough ASL classes for them to sign up for. That is a nice problem.

The CHAIRMAN. Sure. Sure. Maybe I should come back to Gallaudet, Dr. Hurwitz.

[Laughter.]

Mr. HURWITZ. Absolutely. We have plenty of ASL classes to offer, always happy to send along our student interns to your office to offer you some ASL classes and training in your office. Can make that happen.

The CHAIRMAN. I use the interns.

Thank you both very much.

Let me ask a question. What practices at your schools could be replicated across higher education, across other higher education schools for better inclusion of students with disabilities, especially nonhearing students, to better prepare them for the workforce? Not every deaf student in America can come to Gallaudet. Not every deaf student can come to NTID, Rochester Institute of Technology.

What could we do a better job of, when looking at higher education? What could be done out there to better prepare nonhearing students like you are doing here? What could be replicated?

Mr. HURWITZ. I can begin. Here at Gallaudet University, we have regional centers, actually, a total of six different regional centers throughout the United States. And those centers are charged with providing services to the local communities that surround them. They collaborate with other community colleges nearby or other 4-year institutions in those particular regions and through that pro-

vide various workshops that may be related to general awareness of having deaf or hard-of-hearing students in classrooms.

They also provide a lot of information about how to best prepare sign language interpreters to provide those kinds of services in higher education. They provide workshops that cover a variety of different topics, including technological solutions, like, for example, the use of real-time captioning.

I have to say we have an outstanding career center, and I am sure that Dr. Buckley can talk about what they do. I know tomorrow they are having their 11th career fair at NTID. We, in fact, are having our career fair today on campus, just across from the building we are in right now.

We have 40 to 50 different employers represented there, providing information to our students. So we do share a lot of the information with other institutions, making sure that young people are well prepared for future careers.

Mr. BUCKLEY. The only thing I would add is that the academic preparation of young deaf people has to improve. We have to make a commitment as a nation to improving the academic preparation of young people.

The CHAIRMAN. Early on.

Mr. BUCKLEY. Ready for school, ready for college. And I am proud to share that we were recently awarded a grant from the National Science Foundation, where we will be working with three States over the next few years—Florida, California, and Texas. It is designed to establish relationships between high schools, community colleges, 4-year colleges, and vocational rehabilitation agencies, really designed to try to make sure that that pipeline of preparation is there so that picture is brighter in the future.

Mr. HURWITZ. And if I may add, I agree that it is so very critical to have early start programs. I can remember talking with the dean of engineering and the dean of engineering school, talking about how we could maybe target in specific young children and their families, encouraging them to think about future job opportunities.

And you know, maybe those students who have become an engineer would begin as early as sixth and seventh grade preparing themselves so that they would be encouraged to take in high school 4 years of math and 4 years of high school science and 4 years of high school English so that that way, they are better prepared for that career.

Currently, we see many students who come to colleges and universities throughout the United States completely unprepared. Some say they may want to become an engineer, but yet they have only had 1 year of math in high school, and they are underprepared for that kind of a degree. So we want to make sure that young people are well prepared for the future.

The CHAIRMAN. Each of you have doctorate degrees. You have excelled in education. But you attended college in an earlier time when we did not have access to some of the technologies like text messaging, video relay, that have widespread use today.

I just wonder if each of you could reflect on how job prospects for college students who are deaf have changed over time? And do

you have any crystal ball for what that looks like in the future? I will elaborate a little.

I remember when we first got our relay systems that was first put in the ADA, but then it came into being I think a little bit later, in the mid-1990s—the relay systems. And they are very good. And the TDYs that we all use, that we had in our offices. But now, all my deaf friends send me messages.

Mr. HURWITZ. No longer.

The CHAIRMAN. I don't even have to talk to them on the phone. They just send me messages now. Just watching the change in the technology. Talk a little bit about that and how you see this going into the future.

Mr. HURWITZ. That is an excellent question. I was just thinking about during my high school years and college years as well, we had nothing in terms of accommodations. We had never even heard of the word "interpreter." I mean, they were unheard of at that time.

But we had some volunteer interpreters who worked in church settings, but no one in the school systems. So we had to make it through just by the skin of our teeth, just do as best as we could and relying on friends or classmates to share notes with us and meeting with the teacher after class to get what we could.

That was my experience, and I refer to those ages as "the dark ages." To be honest, at that time, I didn't even know what I was missing. It wasn't until I was in the doctoral degree program that I actually had an interpreter for the first time, and I thought to myself, "My God, the information that is here." It was almost like an information explosion for me.

I looked back and pondered how on earth did I make it through with what I didn't have? Back then, I was maybe a B or C average student. But having an interpreter and having captioning support, it just allowed me to do so much better academically.

Just recently I was talking with some of our students here on campus, and they were talking about social media being what it is and how it is the thing of the day, and technology is with them all the time. And they take that for granted. Probably they are farther ahead of the faculty members here in terms of their technological savviness. So faculty are always trying to catch up.

I can envision the future being an amazing opportunity for young children where they don't have any fears or anxieties when it comes to technologies. They can just jump into the social media setting and use video technologies at ease and communicate with anyone, anywhere throughout the world.

I can remember when I was in Russia and one other time when I was in China, I was actually able to communicate with my wife through email correspondence on my pager, on my iPhone. You know, it was very easy for us to communicate with one another.

Technology is the boon when it comes to people who are deaf and hard-of-hearing. I mean, it is very exciting as we look into the future.

In the past, communication was something that really separated or technology was something that separated deaf people from hearing people and communications. And now, with that not being the case any longer, we are fully integrated.

Mr. BUCKLEY. Senator, when I was a college student, I had the benefit of going to NTID. I am a product. So I had the benefit of a wonderful education.

But when I was a college student, I remember there was one deaf lawyer. We all knew him. Now there are several hundred deaf lawyers throughout the country, many deaf doctors. My own daughter, who is deaf, is a veterinarian practicing in New York.

These young people have a different attitude, thanks to you for supporting the Americans with Disabilities Act. They have a spirit of "can do." And our job is to make sure we provide support so they are successful.

I am very optimistic that technology will be very beneficial. I am very optimistic that one of my two students will become a Senator from New York some day.

Mr. HURWITZ. I second that.

Mr. BUCKLEY. They are marvelous people. And thank you for supporting that because ADA has made a significant difference in the lives of all disabled people.

The CHAIRMAN. Thank you.

I just want that future Senator to know, however, that she will not be the first person to give a sign language speech on the Senate floor.

[Laughter.]

I did that in 1990 with the passage of the ADA. But that would be wonderful.

I am sorry.

Senator ENZI.

Senator ENZI. Thank you, Mr. Chairman.

I appreciate the testimony of both of you. I have some extensive notes on things that we can do, but I want to get into a bit more detail.

I would like to know what kinds of partnerships that your institutions have formed with businesses and employers to encourage the hiring of your students, and what can be done to encourage more partnerships, particularly those that are in high demand in the high-skill industries?

Mr. BUCKLEY. At NTID, we have a center on employment that has full-time staff that reach out to 800 employers every year, providing training on working together with deaf and hard-of-hearing citizens. We are always traveling with teams throughout the Nation.

I think it is an ongoing educational effort to make sure that employers understand the opportunities that are available by hiring qualified deaf and hard-of-hearing people, understand what reasonable accommodation is. Aren't frightened by the cost associated with that.

They have many misunderstandings about cost, and we are able to show them that often very reasonable, very simple accommodations—for example, texting back and forth—works very effectively for communication between a supervisor and an employee. That ongoing effort, both Gallaudet University and NTID, are continuing to work with employers throughout the Nation. We will continue to expand that in the future.

Mr. HURWITZ. I would agree with what has just been stated. I also wanted to mention we have three research centers that have already been establishing partnerships with other colleges and universities.

Just as an example, we have the Visual Language and Visual Learning Center, VL2, that has been funded by the National Science Foundation. And they are tasked with exploring ways to improve communication through language development, and they are partnering with several other universities throughout the United States and, actually, internationally.

Another example is we have the Technology Access Program. That is funded by the U.S. Department of Education, and they have partnerships established with a variety of different universities where they are exploring possibilities of technologies and applications that can be used in a variety of different scenarios, including those in the workplace.

Third, I wanted to mention the hearing and speech in science research that is happening here on campus. We have a center where many universities are working with us to provide information and opportunities to conduct further research in the area of hearing and speech sciences.

And this is how we can work to help deaf people in the future.

Senator ENZI. Kind of as a followup on that, what industries have been the most open to working with you to place students, and what industries have been the most resistant?

Mr. BUCKLEY. For us, we have 200 different majors at RIT that are open to students, and I believe that many of our students are the first majors. For example, we have a new program in sustainability sciences, and employers have never thought of hiring a deaf person because deaf students have never majored in that area at RIT in the past. But I believe that all fields are open and that if we can prepare students with the appropriate skills to compete, then all the fields are open to everyone.

Mr. HURWITZ. We have graduates who have been hired by a number of different companies throughout the United States. In fact, we have two of our alums who will be speaking about their experiences, working for two major companies, one being IBM and the other Sprint.

There will always be challenges that we face in the workplace. That is certain. Challenges that exist just in terms of the knowledge and understanding that is out there in terms of the abilities of deaf and hard-of-hearing people to be employed.

Oftentimes, there is a lot of misunderstandings that exist and just assumptions about what people can and cannot do. We do have a career center here that provides awareness training to future employers in this area. So this will always be an area of challenge.

I can remember at one point in time, it was some time ago, there was a mayor of a city in Texas who made a statement. And he said that you probably can change behaviors overnight, but to change attitudes, that is an entirely different story.

There is always going to be those two major barriers that we face that we need to work to remove. One of them being that of the environmental barriers, and that is an easy fix for us. But the other barriers are attitudinal barriers, and they create quite a bit more

of a challenge for us. And that is our job now to work together so that we can educate employers about what deaf and hard-of-hearing people can do in the workplace and how they can be a great asset in the future.

Gallaudet University is very excited about our professional programs and our new pre-professional programs for deaf people being able to become doctors and architects and lawyers and business people. We do believe it can happen.

Senator ENZI. I love your enthusiasm and your answers, and I know that at some point, someone had high expectations for you, which translated into high expectations for yourself. And I appreciate that you are passing on those high expectations to others now.

I have a series of questions, but they are a bit more technical, and I will provide those in writing and would hope that you would respond on them so that I can make that a part of the testimony as well.

Mr. HURWITZ. Absolutely. Happy to do that.

The CHAIRMAN. Before you leave, just two things. One, there was a recent story, maybe some of you read, about a young man in California who wanted to join the Army. He had all of the abilities that was needed, but the Army turned him down.

I have Andy back here working on that right now, and I hope to have—some things take a little time. But I am now working with the Secretary of Defense, an old classmate of mine, by the way. It always helps to have friends.

[Laughter.]

And hopefully, in the next several months, we will have some good news that young people who are deaf can find occupations in the U.S. military, just like they should be able to.

Mr. HURWITZ. Fantastic.

[Applause.]

The CHAIRMAN. Andy Imparato said to me that a couple of years ago, he was trying to place a deaf intern in a congressional office, and the intern coordinator said to him, "Excuse my ignorance, but what would a deaf person do in a congressional office?"

As you said, it is the attitudinal barriers. That is what you got to break down.

Mr. HURWITZ. Exactly.

The CHAIRMAN. And that sometimes takes a lot of time. But I think once they find out that a person with deafness can do anything that anybody else could do in the office, you would be amazed how they get over it.

Thank you both very much for being here. We will move on to the next panel. Thank you.

Mr. HURWITZ. Thank you. Thank you very much.

[Applause.]

The CHAIRMAN. On our second panel, we have three witnesses. Our first witness is Seth Bravin. Mr. Bravin manages strategy and solutions for the IBM Human Ability and Accessibility Center in Frederick, MD. In his prior role with IBM, he did finance and planning for the Global Public Sector.

Before joining IBM, he worked for Booz Allen Hamilton, a management and technology consulting firm, and also for Dow, Lohnes,

and Albertson, a corporate law firm. Mr. Bravin graduated from Gallaudet in 1996, received his MBA from Cornell University in 2003. We welcome you, Mr. Bravin.

Our second witness is Michael Ellis. Mr. Ellis is the national director of Sprint Relay and is based in Denver, CO. Mr. Ellis is responsible for nationwide domestic and international telecommunications relay services, including the traditional 711 services, wireless, conference captioning, Internet, and video customer applications. He supervises 30 employees, many of whom are deaf or hard-of-hearing.

Mr. Ellis earned his B.A. from Baker University in Kansas, an M.A. from Gallaudet, and he currently serves on the Foundation Board for NTID and Gallaudet University's Board of Associates. We welcome you, Mr. Ellis.

And of course, we kept our best for last, our final witness is Leila Hanaumi, a fifth-year senior here at Gallaudet. She was born and raised in the Bay area of California, graduated from the California School for the deaf in Fremont. Her parents are also Gallaudet alumni.

She is the editor-in-chief of the Buff and Blue. She is a senator for the Gallaudet student congress, an active member of her sorority, an actress on Bison TV series, and an intern for a company that focuses on bilingual storytelling products. And we welcome you, Ms. Hanaumi.

Thank you all for being here.

As with the previous two, your testimonies will all be made a part of the record in their entirety. And I would just ask if you could sum it up in 5 or 7 minutes.

We will start, as I introduced, with Mr. Bravin.

STATEMENT OF SETH E. BRAVIN, ACCESSIBILITY STRATEGY AND SOLUTIONS EXPERT, IBM HUMAN ABILITY AND ACCESSIBILITY CENTER, FREDERICK, MD

Mr. BRAVIN. [The following testimony was delivered through an interpreter.] Hi. Good afternoon, Chairman Harkin, Senator Enzi, members of the committee, and esteemed Gallaudet friends and colleagues.

My name is Seth Bravin. I am a strategic industries program manager at IBM and have been for 9 years. I want to thank the committee members for an opportunity to speak on a topic that is both a personal passion and a partial focus of my job with IBM.

On behalf of the company, I would like to thank you personally, Chairman Harkin, for agreeing to visit our office in Iowa later this week. Thank you so much.

With the committee's permission, I would like to share my personal story. My parents are both deaf. They are both college graduates, and they worked hard to become very successful. I benefited from their professionalism and their personal experience. I have had a very supportive home environment that encouraged my ambition. I want to stress the importance in also community service.

I graduated from Gallaudet 15 years ago. This is an amazing institute. There are great role models, technology, and they really give the students an opportunity to maximize their success in life.

While at school here, I had an opportunity to interact with top-notch faculty members and public sector members. I would like to thank the consortium programs as well. I took a few financial courses over at Georgetown University. Those experiences at Georgetown and here at Gallaudet are amazing, and they made me build confidence in how to function effectively in a hearing work world.

After graduating from Gallaudet, I spent 5 years in corporate law, in consulting. Then I went to Cornell University for my MBA, and as I was going to graduate, IBM recruiters came out, and I interviewed and got a full-time position with IBM. Clearly, higher education played a very significant and vital role in improving employment outcome for people with disabilities, including deaf and hard-of-hearing people.

First, the power of successful deaf and hard-of-hearing role models can't be underestimated. It is important for students to see firsthand how deaf and hard-of-hearing professionals can really thrive in the workplace. And in fact, one of my role models, Fred Weiner, is here currently.

Second, colleges and universities can pursue partnerships with companies to provide students an opportunity to innovate and get real world experience. Just last year, I visited RIT with a few other IBMers and met with the Center on Access and Technology to explore opportunities to collaborate, including intellectual property development. I am actually flying to Rochester tonight for a conference to continue building that relationship.

Another opportunity for deaf and hard-of-hearing students to build leadership skills and communication skills—I remember as I was a student—I was on student congress. At business school, we were often assigned to work with three or four others to work throughout the semester on projects.

Fourth and final, maybe most important, is the internship connections and possibilities. I call an internship a long-term interview. It is an opportunity for employers to see the students that they are hiring and employing a deaf and hard-of-hearing student is not very difficult to do and will help them overcome any type of fear of the unknown. That is probably the greatest inhibitor to employment.

I have fond memories of my two summer internships with Verizon in New York and also one internship with a corporate law office here in Washington, DC—Dow, Lohnes, and Albertson. Gallaudet's career center took the initiative and provided awareness training to the law firm that contributed to my success and led to a full-time position and 2 great years there. And I believe Dr. Hurwitz and Dr. Buckley spoke to the importance of and the role of the career center in supporting the employers.

Employers play a critical role. I want to share a few examples of how IBM supports individual disabilities. We have cost recovery programs in place that eliminate the charges of any accommodations for employees with disabilities from individual managers' budget, and you move that cost to a central fund at the corporate level. I can't say enough about that program. It really opened doors for many employees with disabilities to have opportunities.

And a support system that works with HR professionals and experienced IBMers to work with a transition of new employees with disabilities. I can still remember my lunch with two experienced IBMers 9 years ago. They gave me a really warm welcome, and that made a huge difference.

Third is accessibility and technology and ecosystem. Personally, without the technology, I would not be as productive as I am today or the person I am. When I joined in 2003, IBM had already established relationships with interpreting and CART so I could be productive from day one.

I have some recommendations to offer. I think educational institutes with accessibility in mind from the outside. Oftentimes, accessibility for students can benefit other students and foreign students, for example, as well.

Also for employers to make accessibility a core business value. Also government can enact and enforce new, modern, relevant labor laws. And fourth, which is a shared responsibility, is to build candidate pipeline for employers.

IBM's experience suggests that employment outcomes of deaf and hard-of-hearing individuals can't just be achieved by public or private entities separate. It requires a lot of collaboration among government and private sectors, as well as academia and advocacy groups as well, and GMs. And through this collaboration and ecosystem, we can impact and effect a very long-lasting change.

Chairman Harkin and Senator Enzi, members of the committee, thank you for the opportunity to testify in front of you today. I look forward to answering any questions you may have for me this afternoon.

Thank you.

[Applause.]

[The prepared statement of Mr. Bravin follows:]

PREPARED STATEMENT OF SETH E. BRAVIN

Good morning, Chairman Harkin, Senator Enzi, members of the committee and esteemed Gallaudet colleagues and friends. My name is Seth Bravin. I am a strategic industries program manager at the IBM Corporation. In this role, I am responsible for managing strategy and solutions for the IBM Human Ability and Accessibility Center. During my 9 years at IBM, I have hosted several company-sponsored technology camps for high school students who are deaf and hard-of-hearing, and I currently serve on the board of directors for the Lexington School for the Deaf and the Maryland Association of the Deaf.

As a deaf professional and committed advocate for the rights and inclusion of all people with disabilities, I am honored to appear before this committee to discuss leveraging higher education to improve employment outcomes for people who are deaf and hard-of-hearing, a subject that is both a personal passion and a partial focus of my job at IBM.

I also am here to bring to the committee's attention several public policy issues that inhibit our collective ability to fully enable this segment of the U.S. population to not only obtain gainful employment, but to develop meaningful and economically viable careers. I will address difficulties associated with recruiting, hiring and retention of people with disabilities and the accessibility of information and communications technologies in workplaces and institutions of higher learning. I will conclude with recommendations for the committee's consideration. It is our hope that the committee will review these recommended topics during the current congressional session.

These ongoing challenges are the consequence of lingering cultural discomfort with disabilities and attitudes facing people with disabilities, here in the United States and around the world. Put another way, it is overcoming the "fear of the unknown" regarding the people with disabilities that is the greatest inhibitor to em-

ployment and a fully inclusive workplace. These issues, identified by a 2007 study¹ conducted by the National Council on Disability, include areas like education, training, and transportation.

MY PERSONAL STORY

I'll begin with a brief overview of my own journey, which I believe is relevant to the topic of today's hearing. I was born deaf. My parents, who are also deaf, both attended and graduated from college. My father was also an IBMer for nearly 25 years. Both worked hard to achieve success in work and life, and I benefited significantly not only from their personal experiences and professional lessons learned, but also from an enormously supportive home environment that encouraged my ambition and stressed the importance of giving back to the community.

Growing up, my parents taught me that my deafness was not a limiting factor, but an important part of who I was as a person. Early on, I learned that my deafness was a trait that helped me facilitate the development of an extra set of skills and entirely unique perspectives that could add real value in learning and work environments. It was my parents' positive attitudes and certainty in my ability to succeed that made me determined to pursue a degree in higher education at Gallaudet University.

Gallaudet is an amazing institution that provides students who are deaf and hard-of-hearing with the environment, role models, technology and tools to really succeed in higher education. For students who are willing to challenge themselves, Gallaudet also offers formative experiences that directly contribute to easing the transition into the workforce for people who are deaf and setting them up for success.

For example, thanks to Gallaudet's consortium program with more than a dozen other universities, I was able to take finance courses at Georgetown University. Here, I was not only exposed to a different set of top-notch educators and role models, but I was able to build confidence in my ability to communicate effectively in a hearing world.

At Gallaudet, I also learned from and regularly interacted with qualified instructors who were also deaf and hard-of-hearing professionals actively engaged in both the academic and private-sector workforce. These important people played a pivotal part in helping me believe not only that I could *get* a challenging job, but achieve any goal I set for myself personally or professionally.

After graduating with honors in 1996, I spent 5 years working in consulting and corporate law. At the same time, I taught for several summers at the Gallaudet Leadership Institute, which nurtured a passion for giving back to my community and helped me continue to develop critical leadership skills. Shortly afterward, I attended Cornell University where I obtained my Masters of Business Administration. Near the end of my time there, IBM recruiters made a trip to campus. I interviewed and shortly afterward accepted a position with the company where, as I mentioned earlier, my father worked for more than two decades.

While I have much to say about my 9 years with this exceptional company, I want to first stress that my educational and professional success would not have been possible without the support of my incredible family and the opportunities afforded to me here at Gallaudet. The importance of family attitudes and tailored, challenging higher education learning experiences, facilitated by deaf and hard-of-hearing role models for students who are deaf or hard-of-hearing *cannot* be overstressed. In fact, one of my role models, Fred Weiner is here today. He had a rewarding career with AT&T and is now the executive director of Program Development at Gallaudet.

Not all young people with disabilities are so lucky. More than 90 percent of deaf children are born into hearing families.² Some hearing parents are able to provide the necessary resources to raise a successful deaf or hard-of-hearing child. Other parents, however loving and supportive, do not have the same personal tools, resources and life lessons to share. Enabling the full societal inclusion of people who are deaf and hard-of-hearing as well as the much larger total population of people with disabilities simply cannot be accomplished by any one entity. Governments, advocacy groups, non-government organizations, institutions of higher learning, and

¹ National Council on Disability study. "Empowerment for Americans with Disabilities: Breaking Barriers to Careers and Full Employment." 2007. (<http://www.ncd.gov/newsroom/2007/10012007>).

² Deaf Understanding. "Facts about Deafness." (<http://www.deafunderstanding.com/modules.php?name=News&file=article&sid=11>).

employers must, where possible, partner to provide what many families cannot, either from lack of personal experience, finances, perspective or ability.

Together, through visionary policies and programs, I believe we can find new ways to support, encourage and enable the equal participation and success of people with disabilities throughout primary, secondary and post-secondary education systems, in the workforce, and in society at large.

HOW HIGHER EDUCATION INSTITUTIONS CAN HELP

Clearly, higher education institutions play a vital role in helping improve employment outcomes for students who are deaf or have hearing loss. Certainly the culture of inclusion that I alluded to earlier matters a great deal. Modern and accessible technology is also critical, but let me share a few additional thoughts regarding my educational experience and how higher education institutions can really help as it pertains to employment and employment readiness.

- First, at the risk of belaboring the point, the power of **successful deaf and hard-of-hearing role models** simply cannot be underestimated. I remember one professor at Gallaudet who worked at Merrill Lynch and another from Cornell who worked on Wall Street. While my professor at Cornell was not deaf, for me, having exposure to a professional who had real working experience on Wall Street made a tremendous impression. Through my relationships with these professors, I saw firsthand how they thrived in the workplace. This gave me the assurance and determination to pursue my goals.

- Second, opportunities for deaf students to develop **communication and leadership skills** are absolutely essential to preparing them for success in the workplace. I, for example, served on the Student Congress representing my class at Gallaudet. Universities and colleges can help by providing more of these kinds of opportunities and strongly encouraging students with hearing loss to take advantage of them.

- The third and perhaps most overlooked thing that students, colleges and universities can do for the deaf or hard-of-hearing is provide ample opportunities for **collaborative team-oriented work**. When I was in business school, professors often assigned three or four students to work together for an entire semester on group projects. We met during the evenings and on weekends and only sometimes did the interpreter join us. Other times we used instant messaging and e-mail to communicate. The experience really taught me and my classmates how to be creative and flexible in communicating and how to work as a team regardless of disability.

- Next, I'd like to talk briefly about the importance of **diversity**. At Cornell, we had students from more than 30 countries. Each brought with them different perspectives and cultural experiences. For me personally, it was interesting to watch how students were able to adapt to life at business school. I remember one student from China who had never visited the United States before and we were assigned to the same group for one semester. That was a successful experiment of inclusion and diversity that I will never forget. The opportunity to create personal relationships with people who are different is an important element in how we improve understanding and flatten unhelpful stereotypes.

- At the post-secondary level, support from **Career Centers** is also extremely important. Students who are deaf or hard-of-hearing need personalized help to understand the best ways to position their education, previous experience and unique skill sets to potential employers. Resumé development, mock interviews and presentations with the alumni in the working world are all valuable ingredients for a successful launch into the business world. Now that I am with IBM, I am occasionally asked to speak about my IBM experiences at Gallaudet University. Based on the response from students, I almost always walk away feeling as though I've made a real difference for some of them.

- The final, but probably most important service colleges and universities can offer are **internship connections**. Internships represent the No. 1 critical success factor for obtaining a job in the "real world" of work. I call internships a long-term interview. When done correctly, companies and students with disabilities generally have surprisingly positive experiences. More often than not, internships give employers the opportunity to see first hand that hiring and employing a person with a disability isn't as hard as they previously believed. Students with disabilities too, are often pleasantly surprised to find that they are perfectly capable of functioning in an able-bodied workplace when paired with employers who are willing to accommodate their needs.

In today's competitive work world, it is the rare graduate who can expect to land a good job without some kind of internship experience. For students with disabilities, this previous work experience is even more essential.

HOW EMPLOYERS LIKE IBM CAN HELP

Employers, too, play a critical role in improving employment outcomes for people with disabilities—including people who are deaf or have hearing loss. I'm proud to say that IBM has a long history of commitment to hiring people with disabilities and innovating to accommodate for their unique technology needs within the workplace and marketplace.

Diversity Policies and Programs

When IBM first began exploring accessible technology innovation, it was due in part to an ongoing need to support our own workforce, which has always been extraordinarily diverse. In fact, for more than 100 years, IBM has embraced the concept of equal employment opportunity. We have aggressively pursued our own corporate policies and practices due to the deep and abiding belief of our founder, Thomas J. Watson, Sr., who in 1914 hired the first IBMer with a disability, 59 years before the U.S. Rehabilitation Act and 76 years before the Americans with Disabilities Act.

IBM has been embracing diversity and inclusion to drive innovation throughout the company since our founding. Our diversity milestones:

- **1899:** We hired our first black and female employees.
- **1914:** We hired our first IBMer with a disability.
- **1934:** We recruited our first professional women, three decades before the Equal Pay Act. IBM's founder, T.J. Watson Sr., also promised women "the same kind of work for equal pay." We also created focused development programs for those women so that they developed skills for critical jobs that were previously viewed as "men's jobs."
- **1941:** We hired Michael Supta, a blind psychologist, to recruit 181 people with disabilities. Dr. Supta's motto was "No person is handicapped if he or she has the right job."

Since 1995, IBM has increased its number of identified executives with disabilities 200 percent.

We also look at the specific jobs people with disabilities perform. We found that 58 percent of employees with disabilities are in key skill groups.

People with disabilities hold or have held job titles at IBM that include IBM Fellow, our highest technical level, vice president, director of benefits, director, IBM Human Ability and Accessibility Center, Global Solutions director of Business Development; director of Workforce Communications, distinguished engineer; software engineer; development engineer; IT architect; sales and marketing specialist.

These are high-level jobs that directly impact our clients. That means IBMers with disabilities contribute to the bottom line of our business—by serving clients, advancing technology or earning patents.

I'd like to take a moment and showcase one of my colleagues who embodies IBM's values and possesses the work ethic I just described.

Dr. Dimitri Kanevsky is an IBM master inventor with more than 100 patents to his name. Deaf since the age of 3, Dimitri exhibited an aptitude for math early on, attending a special school for mathematically gifted children in the Soviet Union. In 1969 he entered Moscow State University, where he went on to receive both his Master's and Ph.D. in math.

Today Dimitri, 24-year IBMer, creates new technologies at the Watson research center in New York. His work includes human language technologies, communications technologies for accessibility, and speech recognition. Notably, his work has directly benefited clients in the auto industry and law enforcement. He is a role model for many.

IBM has worked diligently to develop an end-to-end approach for recruiting, hiring and retaining IBMers with disabilities. We began by establishing a Global Accommodations Guideline requiring all new buildings to have barrier-free design, upgrades automatically including accessibility; and case-by-case reviews when IBMers with disabilities join the company or change work locations. We also created corporate IT standards to ensure our technology and tools were accessible to all of our employees.

Over time, our holistic approach expanded to include:

- **Thirteen Diversity Network Groups** for IBMers with Disabilities. These groups come together to provide support for our people with disabilities and to en-

gage the larger IBM community to raise awareness and understanding about our people with disabilities.

- **Diversity Councils** within every business unit worldwide.
- People with Disabilities **Technical Leaders Forum** held every 2 years.
- **Online communities and forums** on our company intranet.
- A **Cost Recovery Program** that removes the cost of accommodations for disabled employees from the individual manager's budget to ensure that hiring and promotion decisions are based on skill and talent. Since instituting this process, IBM has spent about \$2 million a year accommodating employees worldwide.
- Internships and mentoring programs—past and present—specifically tailored to people with disabilities, such as:
 - **Entry Point:** A program developed between the American Association for the Advancement of Science (AAAS), IBM, and NASA, IBM has placed 191 students with disabilities in summer/internships and hired 44 students to regular employment. As an IBMer, I joined Entry Point's booth at Gallaudet's annual career fair to help with recruiting.
 - **Lift:** A nonprofit program that trains computer programmers and analysts with substantial physical disabilities and then contracts for up to a year with companies like IBM.
 - **Project View:** An IBM diversity recruitment program offering Latino, African American, Asian, Women, Persons with Disabilities and Native American, BA, BS, MS, and Ph.D. students the opportunity to explore IBM's national career options. This has been an especially successful path into IBM for many people with disabilities. I personally know a number of deaf colleagues who first identified career opportunities at IBM through the Project View program.
 - **Reverse mentoring sessions** in which senior IBM executives meet with IBMers with disabilities from around the world to discuss personal experiences, viewpoints on our company culture, accessible technology solutions for our workplace and career progression.

At IBM, we believe it's not enough to hire people with disabilities—we want them to thrive as well as aspire to, and attain leadership roles.

Finally, with respect to employers and people with disabilities, I'd like to mention the importance of creating appropriate and responsive **support systems**, not just for people with disabilities, but for key professionals as well. For example, IBM human resources (HR) professionals supply the perspective and experience necessary to help hiring managers make informed decisions and provide unique approaches to problem solving. In addition, hiring managers and H.R. professionals sometimes contact me for advice to help with the transition of a new employee with a disability. I also reach out to new employees who are deaf or hard-of-hearing to give them a warm welcome. Other IBMers with disabilities do this as well. It simply is part of our culture and it's one of the reasons why IBM is continually recognized as a top employer for people with disabilities.

Accessible Information and Communications Technologies: The "Great Equalizer"

Accessible information and communications technologies level the playing field for people with disabilities, including people who are deaf and those with hearing loss. In fact, technology is the "great equalizer" for people with disabilities.

I am proud to highlight IBM's contributions to helping transform the information and assistive technology landscape to advance digital inclusion of all people include:

- 1975: First Braille printer.
- 1980: Talking typewriter for people who are blind.
- 1988: Screen Reader/DOS—One of the first screen reading products in the world. The word "screen reader" is now used as the name of the category of software.
- 1990: Voice Type and Via Voice (1998) technologies, which have roots in research for helping people who are deaf and hard-of-hearing.
- 1997: IBM Home Page Reader—The first practical screen reader and voice browser product in the world.
- 2003: Web Accessibility Technology (WAT)—Named "2003 Product of the Year" by the National Disabilities Council.
- 2004: IBM CaptionMeNow—Enabled deaf and hard-of-hearing users to attain captioning for corporate Web casts and pod casts on demand.
- 2008: IBM AbilityLab Sametime Language Translator—Provides multilingual translation of IBM®, Lotus®, Sametime®, chats to enhance collaboration between colleagues who speak different languages.
- 2008: IBM AbilityLab Sametime Conference Transcriber—Delivers speech-to-text capability for IBM® Lotus® Sametime® text and voice chat to allow people who

are deaf and hard of hearing to more actively participate in meetings and teleconferences.

- 2009: IBM AbilityLab Captioner and Editor—Delivers cost-effective solution for real-time captioning of rich media content.
- 2010: IBM AbilityLab Voice Chat Transcriber—Enables automatic, real time transcriptions of conversations conducted through Voice over VoIP applications for people who are deaf and hard-of-hearing.

For me personally, without technology I would not be as competitive or productive in the workplace as I am now—if at all. IBM is, not surprisingly, adept at creating and maintaining the right ecosystems to support IBMers with disabilities. When I came to work here in 2003, the company already had relationships in place with interpreting and captioning agencies so that I could be productive from day one. This kind of approach by employers is crucial to supporting the success of new IBMers with disabilities.

The reality is that in today's agile office workplace, everything is connected, collaborative, and dynamically changing. Workers communicate via e-mail, instant messaging, and Web conferencing. Documents, reports, and calendars are all electronic. Business processes are now managed via online applications. Social media sites (Facebook, Twitter), news feeds, and Web applications (Google docs) are increasingly being used, and social capabilities are being incorporated into enterprise applications to drive new levels of global collaboration and innovation.

In many ways, this technology-based workplace creates an environment where workers with disabilities can have the flexibility to participate more equally and fully. Often however, these technologies were designed and launched without the ability to accommodate the needs of all people with disabilities. Audio-visual content creates difficulties for those with hearing and vision disabilities. Small devices require fine motor skills, which individuals with limited mobility or dexterity may not have. And the cognitive load is a challenge for those with cognitive disabilities.

For the potential of an inclusive workplace to be realized, current and future workplace technologies should be optimized for accessibility and standardized. IBM has made a commitment to advancing global standards and legislation in accessibility. We have led and contributed to the World Wide Web Consortium (W3C) Web Contents Accessibility Guidelines (1999, 2010); U.S. Rehabilitation Act, Section 508 (2001); W3C Accessible Rich Internet Applications (2009). We continue to lead and contribute to 25 working groups in standards organizations worldwide, with the goal of harmonized international accessibility standards.

Fundamentally, accessibility is about democratizing access to information and services for everyone—regardless of age or ability—to support full and active participation in the workforce and society.

Finally, in addition to advancing accessibility for our clients and the world, IBM has retained a dedication to innovation on behalf of our employees. In 2009, IBM developed a first-of-a-kind integrated IT solution, *Accessible Workplace Connection* (AWC), to bring together all of the company's processes, accommodations, intelligence and accessibility innovation into a single, integrated and globally managed solution for IBMers with disabilities, their managers, and the human resources staff that support them.

Designed to deliver a "one stop" accommodations resource, the first version of AWC was released late last year and has already begun streamlining requests for items like screen readers and live captioning for teleconferences as well as centralizing the delivery processes. In the coming year, enhanced collaboration capabilities within AWC will also enable employees and established IBM communities to leverage the experiences of coworkers around the globe and ensure consistency in how accommodations are made and used throughout different geographies.

INCREASING THE HIRING OF PEOPLE WITH DISABILITIES

Having addressed some of IBM's best practices for recruiting, hiring and retaining employees with disabilities, I'd like to talk about the need for employers to increase the hiring of people with disabilities, including those who are deaf and hard-of-hearing.

First, take a look around the room. Take note of the blackberries, cell phones, or even laptops that either you have or the person next to you has. If you haven't noticed, the world of work has indeed changed. The new normal for work no longer is the traditional 9 to 5 workplace or is based upon a continuous Monday-Friday routine. The new normal work is characterized by rapid changes in technology and dynamic markets where clients want 24/7 availability of our systems and services. These new technologies and client expectations create greater opportunities for the kind of flexible work options that increase employment options for people with dis-

abilities. This is the new world of work—a world I believe is extending a hand to people with disabilities to not only participate, but to lead. IBM's workforce model recognizes this new normal in work.

At IBM, we seek to create an inclusive culture for our workforce, which include many of the concepts I just mentioned. Since 1995, IBM has measured our global journey toward inclusion through the representation of our people, the transformation of IBM culture, and the behavior expected of us as outlined by our company values. For those of you not familiar with our values, they are:

- Dedication to every client's success;
- Innovation that matters—for our company and for the world; and
- Trust and personal responsibility in all relationships.

Today, approximately 3,000 IBMers around the world have self-identified as having a disability, and we estimate that people with disabilities represent 1–3 percent of our global population, all the while remembering that disclosing one's disability is a very personal and private matter which is not mandatory.

THE ROLE OF GOVERNMENT IN EASING TRANSITIONS FROM EDUCATION TO EMPLOYMENT

I include people with all types of sensory and mobility challenges because there are certain practical realities that must be addressed for each of these groups to enable them to effectively transition from post-secondary education to the workforce.

A major barrier to employment for people with disabilities is accessible **transportation**. According to the latest National Organization on Disability/Harris Survey (2010),³ people with disabilities are twice as likely to have inadequate transportation when compared to the mainstream population (34 percent versus 16 percent).

Lack of mobility is a major inhibitor not only to obtain a job, but also if one aspires to a leadership role. The inability to travel, or the perception that one cannot travel easily, may even remove people with disabilities from consideration for a variety of jobs, making career advancement more difficult. Government and business must continue to partner and look at transportation from the perspective of people with disabilities.

Another critical issue facing people with disabilities transitioning to work is that of **assistive technology**. The Harris survey I referenced also reported that Americans with disabilities not only rely on assistive technology, but a third reported they would lose their independence without it. Many assistive technology accommodations cost as little as \$500.00. At IBM, we've found that investments in technology can help enable incredibly capable IBMers to reach their highest potential and productivity.

RECOMMENDATIONS

FOR EDUCATION INSTITUTIONS

Plan with accessibility in mind. As the planet progresses with increasing speed toward a fully knowledge-based economy, driven and enabled by advanced technology, one thing is certain: Education will be a critical determinant of success in the 21st century.

Despite sweeping global economic changes since 2008, demand for knowledge workers with specialized skills continues to grow by 11 percent a year. Many of these jobs will require lifelong training and continuous updating of skills. Fulfilling global workforce requirements while adjusting to new stakeholder expectations for highly personalized and individualized learning experiences, is difficult at best, especially given dramatic changes in the student landscape.

Global technology, government policy and demographic trends are converging to drive the transformation of 21st century models for education. CIOs and administrators of today's higher education institutions must manage changing expectations with new economic realities to create smarter systems that deliver on diverse stakeholder demands.

Planning with accessibility in mind from the outset can not only reduce long-term costs, but lays the foundation for an inclusive culture and improves access to education for the entire workforce. At IBM, 80 percent of our learning content is online and enables our employees to access both knowledge and the expertise of their global colleagues. Taking a holistic, enterprise-wide approach to accessibility integration from the outset, enables cost-effective compliance with current and emerging legislation.

³ Kessler Foundation/NOD 2010 Survey of Americans with Disabilities (www.2010disabilitysurveys.org/pdfs/surveyresults.pdf)

IBM continues to invest in research innovations and business insights essential to address end-to-end accessibility requirements facing today's higher education institutions. Accessible technology solutions can enable a culture of inclusion, especially in education and learning where ability—and the expansion, development and improvement of individual abilities—is the key metric.

FOR EMPLOYERS: MAKE ACCESSIBILITY A CORE BUSINESS VALUE

IBM defines an inclusive smarter workplace as one that includes seamless integration of:

- Smarter applications that are designed, implemented and deployed to support the requirements of *all* users.
- Consumable information in the form of Web sites, documents, presentations and media that is enabled for accessibility.
- Tools and applications that support inclusive collaboration between all individuals, some of whom may have disabilities.

To realize the goal of a more inclusive smarter workplace, employers must elevate accessibility to a core business value, comparable to security, with associated processes and risk management. It must be:

- Included in corporate policy;
- Designed into the workplace governance processes and infrastructure;
- Measured and assigned a risk value; and
- Reported.

FOR GOVERNMENT: ENACT AND ENFORCE MODERN, CLEAR AND RELEVANT LABOR LAWS

In the 21st century, the economy is characterized by technological innovation, dynamic structural and market shifts, new business models, new workforce management models and changing labor pools. Thus, how work gets done and where it gets done is vastly different than it was a mere decade ago. We have embraced this change at IBM.

For us, the world of work is characterized by a philosophy that work is something one does, not a place one goes. We firmly believe that enabling our employees to manage their work and personal lives is a business imperative, one where technology enables all employees, including those with special needs, to work from anywhere, at any time they choose. However, elements of our labor law and associated regulations are stuck in the old ways of the early 20th Century, limiting our ability to comprehensively offer flexible work options to our entire U.S. population. The solution is a modern, clear and relevant labor law that reflects today's workforce needs where more flexible work options are not only desired and encouraged, but also permitted.

A SHARED RESPONSIBILITY: BUILD THE EMPLOYMENT CANDIDATE PIPELINE

Perhaps one of IBM's greatest challenges in continuing to increase the employment of people with disabilities in our global workforce is the lack of qualified candidates. Federal and State Governments can help by creating incentive programs that begin with primary and secondary education systems and extend through to post-secondary institutions for higher learning.

Educational systems at all levels should be incentivized to:

- Create *inclusive environments* in which K–12 students with disabilities are fully integrated into mainstream classrooms and given the tools and technology to participate.
- Support deaf schools serving K–12 students and provide innovative tools and technology to allow students to reach their potential.
- Promote a *focus on STEM* (Science, Technology, Engineering and Math) education for all students, with a special emphasis on identified students with disabilities who have aptitudes in these subject areas.
- Require *IT accessibility training* as a core component of K–12 Teacher certification within each State.
- Require universities that offer teacher credentialing or continuing education courses to *increase annually the percent of their staff and administrators who have successfully completed IT accessibility training* until they have reached 85 percent (combined).
- Require *IT accessibility courses* to be mandatory academic coursework for all STEM degree programs as a pre-requisite for any university receiving Federal research grant funding—either directly or indirectly.

Establish a ***national clearinghouse*** for vendors and content that can be used by States as part of their teacher credentialing/continuing education.

Provide ***tax incentives*** to businesses that establish internship and co-op programs specifically for students with disabilities.

Create a ***private-sector resource*** similar to the public sector Job Accommodations Network to assist small- and medium-size business in providing accommodations to support recruiting and hiring of interns, co-ops and employees with disabilities.

Partner with State governments, city transit authorities and employers to develop viable, ***cost-effective solutions that address transportation barriers*** for people with disabilities.

CONCLUSION

As I said at the beginning of my testimony, IBM's research and experience suggest that improving employment outcomes for people with disabilities—including people who are deaf or have hearing loss—cannot be achieved by any single public or private entity. This work requires collaboration among business, government, advocacy groups, academia and non-Government Organizations. Only through a collaborative ecosystem can we affect real and lasting change. Furthermore, we can all do more when it comes to inclusion and being comfortable with people who are different than we are—not just people with disabilities.

For some employers today, the inclination is to think that if a person has a disability, the employment issue can be handled by simply providing technology that enables an employee to work from home. In some cases that may be true or even necessary. But it's critical for people with disabilities to be visible and in the workplace. To overcome those lingering societal misconceptions I mentioned earlier, a professional with a disability must be fully integrated into the workplace, not isolated.

I'm sure there are many organizations that will hire a person with a disability with the right skills for a job, but how many have the vision to consider that same person to run their company or organization?

Today's institutions of higher learning can help by preparing students with disabilities to lead. By giving them the skills, role models, experiences and technology tools necessary for success, universities and colleges help lay the foundation of confidence necessary for students who are deaf, have hearing loss or any other physical or sensory disability to pursue and attain not just jobs, but *careers*. They can also help by increasing the visibility and integration of people with disabilities in their institutions so that our future workers and leaders enter the workplace with a higher level of awareness about this community.

Employers can make a difference by creating cultures that celebrate diversity and inclusion and provide the policies, processes and technology tools to support it. At my company, when a person is hired at IBM, they are immediately labeled an IBMer. There is no avoiding it. This label is not about whether you are a person with a disability, male or female. Nor is it about what color you are or where you call home. It is a label that comes with enormous pride and sense of community.

Mr. Chairman and members of the committee, I hope my personal experiences, the IBM history and practices I have discussed, and our suggestions for related reforms, are helpful.

Thank you for the opportunity to testify before you today. I look forward to answering any questions you may have.

The CHAIRMAN. Thank you. Very good. Thank you very much. And now we will turn to Michael Ellis. Michael, welcome.

STATEMENT OF MICHAEL J. ELLIS, NATIONAL DIRECTOR, SPRINT RELAY, DENVER, CO

Mr. ELLIS. [The following testimony was delivered through an interpreter.] Good afternoon, Chairman Harkin, Ranking Chairman Enzi, and committee members.

Thank you for this opportunity to testify before the committee. I am honored to share with you my experiences, both as an individual who lives with a hearing loss and as a business leader in the relay community.

But first, some personal history. I was born to a hearing family and raised in a hearing world. But then at the ages of 14 and 20,

I experienced a diving accident that resulted in hearing loss, and those events changed my life.

The first person I met from the deaf world was Gerard Buckley 28 years ago. He met me at a very critical time in my life and was very supportive of me. He was extremely supportive and encouraging to me.

He encouraged me to pursue my education despite my hearing loss and to experience as many things as possible. With that encouragement, I applied and was accepted to Gallaudet University grad school.

Attending Gallaudet was a very eye-opening and inspiring, powerful and life-changing experience. Everyone at Gallaudet was supportive and encouraging of me. They taught me how to accept and adjust to my hearing loss and how to just move on in a very positive way.

After receiving my master's from Gallaudet, I worked in human services for 5 years before I joined Sprint. For almost 20 years, Sprint has empowered me, developed me, and trained me as part of a solution that breaks down barriers for people with disabilities. I now work side by side with many other deaf and hard-of-hearing and hearing professionals where we provide functionally equivalent telecom. That access is provided for thousands of consumers every day.

As national director for Sprint Relay, I currently serve on the Foundation Board for NTID and the Board of Associates for Gallaudet. For over 20 years, Sprint has been providing products and services to deaf and hard-of-hearing community members. Sprint is also an equal opportunity employer, and we believe that diversity fosters creativity, sensitivity, and growth.

Through diversity, we have been able to expand our products and services to be more inclusive. And as a result, Sprint has been recognized with numerous awards from different organizations. Sprint offers a comprehensive array of technology to people with disabilities.

Many examples can be found at www.sprint.com/accessibility. There, you can find information about products and services for customers who are deaf and hard-of-hearing, speech disabled, blind or visually impaired, or people with mobility and cognitive disabilities.

We provide accessibility for our employees as well. Just as an example, we have ASL staff and contract interpreters. We use video technology—it is almost like Hollywood Squares—that empowers us to simultaneously see one another while using ASL interpreters and audio-visual conferencing technology. Pretty cool technology.

To quote one of my employees, "At Sprint, accessibility is a verb." Every day, we have access to meetings, social events, emails, texting, IM, conference calls, just like our hearing coworkers.

Finally, our training and continuing education classes also have captioning. Our goal is to provide a positive, accessible work experience for all.

Now, moving on to the role of higher education. I would like to share with you how Sprint works with different universities to create internship opportunities. These internships provide great experience that can help prepare students for work and help employers

address possible environmental or communicative or even attitudinal barriers that may exist today. Some of these student interns may also receive support from Vocational Rehabilitation Services Administration.

Another great example of a valuable resource is PEPNet, the Postsecondary Education Programs Network. As you may know, PEPNet is under contract with the U.S. Department of Education Office of Special Education to provide transitional support for school to work.

Specifically, they have a program called "Getting A Job: Tools, Techniques, and Training." That is one of the many support services that improves the employment outcomes for deaf and hard-of-hearing students.

In sum, universities should continue to work with RSA, U.S. Department of Education, and corporate America, all to maximize resources, centralize funding, and encourage better preparation for students transitioning from school to work.

In conclusion, based on my experience, it will be required that strong partnerships between universities, corporations, and Congress be established to achieve more favorable employment outcomes for people who are deaf and hard-of-hearing.

Thank you again for this opportunity to participate today. And I look forward to your questions.

[Applause.]

[The prepared statement of Mr. Ellis follows:]

PREPARED STATEMENT OF MICHAEL J. ELLIS

Chairman Harkin, Ranking Member Enzi and committee members, thank you for this opportunity to testify before the committee as you examine opportunities for positive employee outcomes for individuals who are deaf or hard-of-hearing. Through our discussion, I plan to share my experience as both an individual who lives with a disability, hearing loss, and as an executive of the business community that has helped Sprint deliver services to the deaf, hard-of-hearing and speech-disabled community for the past 20 years.

My personal journey of living with deafness as a disability began at the age of 14 and then again at the age of 20 as a result of diving accidents. With the most profound hearing loss occurring 1 week prior to my senior year of college, I adjusted my life with little to no support or any type of reasonable accommodation. However, I didn't let deafness define me. One of the very first professionals in the field of deafness that I met was Dr. Gerard Buckley, current president of the National Technical Institute for the Deaf (NTID). Gerry encouraged me to use my education, recent hearing loss and personal experience to further my education as a graduate student. So I applied and was accepted to Gallaudet University. Becoming a graduate student at Gallaudet was a positive, life changing event. While at Gallaudet, I was taught how to embrace my disability and turn my hearing loss into a positive. After graduating from Gallaudet with a M.A. degree, I worked in the field of human services for 5 years before I joined the ranks at Sprint. At the time, Sprint recognized me as someone that understood the challenges of living with hearing loss and the related barriers and felt that my experience, education and training could help Sprint provide better services to people with disabilities. Thus, almost 20 years ago, Sprint hired and empowered me to be a part of a solution that broke down barriers via our relay services. I now work side-by-side with many other deaf and hard-of-hearing employees at Sprint where we provide functionally equivalent telecommunications access for people who are deaf, hard-of-hearing or speech disabled in all 50 States, Washington, DC and Puerto Rico.

As the National Director of Sprint Relay, I am responsible for nationwide domestic and international telecommunications relay services, including traditional 711 services, wireless, CapTel, relay conference captioning, Internet and video relay customer applications. I currently serve on the Foundation Board for NTID and Gallaudet University's Board of Associates.

OVERVIEW OF SPRINT INVOLVEMENT WITH THE DEAF AND HARD-OF-HEARING COMMUNITY

Sprint has a long history of providing products and services to the deaf and hard-of-hearing community, as well as being an employer who enthusiastically employs a workforce that is diverse from many perspectives. Sprint is an Equal Opportunity Employer, which includes employing those individuals with disabilities. The company embraces a diverse and inclusive workforce. At Sprint, we believe diversity fosters creativity, sensitivity and growth. Through diversity we have been able to grow our product portfolio to be more inclusive.

Sprint has developed partnerships and/or fostered mutually beneficial relationships with higher education institutions, such as Gallaudet, NTID, California State University—Northridge (CSUN), and regional, State and local deaf and hard-of-hearing organizations. Many of the people behind Sprint products and services for the deaf and hard-of-hearing community are also people that live with deafness or hearing loss, every day. These employees are actively involved in serving on the boards of organizations such as NTID and Gallaudet. We also hire deaf and hard-of-hearing summer interns for 10-week assignments which provides them with the experience they can apply in future studies and employment. Through the personal experiences of our employees and knowledge gained from our partnerships, Sprint is able to better relate to and support the communities we serve.

Our efforts to foster inclusion in both the workplace and marketplace have resulted in Sprint being recognized by numerous external organizations.

The Sprint Foundation supports the deaf and hard-of-hearing community through grant support for K–12 education programs targeted at improving middle school student achievement in science, technologies, engineering and mathematics (STEM).

SPRINT TECHNOLOGY FOR EMPLOYEES AND CUSTOMERS

Sprint supports and promotes accessibility for our employees and customers who are deaf or hard-of-hearing. Iconic and award-winning devices and relay services provide a great wireless value for people who are deaf, hard-of-hearing or have a speech disability. These services include:

- **Data only plans:** includes email, Internet access, instant messaging, text and picture messaging (SMS).
- **Hearing aid compatible wireless phones.**
- **TTY compatible phones** allow people with hearing and/or speech loss to make and receive telephone calls.
- **711 dialing to access** in-state Telecommunications Relay Service (TRS).
- **Relay services include** traditional TRS, Sprint IP Relay, Sprint Video Relay, CapTel, Relay conferencing captioning, Sprint Relay with AIM and Web CapTel.
- **Sprint Relay Video Customer Service (VCS)** enables deaf or hard-of-hearing customers to contact a Sprint representative who uses American Sign Language.

Sprint also offers a comprehensive array of technology to our deaf and hard-of-hearing employees. Many of these go beyond the definition of “reasonable accommodation” that was crafted as part of the Americans with Disabilities Act. Described below are just a few examples of how we provide accessibility from the application process to performing essential functions of the job that allow our employees to enjoy equal benefits and privileges of a social, economic and employment environment.

- Phone amplifiers.
- American Sign Language staff and contract interpreters are available in a variety of settings and locations.
- A multi-point video software tool much like “Hollywood Squares” is used to allow up to 40 deaf and hearing employees, contractors and consultants to simultaneously see each other while using an ASL interpreter and/or audio conference technology. The technology is made available via a licensing agreement with Nefsis.
- Sprint offers the same accessible technology to our employees that we offer our customers (see above).

On any given day, an employee at Sprint that happens to be deaf or hard-of-hearing has the same access to meetings, conference calls, email, texting and socializing as their hearing counterparts. He/she may use a wireless device with a forward-facing camera to connect with a video interpreter that will call a hearing co-worker to arrange for a meeting later in the day. He/she will then use Nefsis, a multi-point video tool from their computer with built-in web cam to see conference call participants as well as an ASL interpreter. In the afternoon he/she may take a training course through Sprint’s i-learn curriculum and the content will be captioned. Total

inclusion and accessibility is available, breaking down barriers to create a very productive work experience at Sprint.

The Americans with Disabilities Act provides equal employment opportunities for those individuals with a disability who can, either with or without a reasonable accommodation, perform the essential functions of a position they have or are seeking. The law provides for an interactive process between the employer and the employee or applicant to determine what an effective and reasonable accommodation might be. Many individuals with disabilities require no accommodation to perform the positions they hold, but they may need an accommodation for a different position.

In addition to a flexible work environment that includes a number of technology and mobility tools, Sprint provides employees with access to a robust process to address their needs for an accommodation to ensure their productivity. This not only ensures that we are fully compliant with regulations but can positively impact a temporary disability, ongoing need or an employee's return to work after a health event. The company grants over 1,000 formal accommodations every year.

The confidential accommodation process is an interactive one between an employee and his/her manager. The process provides resources to employees and their managers regarding their role in the process. Additionally, Employee Experience Managers are available to consult with both employees and management as necessary.

Finally, Sprint acknowledges that providing our employees with disabilities' reasonable accommodations is an integral part of who we are as a company. The general predisposition under our reasonable accommodation process is to provide an appropriate and effective accommodation if at all possible when an employee presents their request. Our main goal is for Sprint employees to be productive and high-performing thus enabling them to provide the best possible service to our customers.

HIGHER EDUCATION'S ROLE

Higher education institutions can help educate corporations, both big and small, by reaching out and inviting corporations to participate in paid internship placements, job mentoring programs and transitional support programs. As part of these career placement programs, higher education institutions could offer the corporations consultative and training programs on how to provide reasonable accommodation to current and prospective employees who are deaf or hard-of-hearing. This consultation and training support should help employers address the types of environmental, communicative and attitudinal barriers that can be common in the workplace. Helping companies overcome and address these attitudinal barriers about deafness and disabilities in general is a critical step towards inclusion. In the deaf community, leaders such as I. King Jordan, have long emphasized that "deaf people can do anything but hear." This is so true and can only be fully understood if deaf and hard-of-hearing prospective employees are given a chance to prove it. Higher education institutions can work with corporations to address attitudes that people with disabilities "can't" just because they are different from the non-disabled.

Additionally, higher education programs can help further prepare deaf or hard-of-hearing students by enabling them to become self-advocates. This can be done by providing students with information regarding reasonable accommodations available to them under Title I of The Americans with Disabilities Act. Based on my experience, graduates would benefit from more training and experience to effectively and continuously advocate for themselves. They need more training and support on this critical success factor if they are to achieve sustainability in an increasingly competitive world of work. Students should engage the employer prior to entering the interview process, discuss any accommodations that have proven successful in the past and utilize the accommodation process the employer has provided understanding that each employer is unique and must evaluate the situation on a case-by-case basis. This facilitates the employer being prepared for the needs of the applicant and will improve the student's chances of successfully finding not just a job but a career.

An expansion of the current Postsecondary Education Programs Network (PEPNet) to focus on transition from higher education to the world of employment would also be beneficial. The PEPnet Regional Centers are currently supported by contracts with the U.S. Department of Education, Office of Special Education and Rehabilitative Services, and Office of Special Education Programs. PEPNet's "Getting a Job! Tools, Techniques, and Trainings" Web site was developed and designed for students who are deaf or hard-of-hearing and transitioning to work as well as for the professionals who work with them. The Web site offers a series of topical videos accompanied by supporting documents and related materials, educator's

guides and role model videos. For more information, go to: <http://www.pepnet.org/getajob/>.

In sum, higher education should work in cooperation with the Rehabilitation Services Administration and the U.S. Department of Education, Office of Special Education, to maximize resources, centralize funding and stimulate better preparation programs for prospective employees who are deaf or hard-of-hearing.

CONCLUSION

My personal experience as someone who lives with a disability and overcomes the challenges of hearing loss along with my involvement in the deaf and hard-of-hearing community and my corporate experience developing services for this community has led me to believe it will take a strong partnership between higher education institutions, corporations and Congress to achieve more favorable employment outcomes for people who are deaf or hard-of-hearing.

The CHAIRMAN. Thank you.

Next, Leila Hanaumi, please.

STATEMENT OF LEILA HANAUMI, STUDENT, GALLAUDET UNIVERSITY, WASHINGTON, DC

Ms. HANAUMI. [The following testimony was delivered through an interpreter.] Good afternoon and welcome, Chairman Harkin, Senator Enzi, and members of the committee.

Thank you very much for the opportunity to be here with you. Your investment of time and resources to this university means so much to us.

I am honored to be here representing the student body to testify before this committee, to share our experiences here at Gallaudet University as students.

I have to say I don't know where I would be today if it weren't for Gallaudet University. Gallaudet provides me a unique experience for just myself and other students out there, students who are both deaf and hard-of-hearing.

Gallaudet establishes high expectations for its students, and there are so many opportunities that we experience right and left. Students have these opportunities that they can jump into and really grasp. There are resources available for us, and one of those resources I wanted to mention is the career center. I know it has been talked about today.

Thanks to the career center, I have actually had the opportunity to get my first internship working with Deaf Olympics. I was a reporter. I worked in Taipei, in Taiwan at the 2009 Summer Olympics as a reporter.

I was there for 3 weeks. Actually, it was a 10-week internship, but 3 weeks was onsite. And I have to say that was one of the best experiences of my life. I grew so much through my work. Every day I had to go to a couple of different sporting events and then write a complete article just a few hours afterwards.

And it wasn't just that, but with interactions with people all around the world allowed me to learn how to communicate through gestures, through interpreters, through everyday opportunities. And let me tell you, the stress of the day was nonstop. But from that experience, I have learned how better to interact with people and gained lots more skills.

If it weren't for that internship, I don't know what I would have done. It was through Gallaudet that I got that internship. Nowhere else would I have heard about that until I was able to learn from

one of my professors here that it was available. And this is just one example of the many opportunities that Gallaudet affords its students.

I am now in my second internship, and this is working with people who are bilingual, working with producing bilingual, multicultural products that would best help deaf people learn in the bilingual environment. It has been a wonderful experience for me. I have really gained a lot from it.

Also a couple of times a year, we have job and career fairs on campus. Today is a good example of that. We have a job fair happening right now on campus. And through those career fairs, lots of students are able to get internships. You get job opportunities.

In fact, two of my friends both graduated from Gallaudet last year, and one 2 years ago was actually able to get an internship with Volkswagen just as a result of going to the career fair, job fair, talking with people, getting an internship, and then actually was hired, and today is working full time at Volkswagen.

I mean, she just graduated this last May and has an amazing job so soon after graduation. Once again, just another example of what Gallaudet provides for this career fair.

Another one of my friends was working through the recruitment program—the Workforce Recruitment Program, that is—and they were able to get a job. He graduated and immediately was employed through the Workforce Recruitment Program and has been there a couple of years now. And again, both of these examples show how successful students can be in getting jobs right after graduation.

I also want to recognize the support I have been given by Vocational Rehabilitation. Often, schools for the deaf have VR services available to students who graduate to help them decide where they want to go to college and provide some financial support. I attended the California School for the deaf in Fremont, and I was fortunate enough to have a VR office right there on our campus.

As I was nearing graduation, just a short walk to the building nearby, I was able to get some assistance from the VR counselor to learn about Gallaudet. And there is no way I could afford to come here if it weren't for the support of Vocational Rehabilitation.

Gallaudet is often considered a Mecca for deaf and hard-of-hearing people. And not just students here in America, but students throughout the world. Everyone dreams of coming to Gallaudet because we all know that coming here means we have complete access, as deaf persons, to everything that happens around us.

One wonderful thing about that access is it is direct communication that we can have with our teachers, with our colleagues, with faculty members, with our peers, everywhere we go. I mean, even the cafeteria workers can communicate with us in sign language, our own indigenous language. So it has really afforded me a lot of personal growth here.

Of course, we face the changing demographics of our student body. New signers are coming to campus more and more these days, and we do offer accommodating services for them, and technology is available today for them. So many things are now more available and accessible that allows us more opportunities.

We provide real-time captioning and interpreting services, as well as note-taking services in classes. There are ASL classes and tutoring afforded to students, many opportunities ensuring that all students who are deaf and hard-of-hearing can be successful. Regardless of their communication background, regardless of whether they can sign or not, they will find this campus fully accessible to them.

This is a place where we are really encouraged to grow as much as we can, and I can personally vouch for that. My dream, when I was growing up, was always to be an editor of a magazine. But honestly, I never thought I would be able to do it.

And the biggest reason for that was because of the issues with communication. I mean, I always wanted to dream big, but in my heart, I always wondered how will I be able to communicate with my colleagues and my coworkers? I never thought it was honestly possible until I came to Gallaudet and I saw all that I could do.

I became the fundraiser for my class, kind of starting small. And then from there, I moved up the ranks and became a writer for the Buff and Blue, and then a copy editor. And there I became manager and assistant editor, and before I knew it, I was editor of the Buff and Blue last year.

I didn't come to Gallaudet expecting that I would be able to do all these things. I never imagined it. But in fact, here I was in this position now to encourage others to grow and to dream big because that is how I experienced it.

There are so many little things and job experiences that have helped me along the way. I was a peer leader for the freshman class, for freshman seminar classes. When I was offered the position, I went for it, as I have for many other experiences, and I have grown personally so much. I have learned about myself and learned to believe in myself.

I will be graduating soon, this December. And it is probably even one of my busiest semesters because I have been so involved in so many organizations. I am senator for the student body government. I am on student congress.

I am on Bison TV. I am on the Bison TV show. These are fun projects, but I have to say they are great growth experiences for me. Through them, I have learned how to sign on television programs, to communicate better, and these are skills that I will be applying to my future employment opportunities.

I am the Homecoming Bash co-chairperson. Homecoming is next Saturday. Students, this is a plug for you. You better be there.

[Laughter.]

But also I am involved in many, many areas of life on campus. All of these experiences have made me realize that I am an intelligent, hard-working woman, and I am capable of achieving anything that I dream. Any company would be lucky to hire me.

And if it weren't for this experience at Gallaudet University, if it weren't for this institution, I wouldn't have that dream. This is the ultimate place for deaf and hard-of-hearing students to come.

With that, I thank you very much and ask you to believe in us.

[Applause.]

[The prepared statement of Ms. Hanaumi follows:]

PREPARED STATEMENT OF LEILA HANAUMI

Welcome, Chairman Harkin, Ranking Member Enzi, and distinguished members of the committee! I am honored to be able to testify today on how Gallaudet University provides the resources and opportunities for deaf and hard-of-hearing students' future employment. Without this university, I don't know where I'd be today, and I know many of my colleagues could say the same. Thank you for being here and continuing the fight to promote the rights of people with disabilities. Your investment and support mean a tremendous amount to the deaf community.

Gallaudet University provides a unique experience for deaf people like me. This university has high expectations for its students and opportunities are always appearing for us. We have a wonderful resource available right here on campus: Career Center. The advisors there are always notifying us of internship and work opportunities in DC and internationally. They are available to meet with us anytime we need guidance, and I have worked with Career Center in the past myself. It was here at Gallaudet that I first heard of the position of reporter for the Deaflympics, hosted at Taipei, Taiwan in 2009. I would likely not have heard or applied for the position had I been anywhere else other than at Gallaudet, and because one of my professors strongly encouraged me to apply, I got the job.

It turned out to be one of the best experiences of my life. For 3 weeks, I had to work under pressure every single day at Taipei, going to two sporting events a day and then typing a complete report within a few hours after the games. The job required me to interview various people everyday, including coaches, players, and fans from other countries. I learned to communicate with all kinds of people, using whatever means necessary. On the flight back to America, I felt like I had grown to be a much more independent, interactive, and capable person in such a short time.

It was through Career Center that I was able to afford and complete my first internship. Career Center will help pay for one international and one domestic internship per student. I am currently on my second internship with a former professor of mine. This school is a great networking base, and I have often received opportunities in many different areas through the people that I have worked with. She is starting a new company that develops multimedia products that promotes bi- and even multilingualism within literacy. I am the Project Manager and I take care of various tasks, such as creating a Press Kit and organizing a retreat. It has been a wonderful experience to be able to witness and be a part of building a company from scratch.

Also, there are Career Fairs on campus several times a year. Employers from different companies come with their booths to meet students and potential employees. This has proven to be successful, as one of my friends got an internship with Volkswagen by talking to a representative at the Fair. Volkswagen and Gallaudet had an agreement to have two students work at Volkswagen as a part of "giving back to the local community" plan. My friend was one of the students that got the internship, and Gallaudet ensured that he would have a positive work experience by providing interpreters when needed.

I have another friend who is also a Gallaudet alumni success story. He landed an internship with Central Information of Technology under National Institute of Technology through the Work Recruitment Program that Gallaudet provides. That internship turned into a full-time job, and he has been working there for nearly a year and half now.

I also need to recognize the support I receive from Vocal Rehabilitation. I was fortunate to go to California School for the Deaf, Fremont, where there was a VR office on campus. High school students could simply walk to the next building to meet with their VR counselor, and that's what I did my senior year. VR is paying for my undergraduate tuition, which also includes books and supplies. I don't know how else I would have been able to afford coming here.

Gallaudet is considered a Mecca for deaf people all over the world. Here, we receive equal communication access, which allows us to enhance our university experience by being able to have direct communication anywhere on campus with anyone. However, we do have many new signers, and for those students, Gallaudet provides interpreters, Real Time Captioning in classrooms, and the option to have a note taker. This greatly helps new signer students to transit to an all-signing community.

The technology that we have nowadays truly does contribute to equal access for deaf and hard-of-hearing people. Not only does it help new signers adapt into a signing environment, it does the opposite as well. I am able to make calls from everyday purposes to professional ones through Video Relay Services. That technology has advanced to the point I can be doing my homework on my laptop with the Internet on one side of the screen while on hold with a video call on another side of the

screen. This kind of access helps me be a more independent individual, capable of multitasking and depending on myself to do all kinds of business.

As the ultimate center for deaf people, students often blossom throughout their years at Gallaudet. I can vouch for that. I have been given so many opportunities to experience various activities that I have become such an all-around, multitasking, and capable person. My experiences here have included: being Fundraising Chairperson for two different organizations; writing and editing for the school newspaper, the *Buff and Blue*, and then getting promoted to Managing Editor and eventually, Editor-in-Chief; working as Peer Leader for a Freshman Year Seminar course; acting in the student television production, Bison TV; becoming Senator for Student Body Government's Student Congress; becoming a member of my sorority; being the co-chair of this year's Homecoming Bash; and many more. It has always been a dream of mine to be an editor of a magazine company, but I honestly never quite believed that I could do it until now. Witnessing my growth and ability to pull off difficult responsibilities and tasks has helped me realize that I am capable of so much more than I thought. Gallaudet has given me the confidence to pursue my passion in media, which includes the areas of advertising, journalism, and literature. Because of my experiences here, I now know what I want to do. I plan on applying to San Diego State University for graduate school in Mass Communication and Media Studies. I know that I am an intelligent and hard worker that any employer would be lucky to have, and I plan on carrying that confidence with me for the rest of my life.

The CHAIRMAN. Wow. Told you we saved the best for last.

That was quite remarkable. Thank you very, very much.

I have some questions, just a couple, three things here. Members who are here are on the NTID National Advisory Group and the Gallaudet Board of Trustees, I would like to recognize them, ask them to stand. And if you will give them your thanks for their work?

James Macfadden is here. James Macfadden. Claudia Gordon? Claudia Gordon. And also Andrew Brenneman. Andrew Brenneman right here.

Thank you very much for your service. Thank you.

And also, we have Alexa Posny, who is President Obama's Assistant Secretary for the Office of Special Education and Rehabilitative Services, is also, I am told, in the audience. Alexa Posny here.

Thank you for being here.

Well, it is hard to start right here, but I guess the two of you who are involved in the private sector in business—every once in a while we run across companies, I have just heard of two here now, that have really taken the extra steps necessary to hire people with disabilities.

How can we encourage more companies to hire individuals, especially as we are here now talking about individuals who are deaf or hard-of-hearing? Is it internships? Is that the key to it? Having them come to the college fairs? Just give me an idea. How do we get more companies to really take that extra step?

Mr. Ellis.

Mr. ELLIS. I think you have to begin with the concept of evaluating that company's supervisory services to see whether or not that company is what we might say is "deaf friendly" in terms of how they provide service. And if we should bring in deaf employees, do they have necessary means to make their workplace accessible?

For example, if you just look at car insurance. It is changing rapidly, and Sprint is working with a variety of different industries here to see if they are making cars more deaf friendly. You know, if you are driving with one of those GPS screens or some kind of a navigator, it would be great to have the captioning provided there

so that deaf drivers are able to access that auditory information, and we can then use cars just like anyone else would.

Should that be available, people would be in line to buy those cars. Making those products accessible and making sure that their workplaces are deaf friendly and accessible. That would be the first step.

Mr. BRAVIN. I agree with you, Mike. I think it is important for us to show the company that hiring people with disabilities, including hard-of-hearing or deaf, that it is a competitive edge. It is not only doing the right thing or the right thing to do, employees should compare the marketplace and consumers.

A good quote from John Kemp, who is now the CEO of Abilities, a former executive director of USDBLN, said that our employees should look like our consumers and look like our suppliers and look like our shareholders. And he said that, and I think that is very, very true.

Mr. ELLIS. I wanted to add as well, just to followup, one of the challenges is always this issue of cost and the cost of providing accommodations to businesses so that you can support accessibility needs for people with disabilities. Encouraging companies to realize that that cost, let us say, of providing interpreters or captions is really a great return on investment when you see the end product.

I mean, you see the wonderful services and work ethic of deaf and hard-of-hearing people, really you are buying power. And once people realize that, they are much more willing to open up their minds and change their attitudes in terms of how they can provide services and bring in more people who are able to help them be more productive. Really, it adds buying power to the company.

The CHAIRMAN. I might just add, that one of the things we see so often is that a company that provides support services for a person with a disability finds they have a more loyal worker, more productive worker, people who show up on time, do their jobs. I just see this and hear this time and time and time again.

So you are right, Mr. Ellis. The small amount of investment in making an accommodation gives them a great payback in their employees. I just see that a lot.

The problem is always then, getting them to take the first step.

And what I think I am seeing happen out there, where now some companies are mentoring other companies, smaller companies that may be their suppliers—they may not own that company, but that company does some business with them, and they are now kind of acting as a mentor to them to show them what they can do. And I hope to see that done more often around the country.

By the way, Ms. Hanaumi, I think there is going to be a competition here on who becomes the first Senator.

[Laughter.]

But obviously, you are exceptionally bright, very eloquent, have a lot of poise, and you have a great future. You said that VR helped you.

Ms. HANAUMI. Thank you.

The CHAIRMAN. VR, voc rehab. Voc rehab was helpful here with tuition and everything here. But now you are going to go to graduate school. Will they continue to help? Will they support graduate

school or transition to the workforce? Do you have any idea of this? Because I don't know.

Ms. HANAUMI. Actually, I don't know about other States because it does vary according to the State. But I can speak at least for California, and I do know that my VR counselor—and again, California is a big State. I have friends from California who may have different experiences and they received different information from their VR counselors.

But my counselor was very clear with me that if I was interested in pursuing graduate education that I would be able to do so, and they said even if I took a year off they would pay for my graduate education. Now I am not sure about transitioning after graduate school to work, I am not sure what kind of support they provide.

But I know that VR does continue to provide support for my studies. And I think it depends upon your major, and some majors are not so much supported by VR. So there is variance.

The CHAIRMAN. It varies by State, the VR support?

Ms. HANAUMI. That is right. That is correct.

The CHAIRMAN. Find out the answer to my question, would you? What States do that? My question is what States do provide that ongoing help for graduate education, professional education beyond a bachelor's degree? I would like to know the answer to that question.

You mentioned something else about—I just want to focus just slightly on this—internships. You had an internship. The two of you talked about internships. For all three of you, are there any changes—if you could snap your fingers and just make whatever changes so you could get more young people who are deaf into internships, what would you do?

From your own experiences, what would make it better, easier for these young people to get these internships?

Mr. BRAVIN. If I may look back to my first internship with Verizon in New York, this was after my first year at Gallaudet. I was still a kid, so to speak. I was so excited, my new suit on and everything, the first day of work, and I met with my boss. I had a hard time communicating with my boss.

Verizon is a wonderful company. There is no question. I want everyone to understand that. But for that specific office, it was a new experience for them. They had good intentions, but no support services in place for people with disabilities.

I think from that experience, what can change—the second summer actually was a wonderful experience with Verizon. NTID and Gallaudet had already done this and been proactive in educating other companies. But prepare students to allow—especially an internship opportunity, where you only have a couple of months to just jump right in and I think that would make a big difference so that the students are prepared when they get there to face that.

Mr. ELLIS. Through many years I have had a variety of different interns. Some of them actually became full-time employees at Sprint. That was a great experience.

As I reflect, I think what might I do differently? Perhaps having more time. I mean, usually we only have 10 weeks as part of the university's agreement. Ten weeks is simply not sufficient. It is barely enough time for them to get their feet wet. You know, they

really don't get that full-fledged experience of what it is like to be in a corporate world.

Maybe an internship that lasted 2 or 3 months? Those sorts of placements might be better, and maybe work closely with the university to make that happen.

The CHAIRMAN. Longer time.

Mr. BRAVIN. Yes, just a bit more time.

The CHAIRMAN. You had a long-time internship?

Ms. HANAUMI. Right. Exactly. Both of my internships were with deaf employers. I didn't have a lot that I would want to change about it, but I do agree with what has been said. Ten weeks is simply not enough. It is a minimum requirement here.

In my current internship, I have been with the same employer since May. So that is an option.

Yes, I guess I don't have anything else to say about that question.

The CHAIRMAN. Longer-term internships. OK. Thank you.

I will turn to Senator Enzi.

Senator ENZI. I will start with Ms. Hanaumi. What kind of challenges do you anticipate that you will have as you begin classes at San Diego State? What types of accommodations has San Diego State discussed with you or not discussed with you?

Ms. HANAUMI. Well, I will apply. I have yet to be accepted. So I can't say that I will start classes there this fall, but that is my intention. But, yes, I am a bit nervous about this, I have to say.

Gallaudet is my second institution. My first was a school for the deaf in the Fremont, and here is my second educational setting. Accessible communication has just always been something I have done with my faculty and classmates. Wherever I end up in graduate school, San Diego or wherever it might be, being in a hearing classroom with an interpreter will be a new experience, and I am a bit anxious about that.

Yet at the same time, I know that I have mentally prepared myself. I have talked to many of my friends who have gone through that same kind of experience in grad school, and I have talked with my friends who are at San Diego State University themselves currently.

They are willing to make accommodations, and they do that even before you begin classes there, making sure that interpreters are available. I am very fortunate that San Diego State has one of the best interpreter referral agencies in the country. I am very hopeful that I will have a positive experience.

But at the same time, I am preparing myself for the challenges that I will face of not being able to participate fully in the classroom discussions, as I have been able to do thus far, and maybe get a bit of extra time added to when I get information. There will be a bit of a delay and maybe not having that ease of communications with my peers and my professors as I do now.

But I will deal with it as I go.

Senator ENZI. I bet you will deal with it well. I am very impressed.

Mr. Ellis and Mr. Bravin, what is the typical career track for an employee at each of your companies who is deaf or hard-of-hearing?

Mr. BRAVIN. The nice thing about IBM, it is a global company, and we have a long history of hiring individuals with disability, deaf or hard-of-hearing. My father used to work with IBM for about 25 years, and he was in software development, marketing, and engineering. And I am more on the strategic side.

We have a lot of IT, software development areas, and the amazing thing is I think we already talked about the innovative design for deaf and hard-of-hearing individuals. However, they have been integrated. A couple of deaf and hard-of-hearing employees have worked in our HR portal to allow for individuals to ask for captioning and accommodations and interpreting requests through that portal.

Other situational disabilities who are not disabled, but perhaps have a broken arm, also use that tool. In fact, we are working with one company in the healthcare industry to sell that solution. We are presenting that to the marketplace, and it all started from an internal arena with our own employees that have disabilities.

Senator ENZI. Mr. Ellis.

Mr. ELLIS. From a career track perspective, really the sky is the limit. We have deaf and hard-of-hearing people who are working with marketing, sales, product development, legislative affairs, Government affairs, technologies. I mean, it just runs the gamut. You name it. There are no barriers in terms of what employees can do based on their areas of interest and their background. Support services are available to them.

It is designed as really empowering the individuals who are employed to design their own career path. It is a very open, accessible attitude and environment.

Senator ENZI. What types of professional development and on-the-job training do each of the companies offer to the employees who are deaf and hard-of-hearing?

Mr. ELLIS. Exactly the same kinds of opportunities that a person who is able to hear would be able to access in terms of professional development, opportunities to get involved with management and leadership training. Every employee has what is called an individualized development plan, and that IDP is something that gives them the opportunity to sit down with their supervisors and just talk through what it is that they want to do, what they want to become, you might say, when they grow up in the next 5 or 10 years, and work toward a plan to achieve that goal.

We are very active in terms of the management getting involved and employees taking responsibilities to enroll in classes and pursue learning and growth on their own.

Senator ENZI. Ms. Hanaumi, can you tell me a little bit about—I assume that you have gone to some of these on-campus career fairs. And so what kind of challenges do you find with those and what kind of opportunities? How do they work?

Ms. HANAUMI. Well, typically, they have a variety of booths set up, and it is maybe at the conference center or someplace like that. And there are booths that provide information, and employers are stationing these booths, and we always have someone there providing interpreting services.

Or students are able just to read the material and request an interpreter to come with them if they have any questions of the em-

ployers. Or they can just take business cards and get in touch with folks later through email or followup with other questions they might have.

I mean, of course, the only challenge is going to be being able to use my own communication directly to the employer and not have to go through a third party, through an interpreter. Sometimes that adds a little bit of a delay. Employers may not have experience working with an interpreter before, and so they may do things like looking at the interpreter instead of looking at the student who is asking the question.

It gets a little confusing about who is talking and who is actually the one generating the conversation. But once we work that out and interpreters here at Gallaudet are probably some of the best I have ever seen, and with that, interpreters really help to make the situation a lot more accessible and accommodating for us.

It is not too much of a challenge. It is just a little bit of a different experience.

Senator ENZI. I have got to say all of this has been very eye-opening. Sometimes we live in a little bit different world. We don't think about these things. So it is very helpful. And again, I have some more of a technical nature questions that I will provide in writing.

You have been tremendously helpful.

The CHAIRMAN. Thank you very much.

Is there a question we didn't ask that you said, "Boy, I sure hope they ask me this question." Anything else that you would like to have us know before we dismiss you?

Mr. ELLIS. I just want to recognize and thank you both for realizing how important this is and what a wonderful opportunity it is to see how talented deaf and hard-of-hearing people in America can be afforded opportunities to be successful. I hope you can help us open doors.

Mr. BRAVIN. And working for IBM within the global company, there are a lot of issues here. And we take for granted—a lot of countries, India and China, have very little exposure with deaf and hard-of-hearing employees or are not as fortunate as we are. We should be a model for other countries as well.

The CHAIRMAN. That is very true.

Ms. Hanaumi.

Ms. HANAUMI. I don't want to be repetitive, but I guess for me the bottom line is, is what is so special about Gallaudet to me is that our students here have the opportunity to be on equal playing ground. I mean, we are equal humans. It is not like we are deaf or disabled people here. We are just humans here, and that is a great starting point for us.

That helps us really build the foundation we need to go into the workforce, and I think really that is a great mentality to take with us.

The CHAIRMAN. Thank you all very much again for this very historic hearing.

This will go down as the first-ever hearing in which every witness was deaf. Never happened before. And so, I am very proud of both Senator Enzi and I, both of whom have had deafness in our family, and this is very important to us.

And I just say for the record, why shouldn't more people with deafness testify, as well as people with other kinds of disabilities that we have all over our society, you know? I hope this sort of sets a kind of a standard for the future in our hearings.

Not that we always want to come back to Gallaudet. We may not be able to do that, but you can come down to the Hill and testify.

I noticed, Dr. Hurwitz, in your written testimony you mentioned some successful people who have gone on. You mentioned Greg Hlibok, who graduated in 1989, as the chief of the Disability Rights Office for the Federal Communications Commission. That was the young man that led the Deaf President Now movement.

Mr. HURWITZ. Yes, that is correct.

The CHAIRMAN. Oh, he is here? Oh, Greg is here.

Mr. HLIBOK. [through interpreter] Hi, Senator Harkin. Hello.

The CHAIRMAN. I knew him when he was a kid.

[Laughter.]

Mr. HLIBOK. I am still a kid. I am still young.

The CHAIRMAN. I was so proud of him when he led that movement in 1988?

Mr. HLIBOK. That is correct. Yes, 1988.

The CHAIRMAN. Wow. It was wonderful. They came down to the Capitol. They plugged up the traffic.

[Laughter.]

It was just wonderful to see students demanding their rights. It was an exhilarating moment I know for Gallaudet and for the young people. But for those of us who had worked a lot in disability rights and things, it was—and that was before the ADA. That was before ADA passed.

And quite frankly, I said a lot of times, that kind of gave us the impetus, a lot of impetus because a lot of the Nation saw this and began to ask, you are right. Why shouldn't Gallaudet, the premier school for educating students with deafness, why shouldn't they have a deaf president?

And it just changed. Everything changed. It was a wonderful moment in history, and I am delighted to see Greg. I didn't know he was here. I just read that here. But congratulations on your new position, too.

Mr. HLIBOK. Thank you.

The CHAIRMAN. That is quite an accomplishment and did a lot to change the school here.

I am going to use my final comment as Dr. Hurwitz's. He didn't give it all. So I am going to give it all.

You said,

"In many ways, today's Gallaudet students possess greater awareness and confidence in succeeding in the world of work, as compared to past generations of students."

That is true.

"When I stand on the stage in May 2012 performing what is, indeed, the greatest joy of any university president, the conferring of degrees, I will be handing degrees to many undergraduate students who were born after the passage of the greatest civil rights legislation for people with disabilities in the history of our Nation.

“These students have grown up in a world where the paradigm of having a disability is not an abnormality to be ashamed of, but a difference to be embraced and valued. They are what I call ‘the ADA generation.’ This ADA generation is not reserved exclusively to those who are considered disabled by others. It is a generation”—and this is important. “It is a generation of all young Americans who share the same hopes and desires to achieve the American dream.”

I don’t think it could ever be said better than that. The record will stay open for 10 days for any other submissions or questions.

Before we close, I want to introduce two people. A lot of times we Senators, we get plaudits and applause for doing things. But we know that it is the staff who does the work. I am blessed with two great staff people who do all of my disability work, Lee Perselay, who is here. Please stand up.

[Applause.]

And Andy Imparato.

[Applause.]

Thank you all very, very much. Thank you again, Gallaudet, for hosting us here. To all the students, study hard, do well. We are going to be proud of you.

Thank you. The hearing will stand adjourned.

[Additional material follows.]

ADDITIONAL MATERIAL

PREPARED STATEMENT OF MAYA ARIEL

Mr. Chairman and members of the committee, thank you for taking the time to talk about how important education is to employment opportunities for people who are deaf or hard of hearing. It is my honor to provide written testimony.

I am the only deaf person in my family. I was born hearing but was deafened by spinal meningitis at 7 months old. I am a student at the Rochester Institute of Technology (RIT) College of Business and was admitted through the National Technical Institute for the Deaf (NTID). My major is Business Administration-Management. I strongly believe that Gallaudet University and RIT/NTID offer a tremendous amount of resources and support to deaf and hard-of-hearing students that would not otherwise be available. Both institutions help prepare deaf and hard-of-hearing students to enter the workplace and pursue their dreams.

RIT/NTID offers an equal-opportunity learning environment to its deaf and hard-of-hearing students, providing diverse communication and study aid so that the deaf and hard-of-hearing population can best take advantage of the education and college life. The institute offers a lot of options and resources to prepare you to be a productive member of society. It's so important to be in an educational environment that recognizes and addresses our needs so that we can develop our skills and our goals, and look forward to being productive members of the workforce and of our society.

I have had so many productive experiences at NTID that I feel will help me be successful after I graduate. I became extremely involved in the theatre community at NTID, acting in many plays and working as a stage crew member and a scene shop employee. I have been involved in sorority life and also participated in a Habitat for Humanity trip to South Carolina. I am a resident advisor and work in the NTID admissions office. I also had the wonderful opportunity of participating in a full immersion program in Italy for 6 weeks one summer. All these opportunities and experiences have been made possible because RIT/NTID offers a supportive, equal-opportunity environment where we, who are deaf and hard of hearing, can participate in the academic environment and campus social and work opportunities just as our hearing peers do. There are no boundaries.

(Link: <http://www.youtube.com/watch?v=gJcAymTu-CE>)

Along with fellow student, Hannah Worek, last spring, I was involved in the show "What Would You Do?" on ABC. The show was set in a coffee shop, and simulated a situation where a manager denied Hannah and I the ability to apply for an available job in the shop because we were deaf. The point of the show was to highlight how members of the public responded to this discrimination. To my surprise, even though we were in that shop 6 hours straight, only a few people stood up for us and told the employer that he was discriminating. The impact that made on all of us involved in the show was how much people need to be educated about diversity and discrimination. RIT/NTID teaches us that it is about our abilities in the workplace, not our disabilities, and provides us those skills that enable us to enter the workplace as equals.

Although I was surprised at the lack of support from the public at the coffee shop, I am not surprised that there is a barrier that stands between deaf and hard-of-hearing people and gainful employment. It is really important to the deaf and hard-of-hearing population that there are schools such as RIT/NTID to attend.

One of the benefits of attending NTID is the NTID Center on Employment (NCE) that helps with resumes, cover letters, job interviews and job searches. The two main goals of NCE are to help deaf and hard-of-hearing RIT/NTID students and graduates with the job search and to provide employers with well-trained, highly qualified deaf and hard-of-hearing employees as well as to provide guidance integrating employees with hearing loss into the workforce. We also have a Workplace Recruitment Program just like Gallaudet that invites employers to come to our school to help students obtain either co-ops or full-time jobs.

One of the things I really love about RIT/NTID is that before we graduate with a bachelor's degree, we are required to have co-ops. This summer, I was placed in a co-op through the American Association for People with Disabilities (AAPD) at the U.S. Department of Agriculture (USDA) in its Agriculture Marketing Services department in Washington, DC. The USDA wanted to integrate workers who have special needs into its workforce, but had little experience with co-ops. The first thing that my boss at USDA asked me was how the Department could accommodate me so that I might be on equal footing with the other employees and be successful on the job. What we decided was that, when I had one-on-one meetings, I did not need an interpreter as long as my boss and my co-workers have the patience to repeat, or to speak slowly, if I initially had trouble understanding what was being said.

With a group of people, I definitely needed an interpreter to understand each speaker and to be as involved as the other people. We also agreed that an interpreter would be available to me the first few days on the job until I was introduced to my co-workers and we established comfortable ways to communicate. This anticipation of, and preparation for, my needs made my transition into the job smooth. It was good for me and for my co-workers as well.

As the weeks went by, my co-workers realized that I was just like them with the exception of my hearing loss. I worked just as diligently; was interested in the day-to-day workings of the office; and in them as colleagues. I feel that, by the end of my co-op experience, my colleagues judged me based on my abilities and not my disability. We also grew to appreciate one another's differences. Several of my co-workers became quite interested in sign language, and I was able to teach an introductory sign language class to interested colleagues during work one day. I'm sure I could have taught a series of such classes had time permitted.

The work environment at USDA was also important. There was a feeling of camaraderie and inclusiveness. We had jobs to do, but it was important that everyone felt that their contribution was important, and that their voice could be heard, in whatever form that takes. The attitude displayed by the USDA as an employer is really necessary for deaf and hard-of-hearing workers to be successful in the workplace.

I will be experiencing my second co-op this upcoming spring quarter when I will be working for the Dow Chemical Company in Indiana. I am currently looking for a full-time job upon graduation. I do not give up even though we face frustrations, barriers, and communication challenges.

Regarding Vocational Rehabilitation (VR), the support provided by States varies. My home State is New Jersey, and due to economic issues, the support that I receive from the VR is declining. Not all deaf and hard-of-hearing people receive VR support. Some people receive nothing. From what I understand, this is because of State budget cuts. Of course, this affects the ability of some deaf and hard-of-hearing individuals to go to college.

Unfortunately, even though I am having a successful experience at RIT/NTID, I will always face challenges outside of college with the communication issues and the way our society reacts to people who are different in some way from the mainstream. I believe that as long as the Federal Government supports institutions like RIT/NTID and supports equal opportunity at the workplace, we will have a chance to make an impact in the workplace and in society. Progress has been made. But we need the government's continued support to continue to make progress.

If there is one thing I could change in American society, it would be for people to not look at us differently and greet us the same way they would any other person. In my opinion, I think it would be a great opportunity to require all industries and agencies to support a diversity workshop and to be open to the potential of accommodating people who have special needs.

The value of education at RIT/NTID, especially with the support of the Federal Government, is a big plus for deaf and hard-of-hearing individuals. If that is taken away from us, so many able students will suffer, and so much richness will be lost. There are many talented deaf and hard-of-hearing people who deserve the opportunity to get involved in the workforce.

Thank you.

PREPARED STATEMENT OF HANNAH WOREK

Mr. Chairman and members of the committee, thank you for the opportunity to submit this written testimony regarding the topic of "Leveraging Higher Education to Improve Employment Outcomes for People who are Deaf or Hard of Hearing."

HISTORY

I am hard of hearing. I grew up mainstreamed and attended school in the Brigh-ton school district in upstate New York. I was quite fortunate to have had such a wonderful mother who always fought for my rights, made possible by the ADA. It was because of her that I was given the chance to excel in school.

Education is so important, and it is equally important that people receive equal access to that education as early as possible.

My older deaf sister, Abigail, was mainstreamed on and off throughout her life. At one point in her mainstreamed education, the interpreter she started the school year with was not able to finish the year. The Board of Cooperative Educational Services (BOCES) placed a substitute interpreter with Abigail.

She continuously complained about the quality of the interpreter and how she felt uncomfortable with the interpreter. The response from BOCES was to "stick it out."

After a while, Abigail had had enough of “sticking it out” and decided she did not want to attend school if the same interpreter was assigned to her. As much as my mother tried to get her to go to school, Abigail refused. My mother also tried to reach out to BOCES to get them to change the interpreter assignment, but they both came to a standstill.

This lasted for almost a month, and the authorities had to get involved. Finally, Abigail ended up attending Rochester School for the Deaf. The interpreter situation was never addressed or resolved.

Though this may have been an extreme case, it is not uncommon for parents to have to continuously fight for their deaf/hard-of-hearing children’s rights. I recently babysat a deaf girl who was mainstreamed, but expressed interest in attending Rochester School for the Deaf. Her parents had to go through an arduous petitioning process during the spring and summer just so she could switch schools for the next school year.

BACKGROUND

Growing up mainstreamed, I never quite felt like I fit in completely with my peers. I cannot really complain though; I received one of the best educations possible. I received equal access to this education because I had qualified interpreters and note takers present in all of my classes.

Another huge factor was that I wore hearing aids to school. Fortunately, I had one of the best hearing aids available at the time. I needed two, and the hearing aids were between \$1,000 and \$2,000 each. My parents had to pay this expense out of their own pockets; their insurance would not cover the hearing aids. Ironically, the same insurance plan would have covered the \$30,000–\$40,000 expense of getting a cochlear implant.

I did not and still do not feel comfortable with the idea of getting a cochlear implant. In terms of cost, it should not cost me less to get surgery than to get two external devices. My mother wrote a letter to the insurance company objecting to this, and they agreed to cover only half the cost of the hearing aids. Any help was better than no help.

BEING A STUDENT AT THE ROCHESTER INSTITUTE OF TECHNOLOGY

I am currently a third-year Criminal Justice student. I have not regretted a single moment that I have spent here at RIT. It is so nice to be surrounded by both deaf and hearing people every day. I have the liberty of making the choice of who I want to surround myself with.

My friends are mostly deaf, but I decided to join a hearing sorority on campus. The majority of my hearing Sisters either have taken or will take ASL as a class on campus. RIT makes it so easy for this collaboration to happen. The impact of NTID at RIT is far-reaching. Some of my Sisters who graduated have texted me, telling me about how they have used ASL to communicate with deaf customers in their new jobs.

Though I am only a third year, I already feel prepared for the workforce. I did an internship at a real estate company over the past summer, and I could not think of any way I could have been better prepared to work there. RIT taught me how to effectively work with other people on projects, about the importance of deadlines, and so much more.

I will not dedicate much time to talking about RIT because I think it is a great investment of the government’s money. There is nothing that I think needs to be changed here at RIT, so I will dedicate my energy to more pressing issues.

MY EXPERIENCE ON ABC’S TV SHOW “WHAT WOULD YOU DO?”

Maya Ariel and I appeared on an episode of ABC’s “What Would You Do?” as a job applicant in a coffee shop. The manager, who was an actor, openly discriminated against Maya and me, in the hopes that it would evoke reactions among customers. We filmed from 7 a.m. to 4 p.m. as customers were constantly streaming in and out. By my count, only three people said something to help us.

The episode has also been posted on YouTube. Though the episode has educated millions, many still remain ignorant. A comment on the YouTube video said, “Can we please stop pretending that being deaf isn’t a potential detriment to job performance? Is anyone pretending they’d hire a deaf person over someone who can hear?” This is precisely the attitude that needs to be changed.

A glass ceiling definitely exists for deaf people. According to Forbes, in 2010, women accounted for only 3 percent of CEOs of the 500 biggest U.S. companies. Though 3 percent is small, 0 percent is even smaller. None of the 500 CEOs identify themselves as deaf.

It is not that there are no deaf people qualified to be CEOs; it is the general attitude of the hearing public that deaf people cannot hold executive positions.

POSTGRADUATE EDUCATION

I am aspiring to go to law school. From what I know, most people in New York who want to go to graduate school are often not financially supported by their Vocational Rehabilitation (VR) counselors.

Cost is a huge limitation for me when I decide to apply to law schools, as it is for most people in general. Unfortunately, this is not my only limitation. I have talked to numerous deaf people about attending law school and they have recommended certain schools merely because those schools will provide adequate support services. This is not guaranteed at most schools.

It is incredibly frustrating that accessibility may become an issue in my post-graduate education. I now am limited to schools that will provide interpreters and note takers without much trouble. It is my hope that with future policy, there will be no more limitations.

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION OF THE DEAF (NAD)

Dear Chairman Harkin, Ranking Member Enzi, and distinguished members of the committee, The National Association of the Deaf (NAD) applauds the committee for hosting the historic hearing on Leveraging Higher Education to Improve Employment Outcomes for People who are Deaf or Hard of Hearing where all the panelists were deaf or hard of hearing. We are very much looking forward to continuing these important discussions and submit the following comments on this issue.

The NAD wishes to encourage the committee to look at some options to improve employment opportunities for people who are deaf or hard of hearing. These suggested options go beyond the realm of higher education, and focus on overcoming barriers that complicate hiring chances for this population.

During the hearing, one of the stated statistics was that only 48 percent of people who are deaf and hard of hearing and aged between 18–64 years have jobs.¹ It is our belief that the main obstacle contributing to this terrible statistic is the way employers perceive and handle the cost of ongoing accommodations. Sign language interpreters are one form of an ongoing accommodation necessary in some circumstances for many individuals who are deaf or hard of hearing. Employers too often worry more about the cost of such ongoing accommodations than the abilities or skills of deaf and hard-of-hearing job applicants and employees.

To move past this misperception among hiring entities, we recommend new approaches to how such ongoing accommodations are handled, in both the public and private sectors. A few such approaches are listed here:

1. Encourage more businesses to adopt a Cost Recovery program similar to IBM's. This program removes the accommodations for employees with disabilities from the individual manager's budget to ensure that hiring and promotion decisions are based on skill and talent. In short, it removes the cost calculation from decisions about hiring people with disabilities.

2. To lower or remove the cost barrier of providing accommodations, we encourage Congress to greatly increase the Disabled Access Tax Credit. Currently, the tax credit is only available for small businesses with previous tax year revenue of \$1,000,000 or less (or 30 or fewer full-time workers.) A small business may only take a tax credit for 50 percent of their costs beyond the first \$250 of expenses, up to a maximum expenditure of \$10,250 (the first \$250 does not count.) We believe that to truly lower or remove the barrier, the tax credit should be 100 percent and should be greatly expanded to cover much larger employers. Further, this tax credit will be offset by taxes paid by an increase in working deaf and hard-of-hearing people and less reliance on Social Security payments.

3. Government could promote a policy that encourages all employers to participate in a large centralized fund to provide for all accommodations. In short, this would allow for costs to be evenly spread out among all employers. Such a centralized fund could be funded through some sort of tax on employers, or possibly use money from Social Security in cases where a beneficiary transfers from disability benefits to employment.

4. Encourage the Department of Labor's one-stop centers to focus on helping people with disabilities find employment. Many people with disabilities do not need rehabilitation but simply need job placement assistance. The DOL should require

¹ Census Bureau's 2010 American Community Survey.

these centers to become accessible and require them to hire Business Service Representatives who are focused on the hiring of people with disabilities.

5. Amend the Rehabilitation Act to ensure that Vocational Rehabilitation programs throughout the country not only provide employment placement services but also are mandated and credited for employment retention services.

6. The Rehabilitation Act should also be amended to support the National Employment Team (NET) concept promoted by the Council of State Administrators of Vocational Rehabilitation (CSAVR).

7. Create or fund a center (including but not limited to the NET proposed in paragraph 6) that is prepared to support employers with new or developing communication technologies that can support employment opportunities of individuals who are deaf and hard of hearing.

These preliminary ideas are meant to start the dialogue on ensuring that people who are deaf and hard of hearing are given a chance to secure jobs as well as move upwards within their workplace. This population needs the opportunity to work and not be seen as a burden by prospective employers, and the current economic model under the Americans with Disabilities Act does the opposite by making reasonable accommodations an economic disincentive.

This economic disincentive can be reversed by removing the cost of ongoing accommodations from the hiring equation and placing it elsewhere.

Changing the way hiring decisions are made is just as important as making sure that individuals who are deaf or hard of hearing receive adequate training from their colleges and universities. It is also important to note the importance of elementary and secondary education for students who are deaf and hard of hearing. There are many States that are currently looking at ways to cut costs in such elementary and secondary education, particularly with State schools that are often the only means of direct education available to young deaf and hard-of-hearing children. Such schools are a critical means of preparing such young students for a lifetime of quality employment, and these schools must be preserved.

Sincerely,

HOWARD A. ROSENBLUM,
Chief Executive Officer,
National Association of the Deaf.

RESPONSE TO QUESTIONS OF SENATOR ENZI BY T. ALAN HURWITZ

Question 1. I want to ask about low expectations that are too often established for students with disabilities. They become self-fulfilling prophecies. What can be done to change this situation and what is Gallaudet doing to change this situation?

Answer 1. Low expectations are indeed a destructive force in the education and employment of deaf people. When people are not expected to succeed, they often do not believe in themselves, and then they do not achieve all that they could if the best had been required and expected of them.

One of the ways Gallaudet is addressing this problem of low expectations is by creating four new pre-programs that will prepare students to enter demanding professional careers: Pre-law, pre-medicine, pre-architecture and pre-MBA. These four programs will train deaf students in these fields, preparing them to go on to higher education and thrive in those four professions. Lawyers, doctors, architects and business people are some of the highest achieving and most demanding professions in the United States. Offering these programs shows that we believe in students and they can dream and achieve whatever career they desire. The deaf youth of America will know that Gallaudet expects them to be highly successful, and that includes becoming doctors, lawyers, architects and business people. We will provide them the support, tools, and confidence to achieve.

Furthermore, Gallaudet admission standards have increased. For example in 2006, 31 percent of students had English levels that required them to be placed in "conditional" status. In 2011, that number was only 16 percent. Also, in 2006, the average ACT English, math and reading scores were 14.0, 16.9 and 16.8 respectively. In 2011, those scores were 17.6, 17.9 and 19.7. Additionally, as Gallaudet has seen increased standards among those students admitted to the University, graduation rates have improved, as has persistence. Increasing our standards has not led to decreasing enrollment. We believe that if we have high expectations for prospective students, deaf and hard-of-hearing youth and the schools that serve them will meet those expectations.

Question 2. Can you please talk about technology and other change moving from the deaf community into the mainstream?

Answer 2. Many technologies primarily used by the deaf community have moved into the mainstream and gained larger use and acceptance. Captioning for television and movies was originally done to grant access to deaf and hard-of-hearing people, but now can be found in noisy environments, such as bars and airports, disseminating information to all watching. Videophone technology used by deaf people is more reliable than the video technology available to the general public today, such as internet-based systems like Skype. The interoperability also allows different types of videophones to call each other, and they may serve as the example for mainstream video technology.

Furthermore, real-time text technology, originally used by deaf people who used TTY's (Teletypewriters) in the latter half of the 20th century to communicate, while fairly obsolete technology now, could come back in popularity. This technology allows words to be seen in real time, as they are written, and the Real-Time Text task force believes mainstream users will utilize it as well.¹ Also, volume control on telephones that was beneficial for hard-of-hearing users is now available on general phones and visual alert systems, like flashers for phones, can be purchased in mainstream electronic stores. All of these are examples where technology that was originally intended for the deaf community has reached and benefitted a larger audience.

Question 3. Everyone needs preparation to take his/her place in the workforce. Perhaps those who are deaf or hard of hearing need additional preparation because they have not had the opportunity to learn about the workplace while growing up. What can be done about this and what is Gallaudet doing to overcome these problems?

Answer 3. One way that Gallaudet fulfills the need to train our students about the workforce is through internships. Gallaudet has a high rate of internship placement—80 percent of graduating seniors complete at least one internship prior to graduation, a percentage much higher than the national average of 52 percent. Internships give students practical, hands on experience in the workforce, allowing them to acquire the requisite skills for future employment. This also exposes deaf and hard-of-hearing interns to employers who get to see firsthand the benefits of hiring individuals who are deaf or hard of hearing.

Furthermore, students also have the opportunity to work on campus. Multiple venues, such as the library, archives, on-campus restaurant, and various academic and administrative departments hire students. This gives our students the opportunity to work, earn money, and participate in employment, providing them knowledge and skills about working. Also, multiple services are offered by the Gallaudet Career Center that prepares students for their careers. These are discussed in question #4.

Question 4. What types of on-campus career services does Gallaudet provide for students?

Answer 4. Gallaudet University has a Career Center that provides a variety of resources for students to aid them in finding employment. Some of these are:

- Career Consultation: Students can make appointments and receive assistance with resumés and cover letters, preparation for internships and jobs, as well as assessments of their interests.
- Internship program: Internships provide students with valuable experience in entering the workforce and preparing them for employment. Students are allowed the option of receiving academic credit for these internships.
- Career Development Course: This seminar, which is required for graduation, teaches students how to write resumés, network, and prepare for interviews.
- Internship and Job Fairs: Twice a year, in the fall and the spring, the Career Center hosts Internship and Job fairs, attended by approximately 40–50 employers. Students are able to meet and interact with potential employers, and network at these events.
- Career Library: The career library has in its collection graduate school information, as well as materials for students to use that will assist them in their job search.
- Bison Career Link: This Web site is an online recruitment and internship/job search site that links to hundreds of employers. It also provides people looking for jobs access to daily updated listings of on-campus jobs, internship opportunities, as well as part-time and full-time employment openings.
- On-Campus Recruitment Program: Employers come to Gallaudet to recruit students for internships, summer jobs, and permanent employment. They host information sessions, on-campus interviews and mock interviews.

¹ From <http://www.realtimetext.org/index.php?pagina=27>.

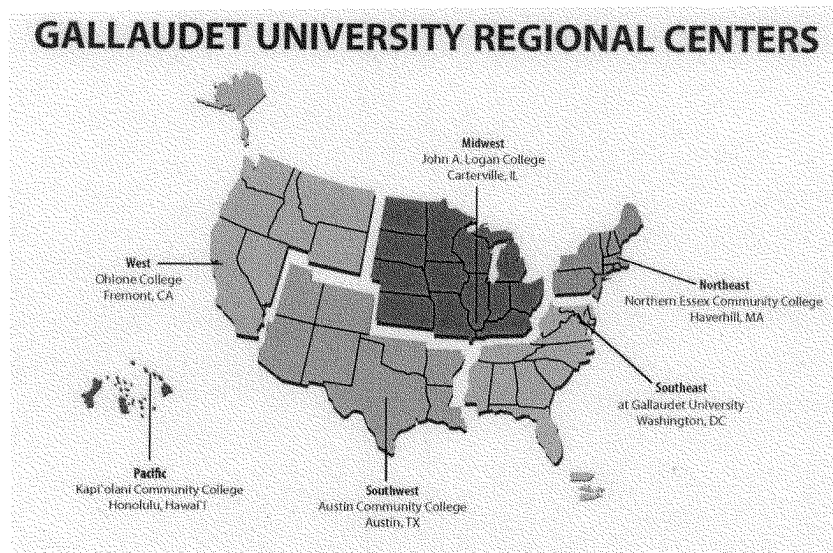
- **Workforce Recruitment Program:** The Gallaudet Career Center is involved with the Workforce Recruitment Program. This program is run by the Office of Disability Employment Policy and the Department of Defense. It connects Federal and private sector employers with students who are searching for summer and permanent employment and also keeps a database that details the qualifications of each student.

Question 5. Has Gallaudet formed partnerships with other institutions of higher education to assist non-Gallaudet deaf and hard-of-hearing students with their job searches? Please describe these arrangements?

Answer 5. Gallaudet has a system of regional centers throughout the United States, called Gallaudet University Regional Centers. These centers are provided in partnership with local colleges to assist deaf people throughout the country. The six regional centers are:

1. Northeast: Northern Essex Community College, Haverhill, MA
2. Southeast: Gallaudet University, Washington, DC
3. Midwest: John A. Logan College, Carterville, IL
4. Southwest: Austin Community College, Austin, TX
5. West: Ohlone College, Fremont, CA
6. Pacific: Kapi'olani Community College, Honolulu, HI

The Gallaudet University Regional Centers provide a variety of resources to deaf people throughout the United States. They have extension courses, for deaf and hard-of-hearing people and their families, as well as professionals who work with deaf people. They also offer training workshops, which discuss literacy, family involvement and the transition from school to postsecondary education and employment, as well as other topics. These centers, where Gallaudet partners with other institutions of higher education, assist deaf people in a myriad of ways, including with the transition to employment.



Also, Gallaudet is engaged in the “Task Force on Health Care Careers for the Deaf and Hard-of-Hearing Community” in partnership with the National Technical Institute for the Deaf, the Rochester General Health System, and the University of Rochester Medical System. This group, established in June 2010, is described as follows in their June 2011 interim report.

“The Task Force mission is to provide recommendations that will increase career opportunities for Deaf and Hard-of-Hearing individuals in health care professions. Such professions include those positions typically requiring associate degree level training through those requiring graduate and professional education in a variety of health care fields (including medical and pharmacological technologies, clinical care, research, administrative and IT support). The Task Force was created in response to a national demand for more skilled health care professionals, a need to improve the quality of health care services for under-

served citizens who are D/HH, and an acknowledgment of the significant employment barriers that exist for qualified D/HH individuals in the health care industry. The Task Force also supports and furthers current Department of Labor goals that focus on increasing employment and career advancement opportunities for all workers and professionals with disabilities.”²

This task force is an additional way Gallaudet is teaming up with other institutions in order to improve employment outcomes for those who are deaf or hard of hearing.

Question 6. What challenges do you still encounter in your efforts to place Gallaudet students in the workforce?

Answer 6. One of the primary challenges faced as Gallaudet strives to place students in the workforce is a lack of understanding of the abilities of deaf people by employers. Negative stereotypes are held about the capabilities of our students, and this hinders our ability to place them in positions. Better education of employers is needed to show that our students are capable, competent workers. This is one of the added benefits of our high placement of students in internships. In addition to teaching students the necessary skills to thrive in their careers, it also shows employers what deaf people can achieve.

Furthermore, another barrier to placement of our students is the cost and/or perceived cost of interpreting services and other accommodations. Employers may be wary of the added costs, and thus hesitate to hire a deaf person. They may also have erroneous ideas about interpreters and what that entails, and that hinders their willingness to try hiring a deaf person.

RESPONSES TO QUESTIONS OF SENATOR ENZI BY GERARD J. BUCKLEY, PH.D.

Question 1. It is my understanding that NTID has conducted research to measure your graduates’ participation in programs such as Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI). Would you please discuss the findings of these studies?

Answer 1. In the late 1970s, it became increasingly clear to NTID that self-reported questionnaires completed by graduates were inadequate for assessing the impact of an NTID education on employment outcomes. As a result, we forged institutional partnerships over time with the Internal Revenue Service, the Social Security Administration, and disability employment and public policy experts at the School of Ecology at Cornell University. NTID has developed not only memoranda of agreement with these Federal agencies, but also data-sharing agreements that ensure complete confidentiality of exchanged information. The resulting program of research generated and supported by these partnerships and agreements is described as “unique throughout higher education and rehabilitation services” by Dr. Richard Burkhauser, who is an internationally recognized public policy expert at Cornell University.

By providing the social security numbers (serving as individually unique identifiers) of its graduates to appropriate Federal agencies, NTID has obtained aggregate statistics on yearly earnings, employment participation, and participation in Federal assistance programs such as Supplemental Security Income (SSI), and Social Security Disability Insurance (SSDI). Analyses of these aggregate data have demonstrated the return on Federal investment in students who attend RIT/NTID. For example, deaf and hard-of-hearing bachelor degree graduates return to the Federal treasury an average of \$6,632 per year in Federal taxes during their first 25 years of employment. This annual figure exceeds, by \$2,063, the annuitized amount of \$4,569 required to pay back the Federal investment for their education (Clarq, J.R. & Walter, G.G., 1998; Schley et al, 2011).

Additionally, research conducted in 2006 compared a group of NTID deaf and hard-of-hearing graduates with three other groups: those students who were denied admission, those who were accepted but chose not to attend, and those who enrolled but did not persist to graduation. In each of these cases, it was clear that graduating as an NTID-supported student at RIT meant, on average, a significant increase in earnings. Further observations include the decreased dependency on Federal assistance programs such as SSI and SSDI for those individuals who graduate from RIT/NTID, as compared to those who do not. By age 50, 1 percent of graduates collected SSI, while, on average, 19 percent of individuals who withdrew or have been rejected for admission continue to participate in the program. This reduction

²“Building Pathways to Health Care Careers for the Deaf and Hard of Hearing Community,” unpublished Interim Report, Short-Term Recommendations, Task Force on Health Care Careers for the Deaf and Hard-of-Hearing Community, June 2011.

is especially noteworthy when one considers that 77.6 percent of students were receiving SSI benefits at age 19. While virtually no one participated in the SSDI program when they were students, by age 50 about 22 percent of graduates with a bachelor's and 26.8 percent of grads with an associate's degree were receiving SSDI benefits. These rates compare favorably to 34 percent for non-graduates.

In short, deaf and hard-of-hearing graduates from RIT/NTID have higher employment rates, higher earnings, and a lower draw of Federal funds than deaf and hard-of-hearing students not graduating from RIT/NTID. By age 50, deaf and hard-of-hearing bachelor degree graduates from RIT/NTID earn on average \$6,021 more than those with associate degrees; who in turn earn \$3,996 more on average than those who withdraw; who themselves earn \$4,329 more than those who are not admitted.

Question 2. Given that NTID operates within the Rochester Institute of Technology, would you discuss how much integration there is between NTID and the rest of RIT? What types of interactions and commonalities are there between NTID students and the larger RIT student body?

Answer 2. RIT's total enrollment this fall is 17,652 students, including NTID's contribution of 1,547 students. All RIT students are represented by RIT Student Government, whose president for the last 2 years has been Greg Pollock, a former NTID Student Congress President and deaf student pursuing his bachelor's degree in Professional and Technical Communication. This year and last year, Greg was the only student to give a speech at the RIT Convocation for New Students and Families, which he did in American Sign Language or ASL (with voicing and captioning provided by NTID Access Services staff). Greg's vice president for 2 years, Phil Amsler, is a hearing student who signs fluently, though he learned ASL only after arriving at RIT.

Like Phil, many RIT students become interested in ASL as a result of NTID. The number of students taking ASL has more than tripled at RIT over the past 4 years—this year, 2,193 students enrolled in ASL classes in just the fall, winter and spring quarters. RIT students organize the No Voice Zone, where they meet regularly (often in late evening) to teach, laugh and learn about deaf culture. Another example of the integration of NTID within RIT is the opening of the RIT American Sign Language and Deaf Culture Community Center last year, right in the center of campus at RIT's Student Alumni Union.

NTID-supported students can take full advantage of all RIT resources and programs. For example, one of the students chosen to participate in RIT's Global Leadership Certificate Program from the 75 who applied is deaf. At the first meeting of that program, a hearing RIT student from Brazil shared how he joined a primarily deaf and hard-of-hearing fraternity on campus since "most of my friends are deaf." In addition to diversity programs such as this, NTID students can also participate in study abroad programs. Maya Ariel, who attended the Senate HELP hearing on October 11, was able to spend 10 weeks in Italy on one of RIT's study abroad programs.

NTID provides services that maximize access and success of deaf and hard-of-hearing students engaged in wellness courses, intercollegiate athletics, and intramural and recreation programs. In fiscal year 2010, NTID had 15 student athletes competing in basketball, lacrosse, soccer, cross-country, track and wrestling. A new feature-length film, *The Hammer*, dramatizes the true story of one of RIT/NTID's student athletes, Matt Hamill. After transferring to RIT/NTID from Purdue University, Matt went on to graduate from NTID and become a three-time NCAA Wrestling Division III National Champion, the first deaf wrestler to win a national collegiate championship.

NTID's Performing Arts department brings together 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). Actors who are deaf or hard-of-hearing perform their lines using ASL, while hearing actors on stage simultaneously speak the lines. In fiscal year 2010, more than 490 individuals participated in six performances.

Regardless of degree program, deaf and hard-of-hearing students are able to take advantage of myriad access services designed specifically for them. In fiscal year 2010, 42 percent of NTID's 1,332 deaf and hard-of-hearing students were pursuing baccalaureate or graduate degrees alongside hearing students at RIT. There are faculty tutors, advisors, notetakers, and captionists, as well as the largest staff of full-time interpreters of any college in the world. On-site audiologists provide services related to hearing and hearing aids, cochlear implants and FM systems. Speech-language pathologists offer a broad range of speech and language services. 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.

Question 3. What types of on-campus career services does NTID provide for students?

Answer 3. Prior to students' cooperative work experiences (usually off-campus), 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. In fiscal year 2010, 141 NTID students enrolled in this course. NCE staff also offer specific sessions on resumés and career development workshops, with 82 NTID students participating in such workshops in fiscal year 2010.

Students utilize the extensive NCE Web site 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 advisors also provide job-seeking advice to students and graduates through e-mail, instant messaging and videophone. In fiscal year 2010, NCE staff provided more than 3,000 hours of student and graduate employment advising.

Every fall quarter, NCE also hosts its annual job fair. In October 2011, the NTID Job Fair hosted over 40 employers with almost 400 students and alumni participating. During this fair, six employers participated in a panel discussion, explaining the job search process from their company's perspective and answering questions from student attendees.

Also, NTID's counseling services department manages a full-service Career Resource and Testing Center that provides a number of career assessment tools and resources, including an interactive, computer-based career information system that helps students assess their interests, learning styles and values, and explore a wide range of career and educational options. Last year, this department provided more than 11,500 hours of career and personal counseling as well as academic advising for students.

Question 4. Has NTID formed partnerships with other institutions of higher education to assist non-NTID deaf and hard-of-hearing students with their job searches? Please describe these arrangements?

Answer 4. As Gallaudet University President Alan Hurwitz mentioned, NTID has joined with Gallaudet, the National Center on Deaf Health Research at the University of Rochester Medical Center, and the Rochester General Health System to form a Task Force on Health Care Careers for the Deaf and Hard-of-Hearing Community. This task force will address the limited opportunities for qualified deaf and hard-of-hearing individuals in this country to pursue careers in health care. Through the unique partnership of these institutions and organizations, the task force aims to expand opportunities for deaf and hard-of-hearing individuals within health care professions through increased accessibility strategies and options, the coordination and development of educational programs and enabling policy. The task force will issue its recommendations in March 2012.

Another recent partnership between NTID and other institutions of higher education to assist non-NTID deaf and hard-of-hearing students with employment is DeafTEC. The National Science Foundation has awarded more than \$4.45 million over 4 years to RIT/NTID to establish DeafTEC: Technological Education Center for Deaf and Hard-of-Hearing Students, an Advanced Technological Education (ATE) National Center of Excellence. There are approximately 40 ATE centers across the country, and DeafTEC will be the first ever established to serve individuals who are deaf or hard of hearing.

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

California

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

Florida

Florida School for the Deaf & the Blind, St. Augustine

St. Petersburg College, St. Petersburg
 ConMed Linvatec Corporation, Largo
 BioDerm, Inc., North Largo
 Bovie Medical Corporation, Clearwater

Texas

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

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

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

NTID has also been awarded a \$1.6 million 5-year grant from the National Science Foundation's Research in Disability Education program to establish a virtual academic community for non-NTID college students who are deaf or hard of hearing and majoring in the STEM fields. Cornell University and Camden County (NJ) College will be NTID's initial partners on the project.

The program is designed to increase graduation rates of deaf and hard-of-hearing STEM majors in postsecondary education in the long term. The grant team members will create a model that will provide remote tutoring and mentoring support and captioning and interpreting access services, via the cyber infrastructure, for the more than 30,000 deaf and hard-of-hearing students studying in mainstream colleges across the country. Although being piloted in the Northeast, the project seeks to implement a model that will be shared throughout the country.

Question 5. What challenges do you still encounter in your efforts to place NTID students in the workforce?

Answer 5. NTID has been fortunate to build outstanding and productive relationships with employers across the country that understand and value the talents that our graduates bring to the table. These employers also understand that, just as these students repay the Federal investment in their education at RIT/NTID, their productivity also repays employer investment in their accommodations many times over.

But these are the lucky employers, the ones who are already taking advantage of a deep talent base of educated deaf and hard-of-hearing professionals. Despite all the outreach that we and other entities conduct with employers, and despite the many laws and regulations mandating equal opportunity in hiring and accessibility in employment, there continues to be prejudice and ignorance about hiring and working with deaf and hard-of-hearing individuals.

As an example, earlier this year, ABC's television show *What Would You Do?* featured NTID students Hannah Worek and Maya Ariel, who both attended the Senate hearing, acting as job applicants at a coffee shop. An actor portraying the shop's manager told the young women that they would not be hired simply because they are deaf. Sadly, in this instance, only a few individuals spoke out against this discrimination. What is worse, several customers who identified themselves as HR professionals advised the manager on how to "legally" discriminate in ways that could not be easily detected or proven. NTID is using the show as another positive launching pad for providing outreach and education to human resource professionals and employers.

Another challenge continues to be ensuring that NTID students, like their hearing counterparts, keep pace with the changing job market and technical skills needed in the workplace. RIT and NTID work to address those challenges by creating new academic programs in "hot job" categories, using employer feedback to tweak existing academic programs, and making sure equipment and facilities continue to be state-of-the-art.

Appropriate academic preparation for college is another challenge for some deaf and hard-of-hearing students. NTID tries to improve that preparation through its outreach programs that connect with middle and high school students and alert them to what they need to do to prepare for college and career success.

RESPONSES TO QUESTIONS OF SENATOR ENZI BY IBM

Question 1. Besides working with Gallaudet and NTID, what other work is IBM doing to employ people who are deaf or hard-of-hearing?

Answer 1. IBM has several ways of recruiting deaf or hard-of hearing candidates.

- IBM maintains relationships with many recruiting agencies/vendors which specialize in diverse candidates, among them the National Disability Business Council and Getting Hired.

- Working with programs like Entry Point, a program developed between the American Association for the Advancement of Science (AAAS), IBM and NASA, and IBM's Project View, a diversity recruitment program offering students the opportunity to explore IBM's national career options. Project View has been an especially successful path into IBM for many people with disabilities.

- IBM hosts an annual technology camp for deaf and hard-of-hearing high school students to help build a pipeline of future scientists and engineers and encourage them to pursue careers in math, science and engineering.

- IBM enlists employees, like Seth Bravin, to help recruit potential candidates by participating in conferences, forums and seminars that showcase their careers and work. By making the case for an inclusive workplace and modeling best practices, other companies are also encouraged to employ people with disabilities. IBM is proud of its diverse employment history and our employees take every opportunity to share our story. For example, Seth has recently presented at the National Association of the Deaf conference, Hearing Loss Association of America conference, Deaf & Hard of Hearing in Government conference, and the Work RERC (Rehabilitation Engineering Research Center on Workplace Accommodations) Conference.

Question 2. What can be done to encourage more partnerships between industry and higher education that will promote employment opportunities for people who are deaf and hard-of-hearing?

Answer 2. We have found the best way for IBM to encourage more industry partnerships is to share our best practices and our success stories as well as be a recruitment and hiring model for our suppliers and partners. In Seth's testimony he discussed this in the section entitled, **A Shared Responsibility: Build the employment candidate pipeline.**

Other ideas for promoting partnerships:

- Government using recognition and awards to highlight companies, practices, or people that are leading the way in hiring.

- Promoting the return on investment and making a business case for hiring people with disabilities. Askearn.org is an excellent resource for this information, a collaborative project between USBLN and DOL/ODEP.

- College and school boards or advisory committees including business executives as an important part of their mission.

- Emphasizing in government education and research grants corporate collaboration with higher education on projects—e.g. intellectual property development.

For example, IBM collaborated with leaders from higher education to develop the IBM Education Cloud. This cloud computing initiative provides computing platforms as a service (PaaS), software as a service (SaaS), advanced analytics, and virtualized desktops featuring open source technologies. A companion Cloud Academy initiative composed of partners from education institutions helped shape IBM's Education Cloud into a robust and productive educational environment. The Education Cloud is both a platform for daily classroom services and for future innovations; as such, the services and functions it provides were developed to be accessible to users of various ages and capabilities.

Question 3. What challenges have you encountered in your efforts to hire individuals who are deaf or hard-of-hearing?

Answer 3. We continue to seek qualified candidates ready to step into the complexities of a global environment, and are eager to hire as needed and as appropriate. The challenge remains, to work for IBM a candidate must be strong in a STEM field, with an excellent scholastic record and skill development. This is true for all our employees. Candidates with the correct skill set are at times difficult to find. In Seth's testimony he also highlighted the transportation and available assistive technology as barriers.

Question 4. Both you and Mr. Ellis have spoken very highly of the other's efforts to hire individuals who are deaf and hard-of-hearing. With this in mind, what types of things are you doing to encourage other companies to also develop relationships with Gallaudet and NTID, and to hire individuals who are deaf and hard-of-hearing?

Answer 4. Again, IBM feels that the best way to encourage companies to hire people with disabilities or to work with academic institutions is to model our best practices and put IBM professionals in visible roles. By having deaf and hard-of-hearing employees in our key functions such as research, software development, and technology services, we are able to leverage their talent and insight to develop innovative solutions that are unique and differentiated.

In addition, we work with IBM business partners and advocacy organizations including USBLN, the American Association of People with Disabilities, and the Hearing Loss Association of America to actively market and sell accessible workplace solutions. We model a diverse workforce and provide a roadmap for the successful hiring and accommodation of individuals with disabilities, including those who are deaf and hard-of-hearing.

RESPONSES TO QUESTIONS OF SENATOR ENZI BY MICHAEL J. ELLIS

Question 1. Besides working with Gallaudet and NTID, what other work is Sprint doing to employ people who are Deaf or hard of hearing?

Answer 1. Sprint is an Equal Opportunity Employer, which includes employing individuals with disabilities. We enthusiastically embrace a diverse and inclusive workforce. We provide a variety of accommodations throughout the job application process as needed, and prospective employees may utilize the very same process available to employees regarding appropriate accommodations.

Sprint is committed to offering products and services that are accessible for the Deaf and hard-of-hearing. Through this commitment, we have learned that if these communities know that the people behind our products and services are also Deaf or hard of hearing, our offerings are better received. When we're representative of the 53 million customers we serve, we're better at meeting their expectations. We understand them and know their needs. Common sense and commitment to quality have become the driving force behind our success. When a corporation's programs, products and services are conceptualized, designed, and provided by people with similar disabilities, the consumer community knows and trusts the output to be exactly what they need and want.

Sprint Relay employees are actively involved in various national and State associations for the Deaf and hard of hearing, including the National Association of the Deaf (NAD), Hearing Loss Association of America (HLAA), Association of Late Deafened Adults (ALDA) and many State associations of the Deaf. We also market our accessible products and services at national conventions, such as the American Association of Retired People (AARP), Abilities Expo and Deaf Nation regional conferences. It is through these associations and events that we are able to show the community and other businesses our commitment to hiring people with disabilities. We also share job openings with these associations and other Deaf and hard-of-hearing news Web sites such as www.deafdigest.net.

Question 2. What can be done to encourage more partnerships between industry and higher education that will promote employment opportunities for people who are Deaf and hard of hearing?

Answer 2. Higher education institutions can educate the corporate community by inviting companies to participate in paid internship placements, job mentoring and transitional support programs. As part of these career placement programs, higher education institutions should also offer consultative and training programs to businesses on how to provide reasonable accommodation to prospective employees who are Deaf or hard of hearing. This consultation and training support should help employers address the types of environmental (visual), communicative (American Sign Language) and attitudinal barriers ("Deaf people can't . . .") that may be present in the workplace.

Higher education programs can also prepare students to become self-advocates by providing them with knowledge regarding reasonable accommodations available to them under Title 1 of The Americans with Disabilities Act.

One of the biggest challenges many businesses have in hiring the Deaf and hard of hearing is understanding and budgeting for compensation pertaining to costs related to communication access, i.e., American Sign Language interpreters. Without this type of accommodation, a Deaf applicant may never be considered for a job opening or, once hired, not be able to participate in certain work-related activities

and programs. While the advent of text- and video-based technology has certainly made this communication barrier less of an obstacle, it does not replace the need for translation between American Sign Language and English.

Question 3. What challenges have you encountered in your efforts to hire individuals who are Deaf or hard of hearing?

Answer 3. Because Sprint sets such a high value on inclusion and diversity and the value it brings to making our products and services best in class, we don't really have any challenges in hiring the Deaf and hard of hearing at Sprint. Active memberships and leadership roles in the community help Sprint remain involved and connected with the very best pool of potential applicants for job openings as they become available.

However, based on my experience, some recent graduates could benefit from additional training on how to effectively and continuously advocate for themselves. Such training and support may determine whether they succeed in an increasingly competitive workforce. Specifically, Sprint and most employers are very supportive of providing applicants with the necessary accommodations to level the playing field with other applicants; however, students should engage the employer prior to entering the process, discuss any accommodations that have proven successful for them in the past and utilize the accommodation process provided, understanding that each employer is unique and must evaluate the situation on a case-by-case basis. This facilitates the employer being prepared for the needs of the applicant and will improve the student's chances of successfully finding a position.

Question 4. Both you and Mr. Bravin have spoken very highly of the other's efforts to hire individuals who are Deaf and hard of hearing. With this in mind, what types of things are you doing to encourage other companies to also develop relationships with Gallaudet and NTID, and to hire individuals who are Deaf and hard of hearing?

Answer 4. Sprint leads by example. Our goal for more than 20 years has been to offer the latest technology and service to the Deaf and hard-of-hearing communities. We do business and buy services from companies that specifically employ the Deaf and hard of hearing, are owned by the Deaf or hard of hearing, or provide services to those communities. This investment serves as a catalyst for those businesses to continue to hire employees who are also Deaf and hard of hearing.

Sprint works with more than 100 businesses and agencies that focus solely on the Deaf and hard-of-hearing communities. From Deafnation, Inc. to National Black Deaf Advocates to Deaf Tech News, Sprint has made a significant investment in the Deaf and hard-of-hearing community in business spend alone. This support at both the local and national level underscores our commitment to the Deaf community and inclusion.

Sprint products and services that are available to our customers include relay services, hearing aid-compatible wireless phones, TTY-compatible phones, Sprint Video Relay Services, Sprint IP Relay, Sprint Relay with AIM, CapTel and Web CapTel along with the ability to use Video Customer Service. Sprint Mobile IP Relay is a free application that can be downloaded from the Android market onto select Android devices, and empowers thousands of users in the Deaf and hard-of-hearing communities and people with speech disabilities to communicate by phone virtually anywhere and anytime.

Since the Americans with Disabilities Act, many Deaf and hard-of-hearing citizens have benefitted from Sprint Relay's products and services to the extent that it helps them apply for jobs and remain employed. They may use one of our many different telephone relay service applications to make phone calls, set up interviews, conduct interviews, and to communicate with others once they are hired. With these tools and accessible resources, employers really have no excuse not to hire more Deaf and hard-of-hearing employees. Relay services removed communication barriers and leveled the playing field in today's competitive work environment.

Working for Sprint has been a very empowering experience for me. Through the years I've seen many of my Deaf and hard-of-hearing co-workers receive promotions, take on additional responsibilities or move on to other companies also known for providing accessibility and promoting the employment opportunities for Deaf and hard-of-hearing citizens. Sprint has a great reputation as a training ground and place to establish a career because of its commitment to accessibility and inclusion. I'm proud to say that I'm a Sprint employee.

CONSORTIUM FOR CITIZENS WITH DISABILITIES (CCD),
October 21, 2011.

Hon. TOM HARKIN, *Chairman,*
Health, Education, Labor, and Pensions Committee,
U.S. Senate,
Washington, DC 20510.

Hon. MIKE ENZI, *Ranking Member,*
Health, Education, Labor, and Pensions Committee,
U.S. Senate,
Washington, DC 20510.

DEAR SENATORS HARKIN AND ENZI: On behalf of the Consortium of Citizens with Disabilities Employment and Training Task Force, we appreciate your commitment in addressing employment outcomes for people who are Deaf and Hard of Hearing at the field hearing on October 11, 2011, "Leveraging Higher Education to Improve the Employment Outcomes for People Who Are Deaf and Hard of Hearing." The Consortium of Citizens with Disabilities is a coalition of more than 130 national disability-related organizations working together to advocate for national public policy that ensures full equality, self-determination, independence, empowerment, integration and inclusion of children and adults with disabilities in all aspects of society.

The CCD Employment and Training Task Force believes that meaningful employment represents one of the best opportunities for people with disabilities as they work toward becoming productive and independent members of their community. To that end, we applaud your continued efforts to address the deplorable state of labor force participation rate among Americans with disabilities including people who are deaf and hard of hearing. While the task force strongly supports giving people with disabilities the widest opportunities to achieve their highest levels of educational attainment which was the primary focus of the hearing, we want to remind the committee that many people with disabilities may instead pursue vocational endeavors in post-secondary life. Barriers to their success must also be removed.

Our task force believes that employment of individuals with disabilities requires a comprehensive approach that addresses all aspects of their lives in order to ensure that every individual receives appropriate education, training, and transition services in order to prepare them for the workforce. Such an approach also requires addressing a wide range of other issues: outreach to and engagement with employers, service monitoring and quality assurance, engagement of individuals and families, the availability of benefits counseling that supports community employment, transportation, and inter-agency collaboration with public vocational rehabilitation, to name just a few. Strong transition services from school-to-work, with a clear focus on community employment are also critical.

All of these things can be achieved through the reauthorization of the Workforce Investment Act and our task force hopes that the committee will continue moving forward with legislation this session. We recently submitted to the House Committee on Education and the Workforce, the following set of principles for reauthorization which may also be helpful in your deliberations:

WORKFORCE INVESTMENT ACT REAUTHORIZATION PRINCIPLES

- People with disabilities including people who are deaf and hard of hearing using the workforce investment system must be thought of as job seekers first. The workforce investment system should then respond to their needs from this assumption as it would any job seeker utilizing the system.
- The workforce investment system should be reconstructed using the principles of universal design to ensure that any job seeker can access the full array of services available.
 - Training should be enhanced for workforce investment system staff to respond to differing levels of customer need.
 - The workforce investment system should be structured to access and utilize a variety of approaches and strategies to infuse disability awareness throughout local service delivery systems.
 - This reauthorization should strengthen the workforce investment systems commitment to physical, technological and programmatic accessibility.
- People with disabilities must be included in any categories of priority of service and funds should be dedicated to meeting those needs. Workforce investment funds should prioritize targeted at-risk groups.
- The workforce investment system should approach each job seeker as an individual and respond to his or her needs accordingly.

- It should provide each job seeker with access to training needed to meet local labor market needs.
- It should utilize strategies such as assistive technology, supported or customized employment, job restructuring, and flex arrangements that allow job seekers to maximize opportunities in the local labor market.
- It should provide reasonable accommodations when appropriate.
- A dedicated Federal funding stream should be established to adequately fund all of the infrastructure costs of our Nation's job training system.
- The role of the workforce investment system in youth with disabilities transitioning from school to work and community life should be strengthened.
- The workforce investment system should strengthen its coordination with vocational and educational programs for veterans with disabilities to ensure that wounded warriors access all services and benefits to which they are entitled.
- The workforce investment system must be held accountable for its services to people with disabilities. This means that:
 - The performance measurement system should be redesigned so as to not create disincentives to serving people with disabilities.
 - Reporting requirements must be changed to include data on services to people with disabilities.
 - State and local system governance plans should explicitly outline strategies for serving individuals with disabilities.
 - Local systems should engage employment service providers with expertise in serving people with disabilities.
 - Governance bodies should assure that staff is appropriately trained to respond to the needs of job seekers with disabilities.
- The employment interests of people with disabilities must be represented in the workforce investment system's governance structure.
- The Secretary of Labor should ensure that personnel with expertise in disability policy and programs are embedded in the local and State system to promote linkages between public and private agencies and expand employment opportunities for people with disabilities.
- Authorizing and strengthening the Office of Disability Employment Policy's role in shaping and advancing policy on employment of people with disabilities.

We hope this document will be useful as you move through the legislative process and look forward to working with you and the committee over the coming months to renew and improve the Workforce Investment Act.

Sincerely,

ACCSES,
Association of Assistive Technology Act Programs.

EASTER SEALS,
NISH,
NATIONAL ASSOCIATION OF COUNCILS ON DEVELOPMENTAL DISABILITIES,
NATIONAL COUNCIL ON INDEPENDENT LIVING, AND
PARALYZED VETERANS OF AMERICA.

[Whereupon, at 2:56 p.m., the hearing was adjourned.]