

## What Research Tells Us of Lifelong Learning and Its Impact on Earnings for Individuals with Hearing Loss

National Technical Institute for the Deaf Rochester Institute of Technology

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## Reporting a 10-Year Collaborative Effort

- National Technical Institute for the Deaf at Rochester Institute of Technology (RIT/NTID)
- Cornell University Employment and Disability Institute (EDI)
- Social Security Administration



### **Rich Burkhauser Comments**

"We have the best records of our graduates of any college in the country ... We can do better evaluation on our students than any college in the country. We show the tremendous success of our NTID students [including] leaving the SSI disability rolls."



### **Social Security Administration**

- Provides data matching/analysis for a fee
- Provided first NTID/SSA match mid-90s
- Analyzes data and ensures confidentiality
- Developed SSA 'event history research' files vital measurements to study self-sufficiency of disabled



## The Social Security Administration: Authority

SSA makes disclosure of summary data to RIT under authority found in the Privacy Act of 1974 as amended by U.S.C. Section 552a (b) (5)

"... disclosures may be made ... with advance adequate written assurance that the record will be used solely as a statistical and reporting record, and ... transferred in a form that is not individually identifiable."



### **Presentation Outline**

- Background
- Findings:
  - Employment
  - Earnings
  - -SSI
  - -SSDI
- RSA 911 Opportunities

#### If time:

- Research Process
- SSI Children



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### **BACKGROUND**





## Work, Income and Disability (Since 1980)

- Incomes of those without disabilities risen
- Incomes of those with disabilities flat
- Employment rate of those without disabilities 82%
- Employment rate of those with disabilities declined from 35% to 31%



## Deaf/Hard-of-Hearing vs. General Population

- More deaf/hh are high school dropouts
- Fewer deaf/hh are high school or college graduates
- Fewer deaf/hh are working
- Deaf/hh employment rate dropped 10%
- General population employment rate dropped 1%
- Comparing in terms of family income
  - Most deaf/hh families have annual income under \$25,000/year
  - Most hearing families have annual income over \$25,000/year



## Data Reported for 11,793 Deaf/Hard-of-Hearing

### **Groups Studied:**

- Unit record analysis: ALL students included
- Deaf graduates of NTID/RIT
  - Associate
  - Baccalaureate
- Withdrew from NTID
- Denied Admission to NTID



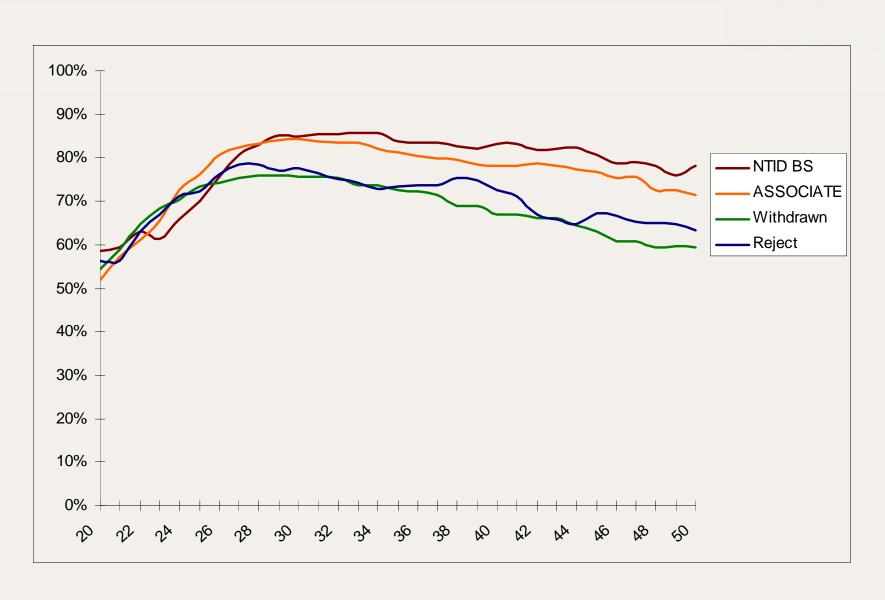
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### FINDINGS: EMPLOYMENT



### Impact: Employment (Earnings Reported)

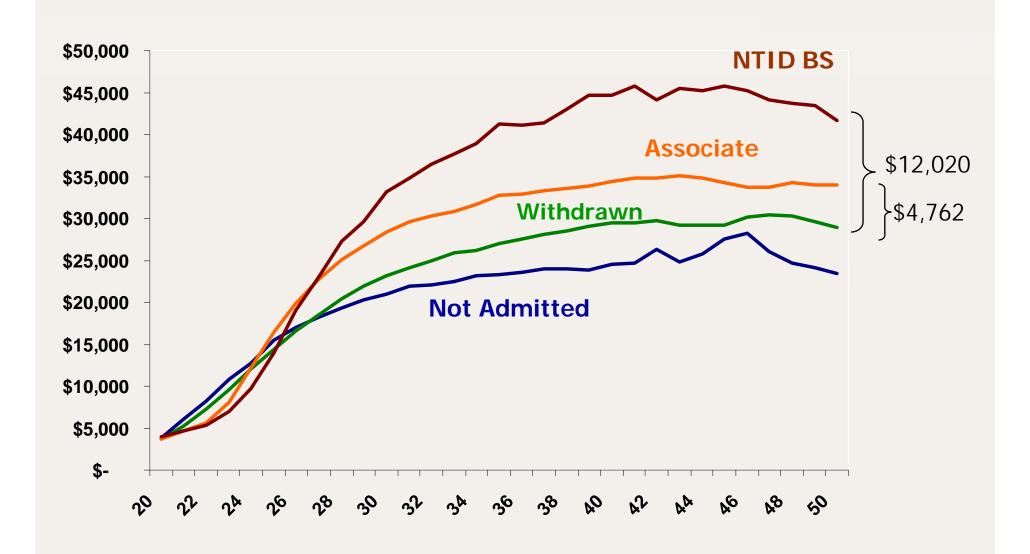




### FINDINGS: EARNINGS



### Impact: Earnings (Median)

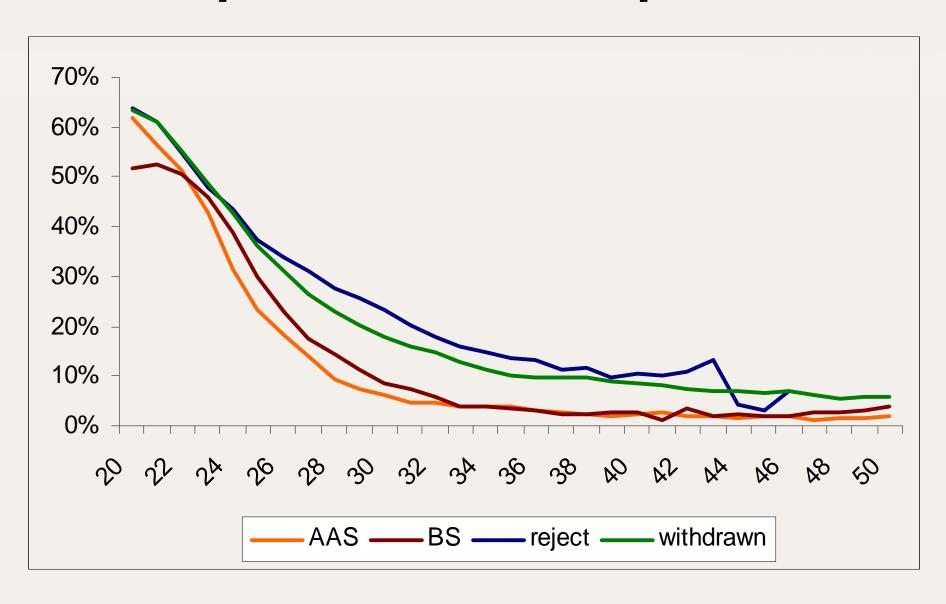




## FINDINGS: SSI PARTICIPATION



### **Impact: SSI Participation**

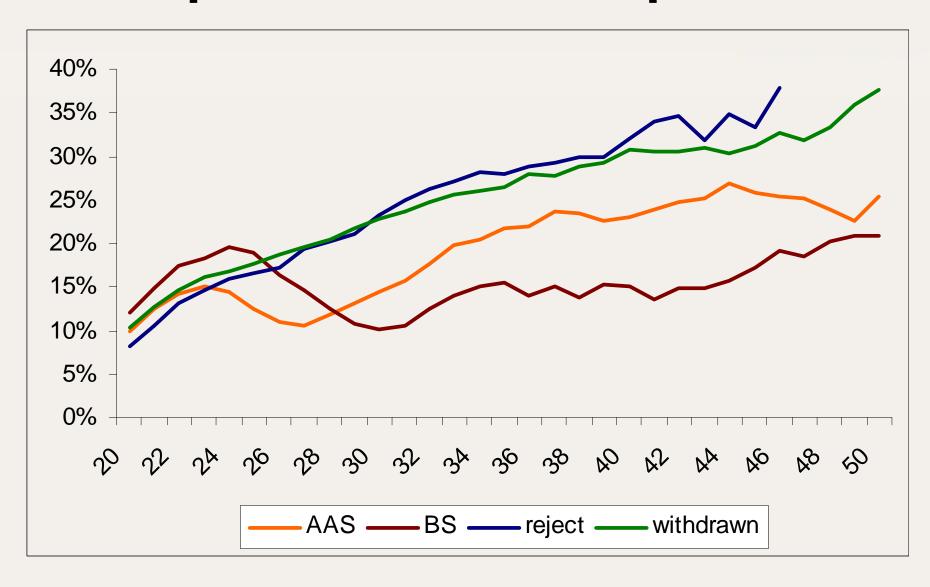




## FINDINGS: SSDI PARTICIPATION



### **Impact: SSDI Participation**





### Summary: Graduates vs. Non-Graduates

- Higher employment rates
- Higher earnings
- Decreased dependence on SSI
- Decreased dependence on SSDI



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### **Conclusions**

- 1. NTID has impact data
- 2. Data are objectively produced (government data)
- 3. Data are comprehensive (include every student; population not sample)
- 4. Data are long-term
- 5. Results are *very* positive
- 6. NTID does extremely well with at-risk students
- 7. Without NTID "intervention" lesser results
- 8. Data are unique in measuring educational impact
- 9. Process with SSA is a model for others
- 10. Economical way to collect data



### RSA 911 Opportunities





### RSA 911 – VR Case Data

- NTID negotiated access with ED
- Linkage between RSA 911, SSA & NTID
- Linkage will provide new comparison opportunities
  - Now compare only to hearing RIT graduates
  - Could compare against general deaf/hard-ofhearing population who attend college



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### Questions



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### Research Process

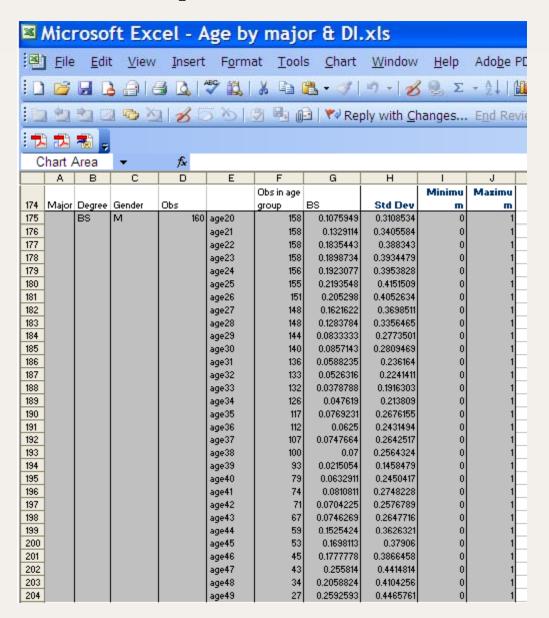




### **Current Research Process**

- Analysis of all cases since start of electronic recordkeeping at NTID
- NTID shares micro-level data (SSN, etc.) with SSA for 11,000+ students
- 3. SSA merges/matches NTID data with their data
- 4. SSA conducts micro-level analysis
- 5. Careful confidentiality and accuracy procedures
- 6. Memorandum of Understanding details agreement
- 7. SSA shares summary information with NTID and Cornell
- 8. NTID, Cornell and SSA plan jointly (e.g., conference phone calls, travel, discussion of publications)

### Sample SSA Report





### **Confidentiality and Accuracy**

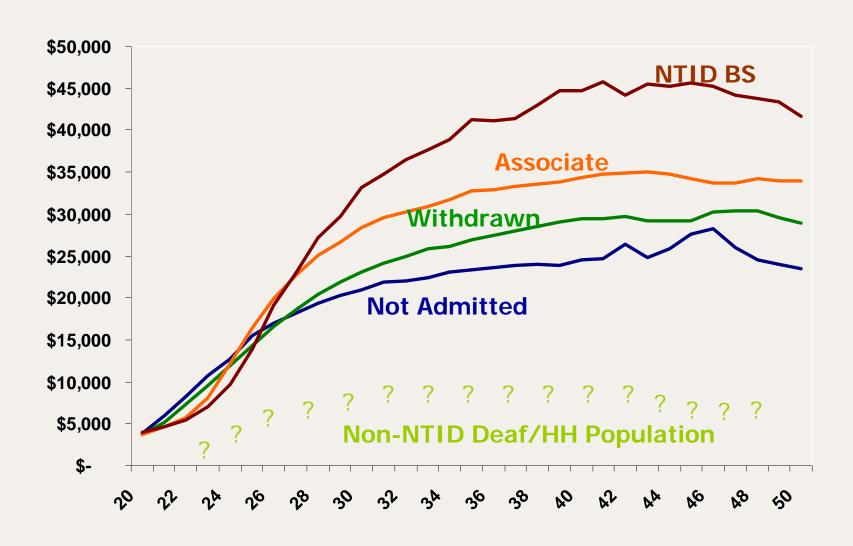
- 1. Federal Privacy Act, 5 USC 552a(i)
- 2. Strict guidelines, research only
- 3. Individual data remains only on secure SSA computer
- 4. Data shared at summary group level only
- 5. Validation process
- 6. Match to several SSA data files
- 7. Event-history file generated



### **Comparison to Alternative Methods**

- Using Alumni Surveys?
  - Expensive
  - Relies on self-reporting
  - Low response rates affects validity
- Our Analysis:
  - Cheaper than a survey (\$5,000/year to SSA)
  - Uses actual program data
  - Match rate close to 100%

### **Median Earnings**





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### SSI Children





### **Questions: "SSI Children"**

- 1. Who are "SSI children?"
- Share of NTID applicants who collected SSI benefits as children In 1983 10%, by 1999 42%
- Share of NTID graduates who collected SSI benefits as children In 1983, 8% of graduates, by 1999 it was 28%
- 4. These are at-risk students
- 5. Rapid growth in numbers is a policy concern
- 6. Is post-secondary education a path to a solution?



### **Summary: SSI Children**

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- Former SSI children are a large share of NTID applicants and graduates
- SSI children who graduate from NTID do better than nongraduates
  - Leave SSI 1.5 years sooner, risk of re-entry is half
  - By age 30 earnings are 68% higher than withdrawals
- SSI children are twice as likely to withdraw vs. non-SSI children
- Graduates leave SSI sooner
- Graduates enter into SSDI later