Using NLTS2 Data for a Longitudinal Look at the Post-High School Experiences of Youth With Disabilities

Findings From the National Longitudinal Transition Study-2 (NLTS2)

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SRI International

Ohio State University

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Today’s Agenda

• Presentation of findings from NLTS2
  – Selected post-high school outcomes
• Ways to access NLTS2 results – www.nlts2.org
  – Reports from SRI
  – Static data tables
• The only way to access NLTS2 database
  – Restricted-use data license
• Some issues in analyzing NLTS2 data
• On-line training videos – 2011
### NLTS2 overview

<table>
<thead>
<tr>
<th>Stratified random sample</th>
<th>Nationally representative sample of 501 LEAs and 38 special schools, stratified by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Geographic region</td>
</tr>
<tr>
<td></td>
<td>• Enrollment size</td>
</tr>
<tr>
<td></td>
<td>• District wealth</td>
</tr>
<tr>
<td></td>
<td>11,272 students by disability category</td>
</tr>
<tr>
<td>Focuses on</td>
<td>Youth, ages 13 to 16 at start of study</td>
</tr>
<tr>
<td>Study began</td>
<td>2000–2001 school year</td>
</tr>
<tr>
<td>Generalizes to</td>
<td>Each disability category and age cohort</td>
</tr>
<tr>
<td>Longitudinal</td>
<td>9 years</td>
</tr>
<tr>
<td></td>
<td>5 waves of data collection now completed</td>
</tr>
</tbody>
</table>

NLTS2 has been funded with federal funds from the U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, under contract number ED-01-CO-0003. The content of this presentation does not necessarily reflect the view or policies of the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. government.
Data sources for findings presented

- Parent telephone interviews/questionnaires
- Youth telephone interviews/questionnaires
  - Wave 5 responses for youth who have been out of high school up to 8 years
  - Ages 21 through 26
NLTS2 findings presented

• Review trends in outcomes of youth with disabilities out of high school up to 8 years regarding:
  – High school completion
  – Postsecondary education
  – Employment
  – Participation in postsecondary school, work, or preparation for work

• Describe outcome differences related to:
  – Gender
  – Race/ethnicity
  – High school completion status

• Describe outcomes for youth in the high-incidence categories of learning disability, intellectual disabilities, and emotional disturbance
High School Completion
High school completion by youth with disabilities out of high school up to 8 years, by year

Participation in high school equivalency programs by youth with disabilities out of high school up to 8 years who left high school without finishing, by year

NOTE: Data on completion not available for 2003.
Postsecondary Education, Work, and Preparation for Work
Postsecondary education enrollment by youth with disabilities out of high school up to 8 years, by year

Enrollment in postsecondary education by youth with disabilities out of high school up to 8 years, by year and type of school

Percentage ever enrolled since high school

- Vocational/technical/business school
- 2-year college
- 4-year college/university

Youth with disabilities out of high school up to 8 years who were postsecondary school leavers who earned a diploma, license, or certificate, by type of school

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any postsecondary school</td>
<td>44</td>
</tr>
<tr>
<td>Vocational/technical/business school</td>
<td>47</td>
</tr>
<tr>
<td>2-year college</td>
<td>17</td>
</tr>
<tr>
<td>4-year college/university</td>
<td>39</td>
</tr>
</tbody>
</table>

Employment of youth with disabilities out of high school up to 8 years, by year

NOTE: Percentage employed ever since high school not available for 2003.
Full-time work by youth with disabilities out of high school up to 8 years, by year

Mean hourly wage of employed youth with disabilities out of high school up to 8 years, by year

Mean hourly wage

2003 2005 2007 2009

$7.34 $8.08 $9.32 $10.40

Participation in postsecondary education, paid employment, or job training of youth with disabilities out of high school up to 8 years, by year

Gender Differences in Postschool Outcomes
High school completion and equivalency program participation by youth with disabilities out of high school up to 8 years, by gender

Completed high school
- Females: 90%
- Males: 89%

Noncompleters enrolled in high school equivalency program
- Females: 52%
- Males: 52%

Enrollees who completed high school equivalency program
- Females: 64%
- Males: 52%

Postsecondary education enrollment by youth with disabilities out of high school up to 8 years, by gender

Ever attended since high school:

- Any postsecondary school
- Business, vocational, technical school
- 2-year college
- 4-year college/university

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>Males</td>
</tr>
<tr>
<td>Any postsecondary school</td>
<td>56</td>
</tr>
<tr>
<td>Business, vocational, technical school</td>
<td>28</td>
</tr>
<tr>
<td>2-year college</td>
<td>46</td>
</tr>
<tr>
<td>4-year college/university</td>
<td>20</td>
</tr>
</tbody>
</table>

Youth with disabilities out of high school up to 8 years who were postsecondary school leavers and earned a diploma, license, or certificate, by gender

Previous enrollees earned degree/license/certificate from:

- Any postsecondary school
  - Females: 45%
  - Males: 44%

- Business, vocational, technical school
  - Females: 50%
  - Males: 45%

- 2-year college
  - Females: 17%
  - Males: 17%

- 4-year college/university
  - Females: 41%
  - Males: 37%

### Employment by youth with disabilities out of high school up to 8 years, by gender

<table>
<thead>
<tr>
<th>Percentage who:</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worked for pay since high school</td>
<td>82</td>
<td>87</td>
</tr>
<tr>
<td>Worked for pay at time of interview</td>
<td>51*</td>
<td>64</td>
</tr>
<tr>
<td>Worked at least 35 hours per week</td>
<td>54**</td>
<td>73</td>
</tr>
<tr>
<td>Average hourly wage</td>
<td>$9.43*</td>
<td>$10.92</td>
</tr>
</tbody>
</table>

**p < .01; * p < .05.**  
Participation in postsecondary education, paid employment, or job training by youth with disabilities out of high school up to 8 years, by gender

Ever engaged in one or more of these activities since high school

- Females: 90%
- Males: 92%

Engaged in one or more of these activities at time of interview

- Females: 58%*
- Males: 70%

*p < .05

Racial/Ethnic Differences in Postschool Outcomes
High school completion and equivalency program participation by youth with disabilities out of high school up to 8 years, by race/ethnicity

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>African American</th>
<th>Hispanic</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed high school</td>
<td>92</td>
<td>88</td>
<td>80</td>
<td>88</td>
</tr>
<tr>
<td>Noncompleters enrolled in equivalency program</td>
<td>53</td>
<td>53</td>
<td>34</td>
<td>53</td>
</tr>
</tbody>
</table>

Postsecondary education enrollment by youth with disabilities out of high school up to 8 years, by race/ethnicity

Ever attended since high school:

- Any postsecondary school:
  - White: 59%
  - African American: 20%
  - Hispanic: 57%

- Business, vocational, technical school:
  - White: 29%
  - African American: 31%
  - Hispanic: 40%

- 2-year college:
  - White: 44%
  - African American: 45%
  - Hispanic: 44%

- 4-year college/university:
  - White: 20%
  - African American: 19%
  - Hispanic: 13%

Youth with disabilities out of high school up to 8 years who were postsecondary school leavers who earned a diploma, license, or certificate, by race/ethnicity

Previous enrollees earned diploma/license/certificate from:

- Any postsecondary school
  - White: 48%
  - African American: 36%
  - Hispanic: 41%

- Business, vocational, technical school
  - White: 42%
  - African American: 57%
  - Hispanic: 51%

- 2-year college
  - White: 16%
  - African American: 21%
  - Hispanic: 17%

- 4-year college/university
  - White: 43% *
  - African American: 23%
  - Hispanic: 49%

* p < .05 comparing White and African American youth.

Employment of youth with disabilities out of high school up to 8 years, by race/ethnicity

Percentage who:

- Worked for pay since high school: 89% White, 80% African American, 76% Hispanic
- Worked for pay at time of interview: 65% White, 50% African American, 47% Hispanic
- Worked at least 35 hours per week: 69% White, 64% African American, 59% Hispanic
- Average hourly wage:
  - $10.88* White
  - $10.88* African American
  - $9.97 Hispanic

** p < .01 comparing White and African American youth; * p < .05 comparing White and Hispanic youth.

Participation in postsecondary education, paid employment, or job training by youth with disabilities out of high school up to 8 years, by race/ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Ever Engaged in One or More of These Activities Since High School</th>
<th>Engaged in One or More of These Activities at Time of Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>93</td>
<td>71</td>
</tr>
<tr>
<td>African American</td>
<td>89</td>
<td>58</td>
</tr>
<tr>
<td>Hispanic</td>
<td>89</td>
<td>53</td>
</tr>
</tbody>
</table>

Postschool Outcomes for Youth With Learning Disabilities, Intellectual Disabilities, or Emotional Disturbances
High school completion and equivalency program participation by youth with learning disabilities, intellectual disabilities, or emotional disturbances out of high school up to 8 years

<table>
<thead>
<tr>
<th></th>
<th>Learning disabilities</th>
<th>Intellectual disabilities</th>
<th>Emotional disturbances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed high school</td>
<td>91%</td>
<td>88%</td>
<td>81%</td>
</tr>
<tr>
<td>Noncompleters enrolled in high school equivalency program</td>
<td>36%</td>
<td>38%</td>
<td>59%</td>
</tr>
</tbody>
</table>

NOTE: There were too few students who had enrolled in a high school equivalency program to report separately the subgroup who had completed in each disability category.

Postsecondary education enrollment by youth with learning disabilities, intellectual disabilities, or emotional disturbances out of high school up to 8 years, by type of school

<table>
<thead>
<tr>
<th>Ever attended since high school:</th>
<th>Learning disabilities</th>
<th>Intellectual disabilities</th>
<th>Emotional disturbances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any postsecondary school</td>
<td>65</td>
<td>28***</td>
<td>52</td>
</tr>
<tr>
<td>Business, vocational, technical school</td>
<td>34***</td>
<td>17</td>
<td>32**</td>
</tr>
<tr>
<td>2-year college</td>
<td>49***</td>
<td>19</td>
<td>37**</td>
</tr>
<tr>
<td>4-year college/university</td>
<td>21</td>
<td>6**</td>
<td>11*</td>
</tr>
</tbody>
</table>

Any postsecondary, *** $p < .001$ compared with youth with learning disabilities or emotional disturbances; business school and 2-year college, *** $p < .001$ and ** $p < .01$ compared with youth with intellectual disabilities; 4-year college, ** $p < .01$ and * $p < .05$ compared with youth with learning disabilities.

Youth with learning disabilities, intellectual disabilities, or emotional disturbances out of high school up to 8 years who were postsecondary school leavers who earned a diploma, license, or certificate

Previous enrollees who earned diploma/license/certificate from:

- **Any postsecondary school**
  - Learning disabilities: 36%
  - Intellectual disabilities: 38%
  - Emotional disturbances: 46%

- **Business, vocational, technical school**
  - Learning disabilities: 45%
  - Intellectual disabilities: 42%
  - Emotional disturbances: 48%

- **2-year college**
  - Learning disabilities: 24%
  - Intellectual disabilities: 22%
  - Emotional disturbances: 16%

- **4-year college/university**
  - Learning disabilities: 42%
  - Intellectual disabilities: 16%
  - Emotional disturbances: 42%

NOTE: There are too few youth with intellectual disabilities who had enrolled in a 4-year college/university to report completion rates for them.

Employment of youth with learning disabilities, intellectual disabilities, or emotional disturbances out of high school up to 8 years

<table>
<thead>
<tr>
<th>Percentage who:</th>
<th>Learning disabilities</th>
<th>Intellectual disabilities</th>
<th>Emotional disturbances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever worked for pay since high school</td>
<td>90</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td>Worked for pay at time of interview</td>
<td>67</td>
<td>48**</td>
<td>38***</td>
</tr>
<tr>
<td>Worked at least 35 hours per week at current or most recent job</td>
<td>74</td>
<td>62</td>
<td>63***</td>
</tr>
<tr>
<td>Average hourly wage at current or most recent job</td>
<td>$10.90</td>
<td>$8.06</td>
<td>$10.61</td>
</tr>
</tbody>
</table>

Ever worked, worked full time, wage, ***$p < .001$ compared with youth with learning disabilities and emotional disturbances; worked at time of interview, ***$p < .001$ and **$p < .01$ compared with youth with learning disabilities.

Participation in postsecondary education, employment, or job training of youth with LD, ID, or ED out of high school up to 8 years

Ever engaged in one or more of these activities since high school:
- Learning disabilities: 97%
- Intellectual disabilities: 71***%
- Emotional disturbances: 92%

Engaged in one or more of these activities at time of interview:
- Learning disabilities: 73**%
- Intellectual disabilities: 41***%
- Emotional disturbances: 56*%

Ever engaged, *** p < .001 compared with youth with learning disabilities or emotional disturbances; engaged at time of interview, *** p < .001 compared with youth with learning disabilities, ** p < .01 compared with youth with emotional disturbances, * p < .05 compared with youth with intellectual disabilities.

Postschool Outcomes by School Completion Status
Postsecondary education enrollment by youth with disabilities out of high school up to 8 years, by school completion status

Ever attended since high school:

- **Any postsecondary school**
  - **High school completers**: 62***
  - **Noncompleters**: 32*

- **Business, vocational, technical school**
  - **High school completers**: 32*
  - **Noncompleters**: 17

- **2-year college**
  - **High school completers**: 48***
  - **Noncompleters**: 8

- **4-year college/university**
  - **High school completers**: 21***
  - **Noncompleters**: 1

*** p < .001; * p < .05.

Youth with disabilities out of high school up to 8 years who were postsecondary school leavers who earned a diploma, license, or certificate, by school-leaving status

Previous enrollees earned degree/license/certificate from:

- Any postsecondary school: 46% completers, 31% noncompleters
- Business, vocational, technical school: 47% completers, 45% noncompleters
- 2-year college: 16% completers, 25% noncompleters
- 4-year college/university: 41% completers, 5% noncompleters

***p < .01.
Employment of youth with disabilities out of high school up to 8 years, by high school completion status

Percent who:

- Worked for pay since high school
  - High school completers: 86%
  - Noncompleters: 79%

- Worked for pay at time of interview
  - High school completers: 62%
  - Noncompleters: 35%

- Worked at least 35 hours per week
  - High school completers: 59%
  - Noncompleters: 67%

Average hourly wage

- High school completers: $10.56
- Noncompleters: $8.79

*** p < .001.

Participation in postsecondary education, paid employment, or job training by youth with disabilities out of high school up to 8 years, by high school completion status

- **Ever engaged in one or more of these activities since high school**
  - High school completers: 93%
  - Noncompleters: 79%

- **Engaged in one or more of these activities at time of interview**
  - High school completers: 69%
  - Noncompleters: 34%

*** $p < .001$, * $p < .05$.  
Ways to access NLTS2 results

Full Reports
Executive Summaries

Fact Sheets & Data Briefs
Data Tables

www.nlts2.org
### NLTS2 Wave 4 (2007) Parent/Youth Survey
#### Employment of Youth Out-of-Secondary School A Year or More (Combined YOUTH AND PARENT Items) Table 339
#### Estimates

<table>
<thead>
<tr>
<th>Youth out of school a year or more and employed more than 6 months received a promotion or took on more responsibilities at current or most recent job since high school (item np4T8g_b_T11g_b_L8h_L11h) Overall and by Gender</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>70.1%</td>
<td>73.5%</td>
<td>63.8%</td>
</tr>
</tbody>
</table>

Note: Small numbers can round to 0. Statistics with too few to reliably report are excluded (fewer than 3 in a cell and 30 in a column).

### NLTS2 Wave 4 (2007) Parent/Youth Survey
#### Employment of Youth Out-of-Secondary School A Year or More (Combined YOUTH AND PARENT Items) Table 339
#### Standard Errors

<table>
<thead>
<tr>
<th>Youth out of school a year or more and employed more than 6 months received a promotion or took on more responsibilities at current or most recent job since high school (item np4T8g_b_T11g_b_L8h_L11h) Overall and by Gender</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>3.97</td>
<td>4.54</td>
<td>7.56</td>
</tr>
</tbody>
</table>

Note: Small numbers can round to 0. Statistics with too few to reliably report are excluded (fewer than 3 in a cell and 30 in a column).
Using NLTS2 raw data

• Accessing NLTS2 database requires that you obtain a restricted-use data license
  – Data licensed through NCES
  – For an information and application: http://nces.ed.gov/statprog/instruct.asp/
  – Contact: cynthia.barton@ed.gov
• Your security plan is the primary concern
  • Maintain confidentiality of the data
  • Limit access of non-authorized persons
  • Can take months
NLTS2 purpose

• NLTS2 is a large-scale national *policy* study – not an intervention study.
• It is “youth focused”—i.e., it informs special education policy from “the bottom up,” by documenting:
  – Who is served by special education—the characteristics of youth and families.
  – How they are served—the characteristics of students’ educational programs and services.
  – Their outcomes in multiple domains.
  – Factors that relate to outcomes can be determined by secondary analysis.
Issues with large-scale policy studies...

- Must have comprehensive conceptual frameworks to address myriad questions.
- Data must be generated by using:
  - Multiple data sources:
    - parents, youth, teachers, school administrators.
  - Multiple data collection methods:
    - Phone interviews, mail questionnaires, direct assessments.
  - Variations within instruments to accommodate individual needs (e.g., alternate assessments).
  - Multiple waves of data for each instrument.
Parent/Youth Survey Content Examples

- Youth characteristics
  - demographics, disabilities, abilities
- Household characteristics
  - composition, SES
- Nonschool factors
  - group activities, educational supports, expectations
- Family involvement
  - school-family contact, IEP process
- Academic
  - performance, engagement, abilities, school completion, postsecondary attendance
- Personal/social
  - friendships, social skills, overall adjustment
- Youth employment
- Citizenship
  - follow rules, volunteerism
- Responsibility
- Physical health
- Satisfaction
Teacher Survey Content Examples

- General education setting
  - subject, grade, instructional personnel, ELL students, overall ability level
- Instruction
  - time, materials used, goals, activities, techniques, groupings, technology use
- Assessment
  - formative, summative, approach, use
- Behavior & discipline
- Accommodations/modifications
- Support provision
- Performance
  - Overall reading level, grades, English proficiency
- Teacher background
  - Primary role, experience, credentials, education, professional development
Student’s School Program Survey Content Examples

- **School Program**
  - Grade level, setting by curriculum domain
- **Transition**
  - Goals, supports provided, student involvement, planning
- **Special Education Services**
  - IEP, 504 plans, goals, accommodations, services
- **State & district tests**
- **Accommodations/modifications**
- **Support provision**
- **Performance/support**
  - Overall reading level, absenteeism, disciplinary actions
- **Parent involvement**
Direct Assessment Subtests

• Woodcock-Johnson Research Edition
  – Synonyms/antonyms
  – Passage Comprehension
  – Calculation
  – Applied Problems
  – Social studies
  – Science

• Self-Concept – SSCS
  – General
  – Academic
  – Social

• Self determination scale
  – Items from ARC’s Self Determination Scale (Wehmeyer 2000)

• Friendships – Social Satisfaction-Dissatisfaction Scale Asher 1984

• Open ended: What is your favorite thing about school?
Alternate Assessment Features

- Eligibility established by Screening Questionnaire
- Teacher completed indirect assessment
  - Scales of Independent Behavior-Revised (SIB-R)
  - Adaptive Behavior Scale (ABS)
Alternate Assessment Topics

- Motor Skills
- Social Interaction
- Personal Living Skills
- Community Living Skills
- Broad Independence
- Gross-Motor Coordination
- Fine-Motor Coordination
- Social Interaction
- Language Comprehension
- Language Expression
- Eating/Meal Preparation
- Toileting
- Dressing
- Self care
- Domestic skills
- Time and punctuality
- Money and value
- Work/school skills
- Home/community orientation
School Characteristics Survey
Content Examples

- **School and community**
  - Type, grades, size, urban-suburban-rural

- **Students**
  - Number, ethnicity, special education

- **Staff**
  - Teachers, aides, related service providers

- **Programs**
  - Academics, enrichment, health, community, language

- **Special education policies/practices**
  - Prerefereral, supports to general education, assessment

- **Parent involvement**

- **Background**
  - Pressure to perform, suspensions
# NLTS2 Data Collection Timeline

<table>
<thead>
<tr>
<th>School Year</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
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<th>Year 7</th>
<th>Year 8</th>
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<tr>
<td>Parent telephone interviews or surveys</td>
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<td>✓</td>
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<tr>
<td>Youth telephone interviews or surveys</td>
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<tr>
<td>Direct assessment and in-person interviews</td>
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<td>Teacher Survey</td>
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<td>Student’s School Program Survey</td>
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<td>Transcripts</td>
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<td>✓</td>
<td>✓</td>
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<td>✓</td>
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</tr>
</tbody>
</table>
Learning how to manipulate NLTS2 data

• Online video training modules conducted by NLTS2 senior staff
• Available on IES website
  – Data Dictionaries
  – Raw data by Restricted Use License
• SRI interested in working to advance secondary analysis
• Community of Practice
• Links on nlts2.org
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