The Label of Learning Disability and College Enrollment

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The Problem

- Students with learning disabilities (LD) have average or high intelligence and often have high creativity, but they learn differently than typical students.

- Students with LD may need accommodations—in the classroom or in testing—to perform their best.

- Accommodations come with a label. Sociological theory suggests that the label may be stigmatizing. Identifying the need for an accommodation—the label—could exacerbate disadvantage.
Relevance

Possible source of lost talent:

- An estimated 6% of high school students are identified at school as having a learning disability and need accommodation.
- This represents over a million high school students per year.
- Intelligence, diversity and capacity for creativity and innovation make this an important population.
Research Question

Does being labeled with a learning disability in high school negatively impact academic progress and preparation for STEM fields?

- College preparatory coursework (STEM and non-STEM)
- Academic self-efficacy and relationships at school
- Expectations for college
- College enrollment
Data & Method

• **The Education Longitudinal Study of 2002 (ELS)**
  • Nationally representative of 10th graders in 2002
  • 10,500 regular and special education students who were (interviewed again in 2004 and 2006)
  • Also surveyed: parent, 10th grade math and English teachers, and school administrator
  • High school transcripts
  • Reading and math tests in 10th grade

• **Analytic Approach**
  • Multivariate analyses that consider multiple characteristics simultaneously
  • Longitudinal analyses that improve estimations of causality
Who is Labeled?

- Overall, approximately 6% of U.S. high school students are identified as needing an Individualized Education Plan (IEP) for a learning disability.

- African Americans and Hispanics are more likely than Whites and Asians to be labeled. This disproportionality is due to their average lower socioeconomic circumstances.
College Prep Coursework
End of High School

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Non-LD</th>
<th>LD</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school graduation course reqs</td>
<td>0.50</td>
<td>0.30</td>
</tr>
<tr>
<td>Geometry or higher</td>
<td>0.80</td>
<td>0.50</td>
</tr>
<tr>
<td>2 of 3 main sciences</td>
<td>0.70</td>
<td>0.40</td>
</tr>
<tr>
<td>1 cr. foreign language</td>
<td>1.00</td>
<td>0.80</td>
</tr>
<tr>
<td>All College Preparatory Courses</td>
<td></td>
<td></td>
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</tbody>
</table>
The probability of completing college preparatory courses is very low (.04) for students labeled with a LD.

Even when freshman year math course and grades, sophomore year math test and other factors are held constant, the probability of completing college prep courses is only .11.

Note: The models with controls include socio-demographic background, academic history, freshman math course placement and grades and 10th grade math test score.
Students labeled with a learning disability have:

- Lower academic self-efficacy (about a third of a SD lower)
- Higher incidence of negative school behaviors (e.g., disruptive, come to class unprepared, tardiness)

Note: Models include controls for gender, race/ethnicity, and SES.
Expectations Student will Attend College (Predicted Probabilities)

Note: The models with controls include socio-demographic background, academic history, freshman math course placement and grades and 10th grade math test score.
College Enrollment
(Based on Predicted Probabilities)

Note: Controls included for adolescents' social and academic backgrounds, 9th grade coursework, early high school achievement, and attitudes and behaviors as a 10th grader.
Summary of Findings

Students labeled with a learning disability:

- Finish high school with lower levels of college preparation
- Finish behind even when academic achievement in the early years of high school is held constant
- Have lower academic self-efficacy and higher negative school behaviors
- Have teachers who have much lower expectations for them
- Are less likely to enroll in college, even when academic performance is held constant
Lost Talent:
Percentage of Students Reaching Potential to Finish High School with Algebra II or higher

- Only 62% of students labeled with a learning disability with the potential to complete Algebra II by the end of high school do so. In contrast, almost 100% of non-LD students reach their potential in Algebra II.

- This represents a talent loss of over 23,000 students annually.

Note: Potential to complete Algebra II is estimated by freshman year math course placement, grades, and sophomore year math achievement test scores.
Recommendations about Data

• Uniform reporting of disability status
  • In administrative records
  • In large, national databases (like NAEP and the longitudinal studies)

• Uniform information about accommodation(s)
  • Available
  • Required by individuals
Selected Publications

