The Structural and Social Roots of the High School Learning Disability Label

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Who is labeled as learning disabled?
WHY DOES IT MATTER?

• Racial minorities and other socially disadvantaged youth may disproportionately experience any negatives of the LD label

• Are students labeled with an LD even distinct?

• Understanding the social and structural predictors may enable us to reduce incidence of LDs or of labeling of LDs
BACKGROUND

• Disproportionately labeled:
  • Racial minorities

• Criteria for the LD label are biased or subjective?
BACKGROUND

• Disproportionately labeled:
  • Racial minorities
  • Economically disadvantaged

• Criteria for the LD label are biased or subjective?
Disproportionately labeled:

- Racial minorities
- Economically disadvantaged
- Linguistic minorities

Criteria for the LD label are biased or subjective?
• Criteria for LD label are not uniform?
  • Different bases for comparison
  • Different achievement norms
  • Racial minorities more distinctive in some schools
RESEARCH QUESTIONS

• Which socio-demographic characteristics are associated with a higher risk of carrying the LD label during high school, net of one another?

• Does the student body composition of schools differentiate certain students’ odds of carrying the LD label, net of their own characteristics?
DATA AND METHODS

• Education Longitudinal Study of 2002

• 11,670 10th graders in 546 high schools

• Base year surveys of students, parents, and high school administrator

• Administrative data on students’ academic achievement and the characteristics of their high school
DATA AND METHODS

• Analytic plan
  • Weighted proportions
  • Multilevel mixed-effects logistic regression models
  • Cross-level interactions
  • Predicted probabilities
DATA AND METHODS

• Analytic contributions
  • Data
  • Student level data
  • Important measures
  • School level data
RESULTS

Proportion of 10th Graders in Each Reading Test Score Quartile by High School Poverty Level

<table>
<thead>
<tr>
<th>Quartile 1 (Least Poverty)</th>
<th>0.15</th>
<th>0.20</th>
<th>0.25</th>
<th>0.41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartile 2</td>
<td>0.21</td>
<td>0.23</td>
<td>0.25</td>
<td>0.29</td>
</tr>
<tr>
<td>Quartile 3</td>
<td>0.29</td>
<td>0.26</td>
<td>0.25</td>
<td>0.18</td>
</tr>
<tr>
<td>Quartile 4 (Most Poverty)</td>
<td>0.35</td>
<td>0.31</td>
<td>0.25</td>
<td>0.12</td>
</tr>
</tbody>
</table>

- Test Score Q1 (Lowest)
- Test Score Q2
- Test Score Q3
- Test Score Q4 (Highest)

Note: Differences in students' reading test scores across schools of different poverty levels are statistically significant (p<0.001).
RESULTS

Proportion 10th Graders Carrying Label of LD by High School Poverty Level

Proportion Students Eligible for Free Lunch Program

Note: Differences in labeling by school poverty are statistically significant (p<0.01).
RESULTS

Proportions of 10th Graders Carrying Label of LD by Reading Test Score Quartile and School Poverty Level

- Quartile 1 (Lowest Poverty)
- Quartile 2
- Quartile 3
- Quartile 4 (Highest Poverty)

Note: The differences in the proportions of students labeled with LD by school poverty level are significant among students who have reading test scores in the two bottom quartiles (p<0.001).
RESULTS

Note: Difference in racial composition between the American population of 10th graders, and the sample labeled with LD, is statistically significant (p<0.001).
RESULTS

Percentages Showing the Relationship between SES and the LD Label, Low Achievers, and Racial Groups

<table>
<thead>
<tr>
<th>Category</th>
<th>SES Tertile 1</th>
<th>SES Tertile 2</th>
<th>SES Tertile 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labeled LD</td>
<td>46%</td>
<td>34%</td>
<td>20%</td>
</tr>
<tr>
<td>Lowest Test Score Quartile</td>
<td>53%</td>
<td>33%</td>
<td>14%</td>
</tr>
<tr>
<td>White</td>
<td>26%</td>
<td>36%</td>
<td>38%</td>
</tr>
<tr>
<td>Black</td>
<td>47%</td>
<td>34%</td>
<td>19%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>60%</td>
<td>27%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Note: The SES compositions of each of these groups of 10th graders are significantly different ($p<0.001$) from that of the national population of 10th graders.
RESULTS

Proportions Showing Racial Composition of each SES Tertile among 10th Graders Carrying Label of LD

Student's Socioeconomic Status

Tertile 1  Tertile 2  Tertile 3

Note: Racial differences in the proportions of students labeled with LD within each SES tertile are not statistically significant.
RESULTS

Predicted Probabilities of Carrying the LD Label by Student's Race and Proportion of School's Student Body that are Racial Minorities

Note: Black and Hispanic adolescents' predicted probabilities of carrying the label of LD vary significantly (p<0.05) depending on the proportion of minorities at their school.
CONCLUSIONS

• Summary of findings & policy implications:

  • Odds of carrying LD label are higher for:
    • Low achievers
    • Low SES, regardless of race

  • Addressing these social factors may reduce disproportionality and even incidence of LD
CONCLUSIONS

• Summary of findings & policy implications:
  • Higher odds of carrying the LD label:
    • In low poverty schools
    • For racial minorities in low minority schools
    • For linguistic minorities
  • Improve (and standardize?) diagnostic procedures
Major conclusions on the LD label:

- Reflects social as well as neurological differences
- Partially results from social stratification
- Is not assigned uniformly across schools