Young Mexican Children in U.S. Schools: The Interaction between Socioeconomic Status, Language, and Generational Status

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Presented at the Binational Conference, Students We Share: New Research from Mexico and the United States, Cuidad de Mexico, January 2010
Aims of the Study

• **Describe** Mexican students, in the U.S., in the Kindergarten Class of 1998-99 in terms of generational status, language, and socioeconomic status

• **Describe** patterns of math development of young children from kindergarten through fifth grade

• **Analyze** differences in math development across Mexican subgroups

• **Identify** the effects of generational status, socioeconomic characteristics, and English ability, on math outcomes
Data: Early Childhood Longitudinal Study-Kindergarten (ECLS-K)

- Nationally representative sample: about 22,000 kindergartners nested in 1,000 schools
- Data collected at kindergarten (fall 1998 & spring 1999), first grade (fall 1999 & spring 2000), third, fifth, and eight grades (spring 2001 2003 2005)
- Assessments and contextual information: Academic and social outcomes, along with individual, family, teacher, class, and school characteristics
## Child Sample by Race/Ethnicity, Hispanic Origin, and Generation

<table>
<thead>
<tr>
<th>Race/Eth (21,409)</th>
<th>Hispanic (4,006)</th>
<th>Mexican (1,715)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>4,006</td>
<td>1,715</td>
</tr>
<tr>
<td>White</td>
<td>11,659</td>
<td>Cuban 97</td>
</tr>
<tr>
<td>Black</td>
<td>3,205</td>
<td>Pto Rican 243</td>
</tr>
<tr>
<td>Asian</td>
<td>1,351</td>
<td>South A. 147</td>
</tr>
<tr>
<td>Other</td>
<td>1,136</td>
<td>Central A. 270</td>
</tr>
<tr>
<td>Unk</td>
<td>52</td>
<td>Other 182</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unk 1,352</td>
</tr>
</tbody>
</table>
Mexican students, in the U.S., in the Kindergarten Class of 1998-99 (generational status, language characteristics, & socioeconomic status)
Weighted Percentage of Generational Status (n=1,683)

- 1st generation: 10.3%
- 2nd generation: 58.9%
- 3rd-plus generation: 30.8%
Weighted Percentages of Poverty & Education

Below poverty
- White: 9
- Black: 43
- Cuban: 20
- South Am: 28
- Puerto Rican: 28
- Central Am: 39
- Mexican: 42

Edu: < than HS
- White: 4
- Black: 13
- Cuban: 8
- South Am: 6
- Puerto Rican: 14
- Central Am: 34
- Mexican: 39

Edu: college +
- White: 12
- Black: 39
- Cuban: 12
- South Am: 33
- Puerto Rican: 18
- Central Am: 33
- Mexican: 9
Weighted Mean Family Income ($)

- White: $62,797
- Black: $28,001
- Cuban: $56,038
- South Am: $45,535
- Puerto Rican: $43,534
- Central Am: $33,349
- Mexican: $30,210
Weighted Percentages of Language Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Cuban</th>
<th>South Am</th>
<th>Puerto Rican</th>
<th>Central Am</th>
<th>Mexican</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language minority</td>
<td>68</td>
<td>32</td>
<td>76</td>
<td>59</td>
<td>22</td>
</tr>
<tr>
<td>Non-proficient in Oral English</td>
<td>22</td>
<td>7</td>
<td>42</td>
<td>15</td>
<td>40</td>
</tr>
<tr>
<td>Only Spanish at Home</td>
<td>26</td>
<td>40</td>
<td>40</td>
<td>28</td>
<td>40</td>
</tr>
</tbody>
</table>
Weighted Percentages of Poverty, Education, & Language Characteristics, by Generational Status

- Below poverty:
  - Mexican total: 42
  - 1st gen: 69
  - 2nd gen: 48
  - 3rd+ gen: 21

- Education: < than HS:
  - Mexican total: 47
  - 1st gen: 42
  - 2nd gen: 34
  - 3rd+ gen: 14

- Language minority:
  - Mexican total: 59
  - 1st gen: 91
  - 2nd gen: 77
  - 3rd+ gen: 14

- Non-proficient in Oral English:
  - Mexican total: 42
  - 1st gen: 78
  - 2nd gen: 78
  - 3rd+ gen: 3
Mexican students’ math achievement patterns from kindergarten through fifth grade
Estimated Math Gaps, by Country of Origin (standard deviations below Whites)
Estimated Math Gaps, by Generational Status (standard deviations below Whites)

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>1st gen</th>
<th>2nd gen</th>
<th>3rd+ gen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall K</td>
<td>-0.7</td>
<td>-1.0</td>
<td>-0.4</td>
<td>-0.5</td>
</tr>
<tr>
<td>Spring K</td>
<td>-0.9</td>
<td>-0.4</td>
<td>-0.7</td>
<td>-0.2</td>
</tr>
<tr>
<td>Spring 1st</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring 3rd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring 5th</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Estimated Math Gaps, by Socioeconomic Quintile (sd below Whites)

- Quintile 1 (low)
- Quintile 2
- Quintile 3
- Quintile 4
- Quintile 5 (high)
Estimated Math Gaps, by Language Minority (LM) Status (sd below Whites)
Effects of generational status, socioeconomic characteristics, and English ability, on math achievement at the start of kindergarten
## OLS Regression Estimates of Math Achievement From Key Variables

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st generation</td>
<td>-3.87</td>
<td>-1.55</td>
<td>-0.11</td>
</tr>
<tr>
<td>2nd generation</td>
<td>-3.46</td>
<td>-1.73</td>
<td>-0.72+</td>
</tr>
<tr>
<td>3rd + generation</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SES</td>
<td>2.02</td>
<td>1.68</td>
<td></td>
</tr>
<tr>
<td>Language minority</td>
<td>-1.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral English prof</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R2</td>
<td>0.08</td>
<td>0.18</td>
<td>0.20</td>
</tr>
</tbody>
</table>
Regression Estimates of Math Achievement From Key Variables

Model 1: Only gen
Model 2: Added SES
Model 2: Added English proficiency

3rd gen vs 1st gen
3rd gen vs 2nd gen
Take-Home Message…

• Compared with other Latino subgroups, Mexican students in the U.S. experience important language & socioeconomic disadvantages

• On average, Mexican students enter kindergarten with lower math skills than those of White students and other Latino subgroups

• Important variability in outcomes is found among Mexican sub groups

• Increasing English proficiency at Kindergarten entry could be an important mechanism to reduce Mexican students’ educational disadvantages
Gracias!

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