Too Many Children Left Behind:
The US Achievement Gap in Comparative Perspective

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Presentation to the Centre for Interuniversity Research “Ezio Tarantelli” (CIRET) and Bank of Italy conference on “Causes and Consequences of Inequality: What Can Be Done?”
Sapienza University of Rome, Rome Italy
Reporting on joint research with B. Bradbury, J. Waldfogel, E. Washbrook
September 25th, 2015
Social mobility is lower where inequality is higher
... but how relevant is this for current public policy discussion?

Young children growing up during an era of higher inequality in four countries—Australia, Canada, United Kingdom, United States—that share a good deal in common, at least relative to other rich countries.

- a focus on the United States in a way that contrasts child achievements and resources
- children who are growing up, and who will be the subject of social mobility studies a decade from now
- longitudinal analysis tracing achievements and resources from the early years to the high school years
There are wide gaps in the math skills of US 8th graders.
There are wide gaps in the math skills of US 8th graders.
... but these gaps were evident in kindergarten

Percentage of children at or below a particular level of standardized math test scores

Proficiency measured in standard deviation units

Parent's Education
- High
- Medium
- Low

Grade at Test
- Grade 8
- Kindergarten

Percentage of children at or below a particular level of standardized math test scores
The same holds for reading skills, but things are even worse.

Percentage of children at or below a particular level of standardized reading test scores

Proficiency measured in standard deviation units
Parent's Education
High
Medium
Low
Grade at Test
Grade 8
Kindergarten

Percentage of children at or below a particular level of standardized reading test scores

0
20
40
60
80
100%

Proficiency measured in standard deviation units

-3 -2 -1 0 1 2 3
Achievement gaps widen during the school years but were already present in large measure at school entry.

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>UK</th>
<th>AU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial ability age</strong></td>
<td>6 (Spring K)</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td><strong>Instrument age</strong></td>
<td>5 (Fall K)</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td><strong>Initial top-bottom education gap</strong></td>
<td>0.90</td>
<td>0.76</td>
<td>0.56</td>
</tr>
<tr>
<td><strong>Age 11 top-bottom education gap</strong></td>
<td>1.03</td>
<td>0.69</td>
<td>0.68</td>
</tr>
<tr>
<td><strong>Of which:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attributed to initial differences</td>
<td>0.72 (70%)</td>
<td>0.40 (57%)</td>
<td>0.45 (66%)</td>
</tr>
<tr>
<td>Attributed to subsequent divergence</td>
<td>0.31 (30%)</td>
<td>0.29 (43%)</td>
<td>0.23 (34%)</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>9650</td>
<td>10,717</td>
<td>3333</td>
</tr>
</tbody>
</table>
An empirically driven study of four countries using “comparable” longitudinal data on children

- children are first observed at the cusp of starting school, at 4 and 5, and following to 11 years of age, at the cusp of high school
- exceptionally, American children can be followed to 14 years of age

A great deal of work needed to ensure equivalent measures across the data sets

- a longitudinal analogue to cross-section studies like PISA
- how did some societies get to the outcomes and rankings PISA measures, and the relationship between them and socio-economic status?

An online appendix details our understanding and use of the data.

- Click here.
<table>
<thead>
<tr>
<th></th>
<th>U.S.</th>
<th>U.K.</th>
<th>Australia</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Survey name</strong></td>
<td>Early Childhood Longitudinal Study, Kindergarten Cohort (ECLS-K)</td>
<td>Millennium Cohort Study (MCS)</td>
<td>Longitudinal Study of Australian Children Kindergarten Cohort (LSAC-K)</td>
<td>National Longitudinal Study of Children and Youth (NLSCY)</td>
</tr>
<tr>
<td><strong>Common ages when children assessed</strong></td>
<td>5, 9, 11</td>
<td>5, 7, 11</td>
<td>5, 9, 11</td>
<td>5, 7, 9, 11</td>
</tr>
<tr>
<td><strong>Sample size (balanced panel)</strong></td>
<td>8,370</td>
<td>11,762</td>
<td>3,940</td>
<td>4,346</td>
</tr>
</tbody>
</table>
Defining and measuring socio-economic status

1. Three broad levels of parental education
   - a good proxy for permanent income
   - comparably measured across countries
   - an important input to child development

2. Defined in terms of the highest educated parent
   - “Low” refers to high school education or less
   - “Medium” – some education beyond high school
   - “High” – having a university college degree or more

3. The results are generally similar for family income
Major messages concerning family resources
not quite 4 in 10 children in the US have parents with low levels of education

Percentage of children by the education of their most educated parent

United Kingdom
Australia
Canada
United States

High Medium Low Parental education

Percentage of children

50%
40%
30%
20%
10%
0%
Public policy determines social mobility and inequality may play a role in determining the structure of policy.

Public policies that are of relatively more advantage to the disadvantaged will promote upward mobility:
- offering insurance by buffering families from shocks
- offering investment in human capital

But public policy can also be of relatively more advantage to the advantaged, or reinforce market tendencies:
- this is more likely in more unequal societies
... but three broad institutions determine life chances.
The overlap and interaction between families, markets, and the state
together determine social mobility – there is no “silver” bullet.

1. Families with more Human Capital invest more in their children.
2. Families with more children invest less in each child.
3. An increase in the cost of Human Capital investment reduces the amount invested.
4. A higher return to Human Capital encourages more investment.
5. More “progressive” investment by the state promotes generational mobility.
Major messages concerning family resources

1. There are significant income disparities at both the top and bottom in the US.
Major messages concerning family resources

2. Home ownership does not differ that much between the four countries.
Major messages concerning family resources
3. low “status” children are not terribly more likely to have long-standing disabilities

Percentage of children who have a long-standing disability or illness

- United Kingdom
- Australia
- Canada
- United States

Parental education:
- High
- Medium
- Low

Graph showing the percentage of children with long-standing disabilities across different countries and parental education levels.
4. Children are more likely to be read to in Canada, but otherwise the US is not an outlier.
Low “status” children face greater family disadvantages
1. They are more likely to have a teen mother, but particularly in the US

Percentage of children born to a teen mother

- United States
- United Kingdom
- Canada
- Australia

Parental education:
- High
- Medium
- Low
Low “status” children face greater family disadvantages

2. Their mothers are more likely to be in poor or only fair health in the US and UK
Low “status” children face greater family disadvantages

3. They are less likely to be living with both biological parents at age 4/5

<table>
<thead>
<tr>
<th>Percentage of children living with both biological parents</th>
<th>United Kingdom</th>
<th>Australia</th>
<th>Canada</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
</tr>
<tr>
<td>Medium</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
<td>90%</td>
</tr>
<tr>
<td>Low</td>
<td>70%</td>
<td>80%</td>
<td>90%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Percentage of children living with both biological parents

- United Kingdom: 50%
- Australia: 60%
- Canada: 70%
- United States: 80%

High Medium Low Parental education
Low “status” children face greater family disadvantages

4. In the United States they are more likely to be in immigrant family at age 4/5

The graph shows the percentage of children living with immigrant parents across different levels of parental education in various countries. The x-axis represents the levels of parental education: High, Medium, Low. The y-axis represents the percentage of children living with immigrant parents, ranging from 0% to 50%. The countries compared are the United Kingdom, Australia, Canada, and the United States.

- United Kingdom: Low parental education shows a higher percentage of children living with immigrant parents compared to other countries.
- Australia: Medium parental education has a notable percentage of children living with immigrant parents.
- Canada: High parental education shows a lower percentage of children living with immigrant parents.
- United States: Low parental education has a significantly high percentage of children living with immigrant parents compared to other countries.
The balance between work and family varies

1. Mothers are less likely to be at home in the US...
The balance between work and family varies. They are more likely to be working full-time than those with high education in the US.
1. Stable and secure families are central

1. Promote a fall in child-birth during the teen years
2. Make labour markets pay for men, including young unattached men
   - In the US this demographic is not eligible for the EITC, but in Canada they are captured by the equivalent program (the WITB)
3. Connect immigrant families to the broader community
2. Make work convenient for families

1. Promote policies that offer income insurance, including the broad portability of benefits
2. Promote policies that offer workplace flexibility, and balance care-giving with paid employment
3. Do this in a way that is of advantage to the least advantaged
3. Why don’t schools equalize opportunity?

1. Early years policy
2. School quality and neighbourhood segregation
3. How easy is it to manage the schooling system, even during the primary years?
Too Many Children Left Behind

The U.S. Achievement Gap in Comparative Perspective

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MILES CORAK
JANE WALDFOGEL
ELIZABETH WASHBROOK

The belief that with hard work and determination, all children have the opportunity to succeed in life is a cherished part of the American Dream. Yet, increased inequality in America has made that dream more difficult for many to obtain. In Too Many Children Left Behind, an