Inequalities at the school starting gate: gaps, trends, and strategies to address them

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A 3-goals study

1. Gaps by socioeconomic status (SES) at kindergarten entry in 2010
   - In cognitive and noncognitive skills (CS, NCS)

2. Comparison with gaps by SES in 1998
   - Did they grow? If so, by how much? And where?
   - How much of the SES gaps is accounted for by other determinants of performance (family composition, education practices at home)?
   - Do determinants’ influence on performance change over time?

3. Explore strategies in school districts employing comprehensive educational approaches:
   - Strong early academic and life foundations
   - Sustain and build on early gains throughout the K-12 school years
Summary of analysis (1)

Quantitative analysis:
• 2 nationally representative studies (NCES):
• Socioeconomic status (SES):
  – Five groups (low, low-middle, middle, high-middle, high SES)
• Outcomes (fall-kindergarten, standardized by year):
  – Math, reading, approaches to learning, self-control
• Comparison of performance of high and low SES children
  – Unadjusted (i.e., real, observed, differences)
  – Adjusted (family characteristics, educational practices, expectations)
Summary of analysis (2)

Qualitative analysis:

• 12 case studies ([http://www.boldapproach.org/case-studies](http://www.boldapproach.org/case-studies))

• Explore district-level investments in ECE, K-12, and a range of wraparound supports
Findings: gaps by SES

Differences on the first day of kindergarten 2010

<table>
<thead>
<tr>
<th>SES Level</th>
<th>Cognitive Skills</th>
<th>Noncognitive Skills (reported by teachers)</th>
<th>Noncognitive Skills (reported by parents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td></td>
<td>Self-control (0.4)</td>
<td>Self-control (0.4)</td>
</tr>
<tr>
<td>Low-middle</td>
<td></td>
<td>Approaches to learning (0.5)</td>
<td>Approaches to learning (0.6)</td>
</tr>
<tr>
<td>Middle</td>
<td>Reading (1.17)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Math (1.25)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-middle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
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</tbody>
</table>
Change in skills gaps by SES, 1998-2010

- Change in gap between 1998 and 2010
- Gap between high-SES (fifth) and low-SES (first) quintiles in 1998

<table>
<thead>
<tr>
<th></th>
<th>Reading</th>
<th>Math</th>
<th>Self-control (by teachers)</th>
<th>Approaches to learning (by teachers)</th>
<th>Self-control (by parents)</th>
<th>Approaches to learning (by parents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gap in 1998</td>
<td>1.07*</td>
<td>1.26*</td>
<td>0.39*</td>
<td>0.63*</td>
<td>0.47*</td>
<td>0.54*</td>
</tr>
<tr>
<td>Change in 2010</td>
<td>0.10*</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.12*</td>
<td>-0.08*</td>
<td>0.02</td>
</tr>
</tbody>
</table>

The roles of other determinants of performance

1. Part of the SES gaps is accounted for by other factors that correlate with SES (ex.: pre-K)
   – What are the gaps by SES net of them?

2. Factors are important variables:
   – Help to identify groups in highest need
   – Point to policy interventions that could improve student performance
Reduction in gaps by SES coefficient in 1998 and 2010 after controls

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>-45.5%</td>
<td>-42.9%</td>
</tr>
<tr>
<td>Approaches to learning (by teachers)</td>
<td>-28.3%</td>
<td>-20.3%</td>
</tr>
<tr>
<td>Approaches to learning (by parents)</td>
<td>-73.5%</td>
<td>-56.0%</td>
</tr>
</tbody>
</table>

- Controls account for ~half of the gaps in CS (large variation for NCS)
- Controls accounted for a larger share of the gaps in 1998
Associations between performance and early educational practices

• **Center-based preschool:**
  - Positively associated with reading and math skills
    • Relationship does not change significantly over time
  - Negatively associated with self-control reported by teachers
    • Correlation is less negative in 2010

• **Activities at home:**
  - Reading/literacy activities: positively associated with ~all skills
    • Relationship weakened for NCS as assessed by parents
  - Other activities: negative for CS, positive for NCS
    • Relationship intensified over time for parents’ assessed NCS

• **Expectations about educational attainment:**
  - Positive and increased over time
How school districts tackle inequities and support children’s development

• Broad and targeted investments in children and families from birth to kindergarten entry

• Sustained investments in the K-12 years, both in and out of schools, in a whole-child manner
  – Enrichment in the classroom for all
  – Aligned out-of-school and summer activities
  – Physical and mental health care and wellness supports
  – Elementary-middle-high school transition, other SEL supports

• Evidence of gains across a range of measures, academic and other
  – From improved kindergarten readiness to AP-course taking, graduation
  – Boosts largest for disadvantaged students, so achievement gaps narrow

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Summary: good and bad news

✓ Despite steadily increasing income inequality, compounded by the worst economic crisis in many decades, most gaps have not grown

✓ A growing number of communities are tackling these challenges through comprehensive strategies to support children’s needs and boost their strengths

- Despite knowledge accumulated by researchers and parents on child development, expansion of pre-K, awareness of the value of education, gaps have not generally decreased

- And while momentum to enact “Broader, Bolder Approaches” to Education is growing, they are expanding slowly, still reaching too few students

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Policy implications

• Supports need to start early:
  - Child care, home visiting and parent engagement programs, preschool

• Supports need to continue throughout school:
  - Increased and more equitable funding, economic and racial integration, after-school, and summer time

• But education policy alone isn’t enough, as factors driving gaps are diverse/complex:
  - Low social class children are behind in CS and NCS
  - More likely to not speak English, not live with 2-parents, immigrants, not have had preschool, fewer early literacy practices at home
Policy implications

• These challenges can be alleviated by economic and social policies
  ▪ Expand successful district strategies, enact state policies that support them
  ▪ Increase wage and employment opportunities
  ▪ Improve the EITC and child tax credit
  ▪ Reform correction policies
  ▪ Reform immigration policies
  ▪ Reduce concentrated and multigenerational poverty
Thank you!

Report will be available at: www.epi.org

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