Inequity in Transition from primary to secondary education in sub-Saharan Africa: Example from Kenya

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Figure 1: Survival (%) of a Cohort of Students in Primary and Secondary Education in SSA, 2003
UIS data story-line (UIS report 2011)
Huge Variation in Transition in SSA (UIS 2011 Report)

• In SSA among 30 countries, UIS report indicates huge variation. Example: 98% Seychelles, 36% Tanzania.

• In 27 countries, including Ethiopia, South Africa and Uganda, transition rate ranges between 51% and 95%
FIGURE 4
To what extent has secondary enrolment increased over time?
Enrolment in secondary education by region

UIS data

FIGURE 5
How does enrolment in secondary education compare with school-age population growth over time?

Note: Note that the scale for the y-axis may differ across regions. Source: UNESCO Institute for Statistics database.
UIS data
UIS data

**Figure 11**
How has the gap between lower and upper secondary participation rates changed between 1999 and 2009?
Gross enrolment ratios for lower and upper secondary education by region, 1999 and 2009

Source: UNESCO Institute for Statistics database and Statistical Table 6.
Kenya Example: School Fee Abolition and Transition to Secondary Education:

Evidence from slum & Non-slum areas in Nairobi City
Background

• In an effort to achieve UPE by 2015, Kenya introduced FPE in 2003

• The FPE resulted in rapid increase in primary school enrollment \((GER \text{ increased from } 88\% \text{ in } 2002 \text{ to } 107\% \text{ in } 2006)\)

• Excessive demand induced by FPE led to overcrowding of public schools & negatively affected the quality of education

• APHRC/ERP study indicates 60% of children in two slum areas attended low-quality fee charging private schools
Background (cont.)

• Secondary school enrollment rate remains low (GER 37% in 2007)

• In 2005, only 47% of primary graduates proceed to secondary schools

• The KESSP set a target of achieving 70% primary to secondary transition rate by 2008

• School fee is believed to be the major obstacle for poor children to gain access to secondary education
Background (cont.)

• In 2008, school fee abolition was extended to secondary education

• Increasing number of young people completed primary school under FPE seek admission to secondary schools

• Public secondary schools have limited places, and are controlled through KCPE results

• The bottleneck may lead to increased inequality in access to post-primary education
Objectives

- Specific Objectives:
  - To what extent does secondary school fee abolition increase primary to secondary transition?
  - Does the effect vary for slum and non-slum areas, by gender and household SES background?
Data & Methods

• Longitudinal data on schooling collected by ERP/APHRC in 6 rounds from 2005-2010 in two slum areas (Korogocho & Viwandani) and two non-slum sites (Harambe & Jericho).

• Unique household-level follow-up data on schooling pattern for 3 years before and 3 after the FSE program was initiated in January 2008.

• Collected data on demographic characteristics, HH SES backgrounds, and primary school type and location.
The study uses a cohort of 3,997 primary school children in 2005 (Round 1) to assess primary completion and transition to secondary in 2010 (Round 6).

In the final round, 2,878 (72%) of the original cohort were interviewed in 2010 (That is, an attrition rate of 28%).

We examine association between Household SES measured in 2005, and educational transition assessed in 2010.
I. **Sequential logit models:**
- estimate the effects of family background on the likelihood of continuing through the sequence of school levels.

- Help to discern the transition points where social background effect the largest

-two school continuation decisions are estimated with in a single model:

**Decision 1:** finish primary school or not

**Decision 2:** those completed primary either proceed to secondary or not
Proportion of primary completion and transition to secondary school

- In the slum areas, out of the 2322 primary students in 2005, 76% completed primary education and only 46% made transition to secondary by 2010.

- While 92% completed primary and 72% proceeded to secondary education in the non-slum areas.
Primary completion rate by school entry cohort

- In slum areas primary completion increased by 10 percentage points between 2000 & 2003 school entry cohorts.

- In non-slum areas the corresponding increase is about 5 percentage points.

![Bar chart showing primary school completion rates by residence and cohort between 2000-07 and 2003-10.](chart.png)
In slum areas, the transition rate increased from about 48% in 2005 to 72% in 2009, but declined to 57% in 2010.

Whereas the transition rate in the non-slum areas barely changed over the study time, slightly fluctuated around 85%.
Primary completion & transition to secondary:
Sequential logit Odds-ratios

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Slum areas</th>
<th></th>
<th>Non-Slum areas</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Primary complete</td>
<td>Transition to secondary</td>
<td>Primary complete</td>
</tr>
<tr>
<td>Sex of child (Boy)</td>
<td></td>
<td>0.82*</td>
<td>1.05</td>
<td>1.38</td>
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<tr>
<td>Age</td>
<td></td>
<td>1.40**</td>
<td>1.23**</td>
<td>2.49**</td>
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<tr>
<td>Female headed HH</td>
<td></td>
<td>0.76*</td>
<td>0.94</td>
<td>1.29</td>
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<td>HH Wealth Status (top 20%)</td>
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<td>0.64**</td>
<td>0.46**</td>
<td>0.95</td>
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<td>Bottom 40%</td>
<td>0.78*</td>
<td>0.98</td>
<td>1.16</td>
<td>1.18</td>
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<tr>
<td>Middle 40%</td>
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<tr>
<td>HH head’s Education (No)</td>
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<td>1.07</td>
<td>1.18</td>
<td>1.24</td>
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<tr>
<td>Primary</td>
<td>1.42*</td>
<td>1.22**</td>
<td>1.28</td>
<td>1.26</td>
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<tr>
<td>Secondary</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Non-state primary sch.</td>
<td>0.67**</td>
<td>0.92</td>
<td>0.67</td>
<td>1.27*</td>
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<td>Repeated in primary</td>
<td>0.47**</td>
<td>0.36**</td>
<td>0.56**</td>
<td>0.49**</td>
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<td>Number of Cases (n)</td>
<td>2322</td>
<td></td>
<td>556</td>
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<td>LR Chi-Square</td>
<td>412.61</td>
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<td>391.67</td>
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</tr>
</tbody>
</table>

** significant at 1%, * significant at 5%
- few cases
Correlates of educational transition

- Household poverty remains an important factor in decreasing the probability of completing primary education as well as transition to secondary school.

- Parents/guardians education level is also found to be a key determinant of educational transition.

- Children attended low-cost private primary schools in slum areas have lower chance of completing primary education than children attended government schools.

- However, in non-slum areas children attended private primary school have higher chance of transition than their counterparts who attended government schools.

- Students repeated primary grades are less likely to make transition to secondary school than their counterparts who did not repeat grades.
Acknowledgement

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