Educational Systems and the Inequality in Attainment: Evidence from 27 LMICs, 1991 to 2017

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The association between ‘de-standardisation’ of educational systems and inequality in attainment
What is ‘de-standardisation’?

• Transferring authority to the lower administrative tiers:
  1. local governments
  2. schools

• Education policies not uniform

• Not the same standard across schools and local governments

• ‘Decrease standardisation’ or ‘de-standardise’ educational responsibilities and policies

• E.g., rich and poor schools will make curriculum decisions differently.
Contextualising reforms in contrasting scenarios
Motivation
Decreased standards of education by the World Bank, 1965-2020

Sub-national de-standardisation

(Hossain, 2022)
Decreased standards of education by the World Bank, 1965-2020

(Hossain, 2022)
1. How far is the de-standardisation of educational systems associated with inequality in attainment?

2. To what extent inequality in attainment has been different by the level of de-standardisation?

• Contributions:
  • Original de-standardisation measures.
  • The distinction between sub-national and school entities.
De-standardisation and equality in attainment

• Rational response, marginalised communities empowered

  (Barrera-Osorio, Fasih and Patrinos 2009).

• Standardisation a means to consolidate colonial power.
  • Disregarded ethnic and economic background, e.g., to learn a new language.
Expectations

Scenario 1

Scenario 2

Scenario 3

Educational attainment vs. Degree of de-standardisation

Higher-SES

Lower-SES

Higher-SES

Lower-SES

Higher-SES

Lower-SES
De-standardisation and widening or static gaps

**Widening**

- Rational choice argument overlooks SES.
  - Focus on efficiency, not inequality *(Summers and Pritchett 1993).*
  - Greater uniformity in standards for equal outcomes *(Van de Werfhorst and Mijs 2010).*
  - Mixed evidence as well: inequality and null results *(Bukodi et al. 2018).*
Expectations

Scenario 1

Scenario 2

Scenario 3

Educational attainment

Degree of de-standardisation

Higher-SES

Lower-SES

Higher-SES

Lower-SES

Higher-SES

Lower-SES
De-standardisation and widening or static gaps

**Widening**

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**Static**

- Contextual incompatibility to receive de-standardisation reforms.
  - Informal governance, e.g., clientelist relationships.
Expectations

Scenario 1

Degree of de-standardisation

Educational attainment

Lower-SES

Higher-SES

Scenario 2

Degree of de-standardisation

Educational attainment

Lower-SES

Higher-SES

Scenario 3

Degree of de-standardisation

Educational attainment

Lower-SES

Higher-SES
Data: de-standardisation

• UNESCO IBE World Policy Yearbook 2010, national policy documents
• 27 countries, 1990-2016, secondary level.
• **10 system indicators:** Curriculum; textbook; assessment or exit exam; admission to school; teacher recruitment; teacher initial training; teacher in-service training; budget source; budget allocation; school inspection.

• **Coding:**
  • Subnational: Subnational, a combination of subnational and central/school.
  • School: School, a combination of school and central/subnational.

• Transformed indicators into binary.
• 2 indices using item response theory (IRT) models.
• Intra-coder reliability checks.
Trend in the process of de-standardisation at the sub-national and school levels, 1990-2016
Data: educational attainment

• Demographic and health surveys (DHS) and MICS by UNICEF.
• 27 countries, 1991-2017, secondary level
• Lower- and upper-secondary combined.

• Completed secondary education within five years of completion age – 23.
  • UNESCO Institute for Statistics (UIS) definition.

• With 1 year lag, 24.

• 2,132,950 individuals, 626 country-cohort, 27 country.
• Controls: gender, location, regime type, GDP per capita.
Educational attainment gaps at the secondary level
Methods

\[ \text{Attainment}_{ic} = \theta_0 + \theta_1 \text{Destandard}_c + \theta_2 \text{SES}_{ic} + \theta_3 (\text{SES}_{ic} \times \text{Destandard}_c) + \psi X'_{ic} + T_i + \alpha + u_{ic} \]
FINDINGS
RQ1: probability of attaining secondary education by the richest quintile compared to the poorest
Expectations

**Scenario 1**
- Educational attainment vs. Degree of de-standardisation
- Higher-SES vs. Lower-SES

**Scenario 2**
- Educational attainment vs. Degree of de-standardisation
- Higher-SES vs. Lower-SES

**Scenario 3**
- Educational attainment vs. Degree of de-standardisation
- Higher-SES vs. Lower-SES
RQ2: De-standardisation at the sub-national level and attainment gaps
Educational attainment gaps at the secondary level
RQ2: De-standardisation at the school level and attainment gaps
Conclusion

• Greater de-standardisation is associated with higher attainment inequality.
• More at the school level.
• Consistent with some findings from high-income countries.
• Questions policy diffusion in LMICs.
• Poverty and the school quality gap require more attention.
• Results are descriptive and require further investigation.
  • More countries.
  • Different outcome measures, i.e., achievement.
## Coding scheme

<table>
<thead>
<tr>
<th>Sub-national</th>
<th>School</th>
<th>Decision-making level</th>
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<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>Central government</td>
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<tr>
<td>1</td>
<td>0</td>
<td>Combination of sub-national entities and the central government</td>
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<tr>
<td>1</td>
<td>0</td>
<td>Sub-national entities (i.e., region/directorate/district/sub-district)</td>
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<tr>
<td>1</td>
<td>1</td>
<td>Combination of schools, sub-national entities and/or the central government</td>
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<tr>
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<td>1</td>
<td>Combination of schools and the central government</td>
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<tr>
<td>0</td>
<td>1</td>
<td>School actors (i.e., school management committee)</td>
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27 cohorts of 23-year-olds

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<thead>
<tr>
<th>De-standardisation year</th>
<th>Within five years of secondary education graduation age</th>
<th>Birth year</th>
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Secondary education attainment rate, 1991-2027
Secondary education attainment rate by country

Secondary education graduation age cohort