

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

Mobarak Hossain

Nuffield College, University of Oxford

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

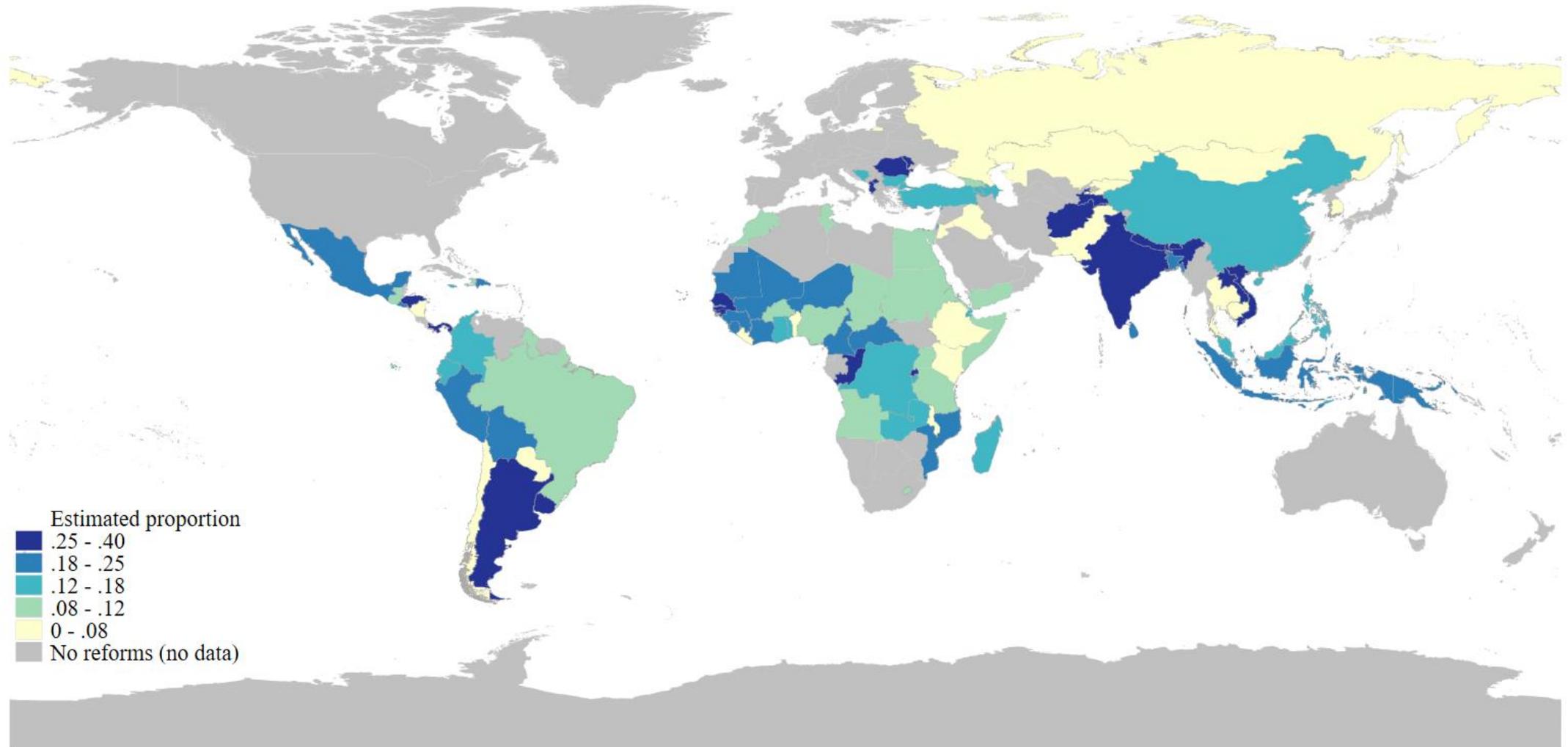


# Motivation

# Decreased standards of education by the World Bank, 1965-2020

(Hossain, 2022)

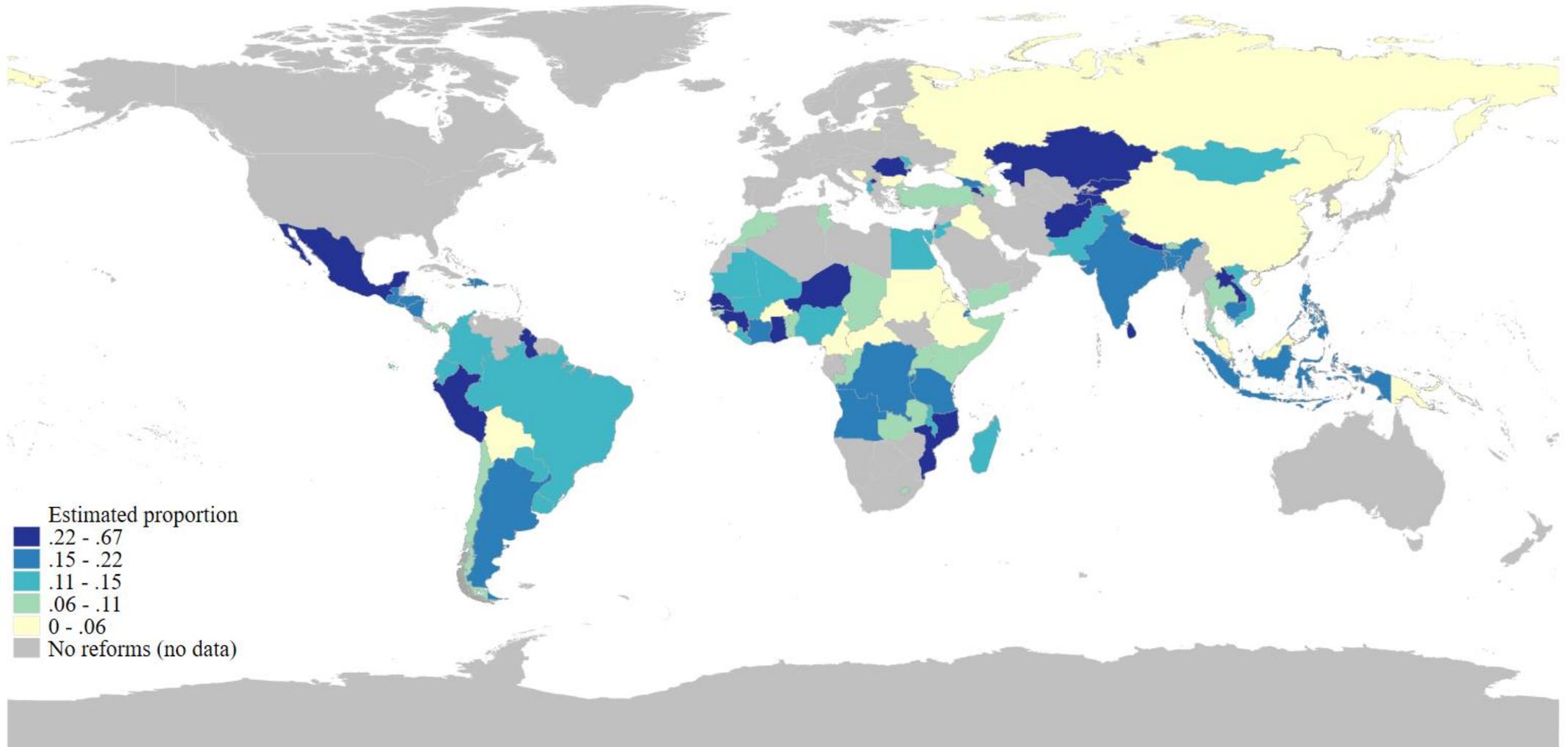
Sub-national de-standardisation



# Decreased standards of education by the World Bank, 1965-2020

(Hossain, 2022)

School de-standardisation

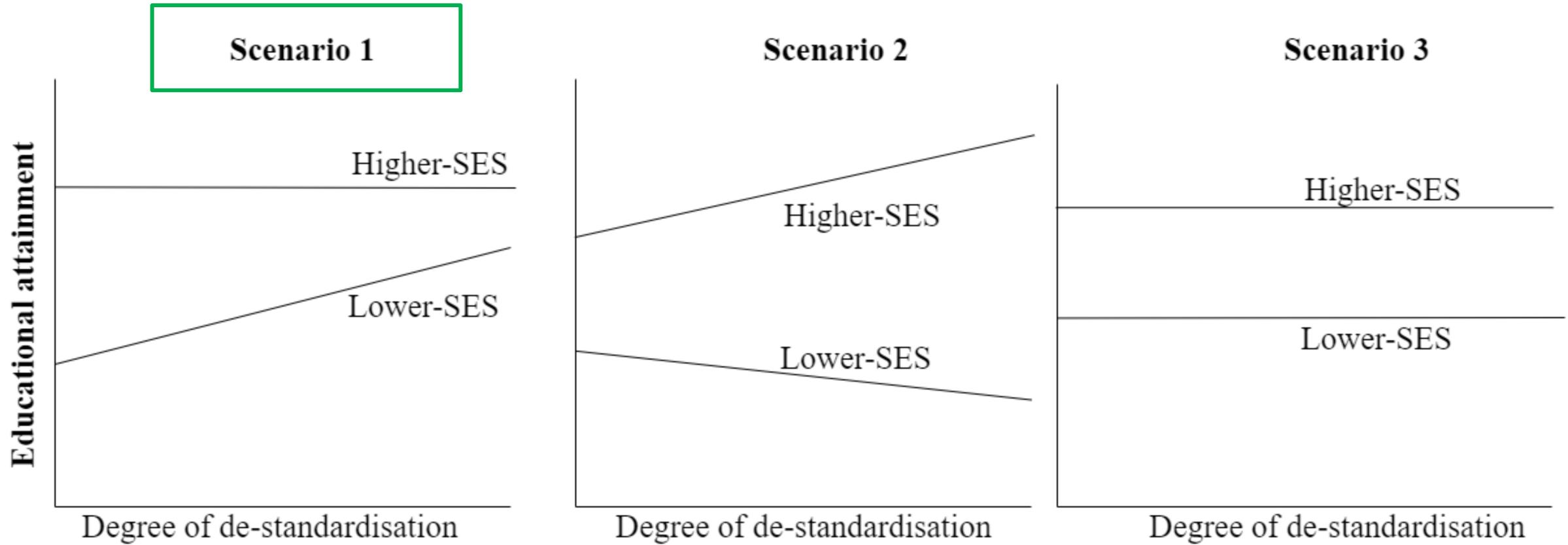


1. How far is the de-standardisation of educational systems associated with inequality in attainment?
  2. To what extent inequality in attainment has been different by the level of de-standardisation?
- Contributions:
    - Original de-standardisation measures.
    - The distinction between sub-national 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

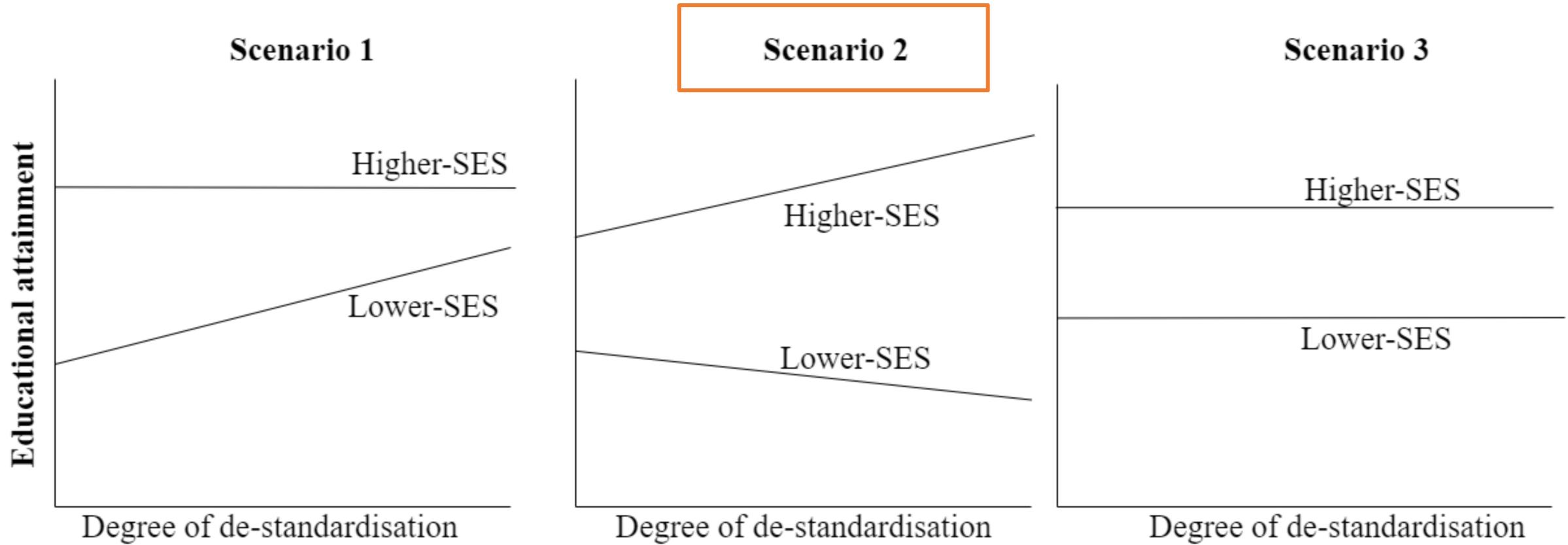


# De-standardisation and widening or static gaps

## ***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



# De-standardisation and widening or static gaps

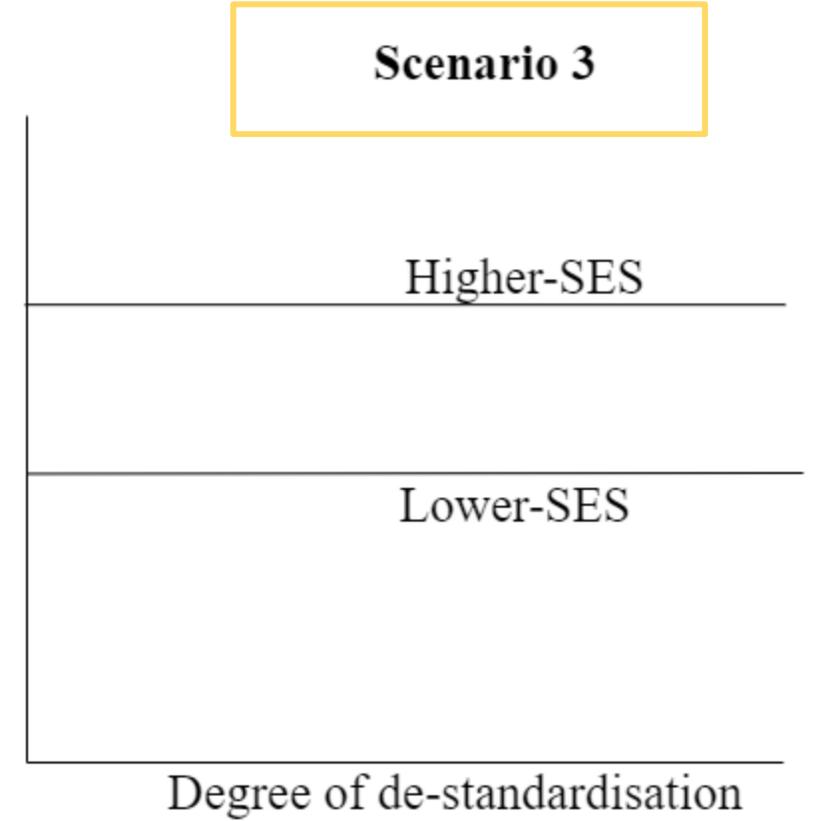
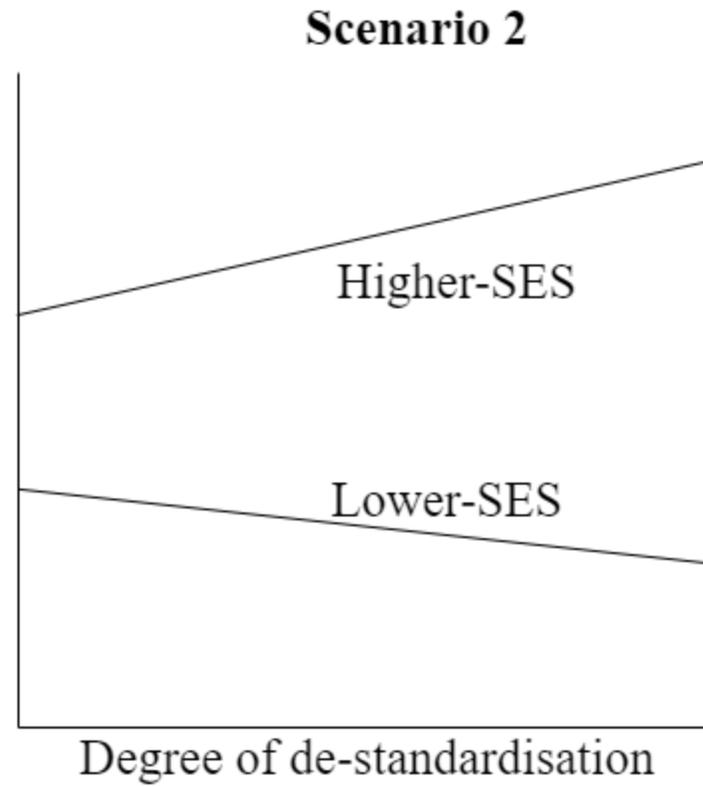
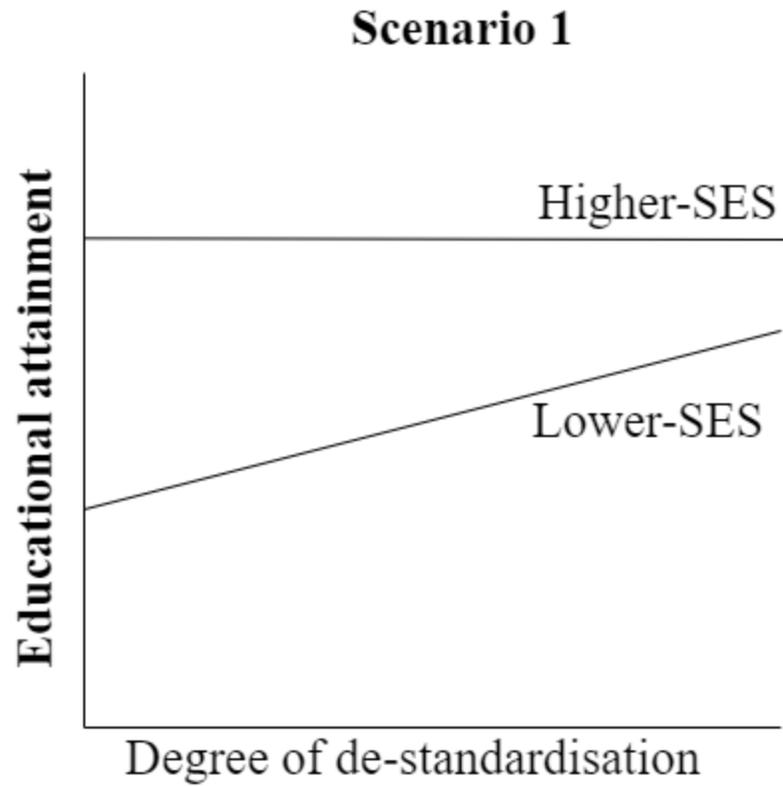
## ***Widening***

- The 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](#)).

## ***Static***

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

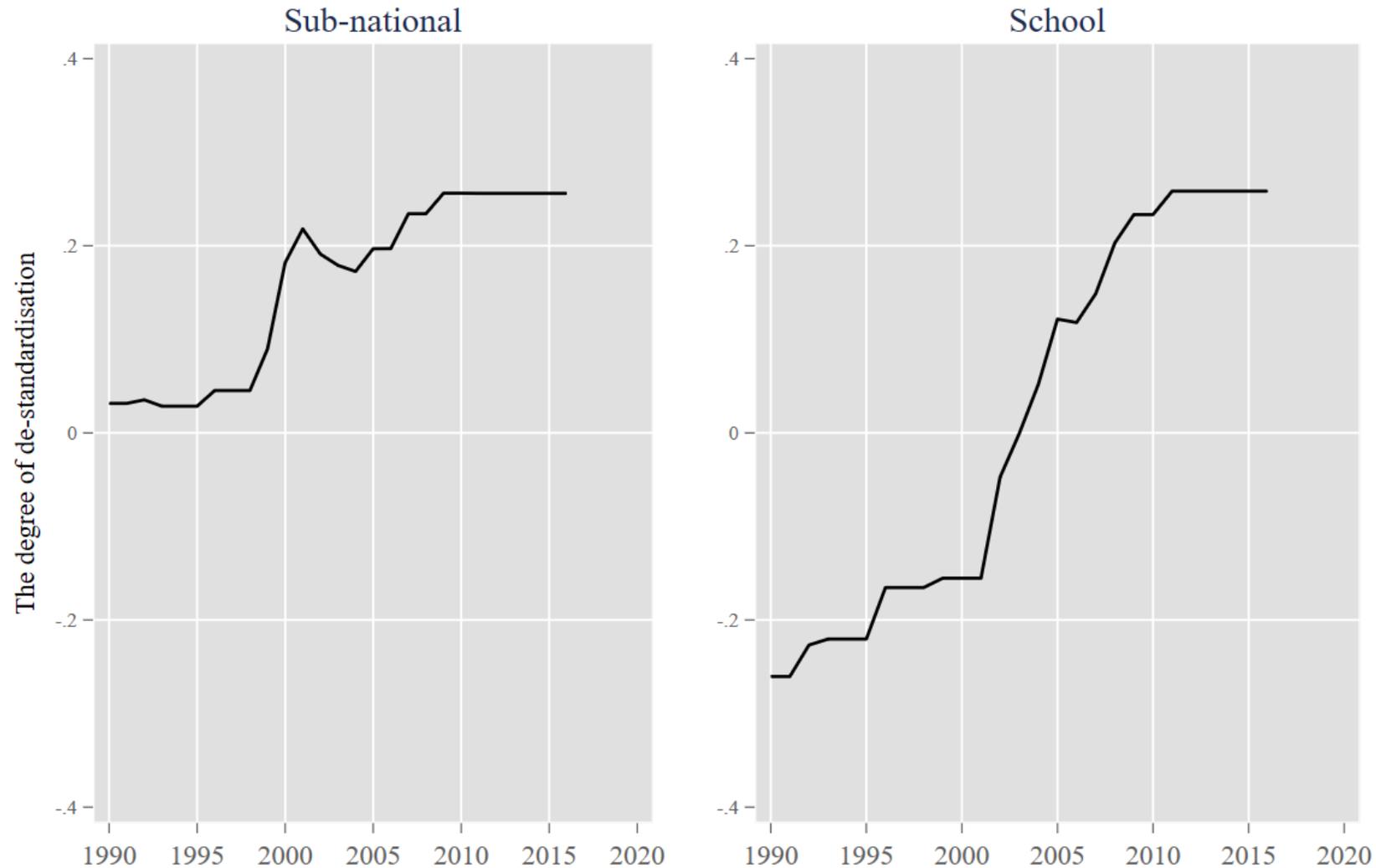
# Expectations



# 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.

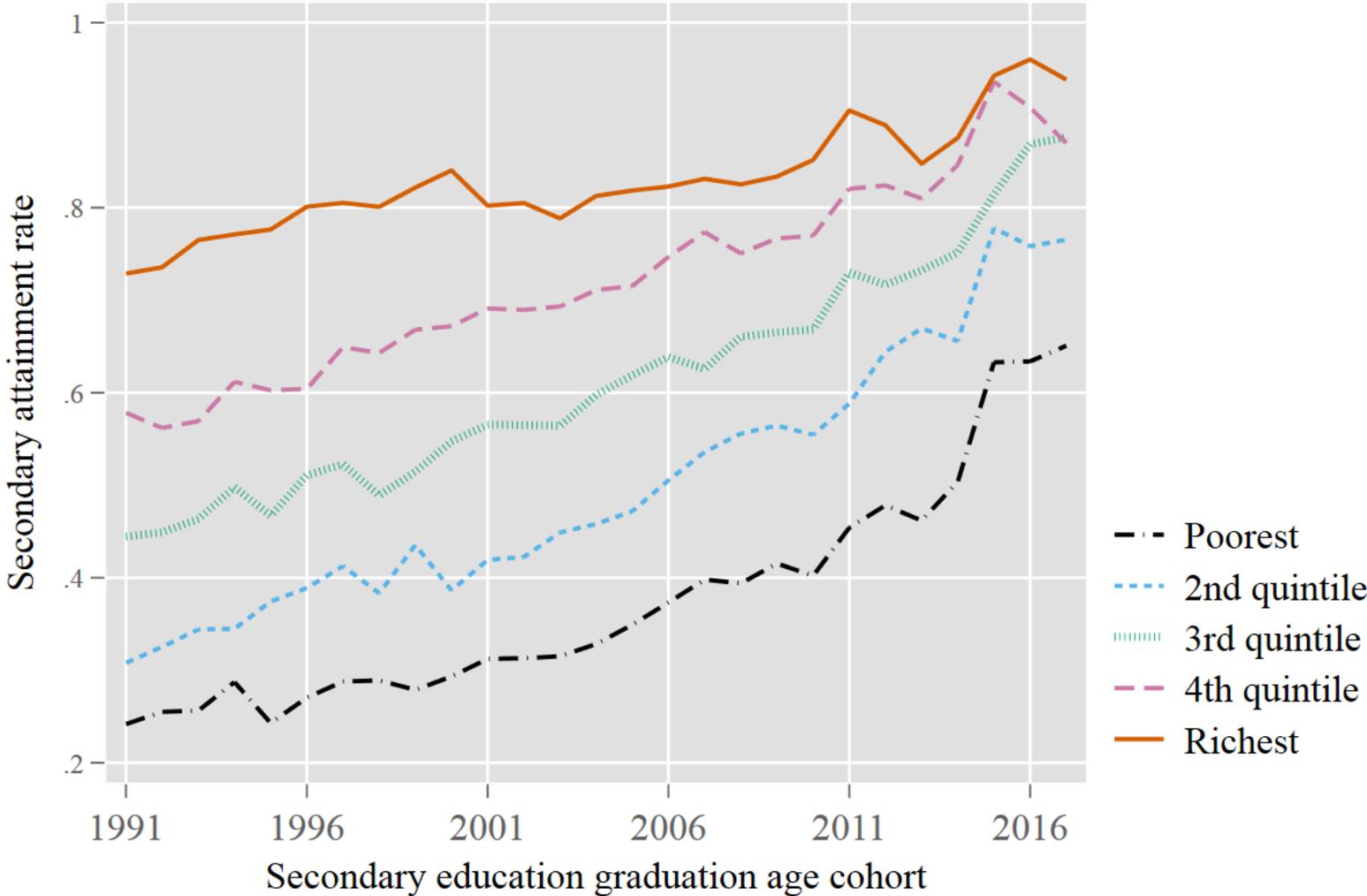
# Trend in the process of de-standardisation at the sub-national and school levels, 1990-2016



# 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

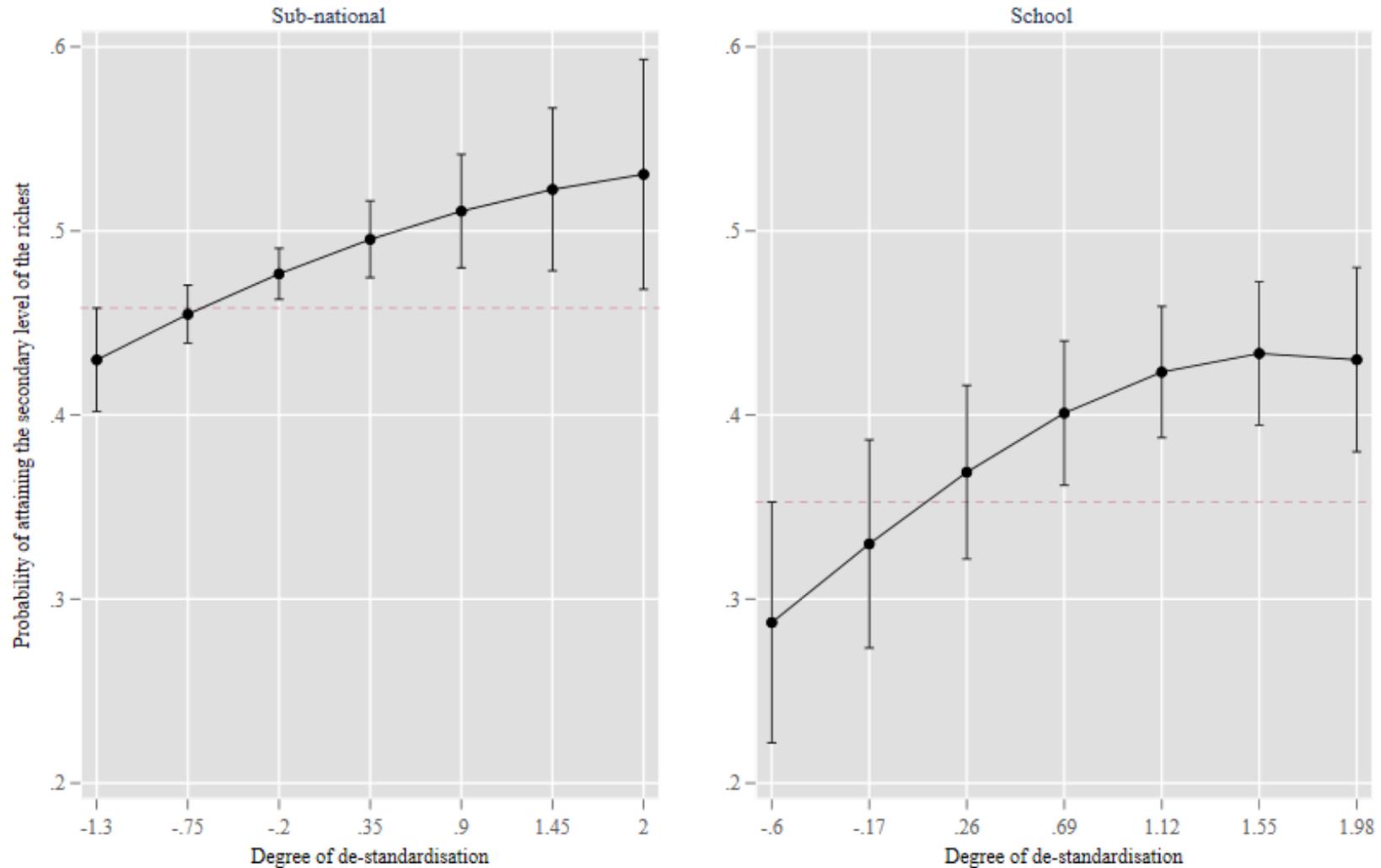


# Methods

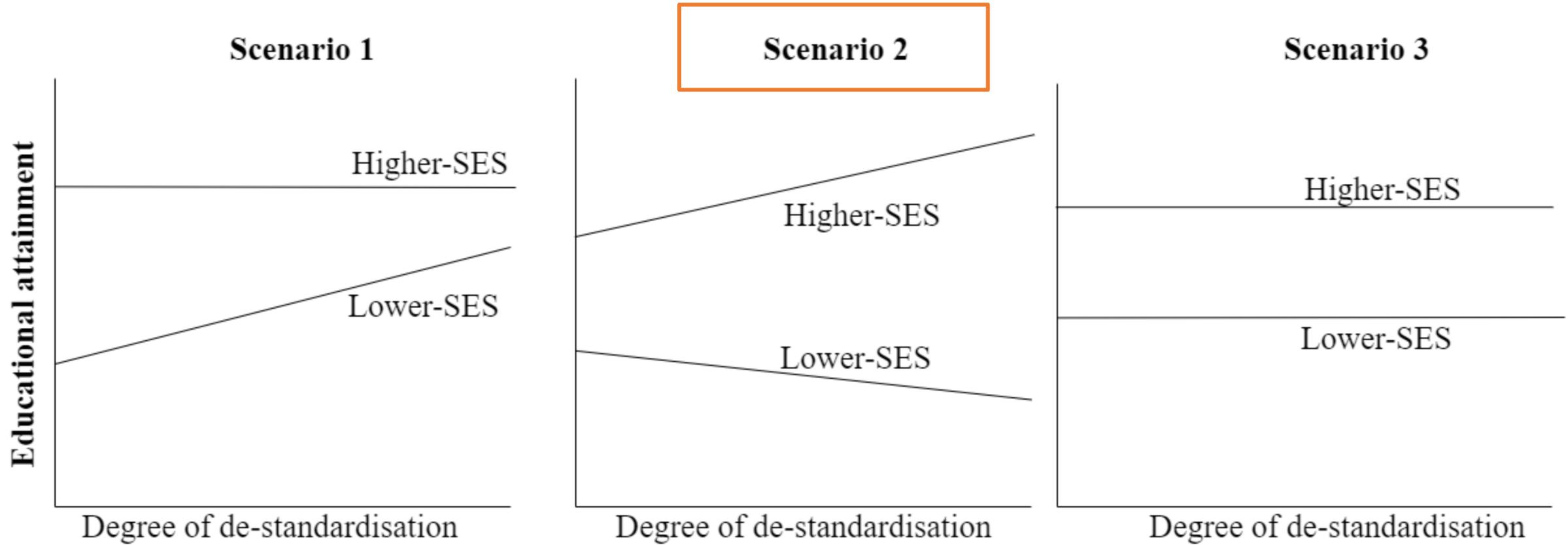
$$Attainment_{ic} = \beta_0 + \beta_1 \mathbf{Destandard}_c + \beta_2 SES_{ic} + \beta_3 (SES_{ic} \times \mathbf{Destandard}_c) + \psi \mathbf{X}'_{ic} + T_j + \alpha_i + u_{ic}$$

# FINDINGS

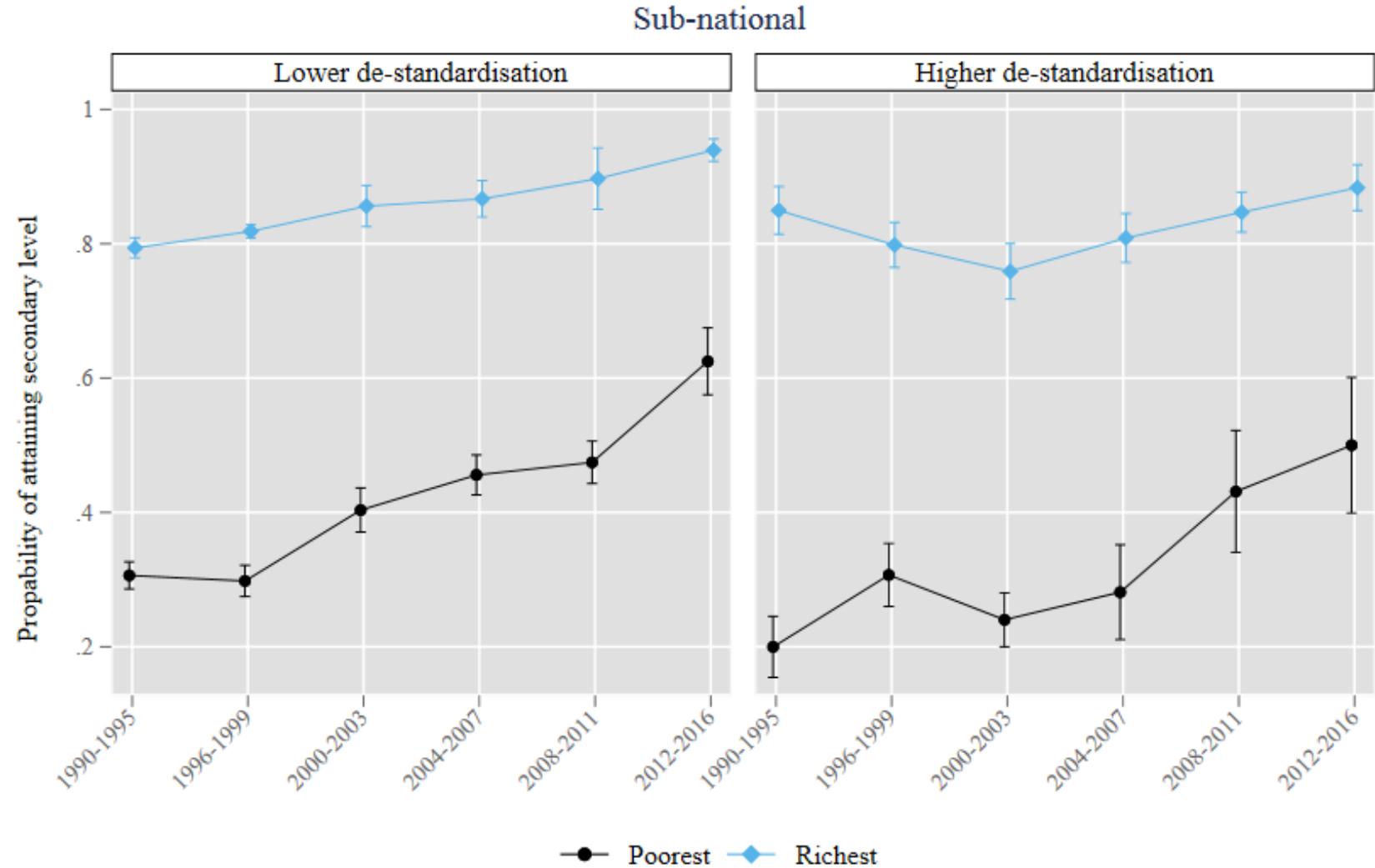
# RQ1: probability of attaining secondary education by the richest quintile compared to the poorest



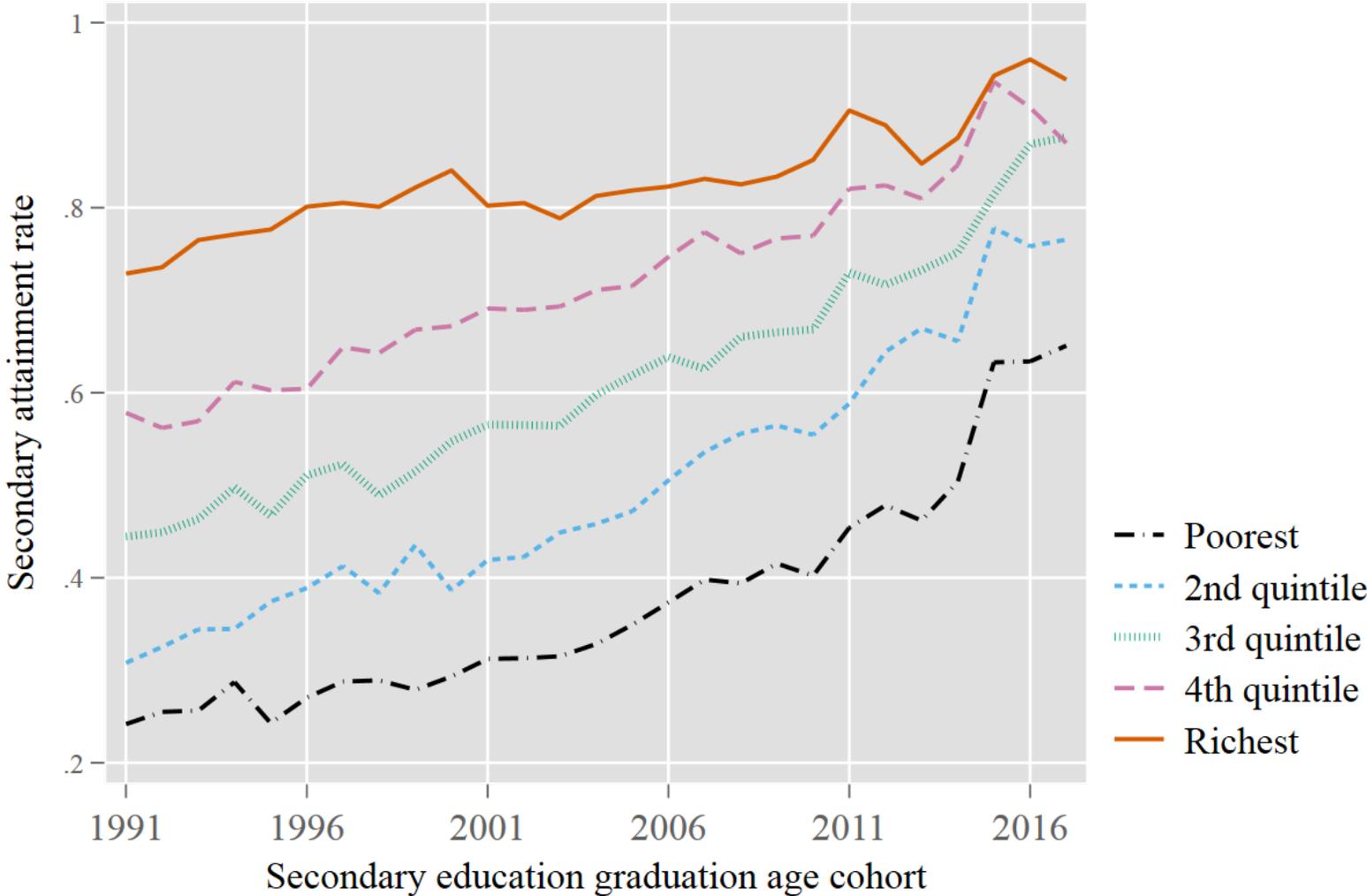
# Expectations



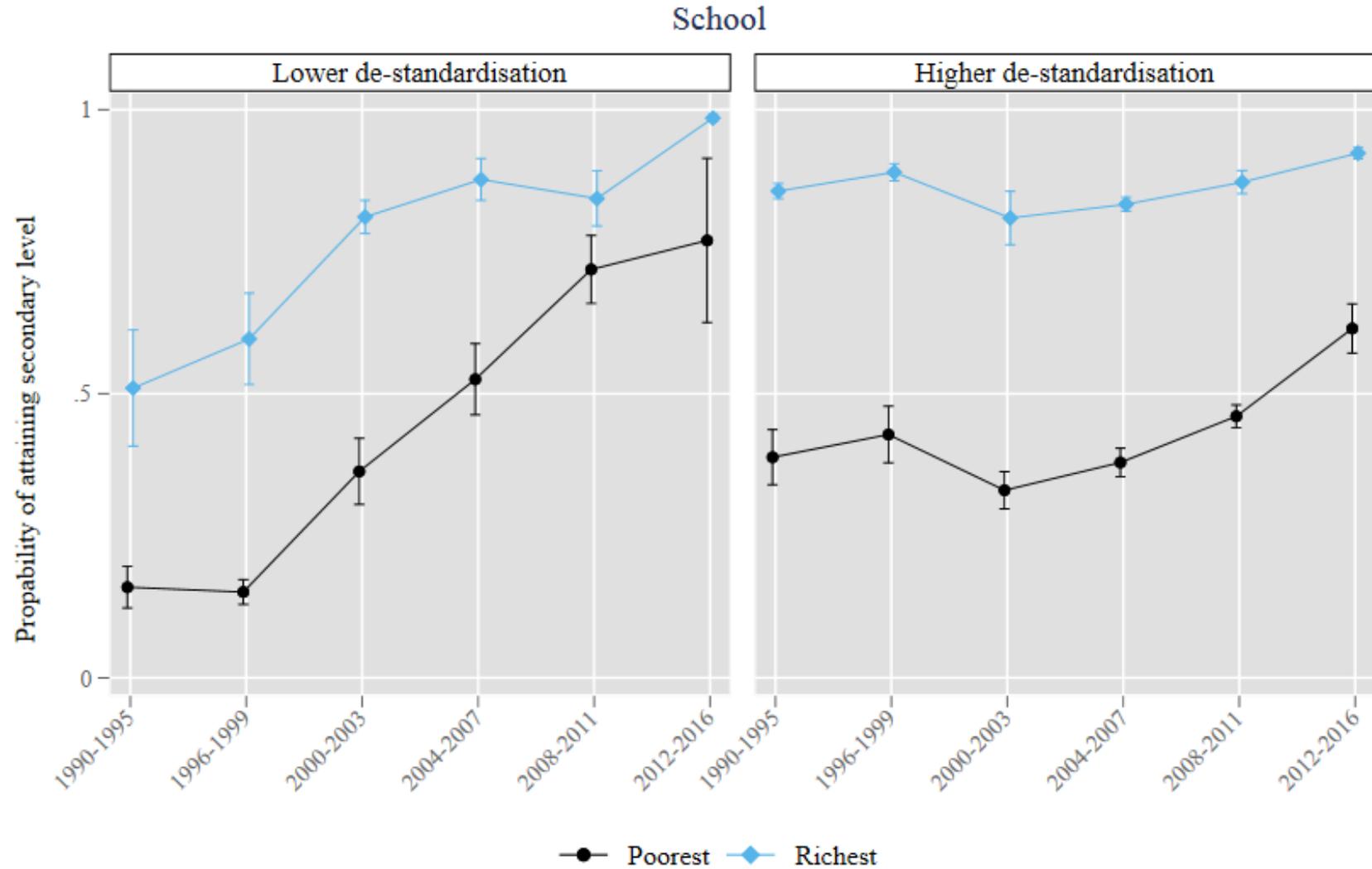
# RQ2: De-standardisation at the sub-national level and attainment gaps



# 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.

# Appendix I: Current Research

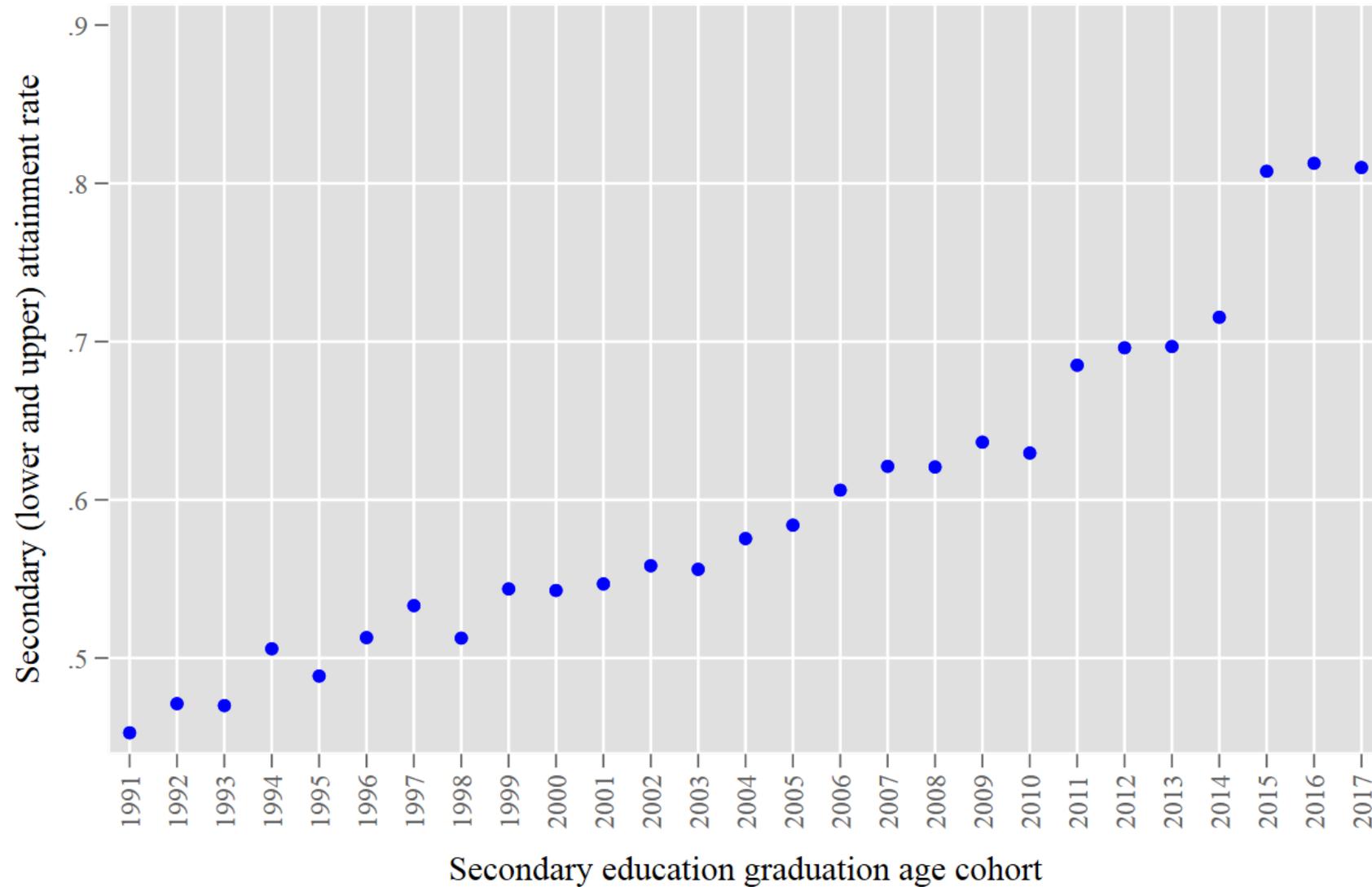
## Coding scheme

Sub-national	School		Decision-making level
0	0	1	Central government
1	0	2	Combination of sub-national entities and the central government
1	0	3	Sub-national entities (i.e., region/directorate/district/sub-district)
1	1	4	Combination of schools, sub-national entities and/or the central government
0	1	5	Combination of schools and the central government
0	1	6	School actors (i.e., school management committee)

# 27 cohorts of 23-year-olds

De-standardisation year	Within five years of secondary education graduation age		Birth year
1990	1991	→	1968
1991	1992	→	1969
1992	1993	→	1970
1993	1994	→	1971
1994	1995	→	1972
1995	1996	→	1973
1996	1997	→	1974
1997	1998	→	1975
1998	1999	→	1976
1999	2000	→	1977
2000	2001	→	1978
2001	2002	→	1979
2002	2003	→	1980
2003	2004	→	1981
2004	2005	→	1982
2005	2006	→	1983
2006	2007	→	1984
2007	2008	→	1985
2008	2009	→	1986
2009	2010	→	1987
2010	2011	→	1988
2011	2012	→	1989
2012	2013	→	1990
2013	2014	→	1991
2014	2015	→	1992
2015	2016	→	1993
2016	2017	→	1994

# Secondary education attainment rate, 1991-2027



# Secondary education attainment rate by country



Secondary education graduation age cohort