



Education
Data and
Statistics
Commission



Joint modelling

11th Education Data and Statistics Commission meeting

27 February 2025

#25YearsOfDataInsights



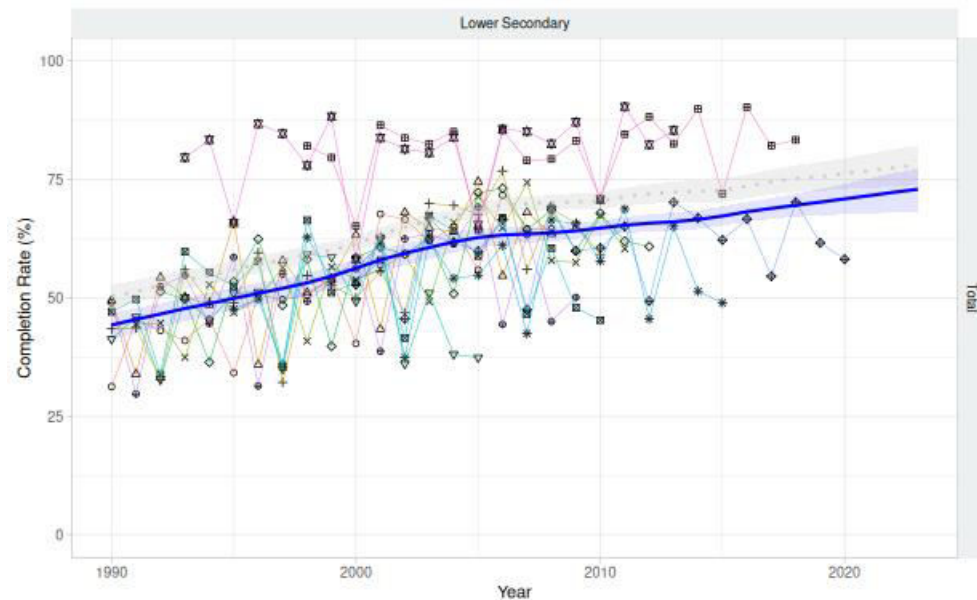
Outline

1. Background
2. Issues
3. Next steps

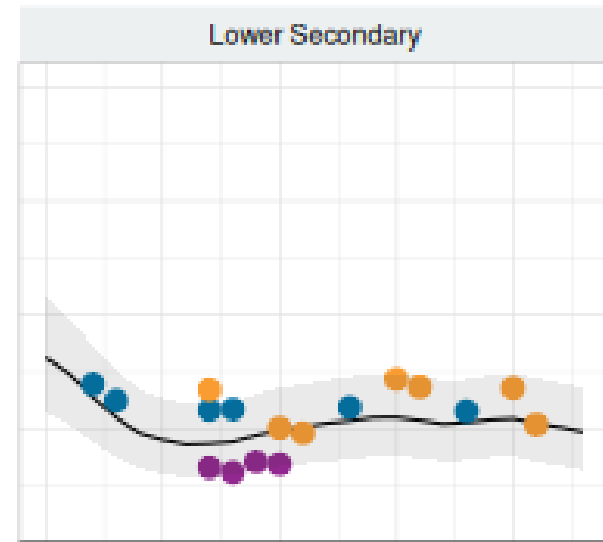
1. Background

Models estimating headline indicators integrating multiple data sources

Completion rate



Out-of-school rate



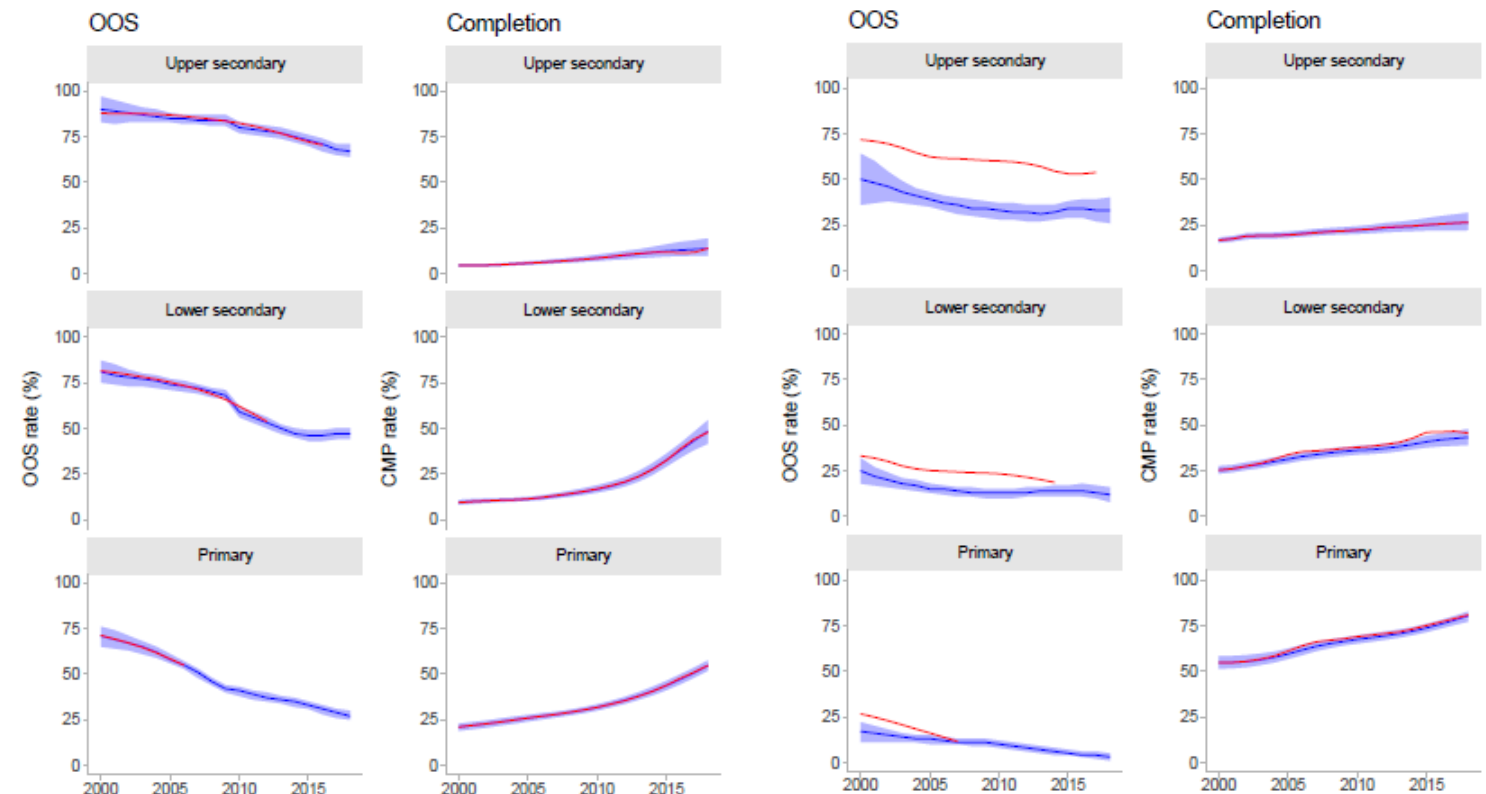
2. Issues

Reconcile out-of-school and completion rates – 1

Blue lines = existing estimates

Red lines = joint model estimates

- Many countries' estimates are fully reconcilable...
- ..or discrepancies can be consistently reconciled



2. Issues

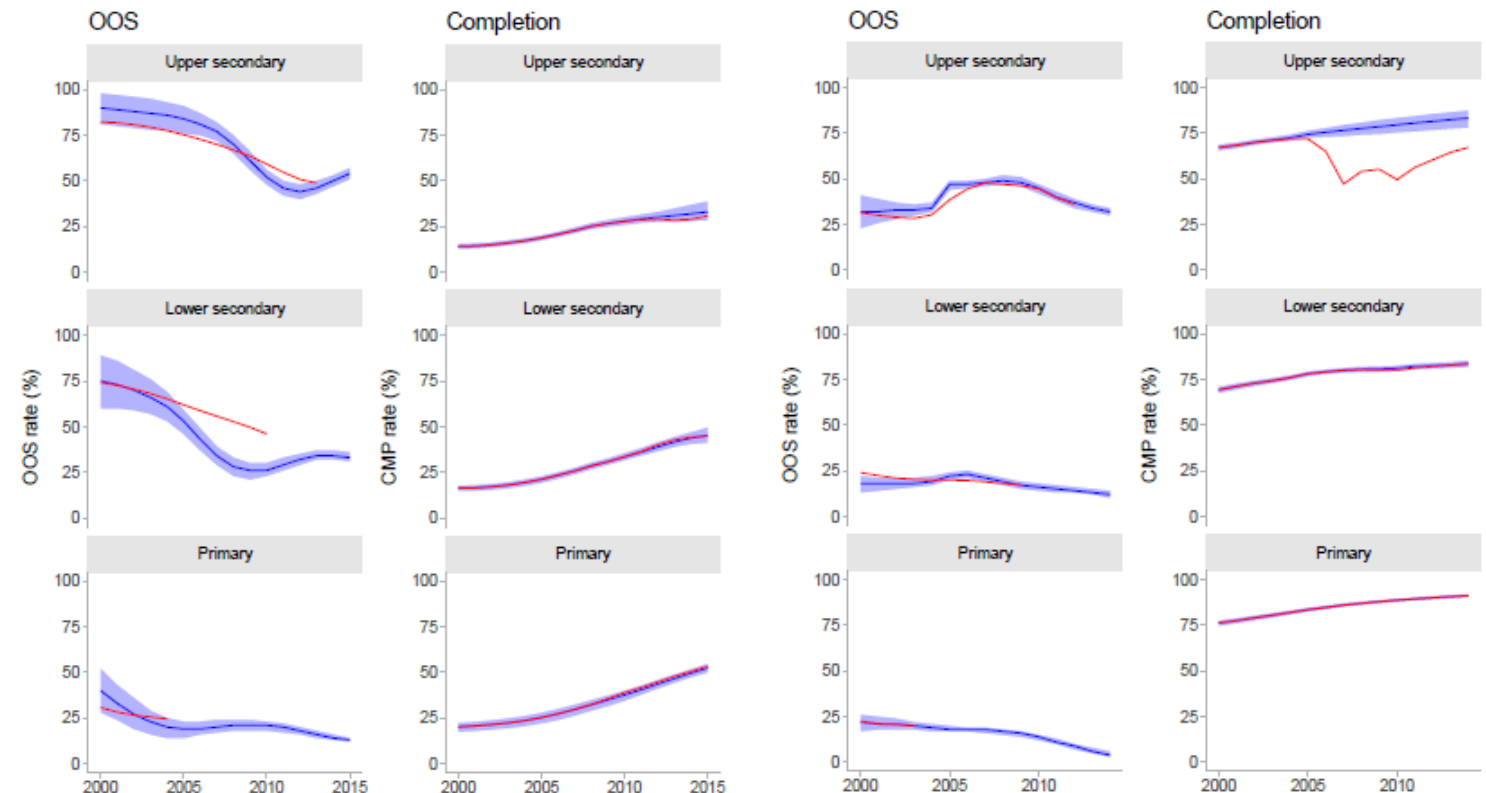
Reconcile out-of-school and completion rates – 2

Other countries' joint estimates are harder to reconcile

- Model introduces too much smoothing...

- ...or are simply too inconsistent

Usually, the main issue is lack (or low quality) of data, including population, but improved assumptions can also be made



3. Next steps

UIS and GEM Report 3-year partnership agreement with IIASA

- Improve methodology of existing out-of-school and completion rate Bayesian models
- Expand the set of SDG 4 indicators modelled based on multiple data sources e.g. participation and attainment rates at pre-primary and post-secondary level
- Develop consistent attainment estimates over the lifecycle esp. ensure consistency of (youth) completion 4.1.2 and (adult) attainment rates 4.4.3
- Improve estimation of mean years of schooling and school life expectancy indicators (used, for example, in the Human Development Index)
- Disaggregate education indicators by various demographic characteristics
- Handbook on demography of education

THANK YOU

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