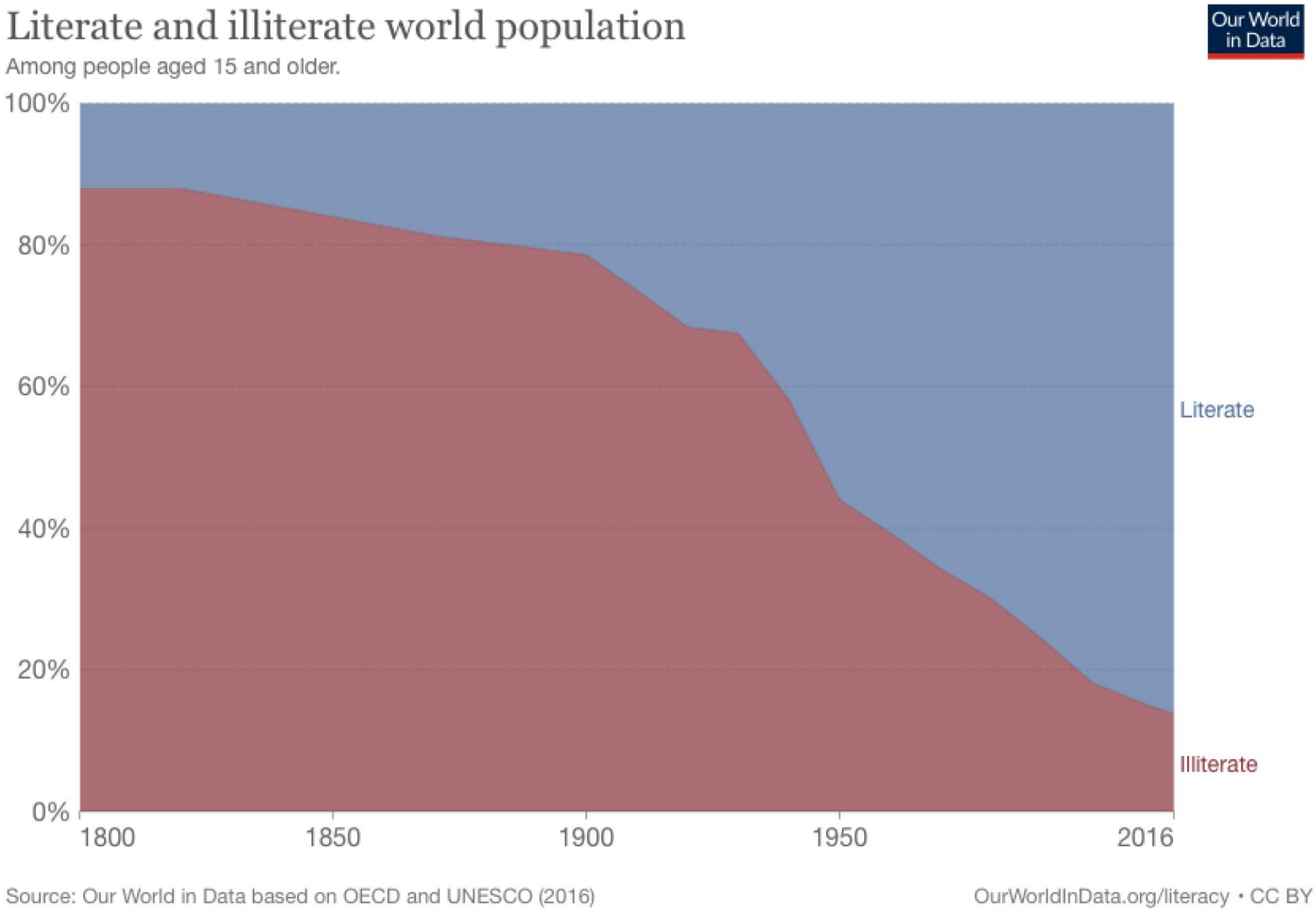
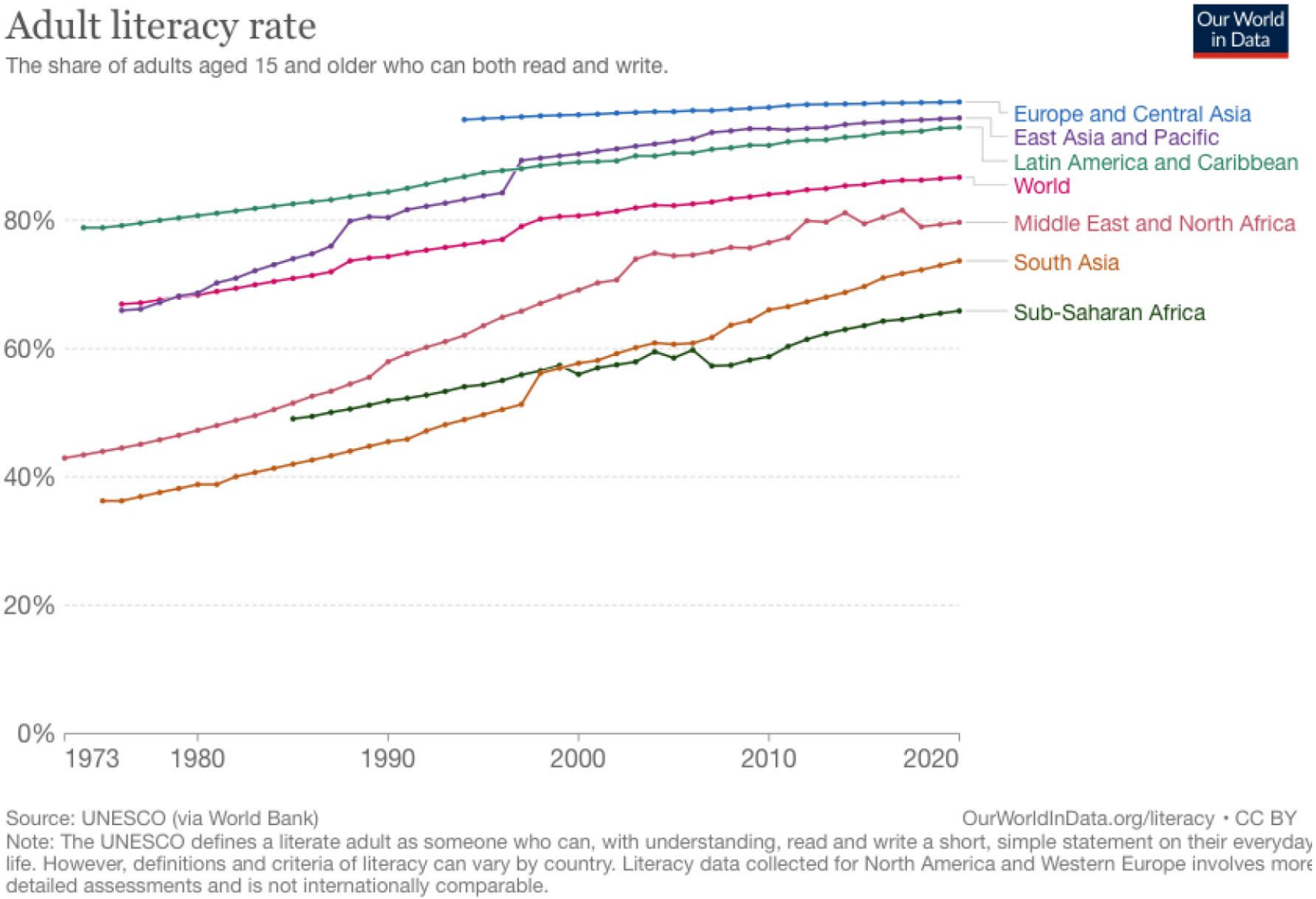
Global stock of human capital

HS 156

Economics of Health and Education



From the middle of the 20th century, basic education became a global priority.

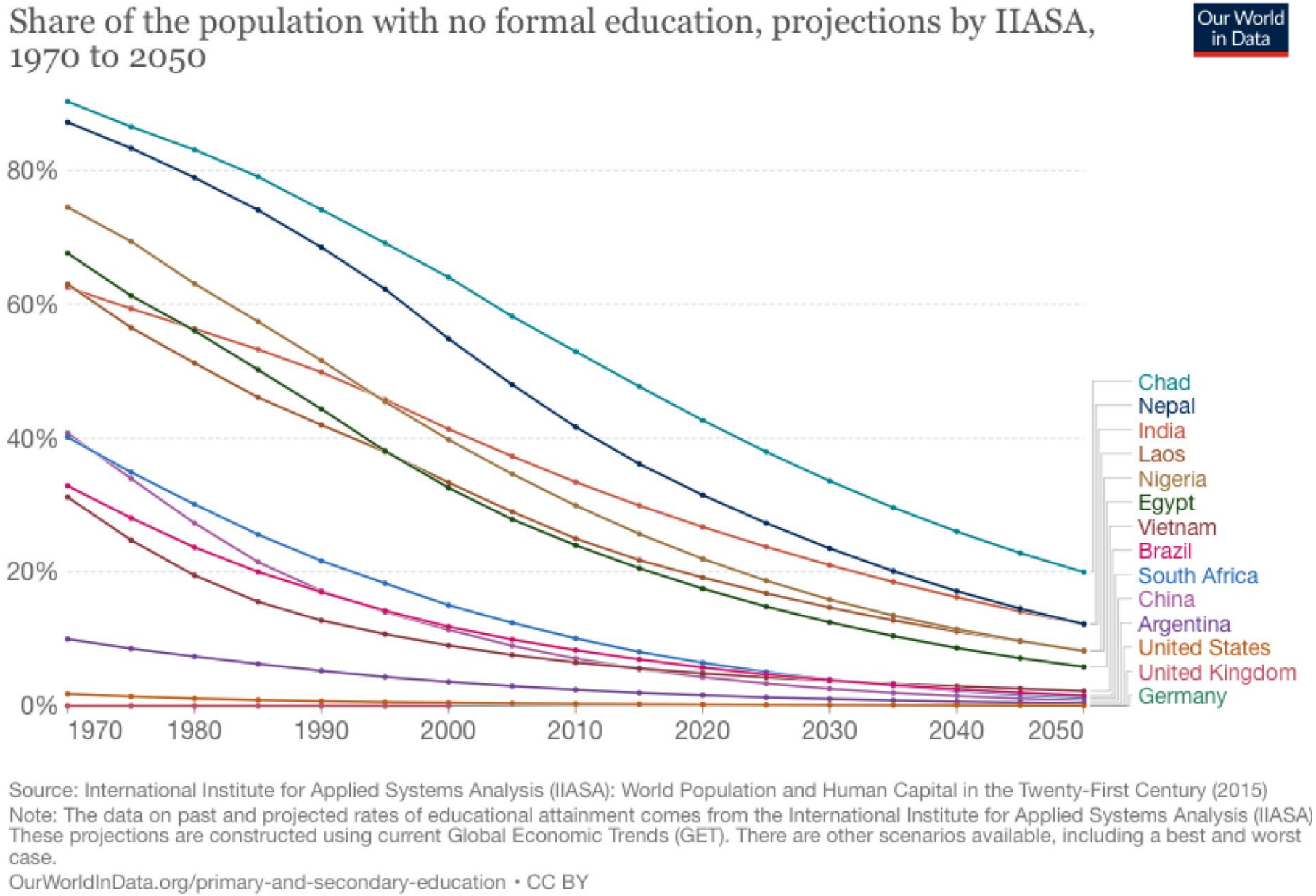


How is adult literacy distributed across the globe?

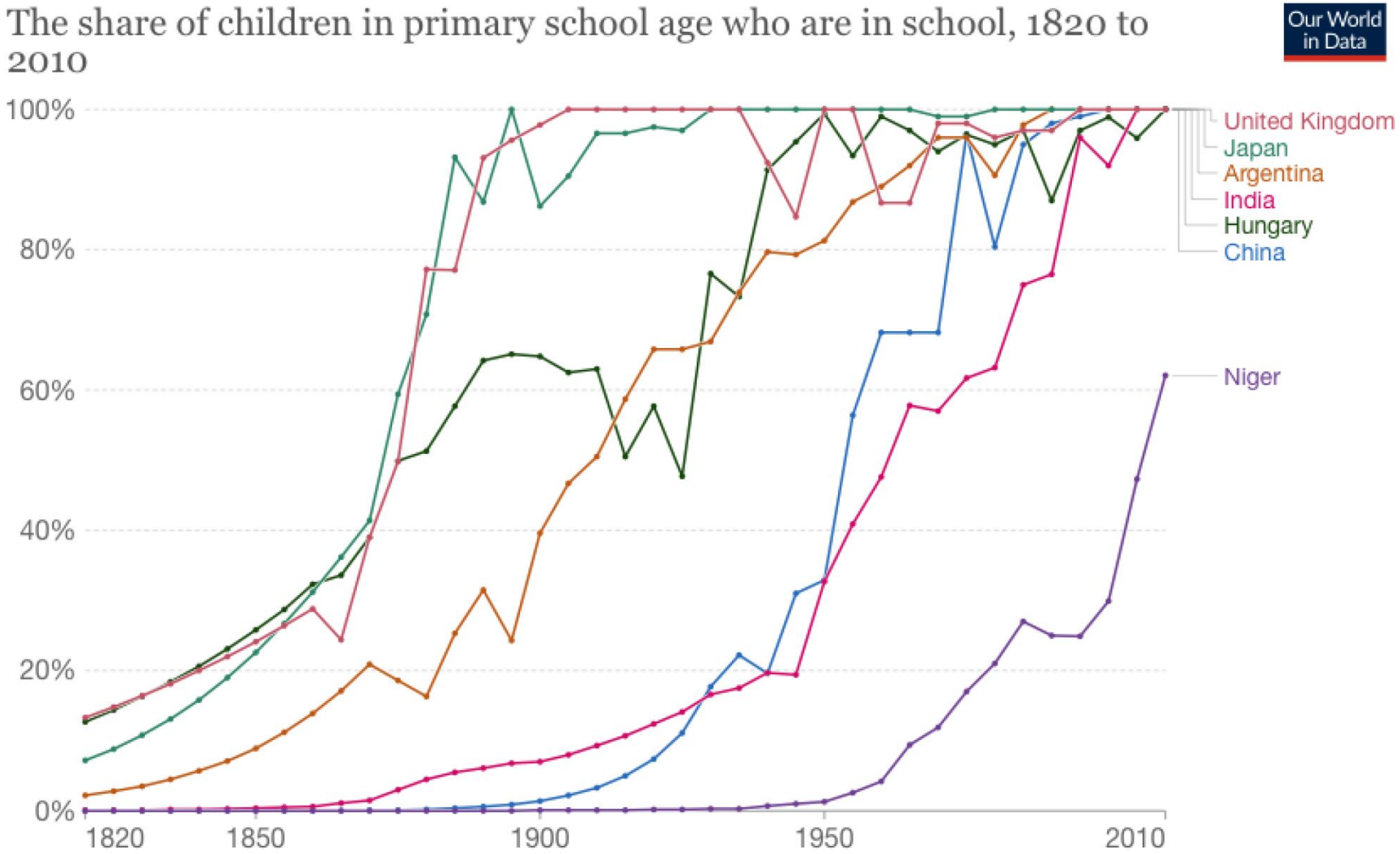
All countries outside Africa (with the exception of Afghanistan) have literacy rates above 50%.

Despite progress in the long run, however, large inequalities remain, notably between sub-Saharan Africa and the rest of the world. In Burkina Faso, Niger and South Sudan – the African countries at the bottom of the rank – literacy rates are still below 30%.

Observe progress of south Asia.



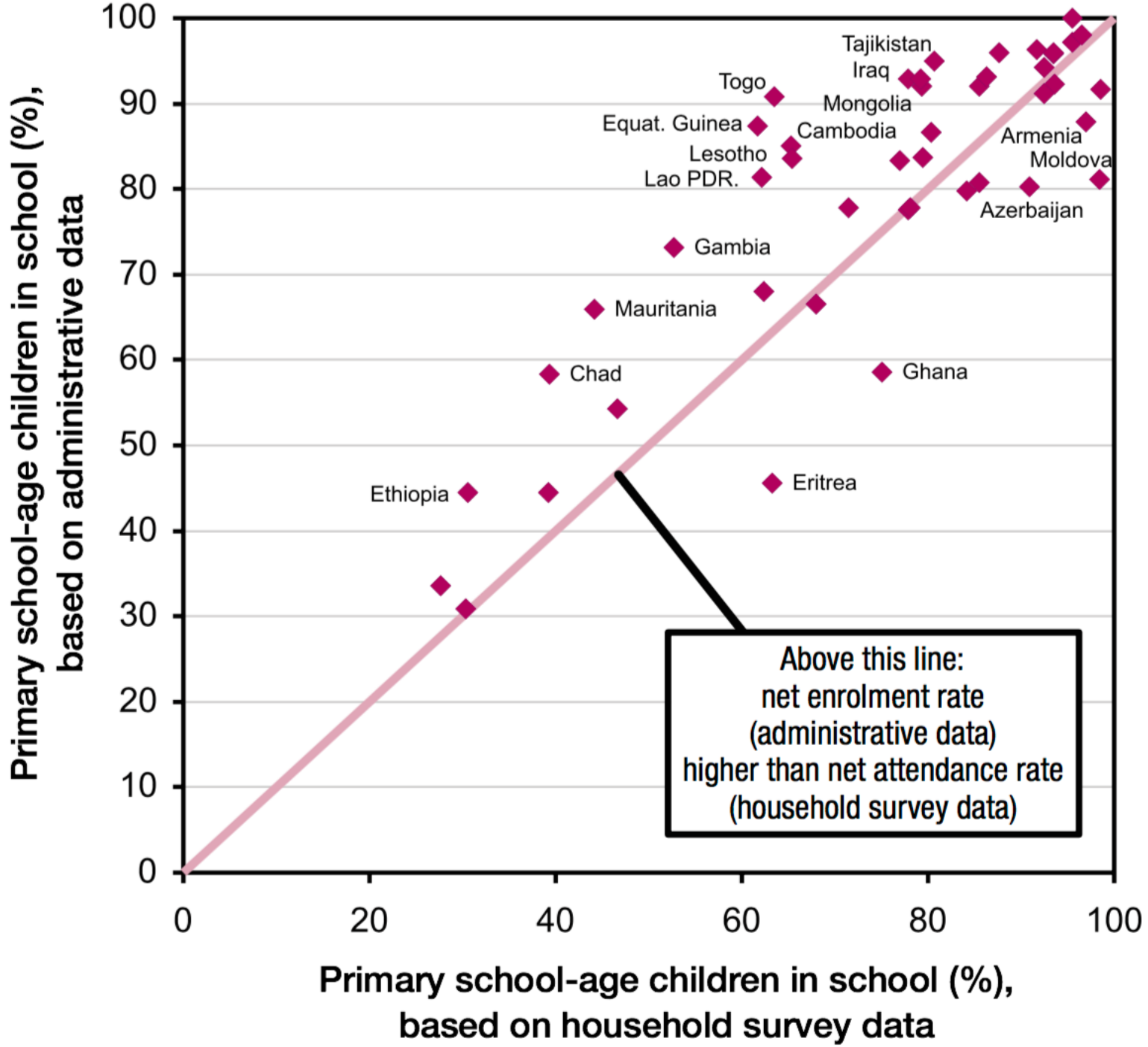
- How fast are we closing cross country inequalities in literacy?
- Generational gaps in educational attainments remain
- Younger generations are progressively better educated than older generations
- By 2050, we hope to close cross country gaps.



Primary school enrolment around the world increased drastically in the last century.

Early industrialized countries had increases in primary school enrollments through compulsory primary schooling in the late 18th and early 19th century.

Growth in access to primary education across developing countries was achieved through increase in government expenditure on education in these countries.



In majority of developing countries, net enrollment rates are higher than that of the net attendance rates.

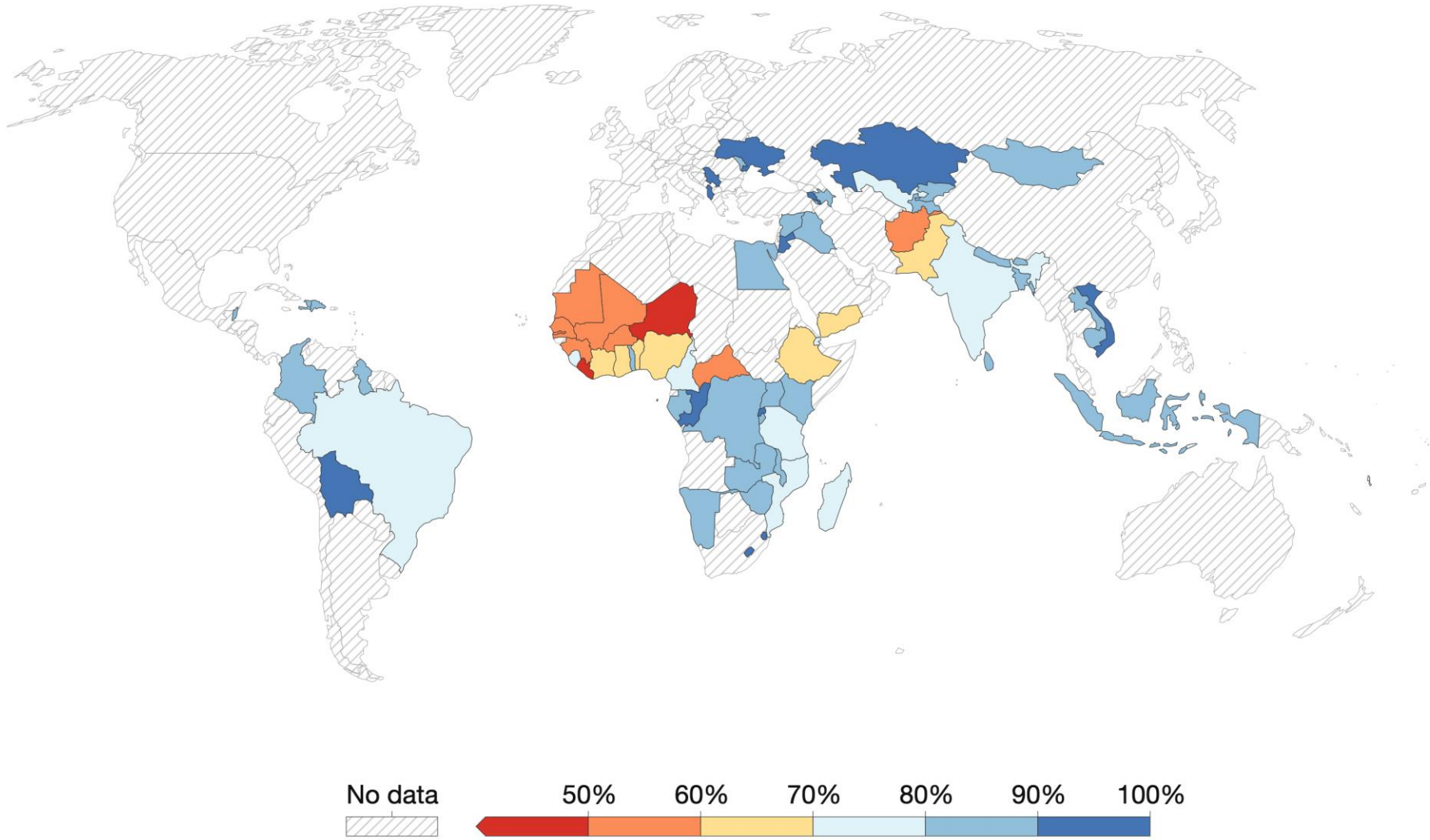
Many children who are officially enrolled in school, do not go to school.

Household surveys show more dips in attendance rates as compared to the data provided by administrative sources.

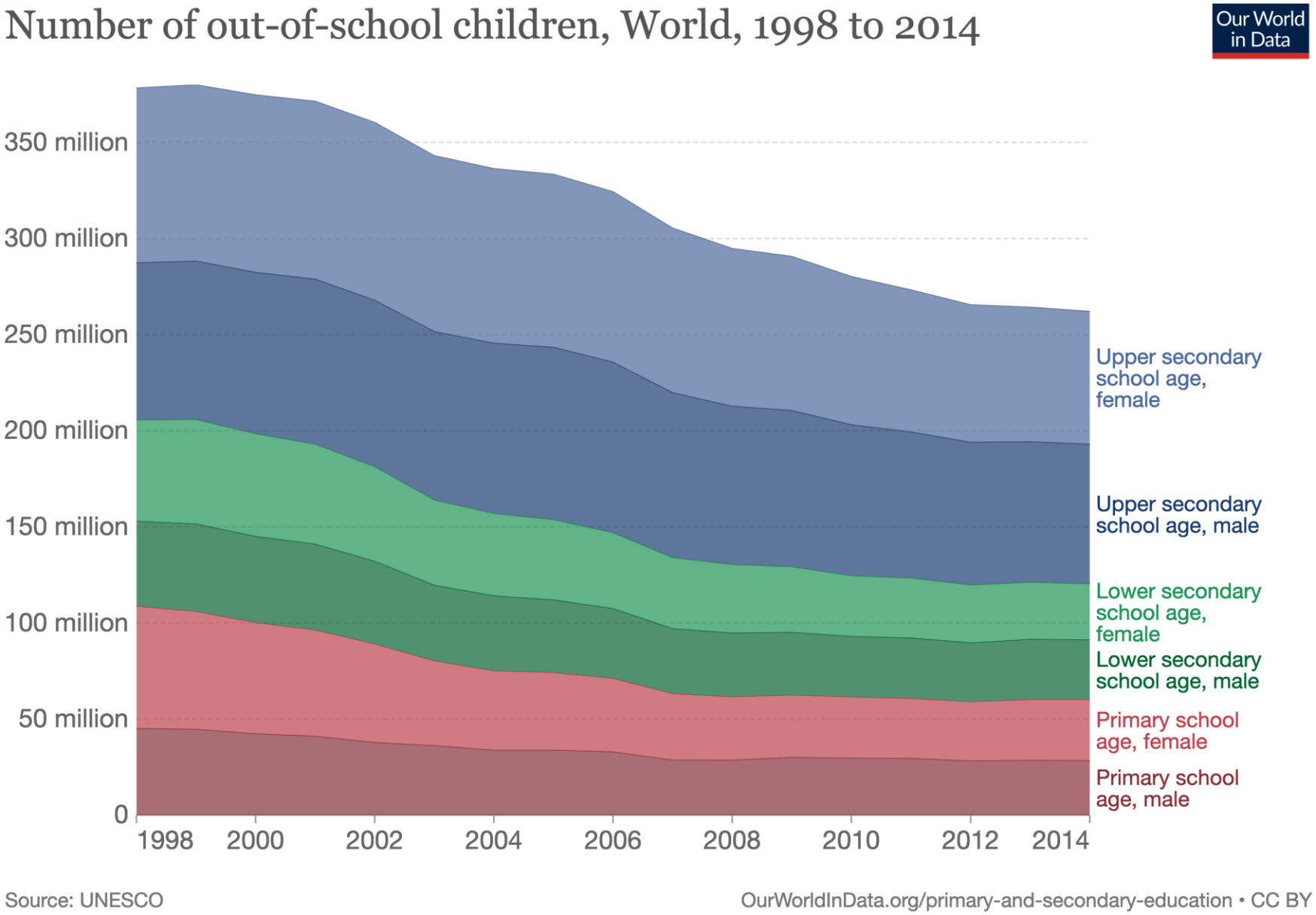
Net attendance rate of primary school, 2015

Total number of students in the theoretical age group for primary education attending that level, expressed as a percentage of the total population in that age group.

Our World in Data



Source: UNESCO Institute for Statistics



Number of children out of school still high, despite increase in global young population in school

In 1998, 381 million out of school

In 2014, 263 million out of school

For 2014 it can be seen that at the primary school age the number of girls that are out of school is higher than for boys.

At the secondary school age the reverse is true, more boys than girls are out of secondary school.

Years of schooling

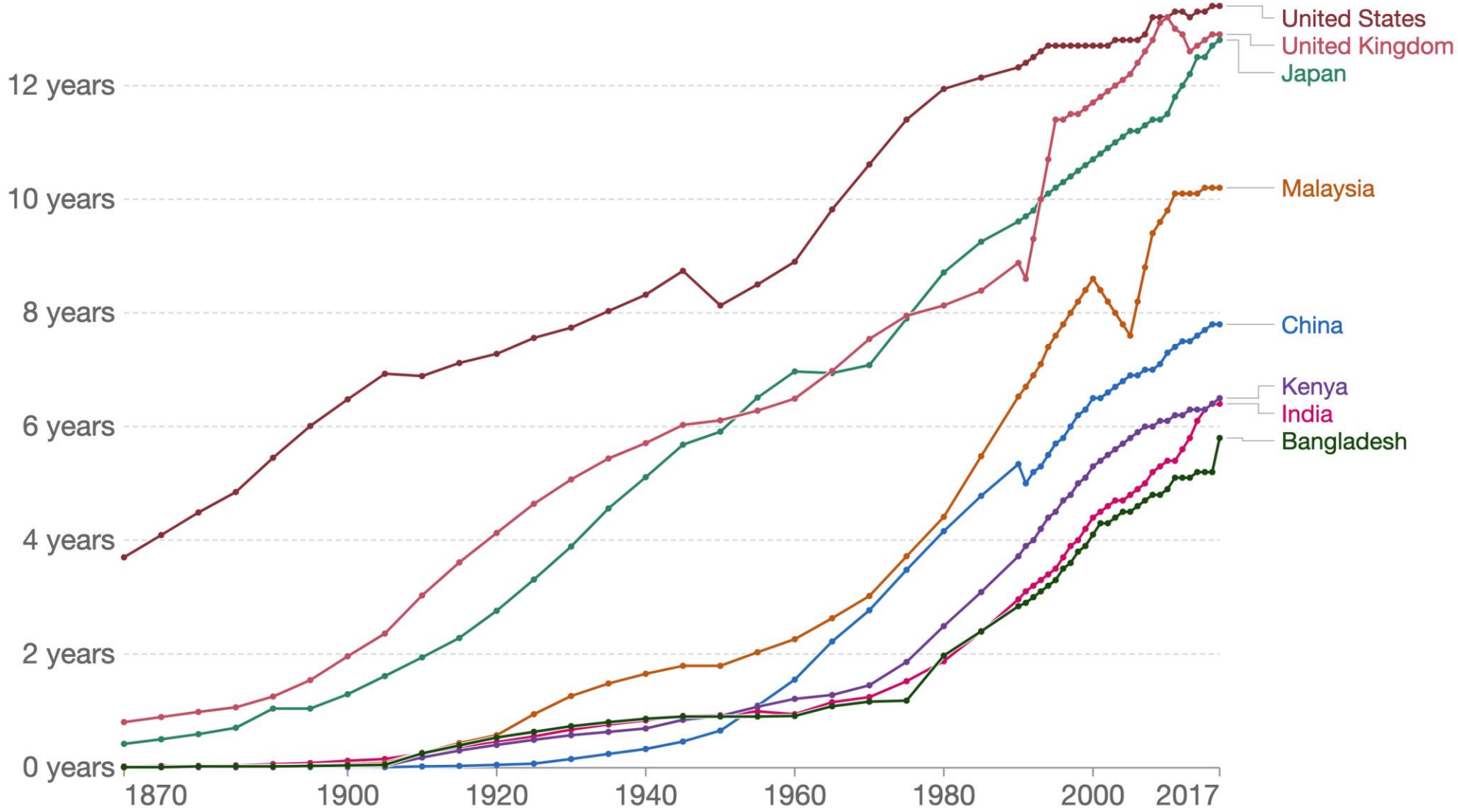
- The average number of years spent in school are another common measure of a population's education level.
- It is a helpful measure, because it allows aggregation of attainment across education levels.
- This allows an analysis of the 'stock of human capital' that a population has at any given point in time.
- Average, or mean years of schooling of a population, are typically calculated from data on (i) the distribution of the population by age group and highest level of education attained in a given year; and (ii) the official duration of each level of education.

The world is more educated than ever before

- The average number of years spent in school has gone up around the world.
- Early-industrialized countries pioneered the expansion of education in the 19th century, but this process became a global phenomenon after the second World War.
- The experience of some countries, such as South Korea, shows how remarkably quickly educational attainment can increase.
- The rise in mean years of schooling is consistently observed in both Barro Lee (2010) and Lee & Lee (2016). It is the result of increased appreciation of the benefits of education to the individual and society, as well as and increased government provision.

Average years of schooling

Average number of years people aged 25+ participated in formal education.



Source: Lee-Lee (2016); Barro-Lee (2018) and UNDP HDR (2018)

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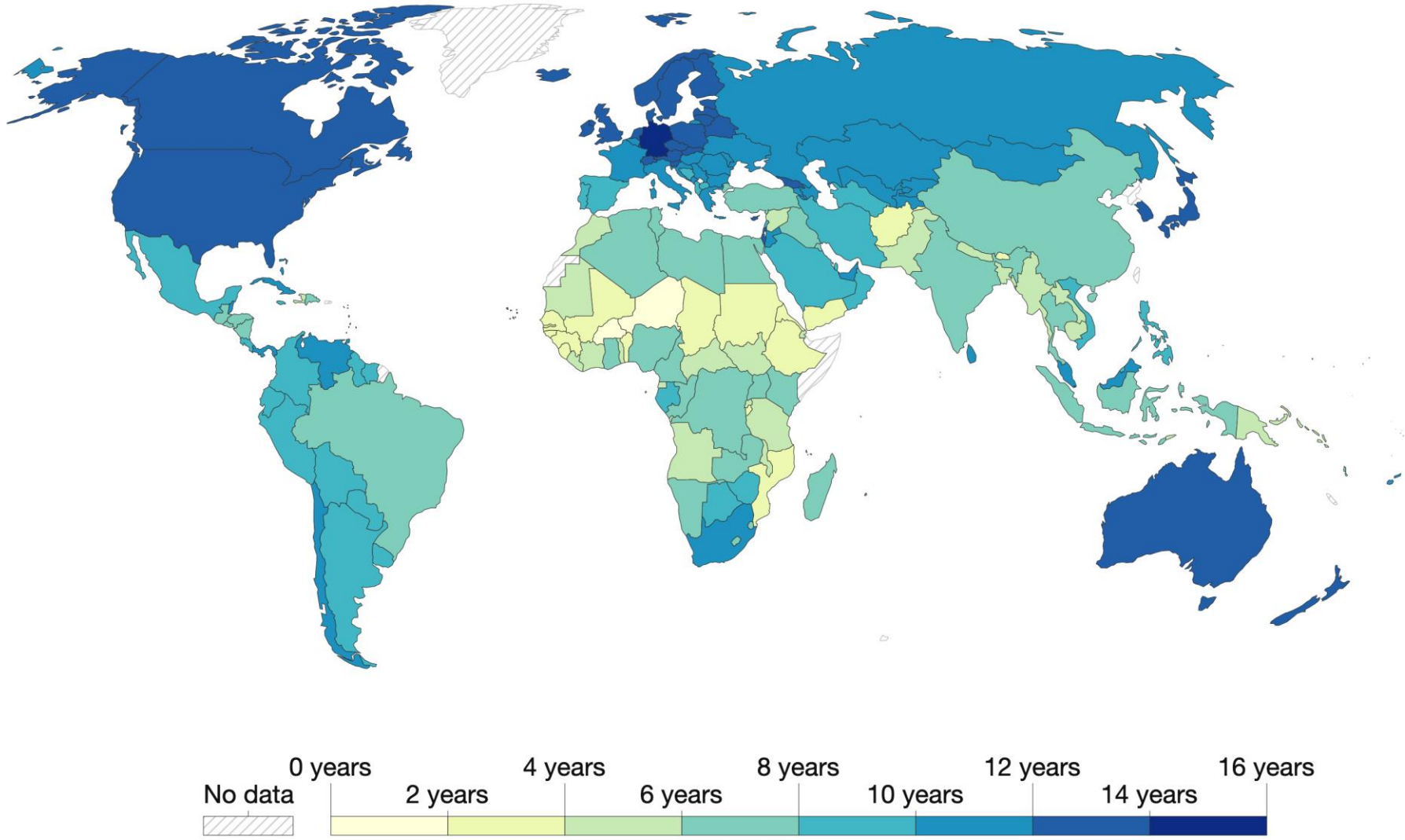
Note: Formal education is primary/ISCED 1 or higher. This does not include years spent repeating grades.

Average years of schooling, 2017

Average number of years people aged 25+ participated in formal education.

Our World in Data



Source: Lee-Lee (2016); Barro-Lee (2018) and UNDP HDR (2018)

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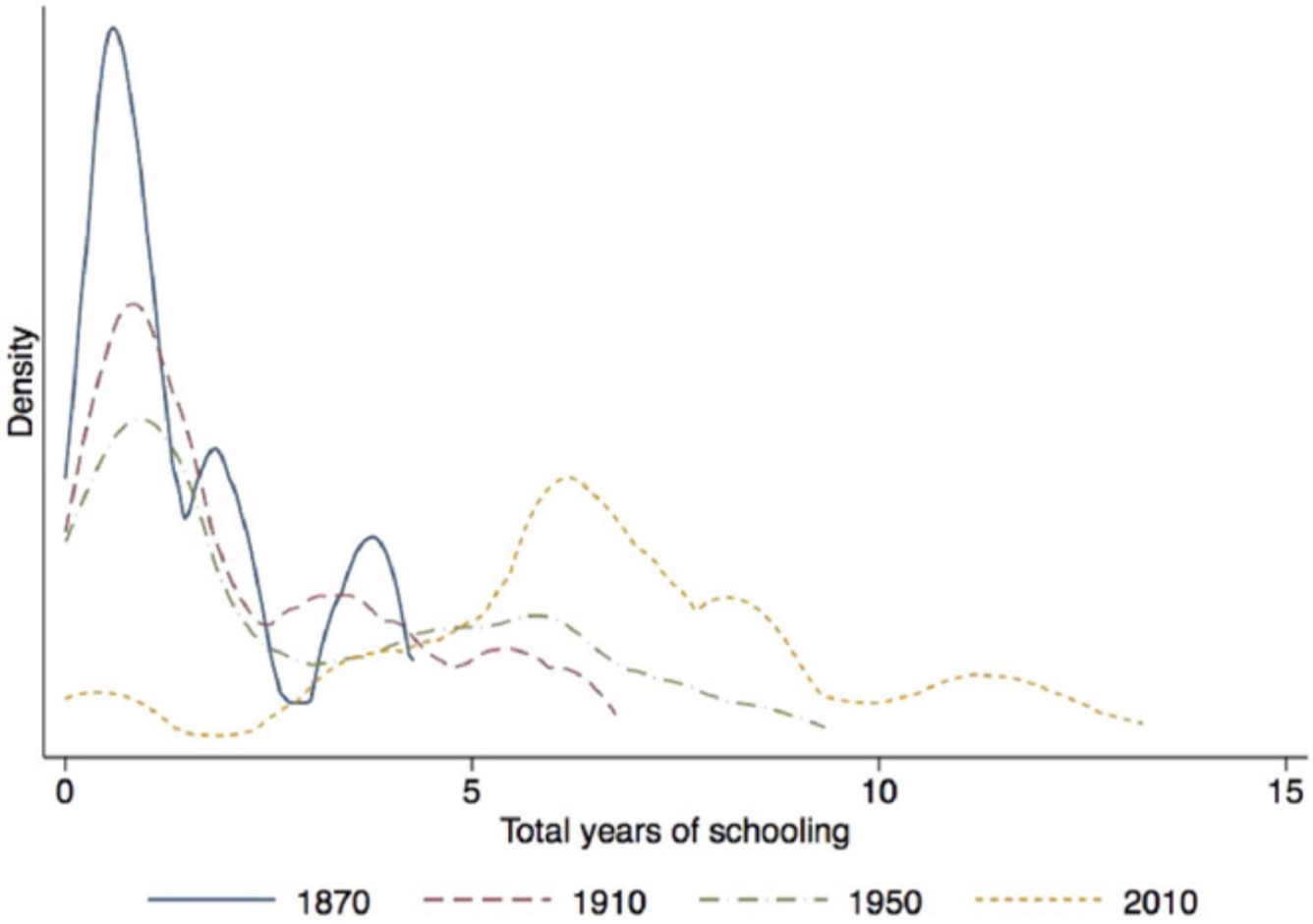
- We need to look at the global *distribution* of years of schooling.
- If all people in the world were ranked by years of education, this chart would approximately tell us, for any number of years in the horizontal axis, the proportion of the world population that achieved those years.
- We can see that in 1870, the distribution was concentrated at the left: most of the people had between 0 and 3 years of education. In contrast, by 2010 the distribution had shifted drastically to the right.
- We can see that there has been a continuous rightward shift in the successive distributions of schooling across time. This reflects the fact that there has been a continuous increase in average years of schooling worldwide: as the share of the uneducated population fell over time, the concentration at the lower level became less pronounced.

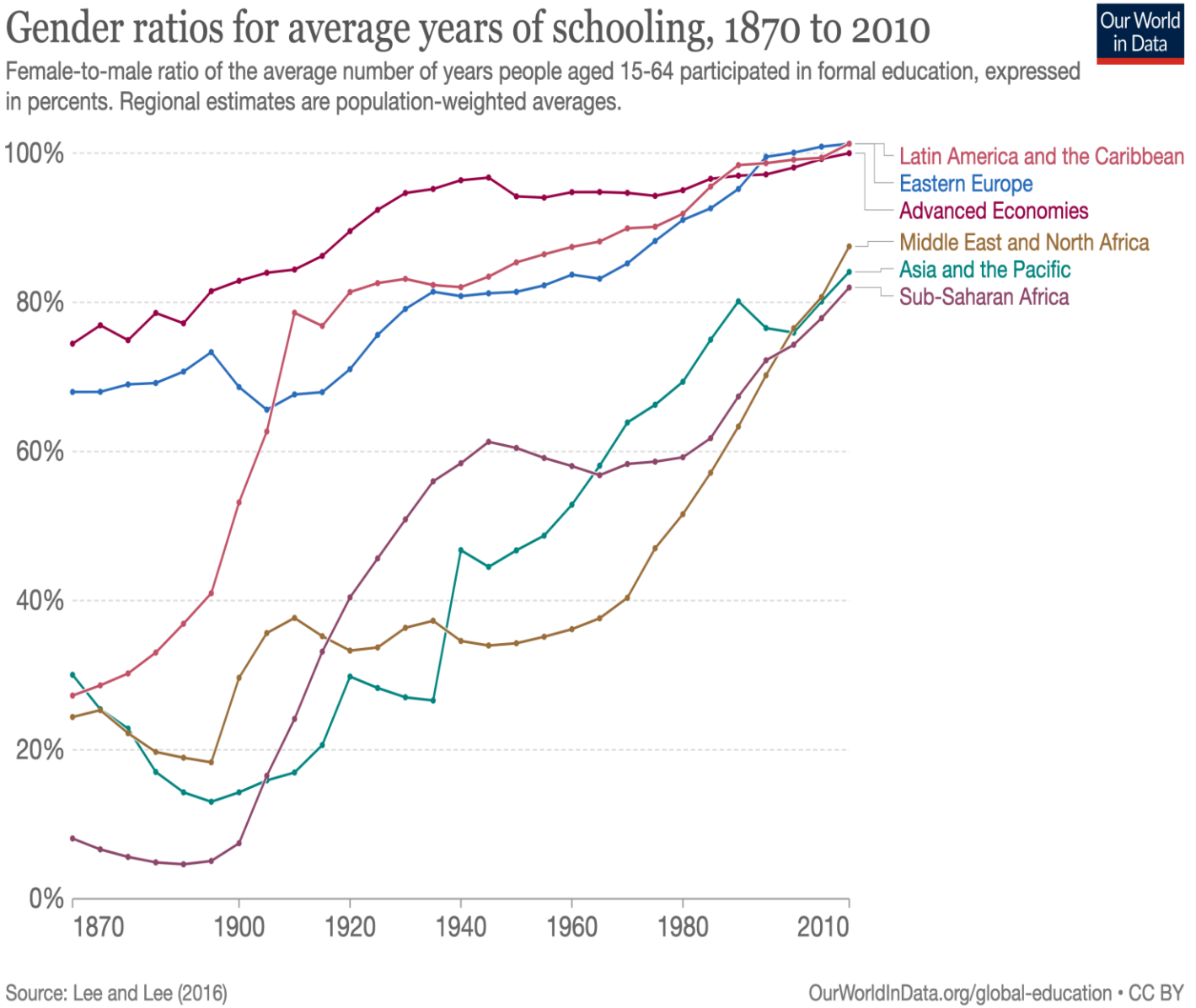


Source: **World distribution of years of schooling for selected years – Figure 7B in Lee and Lee (2016)**

- The increasingly long tails that we see in the distributions, are the result of cross-country inequalities in education expansion – in the long run, we can see that there has been a considerable increase in the *dispersion* of the years of schooling.
- This is mainly the result of cross-country differences, since some nations started expanding education much later than other, and some are still lagging behind.
- Interestingly, however, inequality grew in the period 1870-1950, but after this point, it has slowly started going down (notice that the distribution in 2010 is 'bulkier' in the middle, vis-a-vis the distribution in 1950).

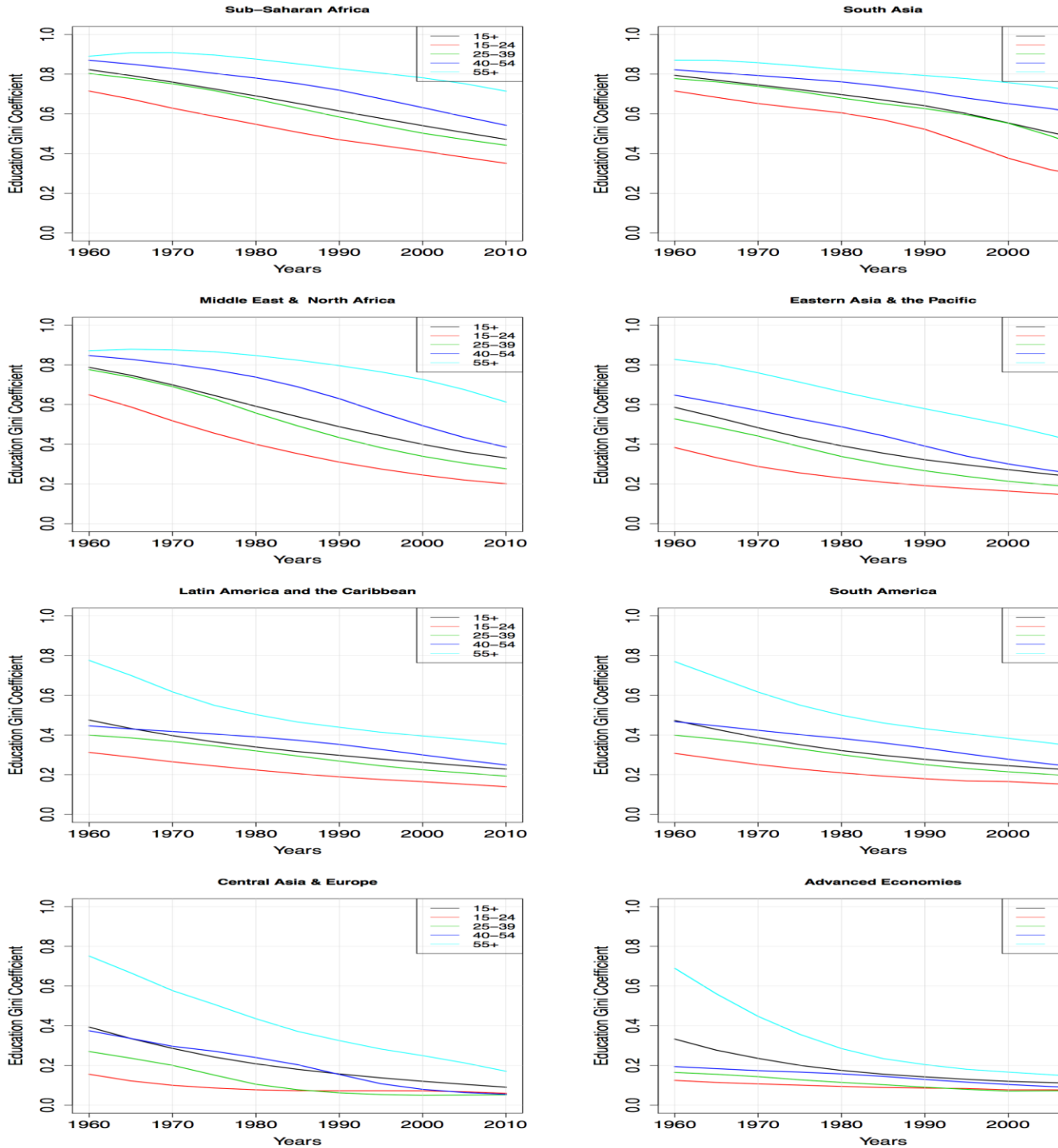
What has been the evolution of gender inequalities in education?

- The visualization shows the evolution of female-to-male ratios of educational attainment (mean years of schooling) across different world regions.
- The estimates in the visualization correspond to regional averages of total year of schooling for females (15-64 years of age), divided by the corresponding regional averages for males (15-64 years of age). Regional averages are population-weighted.
- Back in 1870 women in the 'advanced economies' had only 0.75 years for every year of education that men had.
- And in other regions it was even much unequal than that.
- In Sub-Sahran Africa women had only 0.08 years of education for every year of education that men received.
- Since then there has generally been a strong upward trend in the gender ratios across all world regions, which indicates that the inequality between men and women in access to education has been declining.
- In fact, Latin America and Eastern Europe caught up with the group of 'advanced economies' in the 1980s, and the gender gaps in these regions have already been closed almost completely (i.e. the gender ratios approximate the 100% benchmark for education gender parity).



How has education inequality changed in the last couple of decades?

- It can be seen that as inequality is falling over time, the level of inequality is higher for older generations than it is for younger generations.
- We can also see that in the period 1960-2010, education inequality went down every year, for all age groups and in all world regions.
- Have gains from historical education expansion fully materialized?
- The breakdown by age gives us a view into the future: as the inequality is lower among today's younger generations, we can expect the decline of inequality to continue in the future.
- Thus, further reductions in education inequality are still to be expected within developing countries; and if the expansion of global education can be continued, we can speed up this important process of global convergence.



Education at higher levels, mainly secondary and tertiary, is becoming increasingly important around the world

- A global picture of attainment shows estimates and projections of the total world population by level of education.
- It shows that our world will be inhabited by more and more educated people.
- While in 1970 there were only around 700 million people in the world with secondary or post-secondary education, by 2100 this figure is predicted to be 10 times larger.