

## The global spread of a reverse gender gap in education, implications for TVET, and suggested priorities for related research

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### SUMMARY

A very striking social change has occurred in living memory in most countries. A 'reverse gender gap' in educational attainment levels is evident as shown in statistics used in the Gender Development Index which is part of UNDP's recent Human Development Reports. This observation does of course not negate the need which still exists in many countries for females to achieve parity with males in the education system. It provides support, however, for the view that such parity is a feasible policy goal also in countries which still have a long way to go.

Analysis of TIMSS 2011 data from 50 countries also shows a strongly prevalent reverse gender gap in adolescents' subjective expectation of long-cycle higher education and makes it possible to test some possible explanations for the strong pro-girl trend shown in such an expectation. Our analysis of strongly suggests that the pattern of a reverse gender gap is neither reducible to differences between adolescent boys and girls in how well they perform in school (in mathematics and science) nor in their subjective liking of schooling.

Our findings suggest a need of further research on why a reverse gender gap has emerged as a now globally dominant pattern. We suggest two interrelated hypotheses that need to be tested:

- 1) In some countries, it could be that the types of 'early exits' to TVET which exist after lower secondary education, are more attractive to boys than to girls, thus inducing girls to stay longer in the mainstream education system than boys do.
- 2) In other countries, girls may more often than boys aim for higher education because they perceive a need for better educational credentials in order to compete with boys in a labour market which they perceive to be tilted against them, and/or to secure control of their future family life.

A gender-equitable education policy should seek to make 'early exits' from the mainstream educational pathways to TVET more appealing to females. The reversal of the gender gap in education may also imply that countries increasingly need to respond to similar demands for increased gender equity in access to, and within, the professions requiring higher education.

Apart from these implications for research concerning gender equity in TVET and in education systems more generally, it would also seem that international agencies (e.g., UNESCO, ILO, and in particular the development banks) should encourage international sharing of knowledge and experience specifically regarding institutional innovations in TVET that seem to have increasing appeal to policy makers. Recent examples are national training authorities, training funds, modularization of TVET curricula, and national qualification frameworks. Systematic research on such innovations is not the only means of generating and disseminating knowledge about such innovations. Another means is for study teams of policy makers and stakeholder to visit countries

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which have implemented the type of change being considered in a country, in order to learn about implementation and outcomes (including unanticipated problems and enduring controversies).

The graphics below are a selection from those prepared for presentation at the Doha meeting. The full analysis is under preparation as a journal article by Fengshu Liu and the present author. Figure 1 is based on UNDP statistics for 160 countries.

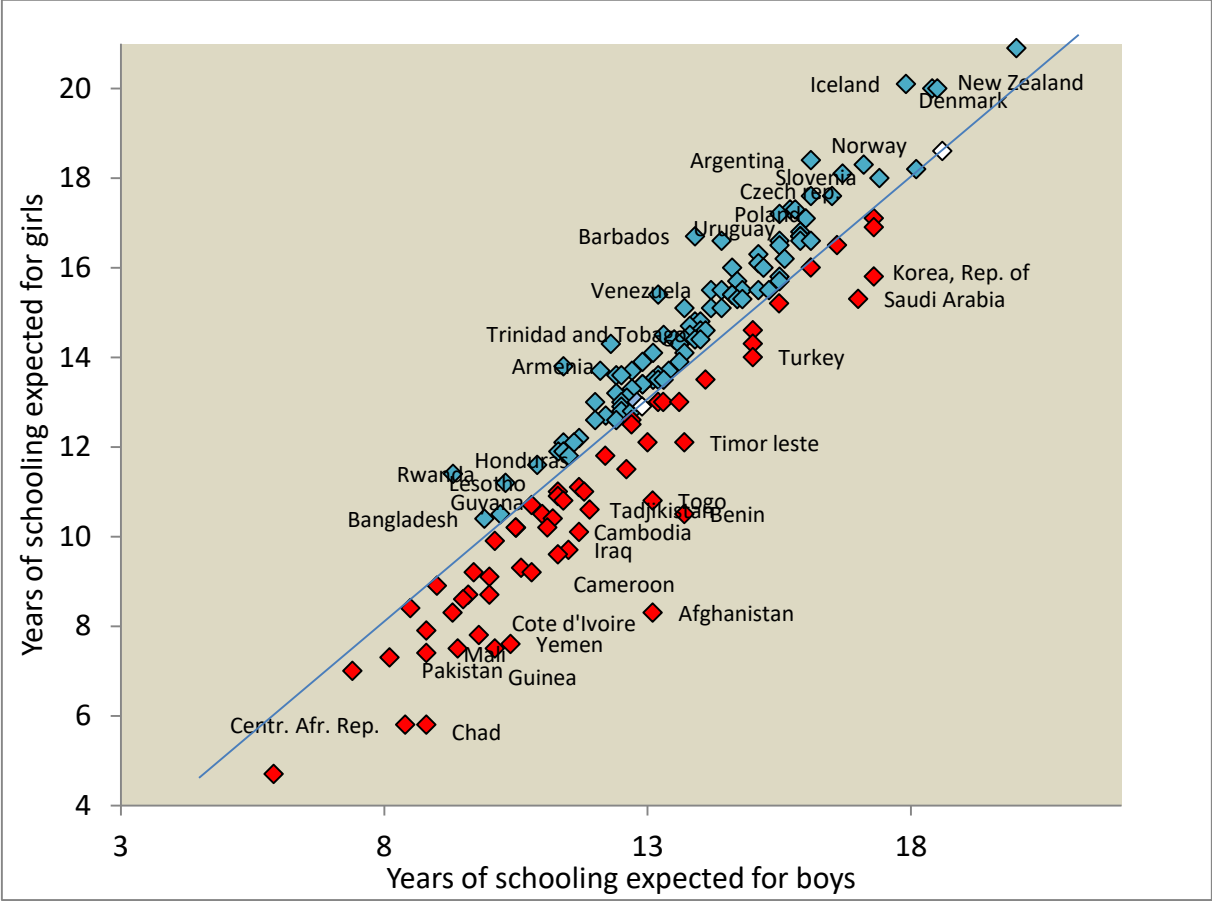
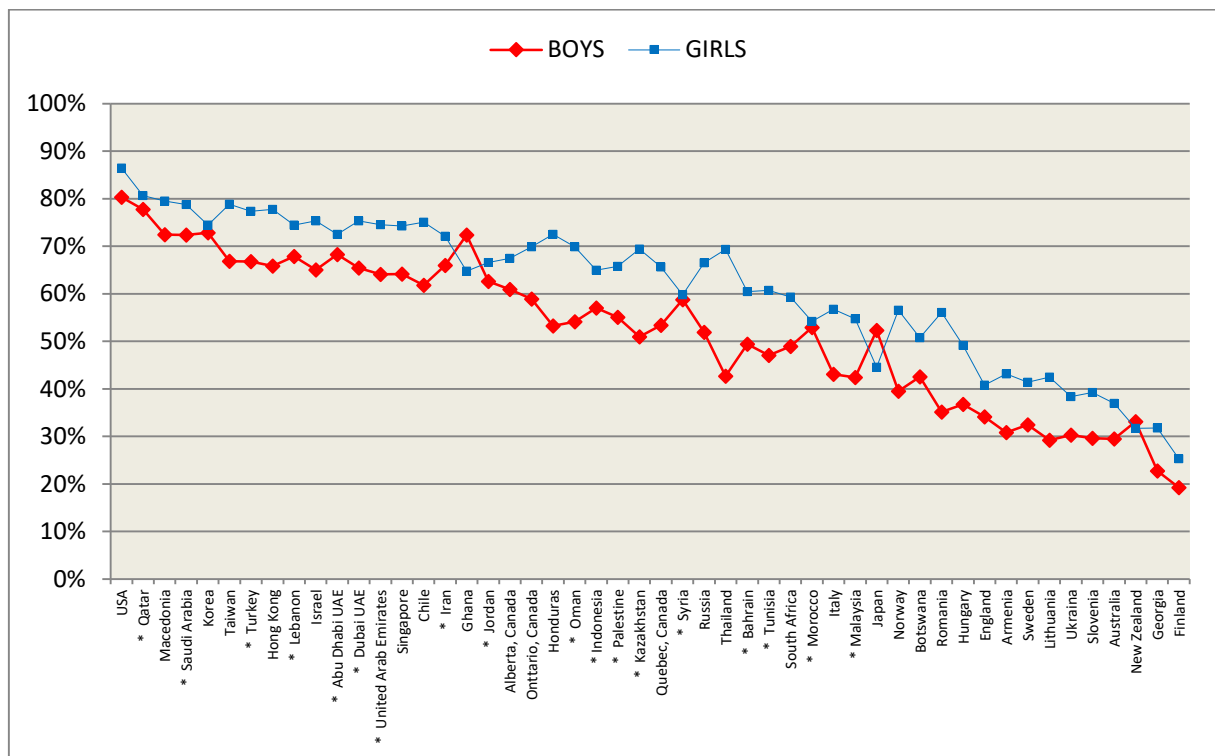


Figure 1. Average ‘years of schooling’ expected for boys and girls. Source: projections in UNDP’s 2016 Human Development Report. Projections for children entering school in 2015 based on the most recent gender-specific enrolment rates for each country.

Each marker indicates the average number of years of schooling projected by UNDP for recent entrants to the first grade in the education system for girls (vertical axis) and for boys (horizontal axis). The projections are made under the assumption that the most recent gender specific enrolment rates in the education system’s different stages will remain stable. This was obtained for the great majority (160) of the world’s countries. Space limitations allow for identifying only a selection of countries by name. Blue markers (above the diagonal line) show higher projections in Figure 1 for girls than for boys in 61% of these countries.

Figure 2 is based on 8<sup>th</sup> grade students in countries that took part in TIMSS 2011. It shows for boys and girls respectively the proportion who gave an answer corresponding in the country concerned to at least 3 years of full time-equivalent higher education, in response to the question: “How far in your education do you expect to go?”



\*Predominantly Muslim countries

Figure 2. Percentage subjectively expecting higher education. National projections from TIMSS 2011 data on 8th graders.

Since the UNESCO-UNEVOC meeting is held in a Muslim country, predominantly Muslim countries are asterisked in Figure 2. It can readily be seen that they are part of the strongly dominant pattern: girls in 8<sup>th</sup> grade more boys are likely to hope for (even ‘expect’) attainment of higher education. The level of this expectation in each country need not match what may be realistic, but what is striking is that girls in all but few countries are more likely than boys to have such a subjective ‘expectation’ at this stage in their adolescence.

It was also found that the strong pro-girl pattern shown in Figure 2 was not altered by controlling, through logistic regression analysis, for the influence which school performance (here measured by tests in mathematics and natural science) and the adolescents’ liking for life at school may have on their subjective expectation of higher education.