

**Measuring the educational gradient of period fertility in all European countries.
A new approach based on parity-specific fertility estimates.**

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Abstract

Measures of fertility by level of female education are currently only available for cohorts who have already completed childbearing age. In this article, we provide more timely measures of the educational gradient of fertility for Europe. To measure period fertility by education for the whole set of European countries, we mobilize data from the European Union's Survey of Income and Living Conditions (EU-SILC). A semi-retrospective approach serves to observe parity-specific fertility behavior of cohorts that are currently at childbearing age, while at the same time recording the educational level correctly. Bayesian statistics allow obtaining credible intervals for the age, education- and parity specific birth probabilities for each country. These birth probabilities are then combined into a multi-state life table to obtain parity-specific and total birth intensities by education. A post-stratification of birth probabilities leads us to be consistent with national fertility estimates. We reveal if there are significant differences between education groups in fertility within each European country, in how far these differentials vary between European countries and if heterogeneity in period fertility behavior is larger among the higher or the lower educated across Europe. We also show for which parity the heterogeneity between education groups is the largest.

This study is based on data from Eurostat, EU Statistics on Income and Living Conditions [2011,2012,2013]. The responsibility for all conclusions drawn from the data lies entirely with the authors.

Keywords: total fertility rates, period fertility by education, tempo, quantum, Europe

JEL Codes: J11, J13, J16, O11

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