

# **The educational gradient in women's and men's developmental childcare time in Germany**

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## **Objectives and background**

Time is a scarce resource. Given demands and obligations in other spheres of life, the available time budget for children and joint activities with children are subject to attention as research has shown that parental time with children is a crucial for children's development and educational success. Research has further documented an increase in parental time with children over the last decades and a pronounced educational gradient in time use for children. Higher educated parents seem to spend increasingly more time, especially ‘quality time’ with their children.

To date, there is little evidence for Germany on parental time with children. A recent study by Berghammer (2013, in ZfS) showed that parental time for children has been rather constant over the 1990s. Yet, there is no comprehensive study of the educational gradient of childcare time in Germany. However, Germany is included in the internationally comparative study of the educational gradient of childcare time by Sani and Treas (2016, in JMF) which does not document an educational gradient for Germany.

We close this gap of research and provide the first analysis of the educational gradient of childcare time for German parents using the most recent data available from the 2012/2013 German Time Use Study. Our research further adds to the literature in several respects: (1) we provide the first trend analysis of developmental childcare time for Germany over a period of 10 years from the early 2000s, a decade in which child

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development has been an important sociopolitical issue. (2) We analyze and compare both women's and men's time budgets (in most other cases only women's). (3) We analyze and compare time budgets for both weekdays and weekends (in all other cases: only one or another). (4) We differentiate different between total childcare time and specific developmental childcare activities focusing on differences in time use by gender and education. (5) We do a decomposition analysis of time trends to assess the influence of changing educational distributions versus changes that are statistically independent from population parameters.

## **Method**

*Data.* We use time series data of the two recent surveys of the German Time Use Study, which have been conducted as nationally representative household samples in 2001/2002 and 2012/2013 (two repeated cross-sectional surveys). In this study, the time use of all household members of 10 years or older was collected with the time diary approach. Using time diaries is regarded superior in capturing actual time use patterns compared to other methods such as stylized survey questions on time use. Due to harmonization problems on the level of specific activities (ie, identification of developmental child care time) we do not include the very first German Time Use Survey from 1991/1992. Consequently, we are able to cover trends in developmental childcare time over 10 years from the early 2000s, a period in which the (educational) development of children has drawn a lot of attention in German society and politics. We focus on the time use of women and men in heterosexual couple households with only children under 6 years.

*Activities of interest.* We analyze trends in four time use variables: (1) overall time use for children, and three developmental childcare activities within the overall time budget for children, that are (2) talking with children, (3) reading to and with children, and (4) managerial activities with and for children. We focus on primary activities only as developmental care requires much more attention to the child than what is captured with secondary childcare time or time of co-presence with children. We analyze all four time budgets for weekdays (ie, Mondays to Fridays) and weekend days. Time on weekdays is especially important as time budgets are much more restricted on weekdays, mainly because of labor market activities.

*Explanatory variables.* The main explanatory variables are mother's and father's educational levels. We differentiate between women and men with or without university qualification, as higher education is associated with higher material and mental resources as well as a specific awareness of issues of child development.

*Controls.* We control for common variables in analyses of childcare time: sex and age of respondent, number of children in the household, age of youngest child (binary for 0/2 versus 3/5 years), employment status of respondent (full-time versus part-time versus not employed), weekdays versus weekend, and survey year (2001/2002 versus 2012/2013).

*Analytical strategy.* Our analyses start with basic descriptives of childcare time. All means are estimated as predicted values from a linear random intercept multilevel model. The results are plotted for women and men, with or without university qualification throughout the paper.

We further analyze the effect of changes in the composition of the population regarding the distribution of education. Decomposition analyses make it possible to disentangle effects of population composition from effects that are not affected by population composition (and thus may be interpreted as effects of behavioral change) on time for children.

## **Results**

By and large, there have not been significant shifts in mothers' and fathers' time use for children between 2001/2002 and 2012/2013. This perpetuates the picture documented for Germany in an earlier study for the 1990s.

We further replicate the common finding that women spend significantly more time for total childcare and for developmental activities with their children. We also find the hypothesized educational gradient in developmental childcare, as women and men with higher education devote more time to developmental child care activities, both in 2001/2002 and in 2012/2013. Surprisingly, for reading time, the gender gradient becomes blurred as there is no longer a significant difference for highly educated men and lower educated women.