

EXTENDED ABSTRACT

Differences in Adult Health of East and West Germans: A Longitudinal Cohort Perspective

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Keywords: health inequalities; life course; cohort perspective; G-SOEP, Germany

A great majority of individuals living in the former GDR experienced equal life conditions with regard to the communist regime, irrespective of their families' socioeconomic situation. Within few years after the German unification, health care and living standards in Eastern Germany came up to the level of Western Germany, nonetheless, for the former citizens of the GDR previous systemic socialisation and experiences might continue to affect their adult health in a specific way. Applying a cohort perspective, we examine health trajectories over the life course for East and West Germans, depending on their highest individual educational level ever attained as a potential leveler of health inequalities. Our hypotheses base on theoretical premises of the life course framework and previous research. We expect individual education to be clearly associated with adult health, increasingly over the life course (cumulative inequality) and in younger cohorts (rising importance hypothesis). With regard to health outcomes, we generally hypothesize larger educational health gradients for health behaviors and physical health rather than for mental health (outcome differential hypothesis).

We use longitudinal data from the German Socio-Economic Panel, a national panel household survey that was initiated in West Germany in 1984 and in East Germany in 1990, with subsequent waves conducted annually. Because most of our outcomes of interest were collected biennially, the observational period of our analysis includes all (even) years from 2002 to 2016. Our analytical sample consists of German-born individuals who lived continuously either in the former FRG (more than 5,000) or GDR (more than 1,000) until 1989. German resettlers, immigrants and East-West migrants are excluded from the analysis.

We use subdimensions of the SF-12 health instrument (e.g., physical and social functioning, vitality, general health) and diverse health-related behaviors (e.g., amount of smoking, frequency of physical exercise) as outcome variables. As further covariates, we include linear and squared terms for age years, centered around the mean, and for birth cohort. We conduct fixed-effects models to determine nonlinear period effects and include a dummy that was coded "1" for waves 2008 and 2012 (0 otherwise), corresponding to the financial crisis starting in 2008 (which seemed to have a temporary negative impact, particularly on mental health).

We estimate latent growth curve (LGC) models in the age-cohort-period specification (using age as process time) revealing a thorough picture of cohort-specific health trajectories by education. Regarding growth trajectory parameters, we include individually varying random intercepts and random (linear) age slopes. Due to the clustering of time points in respondents nested in households, a three-level quadratic LGC model with random intercepts was used. Because linear random age slopes were modeled as a function of education and cohort (and their interaction), we are able to disentangle age and cohort effects. Our specification allows for shifts in age effects across cohorts.

Our results show similar trajectories for West and East Germans (conditional on the educational attainment) in mental health but not in physical health and health-related behaviors, suggesting that the context of living and working might trigger health-related inequalities throughout the life course. Further, we observe significant differences in health trajectories across younger West German cohorts, and rather homogeneous patterns across East German and older West German cohorts. Because in our models, health trajectories are a complex, non-linear and non-additive function of age and cohort, we illustrate life course and cohort effects on the educational health gradient graphically using model-predicted growth curve trajectory plots with confidence bands instead of interpreting regression coefficients.

