Do people born at different points of the economic cycle have different outcomes – and if so, why? **Arnaud Chevalier** and **Olivier Marie** examine the educational attainment and criminal activity of children born in East Germany in the few years after the fall of the Berlin Wall – a time when uncertainty about the future was extremely high.

**Long shadow of the Berlin Wall**

The end of communism in Eastern Europe had colossal repercussions for the economic development of the region, but also, and perhaps less obviously, for its demography. Fertility went into a sharp decline (United Nations Economic Commission for Europe, 2000), especially in East Germany where there was a 50% drop in fertility over a very short period (see Figure 1). This outcome has been described by demographers as the ‘most substantial fall in birth rates that ever occurred in peacetime’ (Conrad et al, 1996).

Economic uncertainty was one of the main reasons for the fertility drop. Which kind of parents still decide to have children in such distressing economic times – and does this parental selection matter in terms of the outcomes for the cohort?
According to economic theory, a downturn can have two opposite effects on the demand for children: it reduces household income (an ‘income effect’) but it also reduces the opportunity costs of having children (a ‘substitution effect’). Which effect dominates is a priori ambiguous but since fertility typically rises and falls with the economic cycle of booms and recessions, the income effect seems to dominate overall.

But it is also likely that the relative size of the substitution and income effects depends on family characteristics, which in turn will lead to differences in the composition of cohorts of parents over the economic cycle. For example, US research shows that white mothers who give birth in more difficult economic times when unemployment is higher are less educated, which results in worse health outcomes for their children at birth (Dehejia and Lleras-Muney, 2004).

The fall of the Berlin Wall provides a unique ‘natural experiment’ to study the question of parental selection based on national economic circumstances. In our study, we define the cohort of children born in East Germany between August 1990 (conceived just after the Wall came down) and December 1993 as the ‘Children of the Wall’. We provide evidence on parental selection based on three measures: first, the average criminal activity of the Children of the Wall as they grew up; second, their educational attainment; and third, detailed self-reported individual

Figure 1:
Annual crude birth rate per 1,000 women between 1950 and 2008

Notes: Calculations based on administrative population data from the Federal Institute for Population Research (http://www.bib-demografie.de).
Using state-level statistics on contact with the police by age group over the period 1993-2011, we find that the Children of the Wall had arrest rates at least 40% higher than older cohorts in East Germany as well as their West German peers. This is true for all crime types and for both boys and girls. Importantly, these differences in the frequency of contact with the police started to appear as early as age 6. This is despite the children being part of a numerically smaller cohort, which is usually associated with positive outcomes. It is indicative of strongly negative parental selection.

Similarly, the Children of the Wall had worse educational outcomes. Compared with their class peers who were conceived just before the Wall came down, they had lower test scores at ages 11-12 and ages 15-16, and they were over-represented among low achievers. As such, they were 33% more likely to have repeated a school grade by age 12 and 9% more likely to have been put onto a lower educational track.

To explore if these negative outcomes were driven by negative parental characteristics, we use very detailed survey data from the German Socio Economic Panel (SOEP) and the Deutsches Jungedinstitut surveys.

Our analysis shows that women who gave birth in East Germany just after the end of the communist regime were on average younger, less educated, less likely to be in a relationship and less economically active. Importantly, according to the survey, these parents also provided less economic uncertainty and fertility decisions in early 1990s Germany: the probability of having a child by economic worry and education level.

Figure 2: Economic uncertainty and fertility decisions in early 1990s Germany: the probability of having a child by economic worry and education level

Notes: The graph plots the estimated probability of having a child in the period 1991/93 separately for individuals reported to be very worried about the economy (‘very’ = 1 and ‘somewhat’/‘never’ = 0) or not, by years of education for all women aged 17 to 47 surveyed in SOEP during this period.
educational input to their children even if they were not poorer. The Children of the Wall also rated their relationships with their mothers and the quality of parental support they received by age 17 much less favourably than their peers. Both these children and their mothers were likely to take greater risks compared with individuals who did not give birth (or were not born) in East Germany between August 1990 and December 1993.

While these results are in line with negative parental selection, they could also be driven by the timing of birth effects. For example, because of the economic turmoil at their time of birth, these children may have experienced higher levels of maternal stress in utero and during early childhood, which may have shaped their future behaviour.

To assess this hypothesis, we examine the same set of outcomes for the older siblings of the Children of the Wall, who were born in the relatively stable times of East German communism. They too reported having a poor relationship with their mothers, they too had lower educational attainment and they too were more risk-taking individuals. We thus reject the possibility that the Children of the Wall had worse outcomes because they were born in ‘bad times’. Instead, we conclude that the negative outcomes for this cohort can be explained by the lower average parenting skills of those who decided to have children during a period of high economic uncertainty.

A possible reason for this negative parental selection is that the fertility decisions of certain women did not react as strongly to changes in the economic environment. Indeed, further analysis of the SOEP reveals that less educated mothers were far less likely than more educated ones to reduce their fertility when they perceived a bad economic environment (see Figure 2).

Our findings confirm that parental selection may be one of the best predictors of the future outcomes of a cohort – and that this is most likely to operate through the quality of parenting.

These conclusions have potentially important policy implications. First, the provision of public services should not only be based on the size of an incoming cohort: more attention should be paid to its composition. Second, interventions need to start from a very young age and targeting could probably be improved by including non-cognitive characteristics, such as the attitudes to risk of expectant mothers and their children.

This article summarises ‘Economic Uncertainty, Parental Selection, and the Criminal Activity of the “Children of the Wall”’ by Arnaud Chevalier and Olivier Marie, CEP Discussion Paper No. 1256 (http://cep.lse.ac.uk/pubs/download/dp1256.pdf).

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Further reading


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