

The Motherhood Pension Gap and the Role of Pension-Related Childcare Credits: Evidence from France and Germany

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1. Introduction and Background

Across all European countries, women have lower pensions compared to men (Eurostat, 2025). Lower labour market participation and lower wages — disadvantages partly linked to women’s still dominant role in domestic work and childrearing (Gimenez-Nadal & Sevilla, 2012) — translate into lower pension levels at retirement. The effect of children on women’s employment and wages, the so-called “child penalty” has been studied extensively (see Kleven et al., 2023). However, how these changes following childbirth affect pension entitlements from a life-cycle perspective remains largely unexplored. While a growing body of research has begun to examine the interplay of work-family trajectories over the life course (Brugiavini et al., 2011; Möhring, 2015; Neels et al., 2018), the “motherhood pension gap”, *i.e.* the way pension entitlements are correlated to the number of children, still remains an underexplored topic (see, however, Möhring et al., 2025).

At the same time, the amount and the implementation of pension-related childcare credits have been widely discussed in many countries, particularly in the context of pension reforms (Jankowski, 2011). These credits are often implemented for gender equality reasons, in particular to prevent mothers from experiencing pension reductions caused by family-related work-interruptions. They are part of a broader reform movement seeking to shift from derived benefits, such as the survivor’s pensions, toward individual pension rights. In some cases, these measures are also viewed as part of family policies, forming one element of a broader package designed to create a family-friendly environment.

In this article, we raise the question of whether pension-related childcare credits are effective in increasing mother’s pension entitlements, how patterns have changed across birth cohorts, and how they differ between France, East- and West Germany. In all three regions, the male breadwinner model has been adopted to varying degrees by cohorts now reaching retirement age: In France, women’s labour market participation has been encouraged for much longer than in West Germany, where the male breadwinner model remained dominant until relatively recently. In contrast, East Germany has a long-standing tradition of high labour market participation among women and mothers.

Still, both France and Germany provide generous pension-related childcare credits within their pension systems. France grants the widest range of caregiver credits (Bonnet & Geraci, 2009): additional quarters of contributions granted for each child (mainly for mothers); granting rights during periods of withdrawal from the labour market; and a pension bonus (proportional increase of the pension) of mothers and fathers of three or more children. In Germany, for each child one earnings point is granted for the duration of three years after childbirth (with some differences depending on the birth year of the child). One earnings point corresponds to pension entitlements equivalent to average earnings of all insured persons. These entitlements are topped up on the existing earnings (up to the contribution ceiling).

In line with higher female labour market participation, we expect the motherhood pension gap to be less pronounced in France and East Germany compared to West Germany, as well as smaller differences according to the number of children. We also anticipate the effects of pension-related childcare credits to be more significant in France than in Germany, particularly among the oldest cohorts and among mothers with three or more children. The extent to which these credits play a role is ultimately an empirical question, as their effect interacts with both the rising labour market participation of women and the specific rules of each pension system.

2. Data and method

Data: We use administrative data from both countries, primarily pension insurance records. These datasets include detailed life course information on family histories, employment careers, income, and pension entitlements. Therefore, they allow for a precise assessment of the contribution of pension-related childcare credits to pension levels, depending on the number of children.

For Germany, we use the file *Versichertenkontenstichprobe 2020 (VSKT2020)* from the German Pension Fund (GRV). Around 90% of the resident population of Germany has an account in the public pension system, but certain professions, such as farmers and civil servants, are not covered in the data. The VSKT2020 comprises persons with a pension account in 2020.

For France, we use two matched datasets: administrative data from French Social Security records (Echantillon interrégimes des cotisants - EIC) and the “Permanent Demographic Sample” (Echantillon démographique permanent - EDP), a long-term sample that is representative of the French population at different dates. We use the 2017-matched EIC/EDP.

Sample: The analytical samples in both countries are restricted to women of the cohorts born 1950-1978. For illustrative purposes, we include men for selected cohorts.

Variables: The main variable of interest is a women’s *annual accumulated pension entitlement* (in EUR values for 2025), calculated with and without pension-related childcare credits. Further variables are *cohort*, *age*, and *number of children*.

Method: We apply the same methodology to both countries (see Bonnet & Rapoport, 2020). We conduct the analysis for all cohorts, but first focus on the 1950–1956 cohorts, who have already reached retirement age. First, we compute the accumulated pension rights across age and number of children. Second, using OLS-regression models, we estimate pension entitlements at ages 45 and 60, by number of children. Age 45 corresponds roughly to the end of the fertility period, while age 60 is close to retirement. This approach allows us to assess 1) the effect of children and 2) the effect of pension-related childcare credits on the accumulation of pension rights both shortly after childbearing and later in life. Lastly, we calculate the Motherhood Pension Gap (MPG) for both measures at ages 45, 50, 55 and 60 for all cohorts.

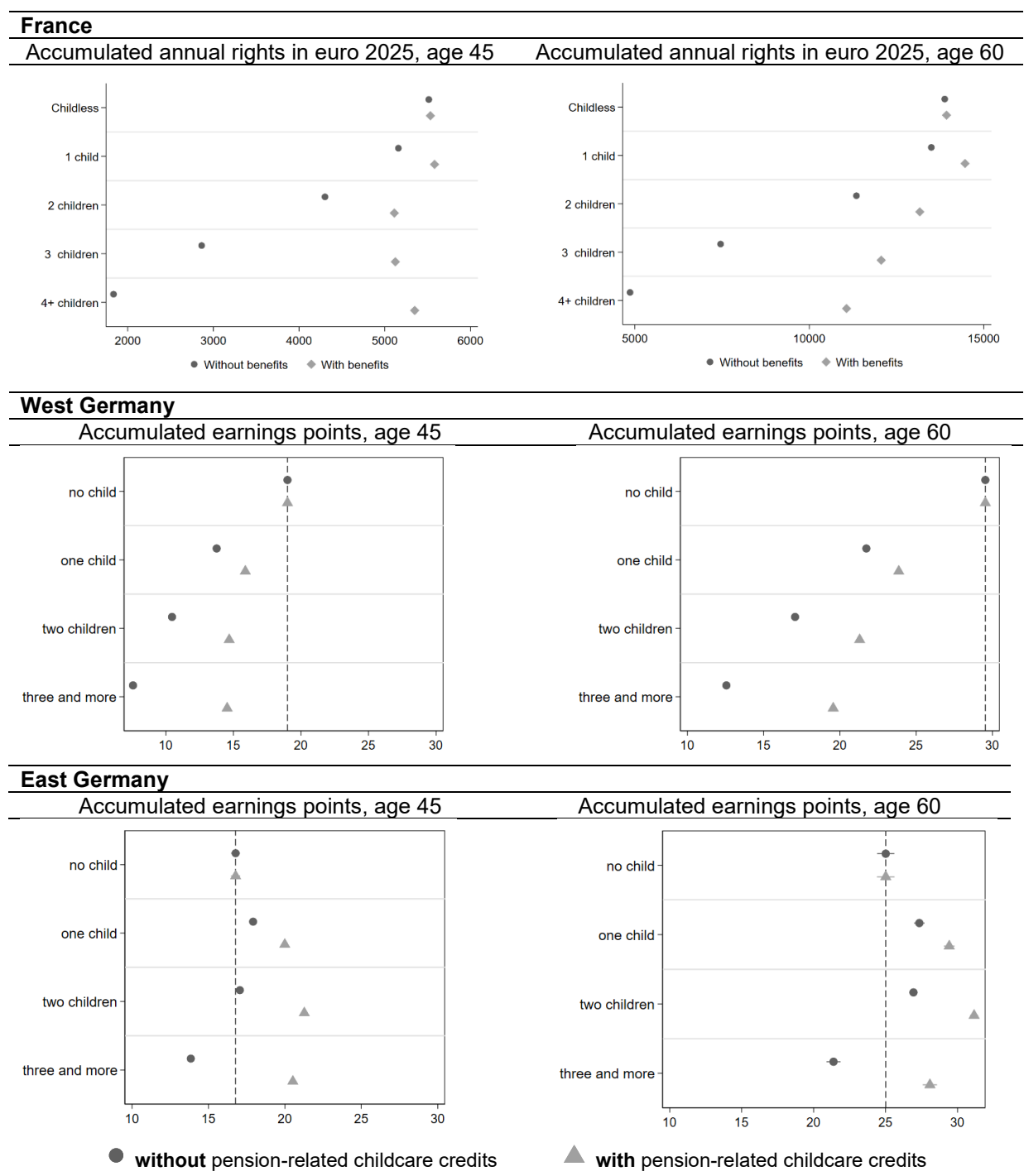
3. Preliminary results

We present two types of results in Figure 1. The first concerns how pension levels vary with the number of children in both countries, not taking pension-related childcare credits into account. The second examines the compensatory effect of pension-related childcare credits and the extent to which they raise pension levels, by the number of children.

1) Our findings indicate that public pension levels decline more sharply with the number of children in West Germany than in France. At age 45, excluding pension-related childcare credits, pensions are on average 28% lower for mothers with one child, 45% lower for those with two children, and 60% lower for mothers with three or more children, compared to childless women (see Figure 1). In France, the gaps are considerably smaller, at least for the first two children: pensions for mothers with one child are approximately 6% lower than those of childless women, and 22% lower for mothers with two children—roughly half the difference observed in West Germany. The pattern converges somewhat in France and West Germany for mothers with three or more children, which is consistent with the relatively high labour market participation of mothers with one or two children in France but the marked decline in activity rates from the third child onward. East Germany exhibits a distinct profile: having one or two children is not associated with lower pension entitlements compared to childless women. Only the pension of mothers with three and more children is lower.

At age 60, the MPGs without considering pension-related childcare credits are comparable to those at age 45 in both countries, suggesting that the trajectories of pension rights accumulation are broadly parallel in both countries by the number of children.

Figure 1. Accumulated pension rights at age 45 and 60, by number of children, in France, West and East Germany, women born 1950–1956



Note: Dashed reference line = childless women. Scales differ.

Source: VSKT2020; & EIC/EDP2017; own calculations.

2) Second, we find that the effects of pension-related childcare credits are considerably more pronounced in France, where they almost entirely offset the negative association of childbearing on pension levels. At age 45, once childcare credits are considered, the MPG is reduced to approximately 8% for mothers with two or three children, and the MPG is nearly negligible for mothers with one child and for those with larger families (Figure 1, left side).

In West Germany, pension-related childcare credits also reduce the MPG at age 45, though to a lesser extent than in France. For example, among mothers with three or more children, the gap is reduced by nearly two-thirds and among those with two children, it is halved. The remaining MPG amounts to approximately 16% for mothers with one child and 23% for those with two or more children. In East

Germany, with the exception of mothers with three or more children, we do not observe significant differences in pensions levels by number of children. Therefore, the inclusion of pension-related childcare credits results in an increase in pensions in proportion to the number of children. In sum, at age 45, the inclusion of pension-related childcare credits substantially reduces the MPG regardless of the number of children in both France and West Germany. At age 45, the remaining gap between mothers and childless women is roughly 20% in West Germany and below 10% in France whatever the number of children.

By age 60, however, the compensatory effect of pension-related childcare credits has partly faded, especially for mothers of two or more children (Figure 1, right side). In Germany, the MPG for mothers of three or more children is roughly 60% at ages 45 and 60. Once pension-related childcare credits are included, the gap decreases to 23% at age 45, but only to 34% at age 60. A smaller compensation at age 60 compared to age 45 is also observed in France. The MPG for mothers of three children reaches roughly 67% at ages 45 and 60 in France. Including pension-related childcare credits almost offsets the gap at age 45 but reduces it only to 13% at age 60. Ultimately, family-related pension entitlements constitute a powerful mechanism for narrowing child-related pension gaps for mothers in both countries (and all three regions).

4. Next steps

The main objective of this analysis is to provide an indicator of the motherhood pension gap. Our analysis is however descriptive and did not yet adjust for confounders. In this context, it is important to note that the characteristics of childless women differ strongly across countries: In France and East Germany, childlessness is less common than in West Germany. Women who remain childless, especially of the older cohorts, likely do so for health-related reasons, which may also affect the pension accumulation. In a next step, we will include additional covariates in the regression analysis to account for heterogeneity among women and to provide a more nuanced understanding of the mechanisms shaping the MPG. Further, we will extend the analysis to more recent cohorts, potentially up to the 1978 birth cohort, in order to capture the impact of the continuing increase in women's labour market participation and to examine how this development interacts with pension-related childcare credits. Studying the moderating role of SES would further allow for an exploration of the redistributive dimension of these pension-related childcare credits across socio-economic groups.

5. References

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