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Converging mothers' employment trajectories between East and West Germany? A focus on the 2008-childcare-reform

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Funding information

Deutsche Forschungsgemeinschaft, Grant/ Award Number: 492434941

Edited by: Liana Sayer

Abstract

Objective: Aiming to generate evidence on how contextual conditions shape individuals' opportunities and constraints and, ultimately, life courses, we focus on a period of childcare expansion in reunified Germany. We investigate differences in employment trajectories around mothers' first childbirths to identify potential East–West convergence.

Background: During Germany's division (1949–1990), universal public childcare and female full-time employment were the norm in East Germany, while the male breadwinner model was dominant in the West. These differences, although declining, persisted even decades after reunification. In 2008, a reform aimed at expanding childcare availability to facilitate mothers' employment throughout the country.

Methods: We measure East–West differences in employment trajectories around childbirth pre- (1990–2007) and post-reform (2008–2021) in terms of timing, order, and duration of events over time. We use data on 359 East and 986 West German first-time-mothers from the German Socio-Economic Panel and sequence analysis tools.

Results: Before the reform, employment trajectories between East and West German mothers differed both in timing and duration of employment states. After the reform, these differences decreased, showing a general convergence in the prevalence of post-birth part-time employment. Nonetheless, longer maternity leave is still more prevalent among West German mothers, while East German mothers are more likely to maintain full-time jobs.

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Conclusion: Our findings show how policy settings and reforms shape life courses in a context-dependent fashion. They illustrate the importance of a methodological approach that focuses on process outcomes and supports a theoretical perspective that highlights how historical time and place shape life courses.

KEYWORDS

child care, employment, longitudinal research, mothers

INTRODUCTION

It is well established that family and working lives, as well as their interrelations, unfold differently across time and place, leading to variations across birth cohorts and regions (Elder, 1974, 1994). Contextual conditions shape individuals' opportunities and constraints (Leisering, 2003): among the most consequential for family and working life-courses are the labor market structure, gender norms, and welfare state institutions such as family policies and social protection laws (Fasang et al., 2024).

When considering the contextual conditions that facilitate or rather hinder women's and specifically mothers' employment, universal early childhood education and care (ECEC) is widely debated as a family policy that eases the reconciliation of family and working life (Brady et al., 2020; Scherer & Pavolini, 2023). In 2002, the European Council established the Barcelona targets on childcare, calling for increases in ECEC provision. These recommendations aimed at enhancing gender equality in employment by promoting defamilizing policies to lift some of the care responsibilities from women's shoulders and to free up underutilized labor market potential (European Commission, 2022). Recognizing the need to support women's labor market participation after childbirth, many countries have subsequently increased spending on ECEC in recent years (OECD, 2024). Ultimately, these reforms addressed the need to increase financial independence at the individual level, while combating the shrinking of the workforce in aging societies at the societal level, a demographic challenge that many European countries face (European Commission, 2020). Indeed, ECEC has been found to be consequential in decreasing inequality at the societal level and improving children's development and life chances (Schmutz, 2024).

Fully understanding the implications of these childcare reforms is essential for researchers, policymakers, and families alike. While the aim of an extension of ECEC is usually clear, studies show that effects vary in size across and within countries (Morrissey, 2017) and are moderated by other macro-level characteristics, such as the level of earnings inequality (Hook & Paek, 2020) and the cultural context (Fervers & Kurowska, 2022). Some studies also argue that there might be unintended effects of an extension of public childcare, which are in line with a "Matthew effect," showing that mainly mothers from already more privileged households benefit (Van Lancker, 2013).

Following the Barcelona targets, the German government implemented a widespread extension of public childcare provision for under-threes in 2008 (Kinderförderungsgesetzt [KiFöG], 2018). The ECEC reform aimed at closing the pronounced regional gap in childcare availability (Schober, 2020), which is unique to Germany due to its history of being divided into two distinct national states and hence welfare regimes after the end of World War II in 1945. The two welfare regimes, which existed until reunification in 1990, differed not only in their availability of public childcare but also in their dominant family arrangement: the male breadwinner/female homemaker model was the norm in the former Federal Republic of Germany (FRG, West Germany) and the dual earner model was the norm in the former German



Democratic Republic (GDR, East Germany) (Huinink & Mayer, 1995; Rosenfeld et al., 2004). For the remainder of this paper and for simplicity's sake, we will refer to East Germany and West Germany as parts of reunified Germany that correspond to the former GDR and FRG.

With this childcare reform and historical regional variation in childcare availability, Germany offers an ideal set-up to investigate how differences in policy settings shape employment decisions of mothers across place and time. Specifically, we ask if the ECEC reform reduced differences in mothers' employment behavior across East and West Germany. With this approach, we follow studies that investigate differences in family and employment trajectories across countries (i.e., place) (Aisenbrey & Fasang, 2017; Möhring, 2016) and birth cohorts (i.e., time) (Cabello-Hutt, 2020; Fauser & Kim, 2023), but relate our findings to one specific policy change.

Previous research showed that, in German regions with higher childcare provision, female labor force participation rates were higher (Neuberger et al., 2022), that mothers were more likely to be employed (mostly part-time) after giving birth (Müller & Wrohlich, 2020; Zimmert, 2023), and that mothers' employment interruptions were shorter (Zoch & Hondralis, 2017). Additionally, most studies found that the effects were more pronounced in West Germany. These studies all adopted, however, a static approach to measuring mothers' labor market behavior at one specific time. Instead, we build on a stream of literature that focuses on longitudinal dynamics by adopting a life-course approach (Giele & Elder, 1998) to show differences in employment trajectories across the life course between East and West German women (Liao & Fasang, 2021; Nutz & Lersch, 2021; Simonson et al., 2011). These studies adopted an analytical perspective that conceptualized outcomes not as something measured at a specific point-in-time, for example the probability of being employed in a full-time job 10 years after exiting education, but rather as "process outcomes" (Abbott, 2005) accounting for the longitudinal configuration of employment trajectories. Specifically, these studies identified a stronger labor market attachment of East German women over the adult life-course and a longer-term inactivity for a substantial share of West German women. This was especially the case for older cohorts, while there were some indications of convergence for younger cohorts in the two areas.

However, a systematic comparison between labor market trajectories *around* childbirth in East and West Germany against the scenario of family policy changes is still missing from the literature. A dynamic and longer-term perspective on the configuration of the *process* of labor market participation *around* childbirth is crucial, especially because mothers with young children usually have rather volatile careers (Cabello-Hutt, 2020). This feature can be captured only by looking at the *process* of labor market participation operationalized by the employment trajectory. Further, the type of labor market attachment in terms, for example, of engagement in part-time versus full-time work after giving birth and the length of the periods spent in each work-arrangement is particularly important for mothers' longer-term career development and earnings prospects (Hsu, 2021), as well as pension income (Rowold et al., 2024).

We therefore build on these streams of literature by extending the life-course approach to the case of mothers' employment around childbirth and by leveraging the idea that welfare state policies shape the set of opportunities and constraints within which individuals' life courses unfold (Leisering, 2003; Mayer & Müller, 1986). Life courses are conceptualized as "sequence [s] of socially defined events and roles that the individual enacts over time" (Giele & Elder, 1998: 22). The timing of certain transitions (e.g., returning from maternity leave to employment when the child is at a certain age) or the timing of certain events (e.g., inactivity or full-time work when the child is at a certain age), the order of events (e.g., working full-time before maternity leave and part-time following maternity leave), and their duration (i.e., long or short maternity leave after childbirth) determines differences between individual life courses.

Against this background, we ask the following research questions: First, what is the prevalence of different labor force states around first childbirth before and after the reform in East



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and West Germany? For this research question, we distinguish several working (i.e., full-time, part-time, or marginal employment) and non-working (e.g., maternity leave, unemployment, education/training) states. In the following, we will use the term "employment states" to refer to these working/non-working states and the term "employment trajectories" to refer to the longitudinal representation of employment states. The second research question asks if East-West differences in terms of timing, order, and duration of events in mothers' longitudinal employment trajectories around first childbirth are significant pre- and post-reform, and what states are indicative of East-West differences.

We apply sequence analyses techniques to data from the German Socio-Economic Panel (1990–2021) to address our research questions. These approaches allow us to identify quantitative and qualitative differences in the timing, order, and duration of different events along monthly employment sequences of mothers. We focus our observation window on 1 year before women gave birth up to their child's third birthday to get a holistic picture of East-West differences in mothers' employment trajectories over a 4-year period.

The remainder of the paper is organized as follows: in the next section, we give an overview of the previous relevant literature, discussing studies that adopted a life-course approach to investigate mothers' employment trajectories around childbirth, as well as research on the effects of childcare availability on female employment. We then describe the German context in regards to gender norms, female employment, and childcare availability, and develop our expectations. This section is followed by a description of the data and analytical strategy and by the presentation of the results. We conclude with a discussion of our results against the background of existing literature and outline avenues for future research in light of our findings.

BACKGROUND

Prior research has documented the structural lag that exists between the glacial pace of changes in norms and policies regulating work and family and the more rapid change in individual preferences (Moen, 2016). However, dramatic changes in family policy have recently narrowed the gap, ushering in a policy-preference loop. In order to reveal the channels through which policy reforms may result in individuals changing their own behavior, previous studies have investigated family reforms not only in relation to mothers' labor market participation but also their effects on mothers' gender attitudes (Ellingsæter et al., 2017; Jozwiak, 2022; Sjöberg, 2004; Zoch & Schober, 2018). These studies investigated how policy feedback effects can result in changes in individual attitudes through role exposure and norm setting effects (Bicchieri, 2016; Gangl & Ziefle, 2015). In particular, policy reforms that reduce previous behavioral constraints, such as expanding childcare availability to increase mothers' childcare options, are argued to impact mothers' gender attitudes and, in turn, their employment behavior (Himmelweit & Sigala, 2004).

Although it is sometimes difficult to disentangle whether individuals' preferences in the aggregate lead to policy reforms or if policy reforms induce changes in individuals' attitudes writ large (Kumlin & Stadelmann-Steffen, 2014), we can still argue that the ECEC reform may have contributed to mothers' employment behavior via two (intertwined) channels: (a) by reducing behavioral constraints and opportunity costs to allow mothers to realize their preferences for employment (Blau, 2003; Esping-Andersen, 2009) and (b) by changing societal attitudes and norms regarding maternal employment. Concerning the latter channel, previous studies for Germany have shown that, at least in West Germany, the expansion of ECEC has indeed led to a decrease in traditional gender norms for mothers (Zoch & Schober, 2018).

Besides studies on the channels through which family policy reforms may alter mothers' labor market participation, we also build on research regarding the effects of childcare availability on female employment and on life-course studies that adopt a dynamic, longitudinal



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approach to investigate employment trajectories around childbirth. Studies focusing on mothers' employment trajectories around childbirth distinguished between (among others) three groups of mothers: those who remained in stable employment after giving birth, mothers mainly focusing on caregiving, and those with unsteady post-birth employment trajectories (Cabello-Hutt, 2020; Fauser & Kim, 2023; Lu et al., 2017). While such groups can be identified in all of these studies, the prevalence of the different groups varied across countries. In the United States, steady full- or part-time work trajectories after giving birth were most prevalent (Lu et al., 2017); whereas, in Chile and South Korea, unstable work trajectories and steady childcaring trajectories were more common (Cabello-Hutt, 2020; Fauser & Kim, 2023). Taken together, these studies have highlighted the importance of measuring mothers' post-birth employment behavior from a dynamic, longer-term perspective to reveal employment volatility or the persistence of either employment or inactivity after giving birth.

Regarding East-West differences in employment trajectories, previous studies have shown a higher prevalence of full-time care biographies for West German women, while East German women were more likely to work continuously in full-time jobs (Liao & Fasang, 2021; Nutz & Lersch, 2021; Simonson et al., 2011). However, these differences were decreasing among younger cohorts (i.e., those born in the mid-1950s and later), with the prevalence of full-time careers declining in East Germany and the prevalence of housewife biographies declining in West Germany (Liao & Fasang, 2021; Simonson et al., 2011). Still, even among younger cohorts, prolonged labor market inactivity and part-time employment were more prevalent among West German women, while full-time careers were more prevalent among East German women. The studies showing this looked at women in general and based their window of observation on women's ages, covering substantial portions of their life course from when women were in their late teens/early twenties up to when they reached the ages of 40, 45, or 55, respectively. In contrast, our study centers on the employment trajectories of mothers in the months before and after first childbirth. Moreover, while these studies revealed important East-West differences in women's employment trajectories and how they change over time, they have not related them to any specific policy changes.

Other life-course studies already highlighted how welfare regimes and policy settings related to differences in family and employment trajectories from a country-comparative perspective (Aisenbrey & Fasang, 2017; Möhring, 2016). For Europe, they showed that differences in the configuration of welfare policies (e.g., the level of state regulation and to what extent the provision of social security is tied to the "standard" full-time work biography) were associated with typologies of employment patterns that differed in their level of standardization (continuous full-time work career), volatility (number of employment transitions), and gender specialization (Möhring, 2016). In contrast, studies on the US showed that a lack of family supportive policies (e.g., short and unpaid parental leave and expensive public childcare) in combination with wide use of full-time nannies, facilitated continuous maternal employment and resulted in employment trajectories that were more stratified along class than gender lines (Aisenbrey & Fasang, 2017). Taken together, these studies highlight that moving beyond point-in-time outcomes, instead focusing on process outcomes is necessary to reveal how policy contexts can result in the emergence of different life-course patterns.

However, (changes in) East-West differences in German mothers' employment trajectories around childbirth have thus far not been explicitly investigated in relation to specific policy reforms. Instead, there have been many studies on the effects of the ECEC extension in Germany on mothers' labor market participation. Boll and Lagemann (2019) found no effect of childcare availability on the employment propensity of mothers but showed that conditional on employment, increases in childcare coverage of 1% point increased mothers' working hours by 0.5%. In contrast, Zimmert (2023) found an effect on employment of over 5% points as well as effects on preferred working hours of over 5 h per week. Lastly, Müller and Wrohlich (2020) found only small effects on employment, amounting to 0.2% points, which were mainly driven



by increases in part-time employment. Studies investigating East and West German mothers separately have found stronger employment effects mostly for mothers in West Germany (Neuberger et al., 2022; Zimmert, 2023; Zoch, 2020).

Additionally, findings have not been entirely univocal for other countries (Morrissey, 2017). Most studies have identified positive effects on employment: for example, for the U.S. (Herbst, 2017), for Spain (Nollenberger & Rodríguez-Planas, 2015), for Luxembourg (Bousselin, 2022), for Italy (Brilli et al., 2016), and for a country-comparative dataset including 182 regions across 20 European countries (Scherer & Pavolini, 2023). However, other studies have found no effects in their country-comparative dataset of 21 rich democracies (Brady et al., 2020), as well as a study using Norwegian data (Havnes & Mogstad, 2011).

The studies listed all offer important insights into the overall effect of childcare availability on maternal employment, but none have focused on longer-term dynamics. Our aim is to build on this literature by applying a life-course approach to reveal how employment trajectories around childbirth change alongside increasing childcare availability. By combining these two strands of literature, we can introduce a dynamic perspective that helps us to understand not just the prevalence and type of post-birth employment but also how East–West differences develop in terms of timing, order, and duration of employment states over a period of childcare expansion. In a broader sense, our study should add to our understanding of how life-course trajectories respond to differences in policy settings across time and place.

GERMAN CONTEXT

Even several decades after German reunification, attitudes and behaviors concerning women's labor-market participation still differ on average between those socialized or living in East versus West Germany, especially regarding (full-time) employment of mothers with young children (Barth et al., 2020; Hamjediers, 2021; Zoch, 2021). During the division of Germany (1949–1990), universal public childcare facilitated full-time female employment in the former GDR (East Germany), while the male breadwinner/female homemaker model entailing low levels of female part-time employment was dominant in the former FRG (West Germany) (Huinink & Mayer, 1995; Rosenfeld et al., 2004).

Before reunification, the availability of public childcare was low in the former FRG, while it was common for children in the former GDR aged 1 year and older to attend public childcare (Schober, 2014). Additionally, opening hours of childcare centers were more limited in the former FRG, while most care centers in the former GDR provided full-time care. In combination with other family policies (e.g., joint taxation of couples, long and low-paid maternity leave) and norms about the importance of maternal care, this institutional setting resulted in the male breadwinner/female homemaker model dominating family arrangements in the former FRG (Brückner, 2004; Rosenfeld et al., 2004). After giving birth, mothers usually dropped-out of the labor market for several years, and if they returned it was mostly to part-time jobs. In contrast, norms about the importance of full-time work, high acceptance, and provision of public childcare for children under three, and shorter parental leave facilitated a quick labor market return to full-time jobs for mothers and a dual-earner family model in the former GDR (Huinink & Mayer, 1995; Rosenfeld et al., 2004).

After reunification, employment decreased in East Germany due to large-scale structural labor market changes that increased unemployment (Schnabel, 2016). Still, in the period 1990–1994 mothers' employment rate was 22% points higher in East compared to West Germany (Barth et al., 2020). Ten years later, between 2000 and 2004, employment rates converged, and the difference only amounted to 6% points. Differences have been more persistent concerning the full-time employment of mothers with young children. Among mothers with children below 11, 41% of East German mothers were working full-time in the period 1990–1994. By contrast,



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only 14% of West German mothers with children under 11 were working full-time in this period. Pronounced differences have persisted even in more recent years, with 29% of East German mothers with children under 11 working full-time in the period 2015–2018 but only 12% for West German mothers.

In an effort to promote maternal employment and to ensure that by 2013, 35% of underthrees had a place in public low-cost daycare, a widespread extension of public childcare provision for under-threes was introduced in 2007 by the German government (KiFöG). The aim of the reform was to increase childcare availability, especially in West Germany, as East-West differences in public provision of ECEC remained high even several years after reunification (Schober, 2020). In 2007, that is, before the reform was implemented in 2008, 37.4% of children under 3 years attended public childcare in East Germany, while this is true for only 8.1% of children in West Germany (Federal Statistical Office, 2008).

When looking at the reform more closely, we see that the increase in childcare coverage mostly occurred before 2014 (East Germany: 52.0%, West Germany: 27.4%), while further expansion remained marginal (BMFSFJ, 2022). Although the increase was much more pronounced in West Germany, differences in childcare coverage in 2021 remained sizable (East 52.3%, West 30.6%) and, on average, opening hours remain longer in the East (BMFSFJ, 2022). Overall, the demand for childcare for children under three has continuously exceeded its supply, with the mismatch amounting to 12.4% points in 2021. The share of children in childcare institutions is thus understood in the literature as a measure of supply rather than demand (Boll & Lagemann, 2019; Zoch & Hondralis, 2017).

Studies from the United States have shown that high childcare costs can be an obstacle to maternal employment (Ruppanner et al., 2021). Compared to other advanced democracies, childcare fees are relatively low in Germany (Schober & Spiess, 2015). Moreover, fees are income-dependent, with low-income families being exempt. Childcare costs should, therefore, be less relevant for parents' decisions to enroll their children in care facilities. Another aspect that is noteworthy about the German context is the fact that a private childcare market hardly exists (Kreyenfeld & Hank, 2000; Schober & Schmitt, 2017). The financing and implementation of ECEC are planned by the municipalities—although the federal government has legislative authority.

The implementation of the childcare reform coincided with another important family policy reform to facilitate mothers' swifter labor market return (Kluve & Schmitz, 2018; Spiess & Wrohlich, 2008): the parental leave reform of 2007 shortened paid leave and increased the income replacement rate. The amount of paid maternity leave mothers could take at the maximum was reduced from 2 years to 12 months in both East and West Germany. In combination, the two reforms were aimed not only at increasing maternal employment but also at reversing trends of declining fertility and of shrinking workforce due to Germany's aging society (Spiess & Wrohlich, 2008).

Importantly, the parental leave reform came into effect immediately and applied equally to both East and West Germany (i.e., reducing paid leave from 2 years to 12 months), while the ECEC expansion reform saw a gradual increase in childcare spots. The expansion was less even, however, as it started from a lower level and occurred to a larger extent in the West compared to East Germany. While it is reasonable to expect that the reduction of the length of paid maternity leave should have an impact on mothers' employment behavior in both East and West Germany, this largely equally applied reform should play only a minor role in regard to differences in employment trajectories between the two areas. Therefore, we argue that any convergence in employment trajectories observed after the implementation of the two related family reforms should be driven mostly by the ECEC reform rather than the maternity leave reform. In the following, we, therefore, mainly focus on the ECEC reform.



Our research questions and expectations are guided by the idea that policy settings define the set of opportunities and constraints within which individuals' life courses unfold (Leisering, 2003; Mayer & Müller, 1986)—thus leading to measurable structural differences between life courses across time and place. By making employment trajectories around first childbirth our object of analysis, we take a dynamic life-course approach that focuses on process rather than static point in time outcomes (Abbott, 2005). In general, we expect that the change in policy setting brought on by the ECEC reform in Germany, will facilitate changes in how employment trajectories around first childbirth unfold in East and West Germany. While static employment rates, such as the ones used in the abovementioned scholarship, provide interesting insights into East–West differences, such snapshots do not allow us to assess the full complexity of possible convergence patterns of employment trajectories around childbirth. By contrast, in our systematic life-course analysis of employment trajectories around first childbirth, we will be especially attuned to the potential for convergence in three separate dimensions, namely timing, order, and duration of events over time.

In detail, we expect that the ECEC reform of 2008 contributes to a convergence of employment trajectories around first childbirth between East and West German mothers, especially with respect to the duration of maternity leave and inactivity after giving birth, as well as the timing and type of (full-time vs. part-time) labor market return. Specifically, after the ECEC reform, East–West differences in duration, as well as timing and type of post-birth employment, should have decreased, as the increase in childcare availability should have fostered quicker labor market return, especially for West German mothers (Zoch & Hondralis, 2017). Given persisting gender norms (Zoch & Heyne, 2023), we do not expect that the general tendency of mothers to (temporarily) drop out of the labor market to care for young children would have changed with the ECEC reform. We thus do not expect any East–West differences in the order of employment states around first childbirth before or after the reform.

DATA AND METHODS

Data and sample

We used data from the German Socio-Economic Panel (SOEP) (Goebel et al., 2023), a representative yearly household panel survey starting in 1984 in West Germany. Since 1990, East German households have also been included (Wagner et al., 2008). The sampling design of the SOEP is based on a multistage stratified sampling procedure, and interviews are conducted in person by trained interviewers using either paper-and-pencil interviewing (PAPI) or computerassisted personal interviewing (CAPI) as the survey mode (Siegers et al., 2022; Wagner et al., 2008). The initial response rate of the SOEP reached over 60% for the first sample drawn in 1984. The average wave-to-wave re-interview rate of households reaches over 80% (Glemser et al., 2020; Siegers et al., 2022). Besides the high response rates, the SOEP ensures excellent data quality and panel stability by adding refreshment samples throughout the years and by following up on individuals who left their original households (as long as they remain in Germany) (Glemser et al., 2020; Siegers et al., 2022; Wagner et al., 2007). The SOEP data thus allows families to be followed over several generations. Theoretically, our sample could have included different mothers from two generations of the same family. The SOEP is especially suitable for addressing our research question as it covers a wide range of topics, including family formation and labor market behavior.



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As we are interested in a comparison between mothers living in East and West Germany, we included all waves collected after German reunification, starting from 1990 until the most recent one available (i.e., 2021). By relying on fertility biographies, as well as (retrospective) employment-spell data, we created monthly employment sequences of mothers through the third birthday of their firstborn children. When respondents first enter the SOEP, they are asked to chronicle their previous activity statuses starting from age 15 (Schmelzer Hamjediers, 2020). In each following yearly interview, respondents are asked to chronicle their activity statuses since the previous interview.

We initiated the construction of our sample of analysis by drawing information from the fertility biography of 29,266 mothers, of whom 14,751 gave birth after reunification. Because we are interested in differences in labor market attachment around childbirth, the individual sequences also included the 12 months before women gave birth. Our observation window thus spanned 49 months in total (12 pre-birth months + month of giving birth + 36 post-birth months). Restricting the analytical sample to mothers for whom we had complete information on fertility biographies and employment spells for the whole window of observation left us with 1612 mothers in our sample. The earliest first births we observed occurred in 1991, and the most recent first births were in 2017.

Mothers could be observed in eight employment states: full-time employment, part-time employment, marginal employment, maternity leave, unemployment, education or (vocational) training, inactivity, and "other" (that combines civil service [early], retirement, or unclassified states). Marginal employment refers to so-called "mini jobs," which entail very short hours and are exempt from social security contributions for earnings up to a certain threshold (400 Euros in 2003, see Caliendo and Wrohlich (2010)). Marginal jobs are only included as a separate category in SOEP's employment-spell data from 2004, whereas before they were subsumed under part-time employment. It is thus likely that the data underreport mothers in marginal jobs until 2004 for mothers in East and West Germany alike. In the rare event that spells overlapped for a few months, we gave priority to employment spells. We coded overlapping spells according to the state in the higher position in the following hierarchy: full-time job, part-time job, marginal employment, maternity leave, unemployment, education/training, inactivity, other.

To investigate if East-West differences decreased with the childcare reform, we distinguished mothers giving birth in East (including Berlin) or West Germany, before (2007 or earlier) or after (2008 or later) the ECEC reform, respectively. A robustness check, where we ran the analysis on a sample that excluded mothers living in Berlin resulted in similar estimates overall to the ones presented below (Table S1 and Figures S1 and S2). We excluded all mothers who were born outside of Germany (1382 mothers remained) or who moved between East and West Germany during our observation window (1345 mothers remained). We only considered the current region of residence in our study. We acknowledge that considering whether mothers were socialized in East or West Germany might be relevant, as it could result in different attitudes towards (full-time) employment of mothers. In our sample, the overlap of the place of socialization and the region of residence during our observation window was substantial: of the mothers socialized in the East, 80% still lived in the East during our observation window; of those socialized in the West, 97% still lived in the West.

Our final analytical sample consisted of a total of 1345 mothers belonging to four groups, which we compare throughout this article: pre-reform East Germany mothers (n = 246), postreform East German mothers (n = 113), pre-reform West German mothers (n = 715), and postreform West German mothers (n = 271). Although, we observed fewer East than West German mothers, these case numbers are sufficient to test our hypotheses, because (as described below) our methods are descriptive and do not imply the use of regression-like estimation, nor breaking the four groups down by other variables.



To address the first research question, we use state distribution plots to depict the employment trajectories around the first childbirth of our four groups of mothers. For each of the 49 months, the plots illustrate the prevalence of the different employment states. This allows a descriptive assessment of East–West differences in the prevalence of employment states at each time-point of the observation window across pre- and post-reform years.

We address our second research question, regarding the significance of East–West differences, in two steps. First, we assess East–West differences in employment trajectories around first childbirth in terms of timing, order, and duration of episodes in the different states. Second, we investigate which states are indicative of each group at each point in time before and after the reform. We ran the sequence analysis in R using the TraMineR, the TraMineRextras (Gabadinho et al., 2011), and the Weightedclusters packages (Studer, 2013).

Step 1: Differences in timing, order, and duration

To understand East–West differences in mothers' employment sequences before and after the reform, we utilize adapted versions of the Bayesian information criterion (BIC) and the likelihood-ratio test (LRT) (Kass & Raftery, 1995; Liao & Fasang, 2021). The BIC allows for the assessment of the magnitude of differences, and the LRT provides a test for the statistical significance of differences between groups of sequences. The advantage of the BIC and LRT is that they assess differences between employment trajectories as a whole. In comparing East and West German mothers across pre- and post-reform years, the BIC difference and LRT test whether East–West differences in employment trajectories around first childbirth have indeed been reduced after the reform (i.e., became less statistically significant and substantively meaningful).

Specifically, the idea of the BIC is that differences between sequences are assessed by estimating dissimilarities between pre-defined groups of sequences; here, our four groups of preand post-reform mothers in East and West Germany. To quantify the difference between these groups, the gravity-center approach is used (Liao & Fasang, 2021). The gravity center of a group of sequences is the sequence that minimizes the sum of distances to all other sequences in the group. Distances between sequences belonging to one group and the center of this group (D₁) are computed and compared to distances between a sequence group and the overall center of all sequences (D₂). The BIC difference ultimately results from subtracting the BIC relying on the distances to the group-specific centers from the BIC relying on the distances to the overall center (BIC difference = $BIC(D_2) - BIC(D_1)$). The BIC difference gets higher when the distances to the overall center (D_2) are larger than the distances to the group-specific center (D_1) . BIC differences can be positive or negative. BIC differences between 0 and 2 should be considered as negligible support for the statistical meaningfulness of differences between two groups of sequences. BIC differences between 2 and 6 hint at moderate support; BIC differences above 6 signify strong support; and lastly differences above 10 provide very strong support for statistically meaningful differences (Kass & Raftery, 1995; Liao & Fasang, 2021). In contrast, negative values between 0 and -2 suggests negligible evidence for the null model of no difference between two groups of sequences; values between -2 and -6 imply moderate support for the null model, and so on in accordance with the values above 0.

There are several potential algorithms to calculate the pairwise sequence differences with respect to the timing, the order, and the duration of states. Although most algorithms capture the differences between sequences with respect to the three dimensions as they are (at least partly) correlated, Studer and Ritschard (2016) identify which dimension drives the pairwise comparison for each algorithm. In light of the guidelines they provide, we selected: first, the



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Hamming Distance (HAM) algorithm measures the dissimilarity between two sequences by using the number of positions with non-matching states and is, therefore, more sensitive to differences in timing. Second, the Subsequence Vector Representation (SVRspell) is more sensitive to differences in the order of states, as it computes dissimilarities based on the number of matching states appearing in the same order in the two sequences. Third, the Optimal Matching (OM) algorithm emphasizes differences in duration. The OM algorithm aligns two sequences and assigns a "cost" for each of the operations (insertion/deletion or substitution) performed to achieve alignment. Specifically, the lower the sum of costs of the operations to align two sequences, the more similar they are. We set insertion/deletion costs at 1 and substitution costs at 2. As a robustness check, we replicated the analyses by using alternative algorithms: CHI2 with the number of periods k set to sequence length for timing, Optimal Matching between sequences of transitions (OMstran) with a low weight on the state of origin for order, and Optimal Matching between sequences of spell (OMspell) with high spell expansion cost for duration. The results of this sensitivity check were overall similar to the estimates presented below (Table S2).

Further, we adopt a version of the LRT that is closely related to the above-described BIC difference and that allows for an assessment of the statistical significance of differences between sequence groups (Liao & Fasang, 2021). This version of the LRT compares the restricted model—in which all defined groups of sequences are equal and have the same gravity centerto the unrestricted model, which assumes that the pre-defined groups are distinct from one another and have unique group-specific gravity centers.

Step 2: Testing the significance of the prevalence of states over time

This step highlights qualitative differences between sequences by focusing on what states are indicative of each group at each point in time. To do so, we rely on the implicative statistics approach (Struffolino et al., 2016; Studer, 2015), which adopts the framework of "sequence of typical states." The typical state for each of the 49 time points of the sequence is displayed in a series of graphs that depict pairwise comparisons between our four groups (e.g., comparing East and West German pre-reform mothers): If the number of observable counterexamples is low, the rule is defined to be "strongly implicative." Put differently, we compare the actual observed and the number of counterexamples that can be expected under the independence assumption (Gabadinho et al., 2011). The gap between the expected and the observed number of counterexamples and its significance are calculated using adjusted residuals of a contingency table with continuity correction (Struffolino et al., 2016; Studer, 2015). In order to improve the readability of the graphs, we follow previous studies and use the reverse of the implicative index, which otherwise would be highly negative for significant rules. The implicative index measuring the relevance of the rule "A implies B" reads as follows:

$$I(A \rightarrow B) = -\frac{n_{\overline{B}A} + 0.5 - n_{\overline{B}A}^e}{\sqrt{n_{\overline{B}A}^e(n_B/n)(1 - (n_{\dot{A}}/n))}}$$

with $n_{\overline{B}A}$ referring to the observed number of counterexamples, $n_{\overline{B}A}^e$ to the expected number of counterexamples under the independence assumption, n_B to the number of times that B is observed, n_{λ} to the number of times that A is observed, and n to the total number of cases. As an example, the state of full-time employment is considered typical for East German postreform mothers if the rule "being a post-reform mother in East instead of West Germany implies being in the state of full-time employment" has a limited number of observable counterexamples.



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As the sample size impacts the strength of the implication, we can only compare the absolute values of the implication within subsamples but not between them. For the same reason, we did not use population weights, as this would lead to inflated results for the implicative statistics indices, which are dependent on sample sizes and cannot account for weighted sequences. Results of the BIC and the LRT allow similar conclusions using weighted or unweighted sequences (Table S3). Following previous studies (Struffolino et al., 2016), we will only focus on whether the line for each state is above or below the significance thresholds (95%, 99%, and 99.9%) when comparing results across subsamples. A rule is considered statistically significant at the 5%, 1%, or 0.1% level if it exceeds the 95%, 99%, or 99.9% confidence line. Confidence is measured using a normal distribution (Studer, 2015).

RESULTS

Prevalence of employment states around first childbirth before and after the reform

To address the first research question, Figure 1 presents the state distribution plots for the employment trajectories around first childbirth (corresponding to month = 0) of our four groups of mothers. Before and after the ECEC reform, most mothers worked in full-time jobs before giving birth. Levels of full-time employment pre-birth were higher in West Germany (above 70%) than in East Germany (around 60%) both before and after the reform. In contrast, more East German mothers experienced periods of education and training, as well as unemployment, before giving birth. The former finding might be explained by the on average lower age at first childbirth of East German women giving birth in the decade after reunification (Federal Institute for Population Research, 2023b), while the latter finding is likely owed to the higher labor market attachment of East German women, combined with worse labor market conditions in the East (Matysiak & Steinmetz, 2008; Schnabel, 2016). In the months directly antecedent to childbirth, the share of mothers on maternity leave increased rapidly so that in the month of childbirth as well as the following months, the vast majority of mothers were on maternity leave in all four groups. Differences between the four groups become more apparent as children grew older.

Before the reform, the share of East German mothers on maternity leave was relatively stable for the first 10 months after giving birth and then quickly reduces. For West German prereform mothers, the share of those on maternity leave decreased earlier but also much slower.

Thus, towards the end of our observation window, more West German than East German mothers were on maternity leave. This might be explained by longer maternity leave taken by West German mothers. Another explanation could be the birth of a second child. Following reunification, fertility rates in East Germany initially fell below those in West Germany. However, they quickly began to increase again and since 2010 fertility rates are similar in East and West Germany (Federal Institute for Population Research, 2023a). We observe a gradual increase in part-time employment for pre-reform mothers in West Germany as children grew older, but the share of full-time work remained relatively constant at low levels (11% in month 36). We also see a steady increase of inactivity in the group of pre-reform West German mothers. Contrary to employment (and unemployment), inactivity plays virtually no role for East German pre-reform mothers. Post-birth full-time employment was much more prevalent among the mothers in the East. Shares of full-time work increased markedly once children turn 1 year old, reaching 31% by the third year after childbirth. The share of part-time working mothers was somewhat lower for pre-reform mothers in East Germany compared to those in the West.



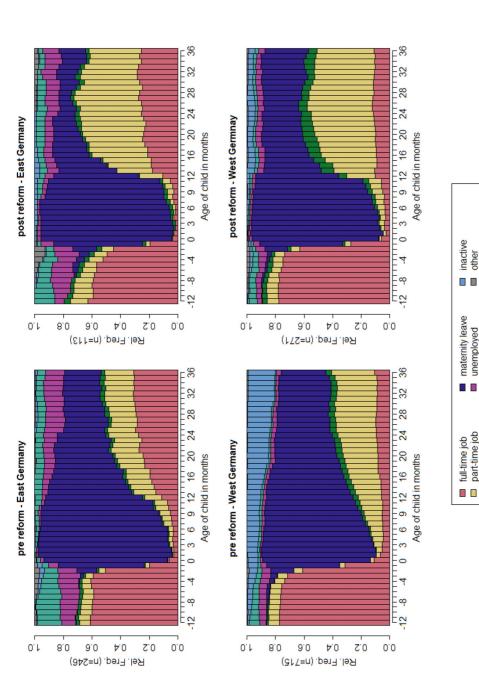


FIGURE 1 State distribution plots for mothers' employment trajectories around first childbirth. Source: SOEP (v38, 1990–2021), own calculations. [Color figure can be viewed at wileyonlinelibrary.com

education/training

marginally employed

part-time job

unemployed

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After the reform, we observe a stark decrease of mothers on maternity leave once their child turned 1 year old in both East and West Germany, which highlights the implications of the parental leave reform in both East and West Germany. When we look at the type of jobs mothers have after giving birth, we observe an increase in part-time employment compared to the pre-reform period. This increase was more pronounced for East German post-reform mothers. Hence, the share of mothers working part-time after giving birth is now nearly the same in East and West Germany. However, shares of full-time work have changed little in both regions across the two periods, so full-time employment has remained more prevalent among East German mothers than West German mothers even after the reform.

As a supplementary robustness check (Figure S3), we split the post-reform period into two periods, an early and a late post-reform period. This allows for more insights into the timing of the observed changes. As the increase of childcare availability was more pronounced in the early post-reform years and tailed off in more recent years (BMFSFJ, 2022), we might expect that the changes we describe above happened rather quickly after the implementation of the reform. Indeed, state distribution plots covering the early post-reform years (i.e., mothers giving birth between 2008 and 2012) look very much like the post-reform plots presented above, especially for West Germany mothers. For East Germany mothers, we also see that the biggest increase in part-time employment happens in the early post-reform period. However, for East Germany, we also see some changes between the early and the late post-reform period (i.e., mothers giving birth between 2013 and 2017). Namely, the prevalence of full-time employment after giving birth did decrease slightly, although it has remained higher than in West Germany. This decrease in post-birth full-time employment for East German mothers giving birth in more recent years might be the result of partly converging gender norms between East and West Germany (Zoch, 2021).

Testing the significance of qualitative East–West differences in mothers' employment sequences before and after the ECEC reform

Are these differences statistically significant? To assess this and to investigate our expectations of decreasing East-West differences after the reform, we turn to the results of the LRT and the BIC differences. Table 1 displays the results for the comparison between employment trajectories of East and West German mothers before the reform and after the reform. Each of the dissimilarity measures emphasizes one specific aspect of the difference between the groups of sequences, that is, differences in the timing of sequence states (HAM), order of states (SVRspell), or duration of spells (OM).

For pre-reform mothers, differences in employment trajectories were statistically significant in terms of the timing of states (LRT = 11.09, p-value = .001). With the BIC difference

TABLE 1 LRT statistics and BIC differences for employment trajectories around first childbirth, East vs. West German mothers.

	Timing (HAM)		Order (SVR spell)		Duration (OM)	
Period	LRT (p)	BIC difference	LRT (p)	BIC difference	LRT (p)	BIC difference
Pre-reform	11.09 (.001)	5.79	4.73 (.034)	-0.57	11.83 (.001)	6.53
Post-reform	5.99 (.017)	0.69	4.31 (.045)	-0.99	5.98 (.017)	0.68

Note: Likelihood Ratio Tests (LRT) for statistical significance of differences between sequences, the Bayesian Information Criterion (BIC) difference depicts the meaningfulness of differences. Interpretation of BIC differences: 0-2 = negligible, >2-6 = moderate, >6-10 = strong, >10 = very strong.

Abbreviations: HAM, Hamming distance; OM, optimal matching; SVRspell, subsequence vector representation. Source: SOEP (v38, 1990-2021), own calculations.



reaching 5.79, we can consider them to be moderate. Differences were statistically significant (LRT = 11.83, p-value = .001) and strong concerning the duration (BIC diff = 6.53) of sequence states. As we expected, differences in the order of spells were negligible (BIC diff = -0.57), although they were statistically significant (LRT = 4.73, p-value = .034).

After the reform, differences were still statistically significant, albeit less so than before the reform, in terms of timing (LRT = 5.99, p-value = .017) and duration (LRT = 5.98, p-value = .017). More importantly, as expected, differences were now less sizable. Differences in timing (BIC diff = 0.69) and differences in duration (BIC diff = 0.68) of sequence states were now negligible.

Differences in the order of spells were still negligible (BIC diff = -0.99), as they had been also before the reform and they were also still statistically significant (LRT = 4.31, p-value = .045)—albeit less so than before the reform.

We observe a clear reduction in East-West differences in employment trajectories of mothers who gave birth after rather than before the reform, which supports our expectations of differences in timing and duration decreasing after the ECEC reform. However, we still do not know the exact sequence states (e.g., maternity leave, inactivity, full-time, or part-time employment) to which these differences pertain and when they occur along the studied trajectories.

The implicative statistics give us leverage to fill this gap and characterize the typical state for each of our four groups at each time point around childbirth. Put differently, under this framework, the typical employment state for each comparison group (i.e., mothers in East and West Germany before and mothers in East and West Germany after the reform) are compared at each time point of the sequences (i.e., for each of the 12 months before and of the 36 months after giving birth). Figure 2 (left panel) displays the implicative statistic for the rule "being a West German pre-reform mother (instead of an East German one) implies being in labor force state x in month t." The opposite rule is the base for the implicative statistic presented on the right panel of Figure 2. The horizontal dotted lines indicate the significance thresholds for confidence at different levels (95%, 99%, and 99.9%). For any lines crossing these thresholds, we can say that the respective employment state is "typical" for this group of mothers but not the comparison group.

For West German pre-reform mothers, the pink line shows that being a West German instead of an East German mother implied having a full-time job in the year before giving birth, after which this rule turns insignificant. Put differently, before giving birth, being in full-time employment was "typical" for West German but not East German mothers.

Around the time the child was born up to when they were around 1 year of age, West German pre-reform mothers were more likely to have a part-time job (yellow line). This rule turns insignificant after the child was 1 year of age but becomes significant again towards the end of our observation window, that is, when the child reached age two. Starting at about the same time, West German pre-reform mothers became more likely to be on maternity leave (dark blue line), indicating longer maternity leaves compared to East German mothers.

Throughout the whole observation window, and increasingly after giving birth, West German pre-reform mothers had a higher prevalence for inactivity (light blue line) than East German mothers, supporting our expectations and attesting to the lower labor market attachment of West German pre-reform mothers, Among East German pre-reform mothers, results indicate a higher prevalence of being in education/training (turquoise line) or unemployment (purple line) in the year before giving birth and then again after the child turned one. When the child was born up to about age one, East German mothers were more likely to be on maternity leave. After that, East German pre-reform mothers were more likely than West Germans to work full-time, confirming the higher importance of full-time employment for East German pre-reform mothers.



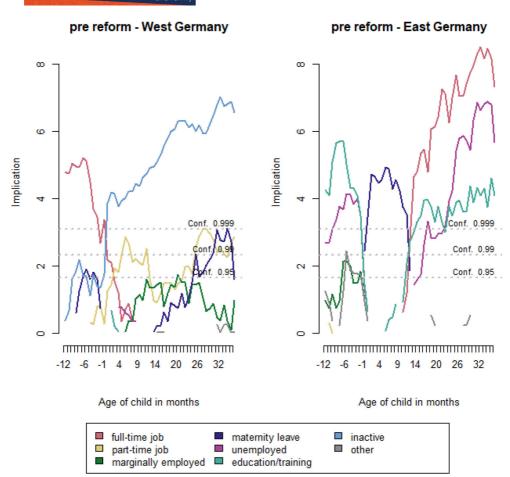
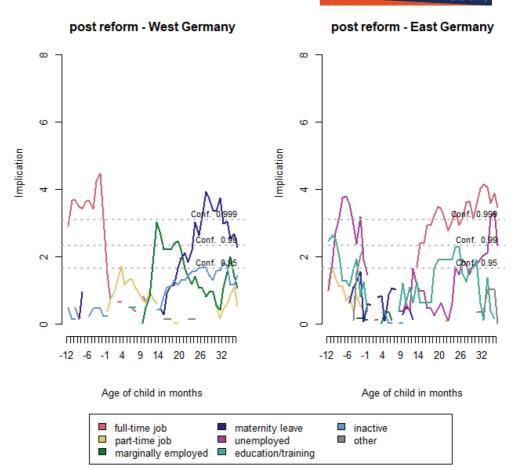


FIGURE 2 Implicative statistic applied to sequences of typical states analysis: Comparison of mothers in East and West Germany giving birth before the reform (1991–2007). Source: SOEP (v38, 1990–2021), own calculations, [Color figure can be viewed at wileyonlinelibrary.com]

Figure 3 displays the implicative statistic for post-reform mothers. As expected, we observe fewer significant differences after the reform. For West German post-reform mothers, we again see a higher prevalence of having a full-time job in the year before giving birth (Figure 3, left panel). Following birth and until the child's first birthday, we do not observe any significant differences compared to East German post-reform mothers, attesting to the impact of the parental leave reform, which gives strong financial incentives for mothers in all of Germany to take maternity leave of 12 months. After the children's first birthday, West German post-reform mothers were more likely to work in marginal positions until their child was about 2 years old. Starting when children were about one and a half years old, West German post-reform mothers were also more likely to be on maternity leave, although they were no longer more likely to be inactive. This partly contradicts our expectations and indicates that post-reform West German mothers are still more likely to take longer maternity leave. However, more in line with our expectations, we no longer observe any differences in the prevalence of post-birth part-time employment. Supplementary analysis shows for both East and West German mothers that the prevalence of part-time employment after giving birth significantly increased with the childcare reform (Figures S4 and S5), which is in line with previous studies (Müller & Wrohlich, 2020; Zoch, 2020).





Implicative statistic applied to sequences of typical states analysis: Comparison of mothers in East and West Germany giving birth after the reform (2008–2017). Source: SOEP (v38, 1990–2021), own calculations. [Color figure can be viewed at wileyonlinelibrary.com]

For East German post-reform mothers, we observe, first, that they were more likely to be in education/training or unemployment before giving birth and for a few months post birth (Figure 3, right panel). Second, East German post-reform mothers were more likely to work in full-time jobs, starting from when their children were a little over a year until the end of our observation window. We interpret this finding as an indication that, despite of a convergence in part-time employment after the ECEC reform, post-birth full-time employment is still more widespread among East German mothers.

CONCLUSION

In this study, we have investigated East-West differences in employment trajectories of German mothers who gave birth after reunification, looking at a period of extensive ECEC expansion introduced by a childcare reform. The main goal of the childcare reform was to facilitate mothers' labor force participation after giving birth. The potential impact of the reform was expected to be especially strong in West Germany, where historically, not only the share of children visiting care institutions but also mother's labor force attachment was lower. Against this



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background, our overall research question was whether East-West differences in mothers' employment trajectories around first childbirth have decreased in Germany after the reform. Our observation window covered mothers from 1 year before they gave birth for the first time up to when their children turned three. We compared mothers giving birth before the reform (1991–2007) with mothers giving birth after the reform (2008–2017) in either East or West Germany, respectively. We employed sequence analysis methods to measure differences between these four groups of sequences, namely an adapted version of the LRT and the BIC (Liao & Fasang, 2021). On the one hand, we document persisting East–West differences regarding the prevalence of employment states before and after the reform. These mainly pertained to the prevalence of post-birth full-time employment and maternity leave once children reach 1 year of age and thereafter. For pre-reform mothers, East-West differences in employment trajectories were both moderate to strong and statistically significant. These differences were driven by the timing and duration of sequence states but not by their order. Taken together, these results indicate that for both East and West German mothers, employment around first childbirth generally follows a highly standardized process of dropping out of the labor market upon childbirth and returning to it sometime after—while there are nonetheless important East-West differences in the duration (of maternity leave, inactivity) and the timing of labor market return.

On the other hand, we also document substantial convergence, showing that differences in employment trajectories between East and West German mothers reduced after the reform. While they were still statistically significant, their magnitude could be considered negligible on all dimensions (i.e., timing, order, and duration), supporting our expectations of convergence of employment trajectories after the reform. Further, the implicative statistics framework we used allowed us to track when exactly around childbirth specific states became salient for the different groups. After giving birth, pre-reform West German mothers' trajectories were characterized by significantly more part-time employment and maternity leave until their first child was older than two as well as more inactivity for the whole period observed. In contrast, East German pre-reform mothers were more likely to be on maternity leave while their child was younger than 1 year old and in full-time jobs thereafter. By contrast, we observed fewer and less significant East-West differences in the occurrence of specific sequence states after the reform. Increased similarity was mainly driven by a convergence of the prevalence of part-time employment in the years after the ECEC reform. This finding is in line with previous studies showing that the effect of the ECEC reform was mainly driven by increasing part-time employment of West German mothers (Müller & Wrohlich, 2020). Nonetheless, we find that East German mothers were still more likely to work in full-time jobs after their children turned one. Further, we observed no East-West differences from the time of first childbirth up to the children's first birthday, which confirms further that taking maternity leave upon giving birth has become the norm for most mothers across Germany, and especially so for West German mothers also after the childcare reform. This finding highlights the substantial and similar implication for all mothers across Germany of the 1-year maternity leave introduced by the 2007 parental leave reform.

Our study is not without limitations. First, we compared two rather broad time periods, which saw many societal developments besides the ECEC reform and the parental leave reform. For example, the important Hartz labor market reforms were implemented from 2003 to 2005. Second, we differentiate between eight separate employment states, but we cannot account for the exact amount mothers worked per week as working hours are only measured on an annual basis in the SOEP. While we are able to make the important distinction of separating full-, part-time, and marginal employment, we cannot further differentiate the extent of part-time employment. We might thus underestimate differences between mothers' employment trajectories to some extent. However, this still adds more nuances to previous findings on mothers' post-birth employment behavior, showing that, among post-reform mothers, working in



marginal jobs after giving birth has been and remains more prevalent among West German than East German mothers. This indicates the still higher prevalence of the male breadwinner/ female homemaker model in West Germany, where women often act as secondary earners. Finally, we could not account for regional differences in childcare availability within East and West, which can be quite substantial (Boll & Lagemann, 2019; Zimmert, 2023).

To conclude, our study adds to the understanding of the dynamic nature of differences between mothers' employment trajectories, providing important contributions to the literature on gender, work, and family. First, drawing on the life-course approach and the concept of process outcomes, we conceptualized and measured these differences in terms of timing, order, and duration of events over time. Although more research is needed to identify causal effects, overall, our findings highlight the value of descriptive longitudinal evidence in evaluating the longer-term implications of any social policy, and in our case the ECEC reform. Second, we elaborated on the role of regional and policy settings in shaping the set of opportunities and constraints within which individuals' life courses unfold. By adopting this approach, our study contributes to previous literature substantively by demonstrating how cross-country difference in welfare regime policies can contribute to typologies of employment trajectories entailing different levels of gender specialization and degrees of standardization (Möhring, 2016).

As our results show, the ECEC reform has (partly) achieved its goal of increasing mothers' post-birth employment, especially by increasing part-time employment after birth in both East and West Germany. However, increases in post-birth full-time employment—especially in West Germany—may take longer to unfold. From a social policy perspective, the predominance of part-time employment contributes to the persistence of long-term gender inequalities (e.g., in pension income), so facilitating full-time employment should also be a goal. Previous countrycomparative studies have already highlighted that family policies that are intended to foster maternal employment and the reconciliation of work and family obligations may have actually resulted in the consolidation of male-breadwinner/ female-secondary-earner life courses, while in countries such as the United States, the lack of family supportive policies in combination with a strong private childcare market, results in less gendered employment trajectories (Aisenbrey & Fasang, 2017). While these studies give valuable insights into the relevance of contextual characteristics for the unfolding of life courses, studies that address how changes in policy causally effect life courses are still missing, pointing to important avenues for future research.

Overall, our findings foster the understanding of how policy settings and reforms shape life courses in a context-dependent fashion. A potential theoretical frame for fully understanding our findings can be found in Pfau-Effinger's (2004) argument for the interplay between gender, culture, and norms in mediating the impact of institutions on men's and women's behaviors. Further, Fasang et al.'s (2024), life course boat approach underscores how historical time and place shape unfolding life course outcomes at the populational, relational, and individual level. In our case, a reform with potentially region-neutral effects on maternal employment resulted in region-specific increases in part-time employment; however, it did not change the prevalence of full-time employment in either region, due to the persistence of prescribed family and work dynamics in both regions. These findings are also in line with a recent study showing that the implementation of the ECEC reform in Germany led to a quicker polarization of mothers into those who are employment-orientated and utilize the increased opportunities for part-time employment after giving birth as a stepping stone to full-time employment and less employment-oriented mothers who may be stuck on a so-called "mommy track," entailing long periods of part-time employment and few opportunities for career progression and earning increases (Brehm & Milewski, 2024).

The insights provided by our study point to several fruitful avenues for future research with relevant policy implications. The comparative approach could be broadened by examining finegrained differences across localities in gender norms and ECEC reform implementation within



Germany or by comparing variation across time in Germany to dynamics in other countries that adopted similar reforms but that may differ in terms of gender norms or other relevant policies. Likewise, the convergence of employment trajectories due to childcare availability or similar family policy reforms could be explored across ethnic, racial, and class groups, also taking gender norms into account. Such an approach would contribute to recent advancements in the life-course literature, which highlights that next to time and place, membership in specific social groups (i.e., social location) is an equally important driver of life-course variety (Fasang et al., 2024).

With respect to policy implications, our study highlights the potential (at least partial) discrepancy between the intended goal and the actual effects. If the aim is to increase all mothers' full integration into the labor market, "merely" increasing the availability of public childcare might not be enough to overcome existing gender norms or other policies, such as joint taxation in the German case, that still favor male breadwinner/female secondary earner family models. Similarly, public childcare availability as such might not be sufficient to change mothers' behavior with respect to labor market participation (Stahl & Schober, 2020), because uptake might further be influenced by the actual (or perceived) quality of the service (Keys et al., 2013; Stahl et al., 2018) or the availability of full-time care (Zoch, 2020).

ACKNOWLEDGMENTS

We thank Anette Fasang, Maria Hornung, Nicole Kapelle, and Lili Vargha for their helpful comments and suggestions on earlier versions of this article. We also thank Esmeralda Dueñas Marmolejo for her support in reviewing the relevant literature. Replication files for this article can be found here: https://osf.io/a3qug/. Open Access funding enabled and organized by Projekt DEAL.

FUNDING INFORMATION

This research received funding from the German Research Foundation (DFG, project number 492434941).

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How to cite this article: Fauser, S., Struffolino, E., & Levanon, A. (2024). Converging mothers' employment trajectories between East and West Germany? A focus on the 2008-childcare-reform. Journal of Marriage and Family, 1–24. https://doi.org/10.1111/ jomf.13040

