

Giesselmann, Marco

Article — Accepted Manuscript (Postprint)

Differences in the Patterns of In-Work Poverty in Germany and the UK

European Societies

Provided in Cooperation with:

German Institute for Economic Research (DIW Berlin)

Suggested Citation: Giesselmann, Marco (2015) : Differences in the Patterns of In-Work Poverty in Germany and the UK, European Societies, ISSN 1469-8307, Taylor & Francis, Milton Park, Abingdon, Vol. 17, Iss. 1, pp. 27-46,
<https://doi.org/10.1080/14616696.2014.968796>

This Version is available at:

<https://hdl.handle.net/10419/144709>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

This is an Accepted Manuscript of an article published by Taylor & Francis in European Societies
17 (2015), 1, p. 27-46, available online:
<http://www.tandfonline.com/doi/abs/10.1080/14616696.2014.968796>

Differences in the patterns of in-work poverty in Germany and the UK

Marco Giesselmann
DIW Berlin

Abstract

This study analyses differences in individual-level working poverty determinants between Germany and the UK. These differences are linked to institutional patterns at the country level. Here, we observe that the two countries differ especially in bargaining centralisation, employment protection legislation and family policy. At the same time, the levels of decommodification and labour market regulation are no longer core differences in the institutional settings of Germany and the UK, which is interpreted as a consequence of Germany's departure from a traditional conservative regime since the mid-1990s.

Adopting economic and sociological approaches, we explain how Germany's closed employment system channels the effects of deregulation policies to the periphery of the labour market. Additionally, we argue that open employment relationships that dominate in the UK put specifically older employees at risk. Finally, we identify country specific differences in the economic dependency of women, resulting from a stronger male breadwinner orientation of family policy in Germany.

Accordingly, multivariate analyses based on harmonised versions of the BHPS (2002-2005) and the SOEP (2003-2006) reveal that entrants and re-entrants to the labour market, women and—unexpectedly—low-educated persons are particularly affected by in-work poverty in Germany; whereas older workers are more likely to face precarious economic conditions in the UK.

Keywords: working poor, poverty, Germany, UK, deregulation, centralisation, family policy

1. Introduction

In-work poverty has become an important issue across post-industrial countries and is widely viewed as a by-product of processes of globalisation and changing social- and labour market policies (Lohmann and Andress 2008, Brady *et al.* 2010, Fraser *et al.* 2011). In this paper, we argue that such policies have been

implemented both in Germany and the UK, but affect different socio-economic groups in both countries.

We focus on Germany and the UK, as these countries are at the centre of interest in recent comparative policy research (Clasen 2005, Seeleib-Kaiser and Fleckenstein 2007). This research identified similarities in the strategies of both countries for adapting to macro-economic challenges, but also found remaining institutional core differences (Clasen *et al.* 2011). Consequently, the development of social and labour market policies in Germany and the UK is often discussed as *partial policy convergence* (Mohr 2008, Roder 2003). However, most of the relevant comparative literature focuses on policy *analysis*, not on (individual level) policy *outcomes*. The present study therefore seeks to contribute to the literature by linking institutional patterns in Germany and the UK with micro-level outcomes; in this case, with in-work poverty.

We argue that centralised bargaining arrangements and strict employment protection legislation in Germany give both core workers and older employees protective rights and thereby channel the effects of labour market deregulation to the periphery of the labour market. By contrast, a context with open employment relationships, as in the UK, is assumed to shift impacts of liberalisation to individuals with low human capital resources. In addition, we assume that the more dominant male breadwinner orientation of family policy in Germany causes increased economic dependency of women, resulting in a more precarious situation for single-female households.

Respective hypotheses on country-specific differences in the determinants of in-work poverty are tested on the basis of the German Socio-Economic Panel Study (SOEP) and the British Household Panel Study (BHPS).

2. Labour market policy frameworks in Germany and the UK

This section provides an overview of the institutional labour market contexts in Germany and the UK. The two labour markets are classified principally on the basis of macro indicators from large-scale comparative projects. We focus on the degrees of *decommodification* and *regulation*, *strictness of employment protection*, *bargaining centralisation*, and *family policy orientation*. Therefore, this study refers to measures that are treated as relevant in the aforementioned policy discourse and established as key macro variables for explaining economic micro-level outcomes (Brady *et al.* 2010, Lohmann 2009, Baranowska and Gebel 2010). Table 1 compares Germany and the UK based on these measures. In all dimensions, Germany and the UK are compared with reference to the distribution

within the group of EU-15 countries. Reported are standardised continuous scores. As rule of thumb, we regard cross-country differences of more than one standard deviation as substantial.

[Table 1 about here]

Decommodification

The average net replacement rate during unemployment (OECD 2010) is used as indicator for the degree of decommodification (Lohmann 2009). This measure refers to the overall generosity of the welfare state with regard to unemployment benefits. Both Germany (0.3) and the UK (0.1) perform close to the EU average in this dimension. Thus, the degree of decommodification is moderate in both countries when compared to the other EU-15 countries. This assessment is supported by a modernised version of Esping-Andersen's (1990) decommodification index for unemployment, which is provided by Scruggs (2005), based on policy measures from 2002.

The similarity of indicators for the UK and Germany contradicts an established view on the respective benefit systems: traditionally, the German system of unemployment insurance grants unlimited earnings-related benefits and is focused on status preservation. The UK benefit system, in contrast, reflects a liberal workfare paradigm and is based on means-tested allowances that are designed to provide a minimum standard of living (Clasen 2005). Obviously, the standardised indicators provided above reflect recent changes in the unemployment benefit system in Germany.

While the *Hartz IV reform* of 2005 is usually characterised as a paradigmatic shift from the conservative German welfare state towards a more liberal model (Palier and Thelen 2010, Mohr 2008), earlier reform measures (like the 2001 *Job-Aktiv legislation*) had already started to erode the principle of status maintenance and employed many measures focused on a means-tested provision of welfare. Accordingly, the similarity of standardised indicators is in line with policy analyses that find a convergence in unemployment benefit policies in Germany and the UK (Mohr 2008, Seeleib-Kaiser and Fleckenstein 2007). In conclusion, we can cautiously assume that the level of decommodification is no longer a core difference in the institutional setting between Germany and the UK.¹

¹ Specific in-work benefits are not included in the indicator. However, both countries provide minimum-income benefits up to similar levels and apply comparable eligibility criteria (Immervoll 2009) – a finding that is consistent with the assessment that levels of decommodification are similar.

Labour market regulation

The *strictness of regulation of temporary employment* (OECD 2009) is used to describe the degree of regulation. This indicator refers to the maximum number of successive fixed-term and temporary work contracts, the maximum cumulated duration of such contracts and other restrictions on atypical employment (OECD 2004). Taken together, its items reflect a wide range of measures typically associated with politically administered labour market deregulation.

While the figures in Table 1 still exhibit a lower level of labour market regulation in the UK (-1.6) than in Germany (-0.8), the two countries are separated by less than one standard deviation. These similar levels of indicators are in line with findings of recent processes of asymmetric labour policy convergence (Seeleib-Kaiser and Fleckenstein 2007, Clasen *et al.* 2011): several policy measures implemented between 1997 and 2005 loosened restrictions on atypical employment in Germany. Like previously in the UK, instruments were implemented to encourage greater flexibility in marginal employment, temporary and agency work and subsidised self-employment (Palier and Thelen 2010). Thus, regarding available indicators and findings from policy analysis, the degree of regulation is no longer a core difference in the institutional configurations of Germany and the UK.

Minimum-wage settlements, as another relevant dimension of labour market regulation, are not regarded in the OECD-measure. Nevertheless, country-specific differences in minimum wage policies exist: while there is a national minimum (hourly) wage in the UK, no mandatory legislative regulations are in place in Germany (Clasen 2005). However, due to collective agreements, a variety of industry specific wage standards do exist in Germany, covering approximately 60 per cent of employees (Visser 2004). An indicator on minimum wages provided by the World Bank (2013) covers legislative regulations as well as collective agreements. This indicator outlines similar levels of minimum wages (measured as ratio to the value of GDP added per worker in 2008) in Germany (0.2) and the UK (0.3, see standardised scores in Table 1) and consequently is in line with our general assessment in this policy area.

Employment protection legislation

To measure differences in the system of employment protection legislation (EPL), this study refers to regulations governing the dismissal of employees on regular contracts (OECD 2009). This indicator reflects several aspects of labour market legislation, including the strictness of settlements regarding notification procedures, the length of notice periods, severance pay arrangements, the

generosity of definitions of justified dismissals and the length of trial periods (OECD 2004).

Of all of the institutional dimensions discussed in this paper, employment protection legislation is the one in which Germany and the UK differ most widely; while Germany performs at the upper bound of the standard deviation around the mean of EU-15 countries (0.8), the UK is found at the lower end of the distribution (-1.6). This difference reflects major disparities in the definition of notice periods, specifically for employees with a high level of seniority (Ebbinghaus and Eichhorst 2009). Another core difference in the two countries' employment protection laws lies in their definition of "justified" dismissals, which are substantially more generous to employers in the UK than in Germany (OECD 2004). In conclusion, the majority of workers in Germany are better protected from job loss, status decrease and shifts into atypical types of employment via ELP than workers in the UK.

Configuration of the bargaining system

The *degree of centralisation* is used as indicator of the configuration of the bargaining system (Lohmann 2009). This concept is strongly related to the authority held by the trade unions, the competitive situation between trade unions and the options for concentrated and coordinated action (Visser 2004). The indicator is taken from the ICTWSS Database (Visser 2009).

Germany and the UK exhibit considerable differences in the configuration of their bargaining systems. While the degree of centralisation in Germany (0.4) ranks above the EU-15 average, the UK (-1.1) is located at the lower end of the standard interval around the mean. This indicator reveals that in Germany the trade unions are organised on a sectoral basis and are highly concentrated, whereas in the UK bargaining authorities are company-based and fragmented (Visser 2004). It also mirrors differences in other key features of the collective bargaining system: although union density is similar in both countries (approximately 30 per cent, OECD 2004), the degree of inclusion, which measures the share of employees whose working conditions are negotiated by unions, is much higher in Germany (61 per cent) than it is in the UK (36 per cent, Visser 2004). Thus, available indicators reveal that employee interests regarding labour conditions and labour outcomes are subject to a higher level of coordination through the collective bargaining system in Germany than in the UK.

Family policy

For the assessment of country-specific family policies, this paper adopts the typology of Korpi (2000). This classification reflects the traditional view on the

countries' family policy orientation: the UK employs a market model, while Germany provides extensive family support. The male breadwinner model traditionally prevalent in both countries (Lewis and Ostner 1994) therefore results from different policies (Hank *et al.* 2004, Daly 2011).

However, Germany and the UK have progressed towards a dual-earner support policy model in the last decade by promoting an expansion of the public child-care infrastructure (Jüttner *et al.* 2011, Daly 2011). Still, Germany and the UK have undergone neither paradigmatic changes nor a convergence in family policies, as indicated most significantly by the configuration of the transfer systems (Warth 2011). Relevant measures in this regard are *a)* the separate taxation system in the UK (which favours dual-earner couples, as incomes of a second earner are taxed at a low level), *b)* dependent insurance regulations in Germany, where married partners of employed persons are automatically covered by their health insurance, and *c)* fixed child allowances and comparatively generous parental leave arrangements in Germany (Daly 2011). Thus, country-specific disparities in family policies have remained, and still reveal a core difference in the institutional settings of Germany and the UK.

Several newer OECD-measures on the degree of defamilisation support this assessment: the average effective tax rate of a second full-time earner on the household level in 2008 is at 50 per cent in Germany and only at 40 per cent in the UK, if the spouse is employed full-time (OECD 2012). Additionally, public expenditure on childcare and also formal care enrolment is significantly greater in the UK than in Germany (OECD 2012), indicating that family and work is more reconcilable in the UK. However, recent comparative studies suggest that childcare provision in the UK is less stable, less reliable and stronger based on user fees than in Germany (Evers *et al.* 2005, Zagel 2013). Therefore, we handle the aspect of childcare provision with caution when developing hypotheses.

To summarise the above findings on institutional disparities: major differences persist between Germany and the UK in the openness of employment relationships, as reflected in indicators on ELP and bargaining centralisation. In the institutional aspects of decommodification and regulation, the classic regime boundaries are blurred. Significant differences in family policy still exist: With some exceptions, Germany still displays many of the attributes of a conservative welfare state, while in the UK, market-oriented family policies are dominant. In a next step, the regime clusters identified at the macro level are employed to develop hypotheses on differences in country-specific determinants of working poverty at the individual level.

3. Policy frameworks and their impact on country-specific micro determinants of in-work poverty

The previous section has portrayed both Germany and the UK as countries in which modest degrees of decommodification implicitly define relatively weak criteria for acceptable working conditions. Therefore, both countries offer considerable incentives for active labour market participation, even on the basis of low paid or atypical employment. Additionally, both regimes also *directly* support these employment types by providing a variety of options to employers in arranging employment relationships besides regular contracts. Since atypical jobs are highly associated with poverty (van Lancker 2011; Goerne 2011), in-work-poverty risks consequently are produced in both countries.

This section deals with the question of how these in-work poverty risks are channelled to certain socio-economic groups. We expect institutional differences in general employment protection (EPL) and bargaining centralisation to play a major role in this matter. Strong EPL and centralised bargaining are established as key features of regimes with *closed employment relationships* (Regini 2000). Accordingly, Germany is often classified as having a labour market with closed employment relationships, while the UK—with weak EPL and a decentralised bargaining structure—is regarded as a prototype of a context with *open employment relationships* (Mills and Blossfeld 2003). According to Sørensen (1983), regimes with closed employment relationships tend to associate insiders' position on the labour market with a barrier and extract them from the competitive market. Hence, Germany's centralised bargaining structure and strong EPL are predicted to protect specifically the core-workers from the forces of commodification and deregulation (Mills and Blossfeld 2003).

While the impact of EPL in this matter is evident, the implications of centralised bargaining require a more detailed explanation. In economic theory, centralised bargaining is considered a key factor in determining the influence (or, rather, *success*) of unions (Blau and Kahn 1996). Unions, at the same time, have established as insiders' interest organisations (Lindbeck and Snower 1986). Accordingly, the degree of centralisation largely defines the ability of unions to protect insiders from the impact of welfare-state retrenchment and labour-market deregulation. A similar perspective regards a high aggregation level of bargaining as an effective means to coordinate the collective interests of core-workers: according to Weber (1956), the extent to which an economic or social group accumulates protection from competitive market forces depends on the groups' ability to organise its collective interests. In this light, a collective (centralised) representation of core-workers' interests accentuates disparities in the distribution of protection between core-workers and persons in (transitory) positions at the periphery of the labour market.

Therefore, in line with the aforementioned references discussing Germany as a prototype of a regime with closed employment relationships, we conclude that insiders' positions on the labour market in Germany appear to be shielded from competitive market forces. Consequently, the impacts of commodification and deregulation are shifted to the outsiders on the periphery of the German labour market. In the UK—due to the country's highly decentralised bargaining system and marginal employment protection—institutionalised protection for core-workers is absent. Therefore, *entrants to the labour market from the educational system (H1) and re-entrants from unemployment (H2) are exposed to a higher relative poverty risk in Germany than in the UK.*

A further consequence of centralised and highly coordinated bargaining is the comparatively low degree of variation in wages, which is attributable to trade union bargaining aimed at compressing the distribution of labour incomes (Blau and Kahn 1996). Therefore, *skills* (which largely determine the earning potential on the labour market, see Becker 1993) shall have a greater impact on individual economic risks in a decentralised bargaining context as the UK. Additionally, human capital resources can be assumed to be crucial in the UK as employment relationships are open and market mechanisms are not restricted by EPL (DiPrete *et al.* 1997). Thus, *employees with a low level of education are assumed to face a greater relative in-work poverty risk in the UK than in Germany (H3).*

In addition to wage compression, wage distributions bearing the mark of centralised bargaining are also characterised by strong references to age and seniority (Oswald 1985). Thus, the higher the degree of centralisation, the more senior positions will be protected. Thus, older employees in Germany are shielded from market forces—not only through specific employment protections but also through above-average wages, as stipulated in collective agreements. As a result, *older employees in the UK are expected to face a greater relative in-work poverty risk than their German counterparts (H4).*

Finally, the overview of institutional measures in the previous section has revealed a stronger family policy focus on the male breadwinner model in Germany: Germany provides explicit incentives for female partners not to work full-time in the labour market. By contrast, many policies in the UK explicitly encourage labour market participation of both partners. As long as partners form an economic unit, this has no impact on country-specific gender disparities in (working) poverty. However, if new households are formed after events like separation or divorce, economic dependence becomes relevant with regard to the poverty risk (Vandecasteele 2009): in Germany, women's week labour market attachment during marriage will rarely allow for her to secure the previously achieved economic standard after a separation. Consequently, *the gender specific difference in the working poverty risk is assumed to be greater in Germany than in the UK (H5).*

The current body of literature does provide tentative evidence confirming several of the hypotheses formulated above. Lohmann and Marx (2008) demonstrate—in a descriptive cross-country comparison based on ECHP data from 2001—that workers under the age of 30 and employed women in Germany are disproportionately affected by poverty compared to those in other countries. In the UK, by contrast, the workers who appear to be most affected by in-work poverty are those older than 50. This is confirmed by a multivariate analysis of Goerne (2011), showing that the relative risk of older workers in the UK is higher compared with other European countries. So far, however, there has been no systematic test of the differences in determinants of in-work poverty risks between Germany and the UK. This study aims to fill this gap by examining the hypotheses regarding cross-country differences within a multivariate framework. The following section outlines the methodological approach in detail.

4. Methodology

Sample

Our empirical analyses are based on data from the SOEP (Wagner *et al.* 2007) and the BHPS (Taylor *et al.* 2010). In order to maximise comparability, we use waves 2003 to 2006 for Germany and waves 2002 to 2005 for the UK. This restriction was necessary due to data limitations: Only these years provide similarly measured variables on job status *and* comparable job history data for both countries. Cross-sectional weights are applied in all of our analyses to correct the under- or over-representation of socio-demographic groups. The population is comprised of the labour force in private households in Germany and the UK. Individuals are considered to be employed when they are between the ages of 17 and 64 and work a minimum of one hour per week (for robustness checks with stricter definitions see Fn. 4). However, civil service and military personnel, as well as students, apprentices, retired persons, and registered unemployed persons are excluded. The sample contains 74,156 observations, of which 58,397 (34,791 from Germany and 23,606 from the UK) are available for the multivariate analysis. These observations are distributed among 20,669 respondents (12,320 in Germany and 8,349 in the UK) who were interviewed multiple times.

Concepts & Operationalisation

Poverty is measured on the basis of the recent monthly household income.² We use the modified OECD equivalence scale to regard differences in households' sizes and demand. Persons are identified as poor when they live in a household whose equivalence-scaled income amounts to less than 60 per cent of the country- and year-specific median (OECD 2004).

According to the hypotheses postulated above, transitions into employment constitute the most important independent factors in the present analysis. *Re-entrants* to the labour market are currently in a stage of their employment history that was preceded by unemployment. These persons are considered as re-entrants for up to two years after their transition back into the labour market. Individuals are defined as *entrants* to the labour market if they started working in their first job within the three years prior to the date of the survey. Periods of vocational training are, at least in Germany, not regarded as part of the entrance phase.

Occupational history is measured as calendar data in the SOEP and in spell format in the BHPS. For the purposes of data processing and distribution, however, the relevant information is extracted from the original datasets and provided to data users in the form of event-history data (on a monthly basis). Entrance and re-entrance, as defined above, are operationalised on the basis of these event-history datasets. *Education* is measured on the basis of the internationally comparable, ordinaly scaled CASMIN Classification. CASMIN levels are combined into three categories: "high" (Casmin 6-9), "mean" (Casmin 4-5) and "low" (Casmin 1-3). Persons over the age of 55 are classified as *older workers*.

Control variables

While this study focuses on individual-level variables, we acknowledge that correlated household characteristics are important determinants of in-work poverty, too (Brady *et al.* 2010, Gleicher and Stevans 2005). Thus, two dichotomous household-level variables are integrated in the multivariate analysis as controls: the first indicator measures whether children (under age 16) are living in the household, while the second differentiates between single-earner and multiple-earner households. Additionally, the horizontal (*sectors*) and vertical segregation (*job status*) of the labour market is controlled for at the individual level.

2 An overview of all covariates, original variables, operationalisation and frequencies is provided in the appendix (Table A6).

Atypical types of employment are identified as relevant determinants of in-work poverty (van Lancker 2011) and constitute an important channel of deregulation, as discussed in the theoretical part. Therefore, we integrate measures on type of employment (standard, fixed-term, agency work, part-time and self-employment) in an additional model.

Analytical strategy

Country-specific poverty rates for groups of employed people are outlined in the descriptive analysis. A formal, statistical validation of the hypotheses and a control of the effects of possible confounders and mediators are undertaken within a logistic regression framework. The differences between Germany and the UK in the poverty risks of specific groups are specified through the integration of interaction variables. A robust variance estimation for cluster-correlated data is used to account for statistical problem associated with repeated measurements on the individual level (Wooldridge 2002). Several robustness-checks with alternative specifications and estimations are performed (see Fn. 4). The substantive size of coefficients is illustrated by plots on predicted risk ratios (RR).³

5. Results

Table 2 shows group-specific working poverty rates in Germany and the UK. In addition, group-related deviations from country-specific overall rates are displayed (for an overview on confidence intervals, see Table A1 in the appendix).

[Table 2 about here]

Particularly noteworthy is the finding that, in the UK, the share of working poor in entry-level positions is only marginally larger than the poverty rate among all employed, while in Germany the poverty risk among entry-level workers is more than one-third above the average rate. Additionally, in Germany the poverty rate among re-entrants is more than two times the rate for all employed persons while in the UK the risk levels for both groups differ by about 70 per cent.

3 The calculation of coefficients and test statistics was carried out using Stata™ statistical software (Statacorp 2011).

Table 2 also provides evidence on the disproportionality in the country-specific poverty risks of older workers. In the UK, the poverty rate for this group exceeds the country-specific overall rate by about 50% per cent, whereas in Germany, the risk of poverty among older workers is approximately two per cent *lower* than that of all employed persons. In addition, Table 2 shows that disparities based on differences between educational degrees are more pronounced in Germany than in the UK: In Germany, the in-work poverty risk of a person with a higher education degree is almost 70 per cent below the average, whereas in the UK, the gap in the in-work poverty rate between all workers and those with higher education degrees is only 33 per cent. Furthermore, the relative difference in poverty risk between employed men and women in Germany (58 per cent) is substantially larger than in the UK (8 per cent).

Table 3 presents the results of a series of logistic regression analyses. Model 1 reports the country-specific in-work poverty risks associated with this study's key characteristics. Reported are coefficients on the logged odds of having a household income beneath the poverty threshold. Males under age 55 with a lower education degree who have not recently (re-)entered the labour market constitute the model's reference category. These individuals face a significantly higher risk of poverty in the UK than in Germany.

[Table 3 about here]

In line with H1 and H2, the positive signs of both country-specific interaction terms in Section B point to a significantly larger poverty gap between (re-)entrants and other employees in Germany than in the UK. Country-specific differences in the effects of socio-demographic predictors (Section C) are also confirmed by the regression analysis: the coefficient referring to older workers in the UK carries a positive sign, whereas the coefficient of the country-interaction variable shows a significant negative effect and overlaps the main coefficient, which is consistent to H4. Women bear a greater in-work poverty risk than men in both countries. However, in the UK, the differences between female and male employees are *not* significant. In addition, in line with H5, the gender-specific disparities in the risk are significantly greater in Germany.

In line with expectations, we find that having a higher level of education reduces the risk of in-work poverty in both countries (Section D). However, the significant negative country-specific interactions indicate that the effect of education in preventing poverty risks is stronger in Germany than in the UK—which contradicts H3.

Model 2 reveals that all of the effects addressed are robust if household composition and occupational structure are controlled for.⁴ In order to illustrate the substantive size of (net) country-specific interactions, we computed risk ratios (RR) with confidence intervals based on coefficients and standard errors of interactions in Model 2. Covariates are held constant at their means. Thus, Figure 1 shows relative, country-specific differences in the poverty-risk of *entrants*, *re-entrants* and *older employees* to that of a *core-worker*, controlling for household composition, education, gender and occupational status.⁵

[Figure 1 about here]

Holding covariates constant, an entrant's and a re-entrant's poverty risks are predicted to be about two times as high than a core-worker's risk in Germany. In the UK, the entrant's risk is predicted to be only about 20 per cent higher than the core worker's. For re-entrants, the risk-ratio to core-workers is also substantively smaller in the UK (45 per cent). Older employees are predicted to be only slightly more affected by poverty than core-workers in Germany, while older employees in the UK are predicted to have a 65 per cent higher poverty-risk than the reference group of insiders in the UK.

In the theoretical part, we argued that impacts of deregulation are shifted to the periphery of the labour market in Germany and consequently produce disproportional in-work poverty risks for outsiders. As key feature of deregulation, policies promoting atypical jobs have been discussed. Similarly, family policy in the UK has been introduced as more supportive in favor of female standard employment. Consistent with these explanations, country-specific interactions of entrants, re-entrants and women substantially erode and are nonsignificant, if type of employment is controlled for in Model 3. Obviously, atypical types of employment are one relevant channel mediating higher in-work poverty risks of outsiders and women in Germany.

4 Fully reported models with coefficients of controls are outlined in Table A2. Furthermore, we confirmed the robustness of results if more conservative definitions of being employed are used (Table A3). Additionally, Table A4 shows that results are robust if alternative specifications to account for dependent error structures (*random effects*, *time dummies*) are used, while Table A5 outlines a likelihood-ratio test (based on a probit regression) which doesn't reject the assumption of homoskedastic errors (all in appendix).

5 Additionally, we provide similar graphs with predicted risk-ratios across different educational groups (Figure A1) and for men and women (Figure A2) in the appendix.

6. Summary and Discussion

Our study adds to a body of literature that studies the (partial) convergence of labour and social policies in the UK and Germany (Clasen 2005, Seeleib-Kaiser and Fleckenstein 2007, Clasen et al. 2011, Mohr 2008), as it suggests that this process goes along with a precarisation of entry-level positions in Germany and of older employees in the UK.

More specifically, the empirical analysis reveals that, in Germany, both entrants (H1) and re-entrants (H2) face a relatively greater risk of in-work poverty than those in the UK. Additionally, as underlying mechanism, a stronger concentration of atypical employment at entry-level positions in Germany is identified. These empirical findings are consistent with our explanatory model, which (a) introduces atypical employment as important channel of in-work poverty; (b) discusses atypical employment as a consequence of deregulation and commodification; and (c) finally assumes that a context with closed employment relationships, as Germany, tends to shift the impacts of such policies to the periphery of the labour market. Consequently, this study suggests that the higher in-work poverty risk of outsiders in Germany is a result of a remaining institutional core difference between the countries: in Germany, *closed employment relationships* (produced by a system of generous employment protection paired with centralised bargaining) make entrants and re-entrants specifically vulnerable to processes of deregulation and activation. In the UK, by contrast, similar activating policies in the more open employment system are associated with increased poverty risks for older employees (H4).

We also addressed country differences in gender disparities. As predicted by H5, the analysis reveals that women are less affected by in-work poverty in the UK than in Germany. Additionally, it reveals a stronger concentration of German women in non-standard types of employment as one relevant underlying mechanism. These findings are in line with our explanatory model, which assumes that a weaker male breadwinner notation in the transfer system stronger supports standard employment and economic independency of women in the UK. However, our empirical findings leave room for alternative (or, rather, additional) explanations: as Daly (2011) finds, activating policies directed at single mothers are strongly focused on—often precarious—atypical employment in Germany. This mechanism might lead to a bigger shift from non-work poverty to working poverty of single mothers in Germany than in the UK, resulting in the observed country-specific gender disparities in working poverty. This interpretation is supported by empirical results from Zagel (2013), who finds that single mothers working part-time is more common in Germany, while periods of inactivity are more prevalent among single mothers in the UK.

The hypothesis regarding the country-specific effect of education (H3) is not verified in the multivariate analysis: Contrary to our expectations, higher levels of education were found to protect individuals from in-work poverty to a greater extent in Germany than in the UK. Country-specific differences in the configuration of educational systems may explain this result: the educational system in the UK is characterised by a low degree of stratification and standardisation (Müller and Gangl 2003). Thus, the signalling role of educational certificates in UK may be weaker than in Germany.

A final issue is the extent to which the study's findings can be generalised. Hypotheses developed based on our theoretical assumptions were mainly confirmed, yet the question of the general (or rather, *external*) validity of the theory remains open. A multi-country comparison would provide evidence of the macro/micro-interactions investigated here, and could be a means of explicitly verifying the underlying theoretical assumptions of this study.

References

- Baranowska, A. and Gebel, M. (2010) 'The Determinants of Youth Temporary Employment in the Enlarged Europe', *European Societies* 12(3):367–90.
- Becker, G. S. (1993) *Human capital. A theoretical and empirical analysis, with special reference to education*, Chicago: University Press.
- Blau, F. D. and Kahn, L. M. (1996) 'International Differences in Male Wage Inequality: Institutions versus Market Forces', *Journal of Political Economy* 104:791–837.
- Brady, D., Fullerton, A.S. and Cross, J. M. (2010) 'More Than Just Nickels and Dimes: A Cross-National Analysis of Working Poverty in Affluent Democracies', *Social Problems* 57:559–85.
- Clasen, J. (2005) *Reforming European Welfare States. Germany and the United Kingdom compared*, Oxford: University Press.
- Clasen, J., Mau, S., Meyer, T. and Seeleib-Kaiser, M. (2011) 'Conclusion: Parallel Paths, Great Similarities, Remaining Differences', in J. Clasen (ed.), *Converging worlds of welfare? British and German social policy in the 21st century*, Oxford: University Press, pp. 282–297.
- Daly, M. (2011) 'Family Policy - Striving for Sustainability', in J. Clasen (ed.), *Converging worlds of welfare? British and German social policy in the 21st century*, Oxford: University Press, pp. 75–98.
- DiPrete, T. A., Graaf, P. M., Luijkx, R., Tählin, M. and Blossfeld, H.-P. (1997) 'Collectivist versus Individualist Mobility Regimes? Structural Change and Job Mobility in Four Countries', *The American journal of sociology* 103:318–58.
- Ebbinghaus, B. and Eichhorst, W. (2009) 'Germany', in P. de Beer and T. Schils (eds), *The Labour Market Triangle. Employment Protection, Unemployment Compensation and Activation in Europe*, Cheltenham: Edward Elgar, pp. 119–44.
- Esping-Andersen, G. (1990) *The three worlds of welfare capitalism*, Princeton: University Press.
- Evers, A., Lewis, J., Riedel, B. (2005) Developing child-care provision in England and Germany: problems of governance. *Journal of European Social Policy* 15:195–209.
- Fraser, N., Gutiérrez, R. and Peña-Casas, R. (eds) (2011) *Working Poverty in Europe. A Comparative Approach*, New York: Palgrave.
- Gleicher, D. and Stevans, L. K. (2005) 'A Comprehensive Profile of the Working Poor', *Labour* 19: 517–29.
- Goerne, A. (2011) 'A Comparative Analysis of In-Work Poverty in the European Union', in N. Fraser, R. Gutiérrez and R. Peña-Casas (eds.), *Working poverty in Europe. A comparative approach*, New York: Palgrave, pp. 15–45.
- Hank, K., Kreyenfeld, M. and Spieß, C. K. (2004) 'Child Care and Fertility in Germany', *Zeitschrift für Soziologie* 33:228–44.
- Immervoll, H. (2009) 'Minimum Income Benefits in OECD Countries', *Discussion Paper Series* 4627, Bonn: IZA.
- Jüttner, A. K., Leitner, S. and Rüling, A. (2011) 'Increasing Returns: The New Economy of Family Policy in Britain and Germany', in J. Clasen (ed.), *Converging worlds of welfare? British and German social policy in the 21st century*, Oxford: University Press.
- Korpi, W. (2000) 'Faces of inequality: Gender, Class, and Patterns of Inequalities in Different Types of Welfare States', *Social Politics* 7:127–91.

- Lewis, J. and Ostner, I. (1994) 'Gender and the Evolution of European Social Policies', *ZeS-Arbeitspapier* 4, Bremen.
- Lindbeck, A. and Snower, D. J. (1986) *Union Activity and Economic Resilience*, London: Centre for Economic Policy Research.
- Lohmann, H. (2009) 'Welfare States, Labour Market Institutions and the Working Poor: A Comparative Analysis of 20 European Countries', *European Sociological Review* 25:489–504.
- Lohmann, H. and Andreß, H. J. (2008) 'Explaining In-Work Poverty Within and across Countries', in H. J. Andreß and H. Lohmann (eds), *The Working Poor in Europe. Employment, Poverty and Globalization*, Cheltenham: Edward Elgar, pp. 293–314.
- Lohmann, H. and Marx, I. (2008) 'The Different Faces of In-Work Poverty Across Welfare State Regimes', in H. J. Andreß and H. Lohmann (eds.), *The Working Poor in Europe. Employment, Poverty and Globalization*, Cheltenham: Edward Elgar, pp. 17–46.
- Mills, M. and Blossfeld, H.-P. (2003) 'Globalization, Uncertainty and Changes in Early Life Courses', *Zeitschrift für Erziehungswissenschaft* 6:189–218.
- Mohr, K. (2008) 'Creeping Convergence – Wandel der Arbeitsmarktpolitik in Großbritannien und Deutschland', *Zeitschrift für Sozialreform* 54:187–207.
- Müller, W. and Gangl, M. (eds) (2003) *Transitions from Education to Work in Europe. The integration of Youth into EU Labour Markets*, Oxford: University Press.
- OECD (2004) *Employment Outlook 2004*, Paris: OECD.
- OECD (2009) Employment protection annual time series data 1985-2008, <http://www.oecd.org/dataoecd/62/38/42773608.xls>
- OECD (2010) Benefit & Wages Replacement Rates, http://www.oecd.org/document/3/0,3343,en_2649_34637_39617987_1_1_1_1,00.html#statistics; <http://www.oecd.org/dataoecd/16/42/39720461.xls>
- OECD (2012) Family database, www.oecd.org/social/family/database
- Oswald, A. J. (1985) 'The Economic Theory of Trade Unions', *Scandinavian Journal of Economics* 87:160–93.
- Palier, B. and Thelen, K. (2010) 'Institutionalizing Dualism: Complementarities and Change in France and Germany', *Politics and Society* 38:119–48.
- Regini, M. (2000) 'Between Deregulation and Social Pacts: The Responses of European Economies to Globalization', *Politics & Society* 28:5–33.
- Roder, K. (2003) *Social democracy and labour market policy. Developments in Britain and Germany*, London: Routledge.
- Scruggs, L. (2005) *Welfare State Entitlements Data Set: A Comparative Institutional Analysis of Eighteen Welfare States, Version 1.1*, <http://sp.uconn.edu/~scruggs/welproj.htm>
- Seeleib-Kaiser, M. and Fleckenstein, T. (2007) 'Discourse, Learning and Welfare State Change: The case of German labour market reforms', *Social Policy and Administration* 41:427–48.
- Sörensen, A. B. (1983) 'Process of Allocation to Open and Closed Positions in Social Structure', *Zeitschrift für Soziologie*, 12:203–224.
- StataCorp. (2011) *Stata Statistical Software: Release 12*. College Station, TX: StataCorp LP.
- Taylor, M. F., Brice j., Buck N. and Prentice-Lane E. (2010) *British Household Panel Survey User Manual Volume A*. Colchester: University of Essex.
- van Lancker, W. (2011) 'The European World of Temporary Employment', *European Societies* 14:83–111.

-
- Vandecasteele, L. (2009) 'Poverty Trajectories after Risky Life Course Events in Different European Welfare Regimes', *European Societies* 12: 257–78.
- Visser, J. (2004) 'Patterns and Variations in European Industrial Relations', in European Commission (ed.), *Industrial Relations in Europe*, Luxembourg, pp. 11–57.
- Visser, J. (2009) *Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts (ICTWSS), an international database, Version2*.
<http://www.uva-aiaa.net/208>
- Wagner, G., Frick, J.R. and Schupp, J (2007) 'The German Socio-Economic Panel Study (SOEP) – Scope, Evolution and Enhancements', *Schmollers Jahrbuch* 127: 139-169.
- Warth, L. (2011) 'Family-friendly Working Time Policy in Germany and the United Kingdom', in J. Clasen (ed.), *Converging worlds of welfare? British and German social policy in the 21st century*, Oxford: University Press.
- Weber, M. (1956) *Wirtschaft und Gesellschaft. Grundriss der Verstehenden Soziologie*, Tübingen: J.C.B. Mohr.
- Wooldridge, J. M. (2002) *Econometric Analysis of Cross Section and Panel Data*, Cambridge: MIT Press.
- World Bank (2013) *Minimum Wage Data, 2006-2013*, Washington, D.C.
- Zagel, H. (2013) 'Are All Single Mothers the Same? Evidence from British and West German Women's Employment Trajectories', *European Sociological Review* (forthcoming), DOI:10.1093/esr/jct021

Tables and Figures

Table 1. Institutional configuration in Germany vs. UK (relative positions within the EU-15, z-scores)

	Germany	UK	Diff.	Source
Decommodification				
Average net replacement rate (2005)	0.3	0.1	0.2	OECD 2010
Decommodification index for unemp. (2002)	-0.3	-0.7	0.4	Scruggs 2005
Labour market regulation				
Regulation on temporary contracts (2005)	-0.8	-1.6	0.8	OECD 2009
Minimum wages (ratio to GDP per worker, 2008)	-0.1	0.6	0.7	The World Bank 2013
Employment protection legislation				
Strictness of EPL (2005)	0.8	-1.6	2.4	OECD 2009
Configuration of bargaining system				
Degree of centralisation (2005)	0.4	-1.1	1.5	Visser 2009
Family policy orientation				
Dual earner & family support (1985-1995)	General family support	Market-oriented model		Korpi 2000

Table 2. Country specific in-work poverty statistics (2003–2006, in per cent, in parentheses: group deviations from the overall mean)

	GER (03-06)	UK (02-05)
All employees	4.8 (ref.)	6.6 (ref.)
Position on the labour market		
Entrant	6.8 (+42%)	6.7 (+2%)
Re-entrant	10.8 (+125%)	11.3 (+71%)
Socio-demographics		
Female	5.9 (+23%)	6.9 (+5%)
Male	4.0 (-16%)	6.4 (-3%)
Older employee (55+)	4.7 (-2%)	10.0 (+52%)
Younger employee (<55)	4.9 (+2%)	6.1 (-8%)
Education		
Low (CASMIN 1-3)	8.3 (+82%)	11.1 (+68%)
Medium (CASMIN 4-5)	3.9 (-20%)	7.5 (+14%)
High (CASMIN 6-9)	2.0 (-69%)	4.4 (-33%)

Source: SOEP / BHPS 2002-2006, weighted calculations, n=58,397 (for confidence intervals see Table A1 in the appendix)

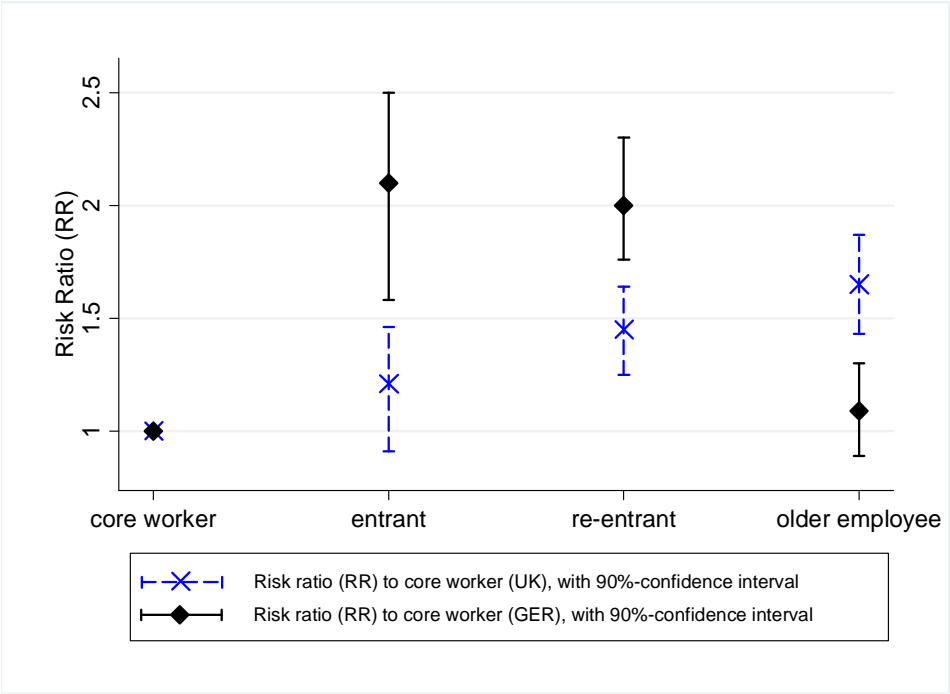
Table 3. Logistic regression: country-specific determinants of in-work poverty, 2002–2006, logged odds (cluster-robust standard errors)

	Model 1	Model 2	Model 3
A. Main country effects			
UK	Reference	Reference	Reference
Germany	-0.49*** (0.15)	-0.63*** (0.15)	-0.12 (0.17)
B. Position on the labour market			
Other employees	Reference	Reference	Reference
Entrant	0.13 (0.18)	0.24 (0.20)	0.39* (0.20)
Re-entrant	0.61*** (0.14)	0.46*** (0.14)	0.49*** (0.14)
Germany-specific effects			
Entrant * Germany	0.61** (0.28)	0.62** (0.31)	0.46 (0.33)
Re-entrant * Germany	0.40** (0.18)	0.35* (0.19)	0.24 (0.20)
C. Socio-Demographics			
Female	0.10 (0.09)	0.12 (0.11)	0.02 (0.12)
Older employee	0.40*** (0.13)	0.64*** (0.15)	0.49*** (0.16)
Germany-specific effects			
Female * Germany	0.38*** (0.15)	0.29** (0.15)	0.24 (0.16)
Older employee * Germany	-0.46** (0.22)	-0.53** (0.23)	-0.50** (0.23)
D. Education			
Low (Casmin 1-3)	Reference	Reference	Reference
Medium (Casmin 4-5)	-0.37*** (0.12)	-0.17 (0.12)	-0.16 (0.12)
High (Casmin 6-9)	-0.94*** (0.11)	-0.44*** (0.12)	-0.45*** (0.12)
Germany-specific effects			
Medium (Casmin 4-5) * Germany	-0.52*** (0.17)	-0.45*** (0.18)	-0.44** (0.18)
High (Casmin 6-9) * Germany	-0.60*** (0.19)	-0.44** (0.21)	-0.51** (0.21)
Controls			
E. Type of Household		X	X
F. Industry (NACE)		X	X
G. Job Status (ISEI)		X	X
H. Type of Employment (Standard/Atypical)			X
Constant	-2.28*** (0.10)	-2.03*** (0.24)	-2.35*** (0.25)
Model fit: Pseudo R²	0.06	0.16	0.18

*p<0.10, **p<0.05, ***p<0.01, Cluster-robust standard errors in parentheses

Source: SOEP / BHPS 2002-2006, weighted calculations, n=58.397

Figure 1. In-work poverty risk ratios (RR) to core workers, by country. Predictions based on Model 2 for persons with average realisations in covariates (SOEP/BHPS 2002-2006)



Appendix: Additional Tables and Figures

Table A1. Country-specific in-work poverty statistics (see Table 2), with 90%-confidence intervals (in brackets)

	GER (03-06)	UK (02-05)
All employees	4.8 (4.6-5.0)	6.6 (6.3-6.9)
Position on the labour market		
Entrant	6.8 (5.9-7.7)	6.7 (5.4-7.9)
Re-entrant	10.8 (9.7-11.8)	11.3 (9.9-12.9)
Socio-demographics		
Female	5.9 (5.6-6.2)	6.9 (6.5-7.3)
Male	4.0 (3.7-4.2)	6.4 (6.0-6.7)
Older employee (55+)	4.7 (4.2-5.3)	10.0 (8.9-10.9)
Younger employee (<55)	4.9 (4.7-5.1)	6.1 (5.9-6.4)
Education		
Low (CASMIN 1-3)	8.3 (7.8-8.7)	11.1 (10.3-11.8)
Medium (CASMIN 4-5)	3.9 (3.6-4.2)	7.5 (6.9-8.1)
High (CASMIN 6-9)	2.0 (1.8-2.2)	4.4 (4.1-4.7)

Source: SOEP/BHPS 2002-2006, weighted calculations, n=58,397

Table A2: country-specific determinants of in-work poverty, 2002–2006, logged odds (cluster-robust standard errors), **fully reported models to Table 3**

	Model 1	Model 2	Model 3
A. Main country effects			
UK	Reference	Reference	Reference
Germany	-0.49*** (0.15)	-0.63*** (0.15)	-0.12 (0.17)
B. Position on the labour market			
Other employees	Reference	Reference	Reference
Entrant	0.13 (0.18)	0.24 (0.20)	0.39* (0.20)
Re-entrant	0.61*** (0.14)	0.46*** (0.14)	0.49*** (0.14)
Germany-specific effects			
Entrant * Germany	0.61** (0.28)	0.62** (0.31)	0.46 (0.33)
Re-entrant * Germany	0.40** (0.18)	0.35* (0.19)	0.24 (0.20)
C. Socio-Demographics			
Female	0.10 (0.09)	0.12 (0.11)	0.02 (0.12)
Older employee	0.40*** (0.13)	0.64*** (0.15)	0.49*** (0.16)
Germany-specific effects			
Female * Germany	0.38*** (0.15)	0.29** (0.15)	0.24 (0.16)
Older employee * Germany	-0.46** (0.22)	-0.53** (0.23)	-0.50** (0.23)
D. Education			
Low (Casmin 1-3)	Reference	Reference	Reference
Medium (Casmin 4-5)	-0.37*** (0.12)	-0.17 (0.12)	-0.16 (0.12)
High (Casmin 6-9)	-0.94*** (0.11)	-0.44*** (0.12)	-0.45*** (0.12)
Germany-specific effects			
Medium (Casmin 4-5) * Germany	-0.52*** (0.17)	-0.45*** (0.18)	-0.44** (0.18)
High (Casmin 6-9) * Germany	-0.60*** (0.19)	-0.44** (0.21)	-0.51** (0.21)
Controls			
E. Household			
Single earner		1.45*** (0.11)	1.53*** (0.12)
Lives with children		0.87*** (0.12)	0.77*** (0.12)
F. Industry			
Other services		Reference	Reference
Unknown		0.52** (0.26)	0.50* (0.28)
Agriculture, forest, fishing & hunting		0.72** (0.32)	0.54 (0.34)
Mining		0.21 (0.61)	0.41 (0.63)
Manufacturing		-0.47* (0.26)	-0.29 (0.27)
Real estate & rental activities		-1.59*** (0.33)	-1.43*** (0.33)
Commodities		-0.50** (0.23)	-0.40** (0.24)
Construction		0.00 (0.23)	-0.02 (0.24)
Wholesale & retail trade		0.29 (0.18)	0.25 (0.18)
Transportation & utilities		0.07 (0.26)	0.01 (0.26)

Finance	-0.51	(0.36)	-0.59	(0.37)
Professional business services	0.34*	(0.19)	0.23	(0.19)
Public administration	-0.21	(0.33)	-0.10	(0.32)

G. Status

ISEI score	-0.04***	(0.001)	-0.04***	(0.001)
------------	----------	---------	----------	---------

H. Type of employment

Standard full-time employment	Reference			
Fixed-Term employment	0.12	(0.21)		
Agency work	0.30*	(0.17)		
Part-time employment (<20 hrs./w)	0.77***	(0.18)		
Self-employment	0.88***	(0.13)		

Constant	-2.28***	(0.10)	-2.03***	(0.24)	-2.35***	(0.25)
----------	----------	--------	----------	--------	----------	--------

Model fit: Pseudo R²	0.06	0.16	0.18
--	-------------	-------------	-------------

*p<0.10, **p<0.05, ***p<0.01, Cluster-robust standard errors in parentheses

Source: SOEP / BHPS 2002-2006, weighted calculations, n=58.397

Table A3. Logistic regression: country-specific determinants of in-work poverty, with alternative definitions of being employed

	Original Model 2 (Threshold 1h/w)	Model A1 (Threshold 10 h/w)	Model A2 (Threshold 15 h/w)
A. Main country effects			
UK	Reference	Reference	Reference
Germany	-0.63*** (0.15)	-0.63*** (0.15)	-0.62*** (0.15)
B. Position on the labour market			
Other employees	Reference	Reference	Reference
Entrant	0.24 (0.20)	0.23 (0.21)	0.23 (0.21)
Re-entrant	0.46*** (0.14)	0.43*** (0.15)	0.39** (0.15)
Germany-specific effects			
Entrant * Germany	0.62** (0.19)	0.65** (0.31)	0.68** (0.32)
Re-entrant * Germany	0.35* (0.31)	0.42** (0.20)	0.45** (0.20)
C. Socio-Demographics			
Female	0.12 (0.11)	0.06 (0.12)	0.03 (0.12)
Older employee	0.64*** (0.15)	0.68*** (0.16)	0.70*** (0.16)
Germany-specific effects			
Female * Germany	0.29** (0.15)	0.33** (0.16)	0.35** (0.16)
Older employee * Germany	-0.53** (0.23)	-0.58** (0.24)	-0.62** (0.25)
D. Education			
Low (Casmin 1-3)	Reference	Reference	Reference
Medium (Casmin 4-5)	-0.17 (0.12)	-0.19 (0.13)	-0.18 (0.13)
High (Casmin 6-9)	-0.44*** (0.12)	-0.43*** (0.12)	-0.49*** (0.21)
Germany-specific effects			
Medium (Casmin 4-5) * Germany	-0.45*** (0.18)	-0.41** (0.18)	-0.42** (0.13)
High (Casmin 6-9) * Germany	-0.44** (0.21)	-0.45** (0.21)	-0.49** (0.21)
Controls			
E. Household			
Single earner	1.45*** (0.11)	1.43*** (0.12)	1.44*** (0.12)
Lives with children	0.87*** (0.12)	0.89*** (0.12)	0.91*** (0.12)
F. Industry			
Other services	Reference	Reference	Reference
Unknown	0.52** (0.26)	0.55** (0.27)	0.56** (0.27)
Agriculture, forest, fishing & hunting	0.72** (0.32)	0.74** (0.32)	0.74** (0.32)
Mining	0.21 (0.61)	0.22 (0.61)	0.21 (0.61)
Manufacturing	-0.47* (0.26)	-0.45* (0.27)	-0.49* (0.27)
Real estate & rental activities	-1.59*** (0.33)	-1.58*** (0.33)	-1.58*** (0.33)
Commodities	-0.50** (0.23)	-0.50** (0.24)	-0.50** (0.24)
Construction	0.00 (0.23)	0.01 (0.24)	-0.03 (0.24)
Wholesale & retail trade	0.29 (0.18)	0.28 (0.18)	0.28 (0.19)

Transportation & utilities	0.07	(0.26)	0.09	(0.26)	0.09	(0.26)
Finance	-0.51	(0.36)	-0.52	(0.36)	-0.49	(0.37)
Professional business services	0.34*	(0.19)	0.24	(0.19)	0.18	(0.19)
Public administration	-0.21	(0.33)	-0.21	(0.33)	-0.21	(0.33)

G. Status

ISEI score	-0.04***	(0.001)	-0.04***	(0.001)	-0.04***	(0.001)
Constant	-2.03***	(0.24)	-2.11***	(0.24)	-2.12***	(0.25)
Model fit: Pseudo R ²	0.16		0.16		0.16	
n	58,397		57,260		55,939	

*p<0.10, **p<0.05, ***p<0.01, Cluster-robust standard errors in parentheses

Source: SOEP / BHPS 2002-2006, weighted calculations, sample restricted according to reported number of working hours per week.

Table A4. Logistic regression: country-specific determinants of in-work poverty, with alternative estimation procedures

	Original Model 2 (Pooled logit, cluster robust errors)	Model A3 (Random effects)	Model A4 (Pooled logit, time dummies, cluster robust errors)
A. Main country effects			
UK	Reference	Reference	Reference
Germany	-0.63*** (0.15)	-0.91*** (0.12)	-0.64*** (0.15)
B. Position on the labour market			
Other employees	Reference	Reference	Reference
Entrant	0.24 (0.20)	0.32 (0.24)	0.24 (0.20)
Re-entrant	0.46*** (0.14)	0.73*** (0.17)	0.46*** (0.14)
Germany-specific effects			
Entrant * Germany	0.62** (0.31)	0.88*** (0.24)	0.62** (0.31)
Re-entrant * Germany	0.35* (0.19)	0.39** (0.17)	0.36* (0.19)
C. Socio-Demographics			
Female	0.12 (0.11)	0.20* (0.11)	0.12 (0.11)
Older employee	0.64*** (0.15)	0.87*** (0.14)	0.65*** (0.15)
Germany-specific effects			
Female * Germany	0.29** (0.15)	0.34*** (0.11)	0.29* (0.15)
Older employee * Germany	-0.53** (0.23)	-0.86*** (0.14)	-0.54** (0.23)
D. Education			
Low (Casmin 1-3)	Reference	Reference	Reference
Medium (Casmin 4-5)	-0.17 (0.12)	-0.37** (0.15)	-0.17 (0.12)
High (Casmin 6-9)	-0.44*** (0.12)	-0.85*** (0.13)	-0.44*** (0.12)
Germany-specific effects			
Medium (Casmin 4-5) * Germany	-0.45*** (0.18)	-0.64*** (0.15)	-0.45*** (0.18)
High (Casmin 6-9) * Germany	-0.44** (0.21)	-0.70*** (0.13)	-0.44** (0.21)
Controls			
E. Household			
Single earner	1.45*** (0.11)	2.11*** (0.00)	1.45*** (0.11)
Lives with children	0.87*** (0.12)	1.35*** (0.00)	0.87*** (0.12)
F. Industry			
Other services	Reference	Reference	Reference
Unknown	0.52** (0.26)	0.42*** (0.00)	0.52** (0.26)
Agriculture, forest, fishing & hunting	0.72** (0.32)	1.04*** (0.01)	0.71** (0.32)
Mining	0.21 (0.61)	-0.29*** (0.01)	0.21 (0.61)
Manufacturing	-0.47* (0.26)	-1.06*** (0.00)	-0.47* (0.27)
Real estate & rental activities	-1.59*** (0.33)	-1.99*** (0.01)	-1.59*** (0.33)
Commodities	-0.50** (0.23)	-0.89*** (0.00)	-0.50** (0.23)
Construction	0.00 (0.23)	-0.07*** (0.00)	0.00 (0.23)

Wholesale & retail trade	0.29	(0.18)	0.28***	(0.00)	0,30*	(0.18)
Transportation & utilities	0.07	(0.26)	-0.12***	(0.00)	0.07	(0.26)
Finance	-0.51	(0.36)	-0.89***	(0.01)	-0.51	(0.36)
Professional business services	0.34*	(0.19)	0.15***	(0.00)	0.35*	(0.19)
Public administration	-0.21	(0.33)	-0.66***	(0.00)	-0.21	(0.33)

G. Status

ISEI score	-0.04***	(0.001)	-0,06***	(0,00)	-0.04***	(0.001)
------------	----------	---------	----------	--------	----------	---------

H. Year

2002					-0,04	(0,11)
2003					0,09	(0,11)
2004					0,03	(0,11)
2005					-0,15	(0,11)
2006					Reference	

Model fit: Pseudo R ²	0.16				0.16
n	58,397		58,397		58,397

*p<0.10, **p<0.05, ***p<0.01, Standard errors in parentheses
Source: SOEP / BHPS 2002-2006, weighted calculations, n=58.397

Table A5. Probit regression, likelihood-ratio test of heteroskedasticity (see Cameron and Trivedi 2005)

	Model A5 (probit model, cluster robust errors)		Model A6 (heteroskedastic probit model, cluster robust errors)	
A. Main country effects				
UK	Reference		Reference	
Germany	-0.31***	(0.07)	-0.29**	(0.14)
B. Position on the labour market				
Other employees	Reference		Reference	
Entrant	0.13	(0.10)	0.11	(0.24)
Re-entrant	0.24***	(0.07)	0.11	(0.17)
Germany-specific effects				
Entrant * Germany	0.27**	(0.15)	0.29**	(0.17)
Re-entrant * Germany	0,18*	(0.10)	0,17	(0.12)
C. Socio-Demographics				
Female	0.06	(0.05)	0.34**	(0.15)
Older employee	0.35***	(0.08)	0.19	(0.22)
Germany-specific effects				
Female * Germany	0.13*	(0.07)	0.18*	(0.09)
Older employee * Germany	-0.29***	(0.11)	-0.37***	(0.14)
D. Education				
Low (Casmin 1-3)	Reference		Reference	
Medium (Casmin 4-5)	-0.10	(0.06)	-0.09	(0.15)
High (Casmin 6-9)	-0.23***	(0.06)	-0.67**	(0.30)
Germany-specific effects				
Medium (Casmin 4-5) * Germany	-0.21**	(0.09)	-0.21*	(0.11)
High (Casmin 6-9) * Germany	-0.16*	(0.10)	-0.31*	(0.19)
Controls				
E. Household				
Single earner	0.68***	(0.05)	0.70***	(0.08)
Lives with children	0.42***	(0.05)	0.41***	(0.07)
F. Industry				
Other services	Reference		Reference	
Unknown	0.27**	(0.13)	0.29**	(0.14)
Agriculture, forest, fishing & hunting	0.36**	(0.16)	0.43***	(0.16)
Mining	0.07	(0.31)	0.12	(0.33)
Manufacturing	-0.24**	(0.12)	-0.21*	(0.13)
Real estate & rental activities	-0.67***	(0.14)	-0.67***	(0.16)
Commodities	-0.26**	(0.11)	-0.27**	(0.11)

Construction	-0.03	(0.11)	0.01	(0.12)
Wholesale & retail trade	0.13	(0.09)	0.14*	(0.09)
Transportation & utilities	0.04	(0.13)	0.05	(0.13)
Finance	-0.20	(0.15)	-0.19	(0.16)
Professional business services	0.17*	(0.09)	0.16*	(0.10)
Public administration	-0.11	(0.14)	-0.09	(0.15)

G. Status

ISEI score	-0.02***	(0.00)	-0.02***	(0.00)
------------	----------	--------	----------	--------

In_sigma (differences)

Germany			0.05	(0.09)
Entrant			0.01	(0.16)
Re-entrant			0.11	(0.12)
Female			-0.20*	(0.11)
Older employee			0.01	(0.12)
Casmin_2			0.28*	(0.15)
Casmin_3			0.12	(0.15)
n	58,397		58,397	

Wald test for heteroskedasticity:

H₀: Insigma2=0 (*differences in coefficients not systematic, error terms are not heteroskedastic*)

chi2(6) = 9.72 (p = 0.2), can't reject H₀

*p<0.10, **p<0.05, ***p<0.01, Standard errors in parentheses

Source: SOEP / BHPS 2002-2006, weighted calculations, n=58.397

Figure A1. In-work poverty risk ratios (RR) to low-educated, by country. Predictions based on Model 2 for persons with average realisations in covariates (SOEP/BHPS 2002-2006)

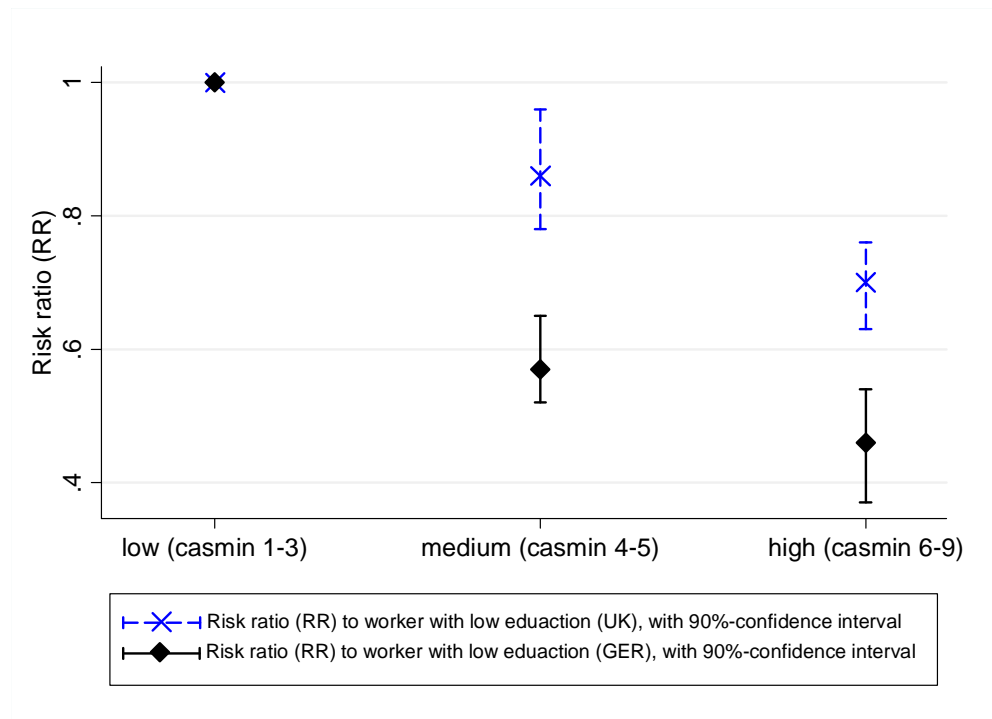


Figure A2. In-work poverty risk ratios (RR) to men, by country. Predictions based on Model 2 for persons with average realisations in covariates (SOEP/BHPS 2002-2006)

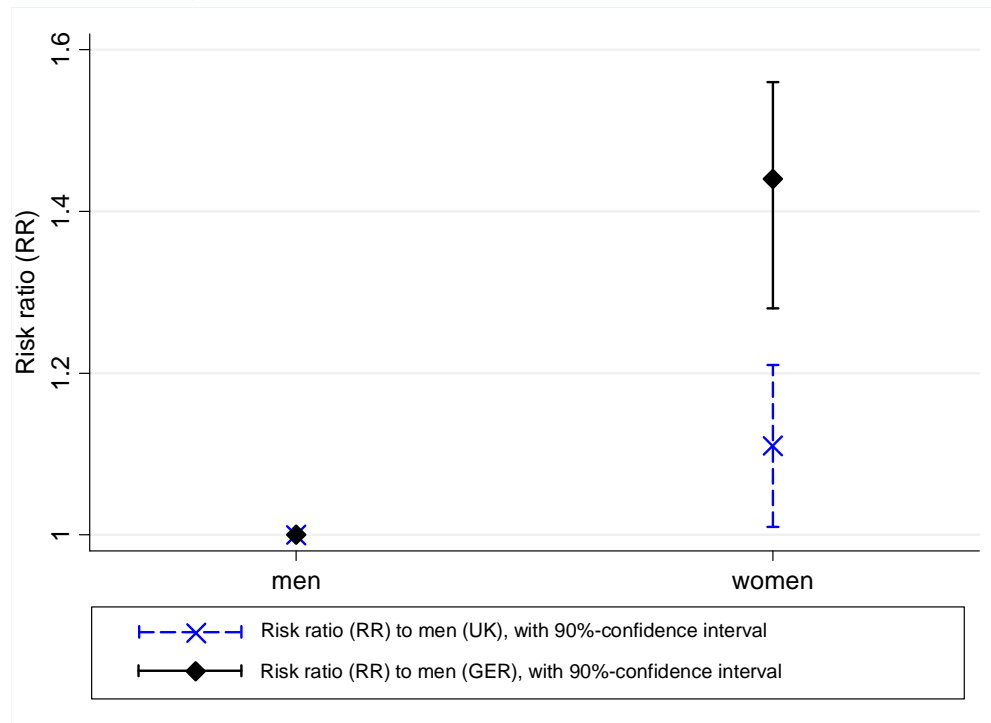


Table A6. Micro-level covariates, operationalisation and frequencies in the sample

Characteristics	Original Variables	Values	Frequencies (%)	
			UK	GER ^b
Poverty/ Income	\$hinc, d11106\$, h11101\$ (SOEP); \$hhneti, eq_moecd (BHPS) ^a	"does not apply"	6.8	3.7
		"does apply"	93.2	96.3
Entrants	\$pmonin, spelltyp, begin, end, wp0601*, wp0602*, wp0604* (SOEP); empstat, seftpt, spdate, spend, epdate, epend, epfirst, eplast, epcens, spcens (BHPS) ^b	"does not apply"	95.6	94.2
		"does apply"	4.4	5.8
Re-Entrants	\$pmonin, spelltyp, begin, end, (SOEP); empstat, seftpt, spdate, spend, epdate, epend, epfirst, eplast, epcens, spcens, \$doim, \$doi4, \$jbstat (BHPS) ^b	"does not apply"	95.3	92.7
		"does apply"	4.7	7.3
Sex	sex (SOEP); \$hgsex (BHPS)	"male"	50.8	52.5
		"female"	49.2	47.5
Older Employee	d11101\$ (SOEP); \$age (BHPS) ^c	„does not apply“	87.6	87.8
		„does apply“	12.4	12.3
Single Earner	partnr\$, wp02*, wp04*, wp07, wp0601*, wp0602*, wp0604*, \$hhnr (SOEP); \$jbstat; \$jbhas, \$hgspn, \$hid (BHPS)	„does not apply“	70.3	54.3
		„does apply“	29.7	45.8
Lives with Children	wh60*, \$hhgr (SOEP); \$nkids, \$hhsize (BHPS)	„does not apply“	59.6	63.1
		„does apply“	40.5	36.9
Education	casmin\$ (SOEP); \$casmin (BHPS) ^d	Low (Casmin 1-3)	22.6	32.7
		Medium (Casmin 4-5)	23.8	33.9
		High (Casmin 6-9)	53.7	33.5
Fixed-Term Employment	wp34* (SOEP); \$jbterm1, \$jbterm2 (BHPS)	„does not apply“	93.2	97.7
		„does apply“	6.8	2.3
Agency Work	wp33*(SOEP); \$jbterm1, \$jbterm2 (BHPS)	„does not apply“	97.3	99.3
		„does apply“	2.7	0.7
Part-Time Employment	\$vebzeit (SOEP); \$jbhrs (BHPS)	„does not apply“	90.1	86.9
		„does apply“	9.9	13.1
Self-Employment	wp3602*, wp07* (SOEP); \$jbstat (BHPS)	„does not apply“	92.8	88.9
		„does apply“	7.2	11.1
Industrial Sector	nace\$ (SOEP); \$jsic92 (BHPS) ^e	"Agriculture"	1.6	1.1
		"Mining"	1.0	1.1
		"Manufacturing"	6.8	8.6
		"Real estate & rental activities"	3.2	4.9
		"Commodities"	5.4	5.8
		"Construction"	6.8	4.8

		"Wholesale & retail trade"	13.6	11.7
		"Transportation"	6.2	4.6
		"Finance"	4.2	4.0
		"Professional business services"	11.6	8.1
		"Other Services"	31.9	23.2
		"Public administration"	7.7	7.2
		Unknown	0.1	15.1
Job Status (ISEI)	Isei\$ (SOEP); \$jbisco (BHPS) ^f	Mean/SD (UK)	Mean/SD (GER)	
		45.1 (16.3)	46.1 (16.6)	
Weight	\$xewtuk1; \$phrf ^g			

Source: SOEP / BHPS 2002-2006, weighted calculations, n=58.397

* If variables have different names across years, the name of wave 2006 is reported

^a In the SOEP, income information is collected directly from respondents and refers to the income in the month before the survey interview. We do not use the original figures on the overall household income from the SOEP, but a revised version correcting for inconsistencies (Frick *et al.* 2011). For the UK, we make use of the supplementary BHPS data on income provided by Levy and Jenkins (2008).

^b Occupational history is measured as calendar data (SOEP) and in spell format (BHPS). For the purposes of data processing and distribution, however, the relevant information is extracted from the original datasets and provided to users in the form of event-history data (on a monthly basis) for both countries (Halpin 1997, Giesselmann *et al.* 2013).

^c See Keese (2006)

^d See Brynin (2003) for an overview on the Casmin scale and its conceptualisation. See SOEP Group (2013) and Taylor *et al.* (2010) for the operationalisation of the Casmin variables in the SOEP and BHPS, and see OECD (2012) as reference for our definition of low education.

^e Industries are classified into 12 sectors according to EU standards (United Nations 2008), on the basis of NACE-variables available in both datasets (SOEP Group 2013, Taylor *et al.* 2010).

^f For the operationalisation of job status, we use the ISEI measure (Ganzeboom/Treiman 1996), which refers to the International Standard Classification of Occupations *ISCO-88*. In both the SOEP, the ISEI-measure is provided as generated variable (SOEP Group 2013), for the BHPS, we use the key provided by Ganzeboom/Treiman (1996) to manually generate ISEI-scores.

^g For the construction of weights, see Pischner (2007) and Taylor *et al.* (2010).

References

- Brynin, M. (2003) 'Using CASMIN: The Effect of Education on Wages in Britain and Germany' in Hoffmeyer-Zlotnik, J.H.P. and Wolf C., *Advances in cross-national comparison. A European working book for demographic and socio-economic variables*, New York, NY: Kluwer
- Cameron, A. C. and Trivedi, P. K. (2005). *Microeconometrics. Methods and Applications*. Cambridge: Univ. Press.
- Frick, J. R., Goebel, J. and Krause, P. (2011) 'Documentation HGEN. Household-related status variables and generated variables', DIW Berlin: Berlin.
- Ganzeboom, H. B. and Treiman, D. J. (1996) 'Internationally comparable measures of occupational status for the 1988 International Standard Classification of Occupations', *Social Science Research* 25 (3): 201–39.
- Giesselmann, M., Lohmann, H., and Staneva, M. (2013) 'Activity Biography in the Files PBIOSPE and ARTKALEN', in SOEP Group (ed.), *SOEP 2012 - Documentation on Biography and Life History Data for SOEP v29*, SOEP Survey Papers 176, Berlin: DIW Berlin, pp. 29-36.
- Halpin, B. (1997) 'Unified BHPS work-life histories: combining multiple sources into a user-friendly format', *Technical Paper* 13, Colchester: ESRC.
- Keese, M. (2006) *Live longer, work longer*, Paris: OECD.
- Levy, H. and Jenkins, S. P. (2008) 'Documentation for Derived Current and Annual Net Household Income Variables', BHPS waves 1-16, Colchester.
- OECD (2012) *OECD Economic Outlook: Statistics and Projections*. Paris: OECD.

- Pischner, R. (2007) *Die Querschnittsgewichtung und die Hochrechnungsfaktoren des Sozio-oekonomischen Panels (SOEP) ab Release 2007 (Welle w)*, DIW Berlin: Berlin.
- SOEP Group (eds) (2013) *SOEP 2012: Documentation of Person-related Status and Generated Variables in PGEN for SOEP v29*. SOEP Survey Papers 149. Berlin: DIW Berlin.
- Taylor, M. F., Brice, J., Buck, N. and Prentice-Lane, E. (2010) *British Household Panel Survey User Manual Volume A: Introduction, Technical Report and Appendice.*, Colchester: ESRC.