Occupational mobility and cumulative inequality along the life course: Long-term trends on the German labour market

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Abstract

This paper describes patterns of intra-generational occupational mobility in Germany and their long-term trends. It also discusses conceptual links between individual mobility and the development of inequality along the life course. To what extent are employment careers characterized by cumulative advantage and disadvantage? Furthermore, how is this related to inter-generational social mobility? The paper also discusses how mobility patterns are linked with specific institutions. The central hypothesis is that institutional configurations as well as labour market conditions are crucial determinants of the accumulation of advantage in individual careers and thus have an impact on the development of inequality within a cohort. In its empirical part, the paper presents evidence from cohort-specific analyses based on life-course data from a broad range of birth cohorts.

1. Introduction

Questions of social mobility are central to sociological research. Social mobility is defined as the movement of individuals (or social units) among social positions within a society, which form a structure of social inequality. Hence, social mobility can be regarded to be an indicator of the individual- or group-level persistence of social advantage and disadvantage. An underlying assumption is that the permanence or transience of attachment to certain social positions and the rates and patterns of movement are likely to affect also characteristics like identity and interests. In this sense, social mobility is seen as a mediating process between social structure and individual action. In addition to changes in individual life conditions, social mobility may also have important implications for social integration. At least from a liberal perspective, mobility helps to stabilize the social order. It may legitimate prevailing inequalities of social class and status, especially if it can be related to meritocratic principles. It may also reduce class identification and the potential for collective action of a class-based kind. In the face of promises of (upward) mobility, attempts of collective action tend to be abandoned in favour of individual solutions (Blau & Duncan 1967; Erikson & Goldthorpe 1992).

Along with such more theoretical considerations, there has been a large strand of primarily descriptive research which has been interested in the actual levels and patterns of mobility. Studies of this kind have looked primarily at *inter-generational* mobility, i.e. social mobility between various generations and (normally) within families. In most cases, this has meant that socio-economic positions of parents and their children have been compared. Due to the temporal distance between generations, inter-generational mobility is necessarily associated with a historical perspective. It has been analyzed with regard to historical trends as well as in the form of international comparisons (e.g., Featherman & Hauser 1978; Erikson & Goldthorpe 1992; Breen 2004).

Another aspect, which is also pursued in this paper, is *intra-generational* social mobility, i.e. social mobility within individual life courses, particularly in the form of occupational mobility. The paper starts with a discussion of conceptual links between mobility and both the development of inequality along the life course and the transmission of social status across generations (section 2). Connections with questions of cumulative (dis-)advantage are of special interest. The paper also discusses theoretical links with specific institutions and

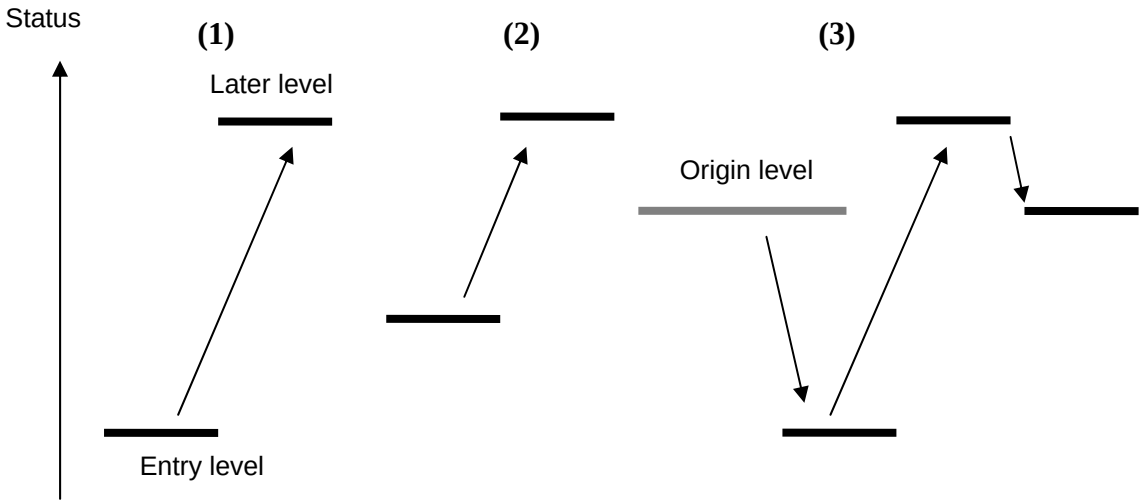
historical circumstances (section 3). The central hypothesis is that specific institutional configurations as well as labour market conditions affect mobility patterns as well as the degree of accumulation of advantage and disadvantage in individual careers and hence the development of inequality within a cohort. In its empirical part, the paper presents evidence from cohort-specific analyses based on German life-course data (introduced in section 4). These analyses look at age-related developments within a cohort and at individual-level stability of positions and upward and downward mobility.

2. Conceptual considerations

2.1 Inter-generational and intra-generational social mobility

In general, upward and downward mobility can be regarded as indicators of social advantage and disadvantage, but when comparing particular cases, higher levels of upward mobility do not necessarily reflect higher levels of social advantage. Figure 1 provides an illustration, whereby different status levels are compared across the life course. (In these illustrations, "status" is a metric variable representing advantage, but it is not yet further specified.) Compare the two example cases (1) and (2). Along his or her career, person (1) moves further upward than person (2), but ends up on the same level, as the entry levels of the two persons were different. In spite of greater mobility, one would probably not regard life course (1) to reflect the more advantageous situation. This indicates that results like „decreasing mobility chances across cohorts" do not necessarily reflect worse conditions for younger cohorts. It may also mean rather the opposite, as for most of their careers, these persons have been in comparatively higher positions. In any case, the results of mobility analyses need to be interpreted in close association with analyses of absolute status levels. Another possibility to take absolute levels into account is to use *cumulative* measures of social advantage, e.g. life-time income, which combine measurements at various points in time.

Figure 1: Relation between entry level and mobility chances



When combining analyses of intra-generational mobility with those of inter-generational mobility, status levels are compared not only within a career but also between an individual's career and his or her social origin – i.e., in most cases, the parental status level. Depending on when status is measured, one may find downward, upward or no inter-generational mobility while observing always the same life course (example 3). This means that the timing of measurement may be decisive for the degree of inter-generational stability and mobility. (For reasons of simplicity, in this illustration the origin level is regarded as fixed, but in reality, it may of course also vary over time).

There are also some theoretical links between inter-generational and intra-generational mobility. Following the normative idea of securing family status it is likely, for example, that children who have not (yet) attained their parents' status will have a particular intention of moving upward in order to reach (at least) this status level. Such a movement may be called „counter-mobility", i.e. the "work-life movement which has the effect of returning an individual back to his class of origin, following some initial shift away on his entry into employment, and which thus serves to promote intergenerational stability" (Goldthorpe et al. 1987: 54). As especially persons from higher-class background are rather unlikely to enter immediately in a position which is equal to their origin level, inter-generational stability depends to a large extent on the existence of such processes.

2.2 Links between intra-generational mobility and cumulative (dis-)advantage

A specific concept which can be associated with both aspects of mobility and absolute levels is the idea of cumulative advantage and disadvantage. The cumulative advantage concept (also called the "Matthew Effect") describes the fact that small status differences at the beginning of a career tend to result in even greater differences later on. One reason is that initial small advantages can foster early success, providing an actor disproportionally with new resources and by these means generating growing advantages at later points in time. The basic concept derived from an analysis of careers in science (Merton 1968; 1988). Cumulative Advantage (CA) – or Cumulative Disadvantage – has proven to be a fruitful background concept describing time-dependent processes in different research fields like crime, poverty and human development (e.g., Dannefer 2003).

However, to be applicable in empirical analyses, the concept needs to be specified as it is rather heterogeneous (cf. DiPrete/Eirich 2006). In the following, three definitions and measurement concepts of cumulative (dis-)advantage along the life course are distinguished:

(1) Collective polarisation: This term means that intra-cohort differentiation of advantage and disadvantage – as measured by the (cross-sectional) status distribution at any given point in time – increases over time.

(2) Social closure: This definition implies that status changes become increasingly difficult over time as mobility decreases. In other words, the status order which represents advantage and disadvantage becomes increasingly consolidated.

(3) Individual accumulation: This perspective analyses to what extent intra-cohort differentiation as measured by the distribution of individually accumulated (longitudinal) status increases over time. Such differences can be compared in absolute terms, so that developments can be described as proportionate or disproportionate etc.

When comparing CA with the concept of intra-generational mobility, this means that intra-generational mobility can itself be regarded to be one dimension of CA (see concept 2) and that it directly influences the other two. Changes in the (cross-sectional) status distribution (cf. concept 1) necessarily entail some degree of (absolute) individual-level mobility, and mobility determines to what extent individual-level status accumulates over time (concept 3). It should also be noted that concept (2) only requires an ordinal level of measurement.

Again, these concepts can be linked to questions of inter-generational mobility. There is no necessary relationship between cumulative advantage and inter-generational social reproduction, but social origin tends to have a major effect already on the entry level at the beginning of individual careers; hence, when there is cumulative advantage resulting from positioning at labour-market entry, inter-generational stability will be perpetuated or even enforced. This applies especially when there is CA in the sense of increasing social closure (concept 2). An indicator of this perpetuation is that social origin remains an important predictor of an individual's position in the status distribution when comparing such distributions over time (cf. concept 1) or of the position in the cumulated status distribution (cf. concept 3)

Additional concepts can be related to questions of CA and mobility. For example, *state dependence* means that the present position is influenced not only by current conditions, but also by past conditions in a systematic way. In a specific sense, it means reduced mobility.

There are obviously very different terminologies and conceptual frameworks in which intra-generational change is studied. However, on the measurement level, most of the relevant questions can be studies in one of three basic perspectives on the dynamics of inequality within a cohort, each of them with specific analytical potential – and often connected with the other perspective in systematic ways.

Mobility analyses: These analyses look at the individual-level dynamics or stability of positions. Analyses of mobility normally are concerned with relative differences in the mobility of particular groups. Technically, mobility rates are compared or transition rate-models are estimated.

Changes in distributions: Distributions are compared at various points in time, normally using aggregate measures of dispersion and inequality (like the Gini coefficient). Such distributions may consist of both cross-sectional and cumulated measures. Patterns of mobility may determine whether inequality is reduced or enforced when moving from cross-sectional to cumulated measures.

Analyses of co-variation: Yet another aspect are associations between individual status positions at various points in time – or put differently, the predicability of later stages by earlier stages. Technically, such analyses make use of regression or path models. Note that a high level of predictability ("explanation of variance") can coincide with high levels of mobility, e.g., when there is collective upgrading or a proportional diversion of status positions.

3. Theoretical considerations

3.1 Macro-level differences in mobility patterns

Different theories support the assumption that cumulative advantages or disadvantages play a role in labour market careers and characterize a specific mobility regime in the labour market. This applies to both supply- and demand-side perspectives. Referring to Signalling Theory (Spence 1979) and Rosenbaum´s (1979) theory of tournament mobility it can be expected that when promotion decisions are made under uncertainty, previous upward mobility is taken as an indicator for ability and future success. Following Bourdieu (1983) it can be argued that the economic, social and cultural capital associated with higher positions provides the basis for further promotion by more information on vacancies, larger networks, greater familiarity with new situations and financial security protecting against the risks of job changes. From the perspective of human capital theory (Becker 1964) timing of investment in employees is important: the investment in younger persons (in situations of recruitment or promotion) is more promising given higher rates of return and larger possibilities for development. For example, Elman/O´Rand (2004) describe that income curves are flatter independent of work experience, if degrees are achieved later in life time; the rate of return for education is lower then – or in other words, room for mobility is limited. Cunha et al. (2005) and Cunha/Heckman (2007) further investigate questions on the optimal timing of educational investments.

Given such processes, it becomes obvious that not all forms of labour markets are equally susceptible for cumulative advantage. Major macro-level differences can be attributed to institutional differences and economic conditions.

Type of the labour market: Classifications of labour market institutions often refer to segmentation lines and distinguish qualificational labour markets from organizational labour markets (Maurice et al. 1982). In a qualificational labour market cumulative inequality of type (1) can hardly develop, because careers proceed in specific occupational fields with limited career ladders. Labour market coordination is especially structured by qualification in an occupation at the time of job entry and in promotion situations. Moreover, collective agreements in coordinated market economies (Hall/Soskice 2001) often lead to relatively compressed wages. Under such conditions, reduced status mobility will rather foster cumulative inequality of type (3). Employees achieving a high position at the beginning of their career will remain in high positions over the life-course. In contrast to this, in organizational labour markets persons experience more upward and downward mobility which reflect increasingly less differences in educational qualifications (Büchtemann et al. 1994). Qualification is achieved by training-on-the job in one firm, and job change occurs particularly within firms. The chances for persons with lower educational degree or with lower entry position to achieve a higher labour market position tend to be larger than in qualificational labour markets, so that qualification-specific inequalities may decrease over time. On the other hand, individual success regardless of formal qualifications may be rewarded more, and this would rather increase inequalities between persons with different entry positions.

Educational systems and their interplay with labour market institutions: The concept of cumulative inequality describes that small initial differences tend to grow along the life course. The main question for analyzing intergenerational social mobility in the life course is how these initial differences are generated. The educational level is a crucial factor in all labour markets, but the associations between education and position in the employment

system vary by educational systems and transition regimes (Hillmert 2001; 2002). Highly stratified educational systems with a strong connection between education and labour market (through qualificational coordination) strongly transport educational differences into the first labour market positions. Low stratified systems with weak connection of educational and employment system create smaller differences between labour market entrants. It can be assumed that these differences are more easily compensated by other factors. Moreover, educational systems vary in the degree of social selectivity. The more stratified an educational system is and the earlier selection processes occur, stronger are social background effects on educational outcome and the connection between education and first job (Allmendinger 1989; 1994; Müller/Shavit 1998). To sum up, the clearer hierarchies in education are and the stronger labour market positions reflect these differences, the more will the social background effects of education be perpetuated in the labour market system.

Given the relative stability of occupational careers, it can be expected that the indirect (education-related) effect of social background is rather constant in qualification-based labour markets. But also in organizational labour markets social background will be a source of creating initial differences: social capital of parents may increase information about job vacancies through networks; financial capital may be the basis for risky job change and allow for longer search-durations; cultural capital can provide advantages in situations of application and promotion. Moreover, such direct effects of social background may be relevant also at later stages of the career. Hence, it is an open question how direct and indirect effects develop together, leading to cumulative advantage and disadvantage.

Welfare regimes and gender-specific division of labour: Interruptions are crucial determinants of further careers. Frequency and type of such interruptions are highly connected with welfare-state regimes (Esping-Andersen 1990), especially when looking at gender differences. For example, duration and consequences of parental leave are dependent on the provision of childcare and which welfare institutions exist. The more the re-entry after parental leave is supported by welfare institutions and the less gender-specific labour division is prevalent the less differences and cumulative developments regarding mobility should be found between genders.

Economic and demographic conditions: Finally, attention has to be paid to economic and demographic conditions. Both have their strongest impacts in labour market segments which are open to market forces. This holds especially for access to apprenticeships in firms as ports of entry into skilled work and jobs on external labour markets. In times of increasing labour market problems both cumulative inequalities and social background effects are likely to increase due to intensified competition among workers. Both processes will result in increased total cumulative inequality. Another determinant is demography: A strong age group will also increase competition in the labour market (Easterlin 1980).

To sum up, institutional factors favouring cumulative disadvantage in various forms are: stratified educational/training systems which transfer social inequality to the labour market and lead to unequal starting positions; labour markets which rewards individual success; and labour markets which supports continuity in employment careers. In labour markets where coordination is predominantly structured by qualifications, a disproportionate development of (cumulative) inequalities is less likely, but inequalities may result from a permanent exclusion of outsiders. Competitive labour markets promote absolute cumulative advantages. Social origin effects may develop early in the educational system. The clearer hierarchies in education are and the stronger labour market positions reflect these differences, the more indirect social background effects are transferred from education to cumulative inequalities in

employment. Additional factors are interruptions in individual careers (highly connected with gender) and economic and demographic conditions.

3.2 The German case: Hypotheses

The following analyses concentrate on one case, the situation in Germany. There is, however, historical variation concerning institutional structures and labour market conditions during the 20th century. Germany can be regarded as an example of a qualificational labour market associated with a differentiated system of education and training. There has been evidence that the degree of social selectivity in the educational system is relatively high in Germany (Shavit/Blossfeld 1993; OECD 2004). The (West) German labour market has also been characterized by a high degree of division of labour between genders ("male breadwinner model") and a relatively high degree of gender segregation in employment; for most men, this has meant a high level of continuity in their employment careers (Kurz et al. 2006), at least after the period of integration into the labour market.

With regard to historical conditions, most notable are the turbulences caused by two world wars. After the immediate post-war period, there was a phase of prosperity on the labour market lasting for about two decades before unemployment became a growing problem since the 1970s. The supply side of the labour market was characterized by a marked educational expansion since the late 1950s.

Together with our theoretical considerations this leads to the following hypotheses:

* *Basic patterns of intra-general mobility:* In a qualificational labour market like in Germany, upper and lower positions are allocated early in a career, but labour-market entry may take place relatively late; after a period of settling in, the following careers are relatively stable. This means that there are only moderate changes in overall inequality at any given point in time. Stable career patterns lead to continuous (but not disproportionate) accumulation of advantage and disadvantage on the individual level. However, the specific individual situation remains decisive for mobility chances. In particular, when people have not yet attained an "adequate" status level, i.e. a status that is at least as high as their parents', such a situation tends to lead to processes of (counter-)mobility.

* *Links to inter-generational mobility:* Social origin is important for positioning in the labour market from the beginning of careers. Its effect mainly works through education. This indirect effect of social background is relatively stable across the career. Thus, inter-generational stability is perpetuated, carrying the permanent risk of social exclusion.

* *Historical changes:* Cohorts entering the labour market during or immediately after the wars will experience a higher level of mobility at the beginning of the careers. There is also a long-term trend towards higher levels of mobility due to increasing difficulties of finding (adequate) employment after completing education. In addition to that, particular cohorts may be influenced by specific conditions. For example, large birth cohorts will show relatively high levels of cumulative inequality due to increased competition.

4. Data and operationalisation

Our empirical analyses base upon the German Life History Study (GLHS), a series of retrospective cohort studies conducted in various years (1981/83; 1985/86; 1998/99); for more information in these studies see also Table 1 (including approximate references to important contemporary events) and Figure 2.

Table 1: The (West) German Life History Study: birth cohorts and corresponding historical periods

Birth cohort	Data collection in...	n(Men)	Transition to labor market during historical period...	Important historical events/trends
1919-21	1985-86	546	1930s/40s	World War II Immediate Post-war period Two German states 'Economic miracle' Educational expansion Oil crisis Mass unemployment German unification and beyond
1929-31	1981-83	333	1940/50s	
1939-41	1981-83	354	1950/60s	
1949-51	1981-83	344	1960/70s	
1954-56	1989	506	1970s	
1959-61	1989	456	1970/80s	
1964	1998-99	663	1980s	
1971	1998-99	595	1980/90s	

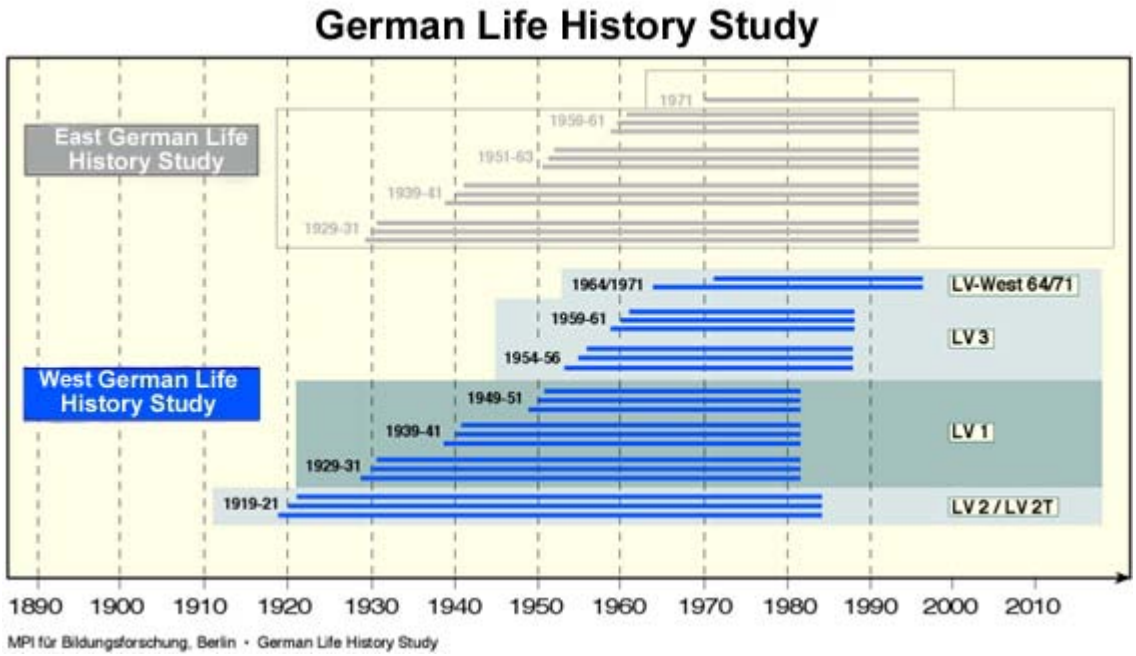
Using the GLHS as a dataset has specific advantages: It consists of a broad range of cohorts, so most of the 20th century is covered by the data. The cohort data have been harmonized and they are of high quality, not least with regard to the collected information on occupations (Brückner 1986; Brückner/Mayer 1995; Mayer/Brückner 1989; Hillmert et al. 2004).

However, our analyses do not use the full dataset of the GLHS. As employment in the German Democratic Republic was characterised by the conditions of a very different political and economic system, and consistent with our theoretical considerations, our analyses are limited to the life courses from West German data. Career interruptions due to unemployment and family work are treated as gaps; this means that cases that experience such a gap do not enter the cross-sectional analyses during this period. As such interruptions play a much greater in women's careers, our analyses are restricted to men. As this paper is concerned with describing overall distributions and with illustrating conceptual issues, the range of variables is limited.

Dependent variable: The main variable of interest is social status in the form of occupational status. It is represented by occupational prestige measured according to Treiman (SIOPS) (Treiman 1977), a measure which is available for all cohorts.

Independent variables: The main lines of differentiation are age and social origin. Social origin is measured as father's occupational status at respondent's age 15 (or according to a slightly different definition). For some of the analyses, social origin has been grouped into a dichotomous variable (above or below the median); this allows making use of the full sample size. Education (as a combination of both general schooling and vocational or academic training) was recoded into a metrical variable denoting the number of years that were normally necessary to attain the particular level of education.

Figure 2: Study design (observation windows) of the German Life History Study



Source: http://www.yale.edu/ciqle/GLHS

5. Empirical results

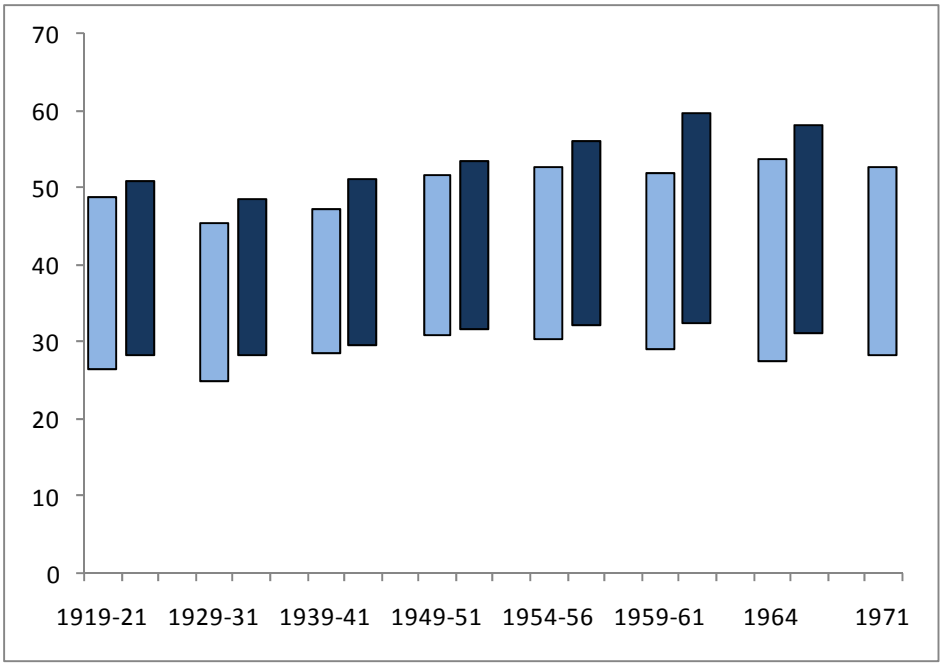
Our analyses first look at long-term historical trends as they are represented by a comparison of the life courses of West German birth cohorts.

5.1 Inter-cohort comparisons

5.1.1 Overall distributions and mobility

Figure 3 compares the distributions of occupational status for specific cohorts, presenting the range (i.e., the mean +/- 1 standard deviation) for both the first occupation of the respondents and their occupation at age 30. Over the cohorts, there has been a long-term trend of occupational upgrading, and it is likely that such structural changes predominantly affect labour-market entrants. With the 1964 birth cohort (which was the largest birth cohort in West Germany) this trend seems to have come to an end. Also, there appears to have been a growing dispersion of occupational status in the younger cohorts. Finally, the distance in occupational status between the first occupation and the occupation at age 30 is obviously increasing across cohorts, meaning that there has been an increasing period of 'settling in' at the beginning of labour-market careers.

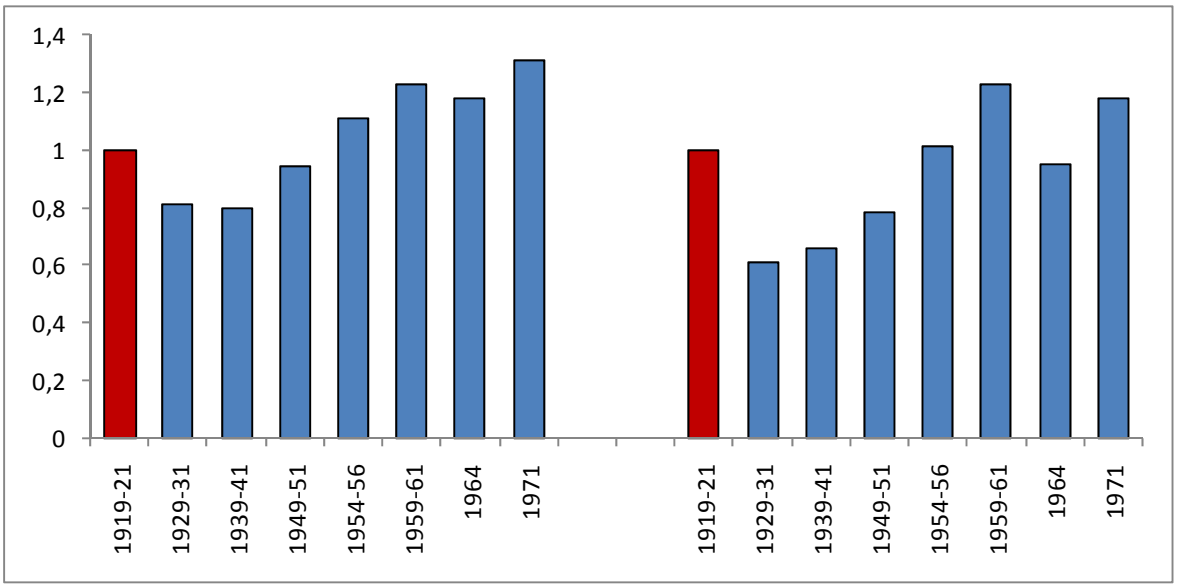
Figure 3: Occupational status (mean +/- 1 std) at the beginning of careers, by cohort



Light-coloured bars: First occupation, dark-coloured bars: Occupation at age 30
In the youngest cohort, respondents had not reached the age of 30 when they were interviewed.
West German Life History Study

Differences in the status level between earlier and later occupations necessarily imply mobility processes. This is confirmed by the longitudinal analyses presented in figure 4. On the basis of simple Cox regression models, they compare the relative rates of upward and downward mobility across cohorts. There has been a long-term (moderate) trend towards growing mobility after labour market entry. The notable exception is the cohort of men born around 1920. Their labour market entry was overshadowed by a period of particular turbulence, the period of the Second World War and the years immediately afterwards, so it is very likely that there was a relatively high level of career interruptions, postponement, transitory jobs and mobility as a result.

Figure 4: Relative mobility rates (odds ratios) by cohort
Upward mobility (left), downward mobility (right)



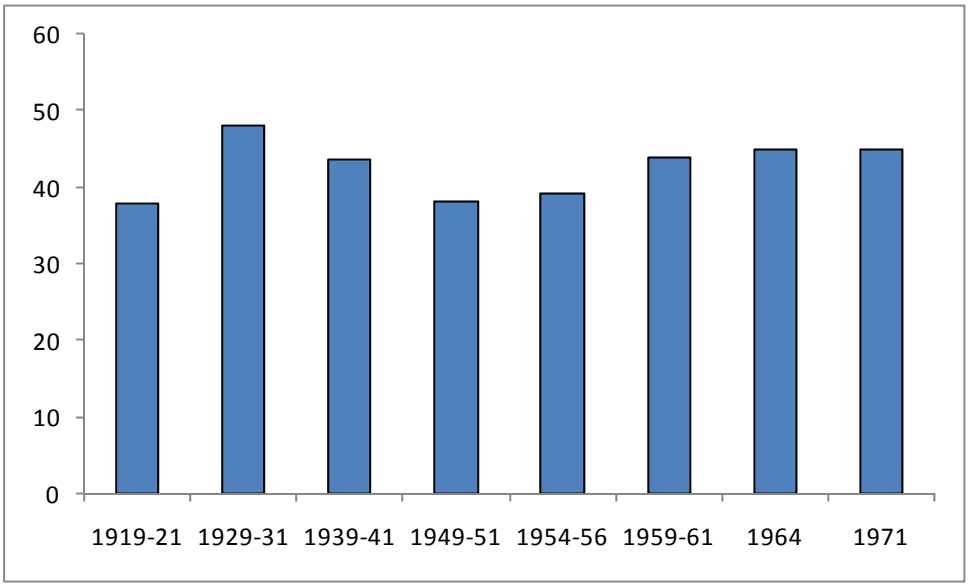
Reference: 1919-21 cohort =1. See appendix for the parameter estimates (table A1).
West German Life History Study

5.1.2 Inter-generational and counter-mobility

How is this intra-generational mobility related with inter-generational mobility? Our theoretical considerations predict that individual status in its relation to parental status is an important determinant of mobility. In particular, a negative inter-generational status difference (i.e., the situation that the present individual status is lower than the parents' status) is a major driving force of intra-generational mobility.

There is considerable potential for such processes. In all cohorts, there has been a considerable proportion of young men who had a lower occupational status than their fathers when they entered their first job (cf. figure 5).

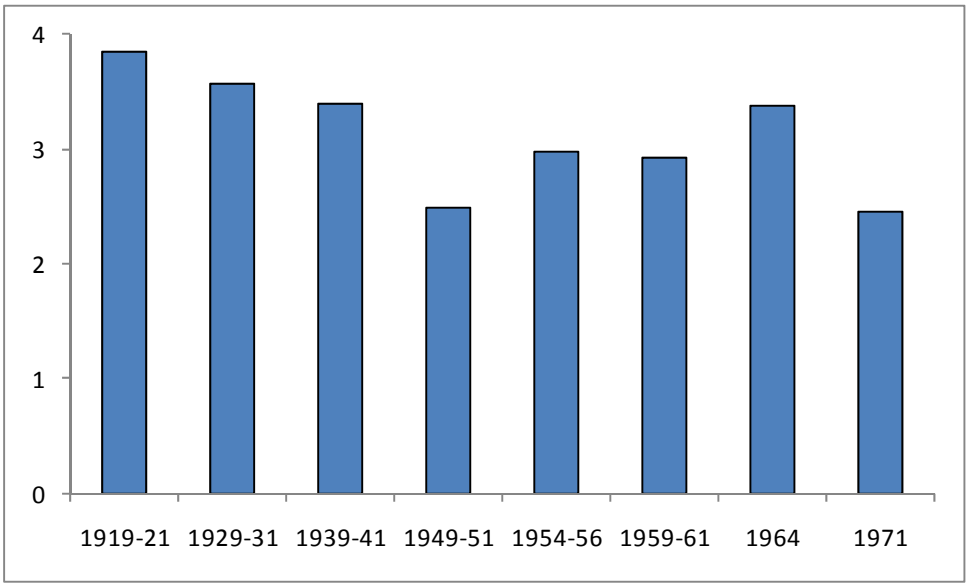
Figure 5: Proportion of men who had a lower status than their fathers at first job, by cohort



West German Life History Study

Figure 6 presents the relative effect that such an inter-generational loss of status has on mobility after labour market entry. Regarding the magnitude of these effects, it also demonstrates that compared to the overall long-term trends, such an individual situation is a very important determinant of mobility. The relative effects of this determinant have declined across cohorts, but they have remained on a high level.

Figure 6: Men's relative chances of upward mobility (odds ratios) when having lower status than father, by cohort



The cohort-specific level of mobility is controlled for. See appendix for the parameter estimates (table A2).
West German Life History Study

5.1.3 Structure of the process of labour-market integration

Another methodological approach looks at the structure of the labour market process comparing the predictive power of various determinants at various stages of the career or various ages. Figure 7 and table 2 present the results of such a simple path model. The coefficients were estimated separately for each cohort. (It should be noted that – unlike this model suggests – education is also varying with age, so that highest level of education is only a proxy for the level of education at the time of labour market entry.)

Figure 7: Path model of the labour market entry process

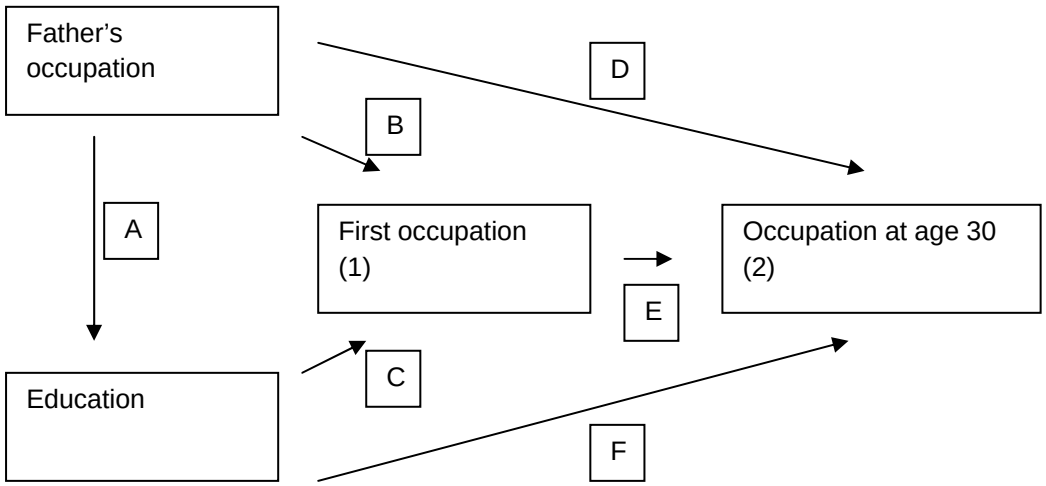


Table 2: Path coefficients (Standardized regression coefficients)

	A	B	C	D	E	F	R^2 (1)	R^2 (2)
1919-21	.30	.22	.38	.14	**.42**	.30	.24	**.45**
1929-31	.37	.02	.48	.16	**.24**	.44	.24	**.43**
1939-41	.29	.11	.53	.16	**.31**	.38	.32	**.44**
1949-51	.38	.14	.54	.07	**.47**	.35	.37	**.58**
1954-56	.29	.06	.35	.06	**.39**	.40	.14	**.47**
1959-61	.39	.00	.42	-.13	**.25**	.67	.18	**.56**
1964	.38	.11	.41	.05	**.33**	.42	.21	**.44**
1971	.28	.07	.41	-*	**-***	-*	.19	**-***

A, B, C... cf. figure 7.
*Respondents had not reached the age of 30 when they were interviewed in 1998/99.

When comparing the results across cohorts, it becomes obvious that the overall structuration (as measured by the R^2 of the prediction of occupational status at age 30) has remained on a high level, though there have been marked fluctuations from one cohort to the next. State dependence in the sense of path (E) seems to decline across cohorts, meaning that the first job has become a smaller predictor for later jobs. However, it also shows significant fluctuations.

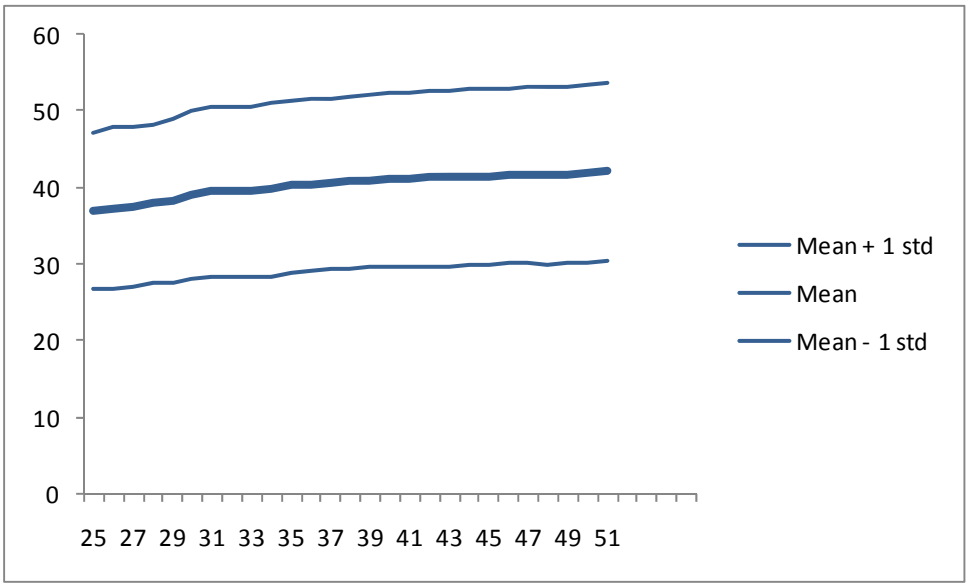
5.2 Long-term developments along the life course

Processes of cumulative advantage and disadvantage may show up only over a longer period in the life course. Analyses measuring occupational status until age 30, for example, may therefore represent the process of labour market integration rather than the major part of employment careers. As can be seen from the study description in figure 2, the observation windows for most of the cohort were rather limited, and even today, the persons in the younger cohorts are not older than in their middle ages. Therefore, the following analyses combine the data of the cohorts born around 1920 and around 1930, i.e. the two oldest cohorts with the largest observation windows. While this decision abstracts from differences between these two cohorts, it results in both a large observation window and a reasonable sample size.

5.2.1 Developments of distributions

The first analyses look for indicators of collective polarisation. Figure 8 presents the age-related development of the aggregated status distributions in these cohorts. One can see a moderate increase along the life course (representing career development) but only a very moderate increase in dispersion. In fact, variation coefficients are remarkably stable (see figure A1 in the appendix). Structural change in the labour market obviously becomes salient across cohorts of labour market entrants rather than within cohorts, especially when looking at the employment careers of men (see also DiPrete et al. 1997; Blossfeld et al. 2006).

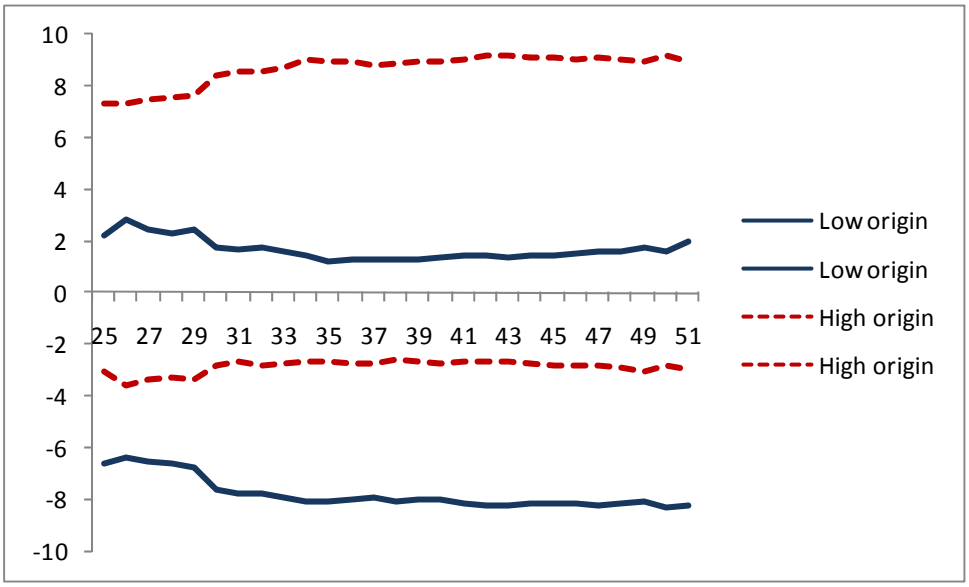
Figure 8: Mean occupational status (and std), by age



West German Life History Study, cohorts born around 1920 and 1930

When distinguishing between young men of lower and higher origin (figure 9), one finds that there is very little change in the status distributions of these two groups. Significant, however, is the relatively clear separation between the two distributions which persists throughout the life course.

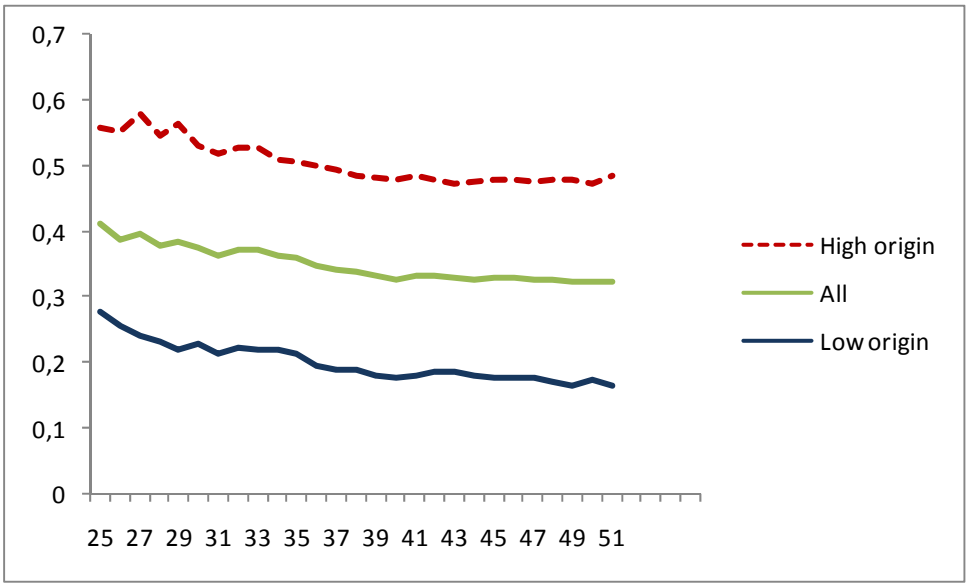
Figure 9: Mean status (as deviations from the overall mean) at age x, by social origin



West German Life History Study, cohorts born around 1920 and 1930

What do the processes of collective upgrading and individual-level mobility mean for inter-generational mobility? Figure 10 looks at the intra-cohort development of the proportion of men who experience an inter-generational loss of occupational status. As a result of upward mobility processes, this proportion moderately, but constantly declines along the life course. Naturally, the risk of experiencing such a loss of status is more likely when people start from a higher origin level.

Figure 10: Proportion of men who have a lower status than their fathers, by age

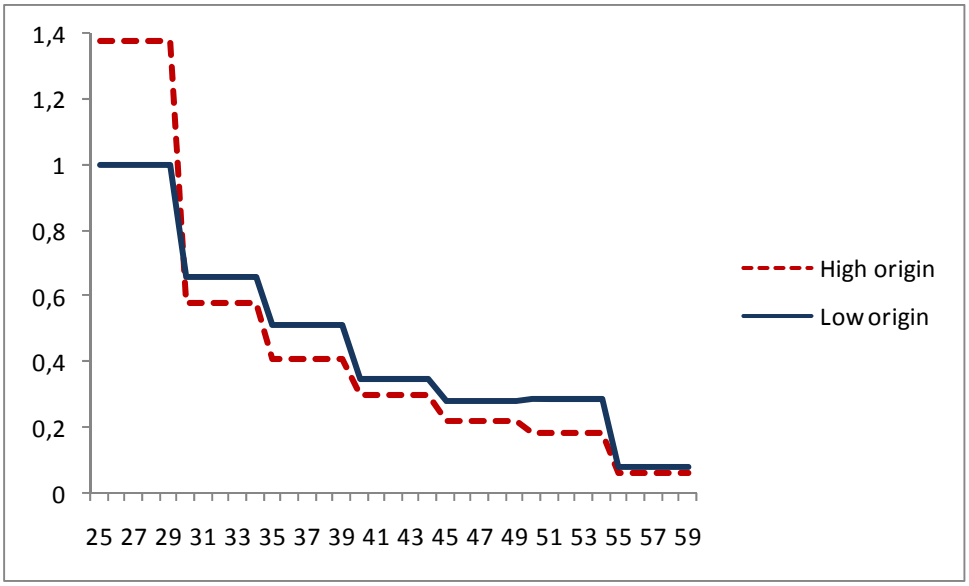


West German Life History Study, cohorts born around 1920 and 1930

5.2.2 Individual-level mobility

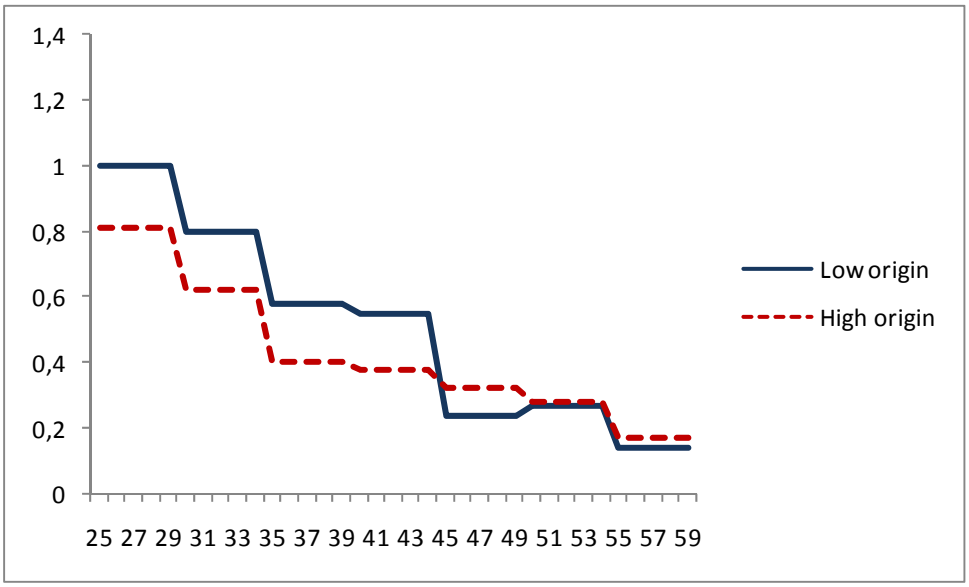
Following the concept of cumulative advantage as social closure the next analyses look at the likelihood of status changes along the life course. The two figure 11 and 12 indicate clearly decreasing mobility with age. This means that there is less and less change in the status order, which in that way becomes increasingly consolidated.

Figure 11: Upward mobility: Relative mobility rates (odds ratios) by age and social origin



Low origin below age 30 =1. Results from a Cox-regression. See appendix for the parameter estimates (table A3). West German Life History Study, cohorts born around 1920 and 1930

Figure 12: Downward mobility: Relative mobility rates (odds ratios) by age and social origin

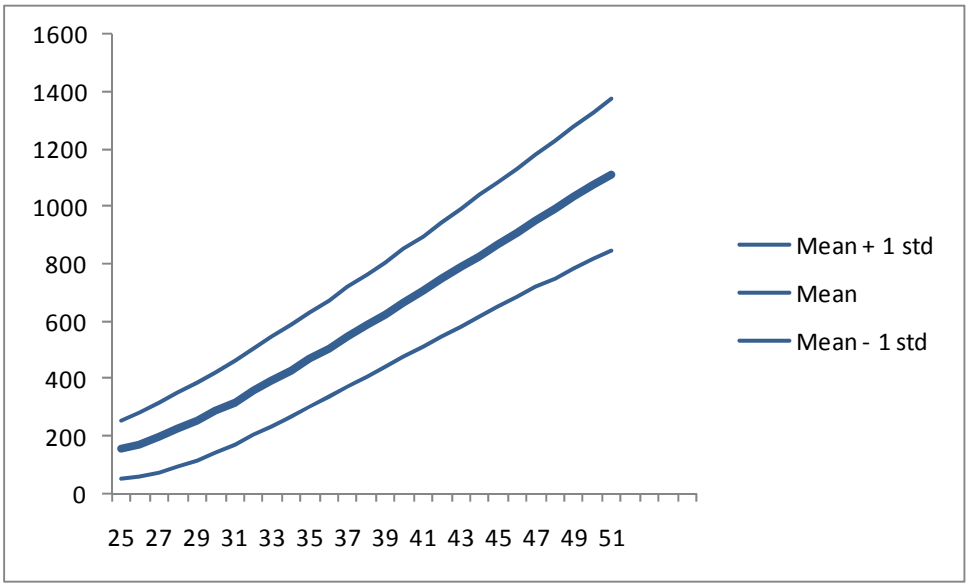


Low origin below age 30 =1. Results from a Cox-regression. See appendix for the parameter estimates (table A3). West German Life History Study, cohorts born around 1920 and 1930

(3) Individual accumulation

The final analyses look at status accumulation along the life course. "Accumulated status" is probably an unusual measure, but it can be a proxy for cumulative processes of advantage and disadvantage, especially when relying on retrospective information. Given the close association of the status scale with income (as well as other measures of social advantage), there is also a high correlation with lifetime income. Figure 13 looks at the overall distribution of accumulated status until a particular age. The scale is substantively not important; dimension is "status times years". One can see a constant increase in mean cumulated status, but only a moderate increase in dispersion

Figure 13: Cumulated status of cohort members until age X

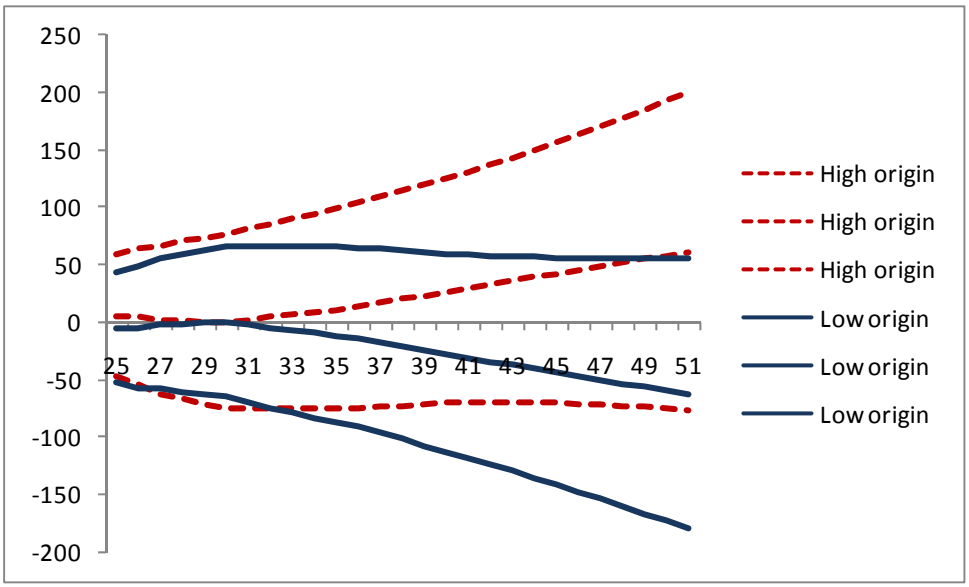


West German Life History Study, cohorts born around 1920 and 1930

Figure 14 compares the two origin groups in this regard. For a better interpretation, the chart presents not the absolute values, but the deviations from the overall mean.

The status distributions of men of different social origin become increasingly separated with when the cohort members become older. Note that accumulation starts already before age 25, so men from lower social origin – who typically enter the labour market earlier – have a "starting advantage" when accumulation status. However, the dispersion increases only slightly. When looking at the variation coefficients (see figure A2 in the appendix), it becomes obvious that they decline and consolidate.

Figure 14: Dispersion in accumulated status (as deviations from the mean), by age and social origin (Mean accumulated status +/- 0.5 std)



West German Life History Study, cohorts born around 1920 and 1930

Taking together these results, this means that there is not increasing heterogeneity, but increasing segmentation and structuration of status pathways.

5. Summary and conclusions

On the basis of these analyses on West Germany, our hypotheses can at least partially be confirmed. The basic patterns of mobility and cumulative advantage follow the theoretical expectations. While there is little change in the status distributions at any given point in time (i.e., no collective polarisation), there is evidence of steadily cumulating advantage and disadvantage, and in the course of a career it becomes increasingly unlikely to change the individual occupational status; in other words, the status order becomes consolidated. What is probably most striking is the clear stratification of attained occupational status by social origin, which persists (or increases) throughout the careers. Such a pattern is typical for an institutional system like the German system characterised by a differentiated educational system and a qualification based labour market; a system which makes it likely that the impact of social origin is transferred to the labour market through education and that it has a long-lasting effect on employment careers.
The historical trends are less clear, not least because members of any single cohort have been affected by very specific and – over their life-time changing – conditions. If possible, further research should therefore look at a longer sequence of cohorts. It should also include international comparisons that investigate the impact of specific institutional configurations empirically.

Beyond these empirical results, the paper underlines the importance of paying increased attention to conceptual questions, in particular the trade-offs between specific analytical

perspectives like mobility analyses and aggregate measures of inequality. As this paper has illustrated, there are both (necessary) conceptual links and (typical) empirical associations between them. What may appear as a contradiction at first glance, may turn out as a reasonable combination of results when taking these links into account. For a substantive discussion of social inequality patterns, it would also be useful to compare analyses on occupational status with analyses on income developments and income mobility in order to attain a higher degree of generalisation.

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Appendix

Table A1: Risk of upward and downward mobility (Cox-Regression), all cohorts

	Upward mobility		**Downward mobility**	
	Coeff.	SE	coeff.	SE
Cohort 1919-21 (Ref.)	0		0	
Cohort 1929-31	-.21	.07	-.50	.10
Cohort 1939-41	-.23	.08	-.42	.10
Cohort 1949-51	-.07	.09	-.25	.12
Cohort 1954-56	.10	.07	-.01	.09
Cohort 1959-61	.21	.09	-.21	.10
Cohort 1964	.16	.07	-.05	.08
Cohort 1971	.27	.09	.17	.11
N= (Episodes)	13190		13190	
Events	2266		1469	
-2*diffLL	53.5		67.2	

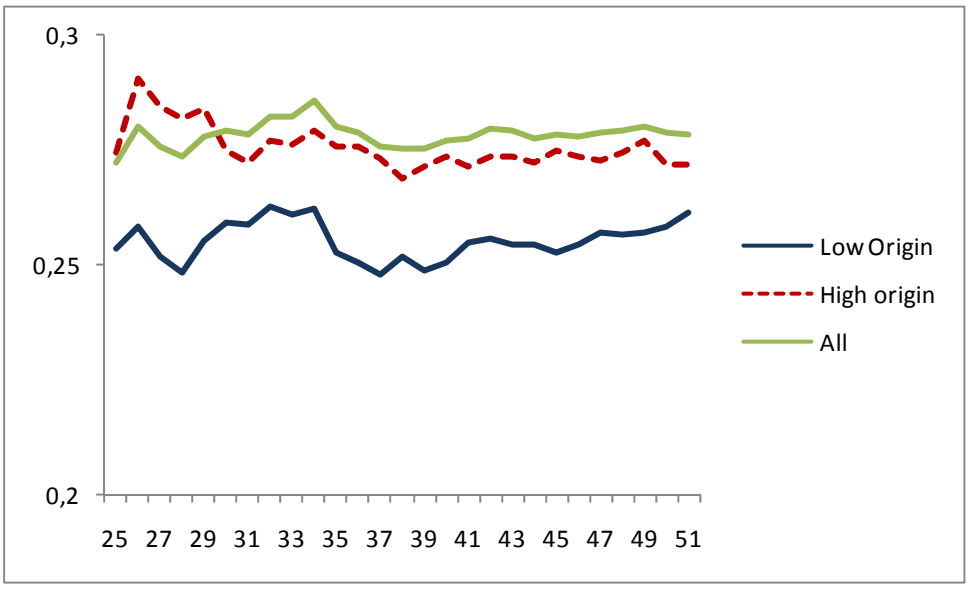
Table A2: Risk of upward mobility (Cox-Regression), all cohorts

	Upward mobility	
	Coeff.	SE
Cohort 1919-21 (Ref.)	0	
Cohort 1929-31	-.26	.13
Cohort 1939-41	-.22	.14
Cohort 1949-51	.17	.15
Cohort 1954-56	.25	.12
Cohort 1959-61	.33	.15
Cohort 1964	.19	.12
Cohort 1971	.49	.14
(Inter-generational) downward mobility at first job (“down”)	1.35	.09
Cohort 1929-31*down	-.08	.16
Cohort 1939-41*down	-.13	.17
Cohort 1949-51*down	-.44	.19
Cohort 1954-56*down	-.26	.15
Cohort 1959-61*down	-.28	.18
Cohort 1964*down	-.13	.14
Cohort 1971*down	-.45	.18
N= (Episodes)	13190	
Events	2266	
-2*diffLL	829.4	

Table A3: Risk of upward and downward mobility (Cox-Regression), cohorts born around 1920 and 1930

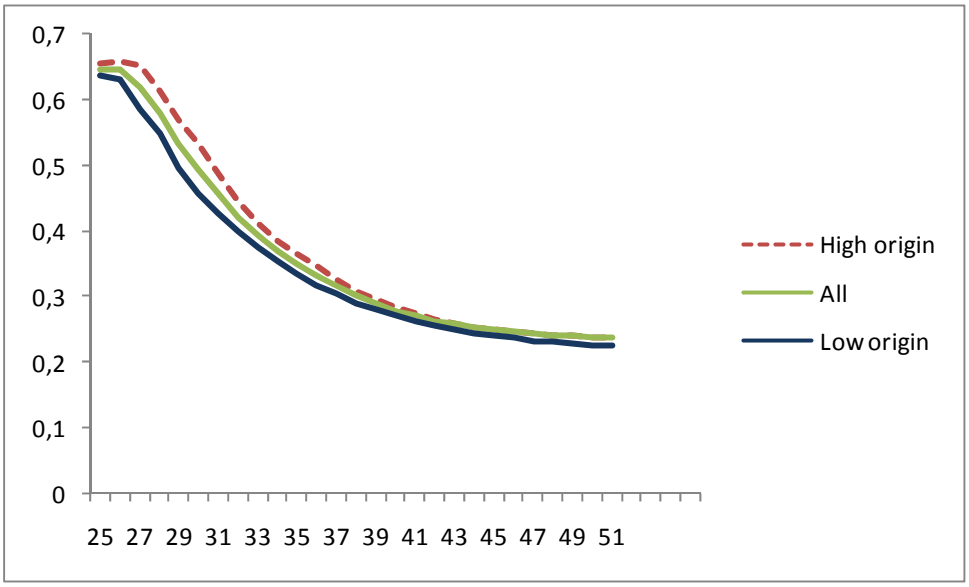
	Upward mobility		**Downward mobility**	
	Coeff.	SE	Coeff.	SE
Age < 30 (Ref.)	0		0	
Age 30-35	-.42	.19	-.22	.23
Age 35-40	-.67	.20	-.55	.26
Age 40-45	-1.05	.23	-.60	.27
Age 45-50	-1.28	.25	-1.45	.36
Age 50-55	-1.22	.28	-1.32	.38
Age 55+	-2.50	.45	-1.95	.50
High social origin (HSO)	.32	.17	-.21	.24
HSO*Age 30-35	-.44	.25	-.05	.33
HSO*Age 35-40	-.55	.27	-.17	.37
HSO*Age 40-45	-.47	.31	-.16	.39
HSO*Age 45-50	-.53	.34	.51	.46
HSO*Age 50-55	-.82	.39	.27	.50
HSO*Age 55+	-.72	.61	.41	.63
N= (Episodes)	2794		2794	
Events	501		301	
-2*diffLL	153.3		54.2	

Figure A1: Variation coefficient of status at age X, by social origin



West German Life History Study, cohorts born around 1920 and 1930

Figure A2: Variation coefficient of cumulated status until age X, by social origin



West German Life History Study, cohorts born around 1920 and 1930