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LEBENSVERLÄUFE UND HISTORISCHER WANDEL
IN DER EHEMALIGEN DDR

From Mobility in Status and Occupation to Simple Job Shifts? Occupational Career Mobility of Men in the Former GDR*

Johannes Huinink and Heike Solga

Arbeitsbericht 7/1994

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DAS FORSCHUNGSPROJEKT
"LEBENSVERLÄUFE UND HISTORISCHER WANDEL IN DER EHEMALIGEN DDR"

Inhaltliche Schwerpunkte:

- die (vergleichende) Sozialstrukturanalyse individueller Lebensverläufe in der DDR und in der BRD
- die Analyse individueller Handlungsstrategien in einem autoritär organisierten Staat und der nicht-beabsichtigten Folgen individuellen und staatlichen Handelns
- die Analyse der gesellschaftlichen Transformation in Ostdeutschland und ihrer Auswirkungen auf individuelle Lebenverläufe

Datenbasis

Grundgesamtheit:

Die deutsche Wohnbevölkerung der Geburtsjahrgänge 1929-31, 1939-41, 1951-53 und 1959-61 in den Neuen Bundesländern im Oktober 1990

Stichprobe:

Personenstichprobe aus dem infas-Master-Sample, das im Oktober 1990 aus dem zentralen Einwohnermelderegister der ehemaligen DDR gezogen wurde

Erhebungszeiträume:

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Pilotstudie: 34
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I. Hypotheses about patterns of intragenerational mobility in the former GDR

When one looks at the economic and political development of the former GDR, a variety of plausible and partially contradictory hypotheses regarding the changing patterns of occupational career mobility emerge. In this paper we concentrate on four hypotheses about patterns of intragenerational mobility in different birth cohorts. On the basis of life course data of the East-German Life History Study (EGLHS) at the Max Planck Institute we will investigate which of our theoretical hypotheses can be supported by empirical evidence.

Very roughly one can distinguish between two major phases in the economic development of the former GDR. The first phase covers the historical period from the end of World War II to the early sixties when the East-German authorities tried to establish a socialist society with a functioning socialist economy and corresponding institutions like an efficient educational system. The political and economic situation of the GDR after the Second World War was to establish a socialist regime - which simultaneously meant to destroy all roots of the former system. For that reason the new rulers enforced a large number of political measures to get rid of the old political, economic and partially also of the bourgeois intellectual elite. Examples of such measures were the expropriation in economy, the abolition of the status of civil servants and the process of denazification.

This first phase was characterized by a rapid change in the basic structures of the economic and institutional system and in the occupational structure, too. It was also characterized by an urgent need for manpower in nearly all parts of the society, in production as well as in administration.

The second historical phase started in the mid sixties. In contrast to the transformation period, the GDR could then mainly be characterized as a stable political and economic system where the structures of industrial branches,

occupations, organizational hierarchies and a corresponding system of vocational training were almost fixed. The rapid expansion of the opportunity structure during the first phase belonged to the past. However, the economic goals of the East-German government remained ambitious: a fast development of economic productivity, significant shifts in the technological and scientific level of production to strengthen the GDR's position in international competition, and the improvement of the population's standard of living.

Regarding career mobility, it is well known that opportunities of access to higher level education were substantially cut during this period (especially at the end of the 1970s and during the 1980s). The allocation of labor was state controlled - particularly as far as entry into the labor force was concerned - and determined by the economic plans of the political authorities.

We know that this dichotomous distinction between just two time periods in the history of the former GDR is very simple and imprecise in many ways. To understand the patterns of individual occupational careers in detail, one needs to take into consideration the economic and political development in a far more differentiated way. However, we think that because of its simplicity it is useful as a point of departure for a first look at occupational careers in the former GDR.

Now let us ask how these historical conditions might have affected the occupational careers of members of different birth cohorts in the GDR.

Hypothesis 1: Starting at a high level in the post-war period, mobility in status and occupation decreased over time in the former GDR.

Sub-hypothesis 1.1: The overall mobility in the occupational careers of men decreased substantially over time (and cohorts).

We know that the policies of the authorities in the period from 1946 to 1961 led to considerable downward mobility of former teachers, lawyers and a remarkable portion of the highly qualified civil servants (and other parts of the work force with higher qualifications). These people left the GDR in great numbers until 1961 - since they lost their property or social status, or anticipated obstacles and limits in their career opportunities. The consequence was a dramatic lack of executive personnel, professionals and other qualified manual and non-manual employees. The vacuum had to be filled with persons who started from lower levels of qualification, i.e., in particular from unskilled or skilled jobs. As an example, in 1948 about 50% of all positions in the managerial hierarchy of the state-owned industry were occupied by former workers (Belwe 1989: 127). As a result, we can find at least two interesting processes affecting the career opportunities until the early 1960s. First the members of the old elite were replaced by new ones who mainly had working

class origin. And second, the lack of skilled workers needed to carry out the reindustrialization after the war resulted in a general qualification campaign whereby many of the skilled worker' certificates could be acquired within the frame of adult education. In 1964 it was 45% (Geißler 1990: 100). As a consequence, we can find to a large extent moves from the status of unskilled worker into the status of skilled worker as well as some upward moves into elite positions.

It should also be mentioned that also regarding the two groups, farmers and self-employed, a lot of change took place. Both groups were remarkably reduced in their size over time and in addition most of the farmers were organized in "co-operatives", a new form of ownership after 1960. Most farmers became co-operative farmers. This change had a huge impact on their working conditions; agriculture in the GDR became more and more industrialized. As a result, farmers were trained and qualified in the same way and to the same extent as the industrial skilled workers and the differences in working conditions between industrial and agricultural work became smaller.

Considering all this leads us to the hypothesis that for the men who entered into the labor force after the Second World War but before 1960, we should find mobility in their occupation as well as occupational status to a large extent - caused by outstanding career opportunities in this time period. Because of the instability of the system during this phase even patterns of "fluctuating" occupational careers can be expected.

Such outstanding opportunities for intragenerational mobility as we have assumed for the 1950s and 1960s can hardly be expected for the men entering into the labor force after the mid 1960s. Here we assume that their job careers - after the completion of the construction of a planned economy with a state controlled entry to a well structured occupational system - can be characterized as a "qualified labor force entry." The younger men could already benefit from the established occupational training system of the GDR in which the duty of taking part in a vocational training was settled for everyone. Without making assumptions about the expansion rates of the East-German economy one can conclude that career mobility as well as the amount of fluctuation in occupational careers substantially decreased during this second historical period.

In summary: we hypothesize that the occupational careers of the men entering the labor force before the early 1960s should be characterized by a greater amount of mobility in status as well as occupation than the careers of men entering afterwards.

This brings us to the second, a little bit more specific sub-hypothesis about intragenerational status mobility.

Sub-hypothesis 1.2: *After outstanding opportunities of status mobility in the post-war period the barriers between the status groups increased over time. The significance of the occupational position achieved in the first job increased over time (and cohorts).*

As a conclusion from the first sub-hypothesis and because of the fact that a shift in the procedure of labor force allocation from the criteria of social origin to the principles of performance and political loyalty took place over time - one could hypothesize that the frequency of moves between status groups decreased over time. The result was that men who entered into the labor force after the mid 1960s started at a higher level of qualification on average and succeeded in staying there. The allocation process to jobs of higher status was increasingly characterized by state controlled opportunities of achieving a technical college or university degree. Mobility in status during the job career occurred to a much lesser extent.

Contradicting the first hypothesis one could formulate the following second hypothesis. It is based on a different assessment with respect to the relevance of social origin and the consequence of a misplacement (misallocation) of men in the labor force caused by the state controlled entry process.

Hypothesis 2: **Under the condition of decreasing opportunities at entry into the labor force due to limited access to the universities and due to the regulation of entry into the labor force, an increasing proportion of men compensated for an unsatisfactory entry position in the labor force with intra-generational mobility.**

In contrast to the last hypotheses, under the condition of an increasing proportion of elite positions within the occupational structure of the GDR, the openness of the status groups could also be sustained by the fact that a stable "worker- and farmer-children's bonus" was guaranteed by the constitution of the GDR. If this bonus could not be realized when entering into the labor force, it should have had an impact on the intra-generational mobility of children from such families. Therefore, we could expect to find upward mobility processes in the occupational career of workers' and farmers' children even after the mid-1960s.

On the other hand, the fact of continuously high mobility rates could also be explained by the openness of the occupational structure as such: occupational mobility could also have remained as a general pattern, because people tended to correct a misplacement caused by the state-governed labor force allocation by changing their jobs and/or type of qualification.

Concentrating on lateral moves and recapitulating the previous considerations we can formulate at least three plausible hypotheses with contradictory implications.

Hypothesis 3: The patterns of lateral occupational mobility changed over time (and cohorts).

Sub-hypothesis 3.1: The amount of lateral mobility in general decreased over time in the GDR.

This hypothesis would apply under the assumption that over time it became less and less possible to gain occupational success by job shifts connected with upward moves. Another reason could have been that the younger cohorts started their job career as qualified employees and well trained in specialized fields before entering into the labor force. In the well established system of a state controlled 'labor-market' the opportunity of lateral mobility in the GDR clearly decreased over time.

Sub-hypothesis 3.2: Lateral moves were important for all cohorts but differed in their patterns.

Lateral mobility was the most important process of intragenerational mobility in the job careers of all cohorts in the former GDR, but whereas in the older cohorts it was connected with mobility between occupations at the same level of status, in the younger cohorts such moves were only "simple" job shifts within the same occupation. Or formulated in a less absolute way, the lateral moves were important for all generations in the GDR - but were less and less connected with shifts in occupations.

For the older cohorts, lateral moves connected with shifts in occupations were necessary in order to find a position in the developing structure of industry during the first two decades of the GDR. Many new occupations emerged and other occupations were no longer needed.

In contrast, the younger cohorts received wide-ranging occupational training after the end of the 1960s. Based on the political concept of the "scientific technological revolution", it was hypothesized by the political authorities that "the division of labor in industry will increase and that changes within occupations will become necessary." Consequently, the conclusion was drawn that the occupational training system needed to be modified. The idea was to give the workers broad knowledge within an occupational field. On the basis of that education they should be able to attain specific skills required for the changing tasks of a developing production. The expectation was that this would support and guarantee greater long-term flexibility in the qualification structure of the labor force. An attempt to reach this goal was made with the creation of

"basic occupations" (Grundberufe) for which one could obtain a blue- or white-collar worker certificate. The result was a reduction in the number of different occupational trainings from 972 in 1957 to only 309 in 1984, among them now 98 "basic occupations" (Gewande 1990: 45).

Hence, adjustments to changing demands of industry became easier for the younger cohorts. This also means that they were forced to make job shifts which were now not necessarily connected with changes in their occupations. Due to changes in production for technological reasons, mobility at the lateral level, however, tended to be frequent in the younger cohorts.

Sub-hypothesis 3.3: *For all time periods the quantity and the outcomes of job shifts, i.e., "mobility in occupations", were the same. But the driving forces changed over time.*

In hypothesis 1 and hypothesis 2 we proposed that in the older cohorts job shifts were connected with upward mobility or mobility into industrialized branches and, therefore, with mobility in occupations. These conditions of occupational careers no longer held for the younger cohorts. Their careers were affected by the increasing influence of a "state-governed labor force allocation." This allocation restricted the younger cohorts in their choices of an occupational training as well as a job later on. In the 1960s, the government of the GDR tried to establish a "socialist economy of education" that attempted to plan the structures of educational degrees and occupations systematically. After leaving school young adults were allocated into planned quotas for each occupation. We can expect that such a procedure produced a lot of contradictions between the occupation wanted by the young people and the occupations and jobs they were allocated to. Hence, the younger cohorts could only try to solve these contradictions within their occupational careers was the only place where by getting the occupational training wanted via adult education and moving into the jobs originally aimed for on a skilled or even unskilled level.

In addition to the question whether hypothesis 1, or hypothesis 2, or which of the sub-hypotheses under 3 proves to be consistent with the empirical evidence, we add a fourth and final hypothesis.

Hypothesis 4: **Under the condition of an increasingly fixed distribution of occupational positions, the relative advantage of presence or absence of overt system loyalty increased.**

Under the condition of decreasing opportunities of occupational mobility and the cut in the opportunities of higher level education, the competition for occupational positions available should have become stronger. In the GDR one of the strategies to gain advantages in this competition was to engage in official institutions of the system, i.e., to become a member of the SED or even to take

on responsibility in one of the pro-party organizations. The relevance of overt system loyalty therefore should have increased over time.

II. Data and Variables

It is certainly possible to add many more hypotheses regarding mobility patterns from the history of the GDR. We will restrict our investigation to the hypotheses mentioned above and will take a first look at which of them are supported by empirical data from the former GDR. For that reason we have analyzed life histories of 1141 East-German men born in four birth cohorts (1929-31, 1939-41, 1951-53 and 1959-61). These retrospective data are taken from the East German Life History Study at the Max Planck Institute of Human Development and Education. The EGLHS was started under the guidance of Karl Ulrich Mayer and Johannes Huinink in November 1990 and sponsored by the Max-Planck-Society. The data were gathered between September 1991 and October 1992 in 420 communities of the former GDR (in collaboration with infas). The sample (including men and women of the four cohorts) was drawn from the infas-master sample (size 300.000) out of the Central Register of Population of the GDR. The master sample was drawn in October 1990. Interviews with 2332 men and women were realized.

Four of our male respondents did not report any job activity - therefore they are excluded from the job shift analysis. Because of differences in the birth dates, the respondents of the four cohorts were interviewed at different ages. Hence, in order to be able to compare the cohorts we follow the job careers only until age 30. We also did not include information about the job history after December 1989. Therefore, we had to cut the life histories of the youngest cohort (1959-61) between age 28 and 30, i.e., in December 1989. We think that such an approach is necessary to exclude job shifts caused by the "Wende" in which we are not interested here. The choice of "age 30" for all cohorts can be evaluated as a conservative convention. As we know from our data, some of the men in the older cohorts still had upward moves after age 30 and, therefore, the differences in mobility chances between the oldest and the youngest cohort presented in the paper are more likely to be under- than overestimated.

We now describe the scales that we used to measure upward, lateral and downward mobility. To measure *mobility in occupational status* we used a GDR-specific scale consisting of 8 categories that was collapsed to 5 (for empirical reasons). These status groups are:

1 Elite positions (including leading positions as well as professionals),
2 Semiprofessionals,
3 Workers on a skilled level (blue- and white-collar),
4 Workers on an unskilled level,

5 Others (including farmers and the self-employed[1]).

For measuring *mobility in occupation* we used a GDR-specific 4-digit classification scheme of occupations (DDRC) - that is something like the ISCO. But in contrast to the ISCO it provides a variety of opportunities for measuring differences in occupational careers. The first two digits indicate one of the 54 occupational fields in which the job is located, for example textile industry, mining, electronics, transportation, agriculture, administration, education, or state apparatus. The third digit indicates the level of qualification needed for the job - ranging from unskilled to highly qualified levels. The last digit allows specification of the concrete job among about 600 jobs included in the scheme.

III. Intragenerational mobility patterns of East-German men of four birth cohorts - An empirical description

Before we talk about the different intragenerational mobility patterns of East-German men we think it is helpful to give an overview of the average number of job shifts as well as shifts in occupation occurring in general.

{{{ Table 1 here }}}

As we can see in the first row of Table 1 - where the average number of job spells are presented - we can find mobility in all four cohorts. By comparing the cohorts we see that the average number of job spells decreased over the cohorts by one spell on average - but, somewhat surprisingly, even in the youngest cohort it is still more then two. In this sense, the "state-governed labor force allocation" either could not totally prevent job shifts individually initiated or even encouraged job shifts to a certain extent because of economic needs. In row 2 to 4 different ways to measure mobility in status or occupation are presented. Here, we can also state that in all cohorts the men were mobile - whereby the older cohorts always remain above the overall average (first column) and the two younger cohorts stay below the overall average.

With regard to the first hypothesis mentioned above we can summarize that intragenerational mobility considered as simple job shifts as well as shifts in occupation and status was important in all four cohorts - but decreased over time.

Let us now consider the *direction of the job shifts* over the cohorts, i.e., whether they were connected with upward, lateral or downward moves in occupational positions.

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1 In our sample these two groups are so small that it is impossible to analyze them separately in an appropriate way. Hence, we include them as one group in the analysis controlling for moves in and out - but we will not interpret the results of this group in detail.

{{{Table 2/Figure 1}}}

Upward moves are defined as moves from:

1 an unskilled level to every other position in the 5-category-version of the GDR occupational status scale,
2 a skilled level or farmers/self-employed to semiprofessionals or elite positions,
3 semiprofessionals to elite positions.

Downward moves are defined as moves from:

1 elite positions to every other status group,
2 semiprofessionals to workers on a skilled or unskilled level or farmers/self-employed,
3 workers on a skilled level or farmers and self-employed to workers on an unskilled level.

The other possible moves - including the move from being a farmer to being a skilled worker, even though that is a move in status - are counted as lateral moves.

In Table 2, panel A, the average frequency of upward, downward, and lateral job shifts is documented for the four cohorts. In Table 2, panel B, the distribution of the different kinds of shifts is presented for each cohort. We see that in all cohorts the majority of the job shifts are connected with lateral moves, but in the two younger cohorts by a much larger proportion than in the two older ones, especially the oldest cohort. This difference is not due to the fact that the proportion of downward moves became larger the younger the cohorts were. We do not find differences as far as downward moves are concerned. However, we find large differences in the proportion of upward moves between the cohorts. As stated in hypothesis 1, the men of the oldest cohort and partially the men of the cohort 1939-41, could benefit substantially from the outstanding occupational opportunities of the post war period when they entered into the labor force.

As a general trend we find a decrease in upward mobility, on the one hand, and an increase in lateral mobility, on the other.

What are the processes producing this general trend? Let us consider some mobility patterns in greater detail.

{{{Table 3 here}}}

As examples we looked at moves out of unskilled and skilled jobs, respectively, presented as outflow-percentages in Table 3, panel A and B, and mobility into elite positions presented as inflow percentages in Table 3, panel C.

The main *upward move out of unskilled jobs* was, of course, the move into skilled jobs - but to a much larger extent in the older cohorts than in the two younger ones. That was caused by the fact, that "inheritance", i.e., the likelihood to remain in the group of unskilled workers, increased over the cohorts. The figure is 58 % in the cohort 1929-31 and 76% in the cohort 1959-61.

Furthermore, we can see that the barrier of the elite positions for unskilled workers became very strong. We find no moves from unskilled jobs into elite positions in our data for the two younger cohorts, but they were at least possible in the two older cohorts.

Men working at a *skilled level* could achieve upward moves into semiprofessional as well as elite positions to a higher extent than the unskilled workers - of course, since they did not have to pass the skilled level. But, on the other hand, they were also affected by the risk of a downward move into an unskilled job. Considering these two directions over the cohorts, it is interesting that whereas the chance of upward moves for skilled workers remarkably decreased over the cohorts - from 16 to 4%-, the risk of downward moves into unskilled jobs did not. It remained over 10% for all cohorts. As we have already stated for the unskilled jobs, the main pattern for the jobs on a skilled level was also to stay on that level - the proportion of moves within the skilled level group increased over the cohorts from 66 to 85%. As additional information note that the proportion of men remaining in an elite position and/or changing their job within this status group increased from 80% in the cohort 1929-31 to more than 90% in the other cohorts.

Let us now look at the patterns of *allocation into elite positions*. Of course, men who already had occupied an elite position in the job spell before had the best chance to end up in an elite position had . The tendency of "inheritance" also increased over the cohorts. The percentage of moves into an elite position by men already in elite positions almost doubled from cohort 1929-31 (43%) to cohort 1959-61 (86%). Comparing cohorts, we see that in the two older cohorts the elite was much more frequently recruited from men in jobs on a skilled level than in the two younger cohorts. The same applies for the unskilled level.

It is worth mentioning that in the group of men who did not change their job until age 30 the proportion of elite positions was substantially higher than the proportion of elite positions among all first jobs of our sample (compare Table 5, first row panel B to A).

Coming back to our hypotheses we can summarize the following:

1. As stated in hypothesis 1, sub-hypothesis 1.1, upward mobility in occupational status decreased over the cohorts.
2. As claimed in hypothesis 1, sub-hypothesis 1.2, the tendency to remain at the entry level of occupational status groups increased over the cohorts.
3. Even though lateral mobility decreased in its absolute frequency (Table 2 A, average numbers of spells) over the cohorts, it played an important role in all cohorts. Lateral mobility was increasingly the main pattern of job shifts for East-German men. Even the men of the two younger cohorts were mobile. And that holds true although they were older at the time of entering into the labor force than the two older cohorts. The average age at entry into the labor force increased from 18 to 20 years.

The question that arises here is whether these lateral moves followed the same pattern in the four cohorts or whether we can find different patterns for each cohort (hypothesis 3).

{{{Table 4}}}

In Table 4 we have calculated the proportion of lateral moves which were connected with changes in occupation. As we already see in the first row - where we compare the cohorts' proportions of lateral moves with changes in occupation overall occupational status groups, the frequency of shifts in occupation decreased over the cohorts. This *decreasing openness of occupational structure* affected all occupational status groups in the same direction - it became more closed over the cohorts (Table 4, row 2 to 4).

But the processes that caused this tendency in each status group were different. In the group of *elite positions* it might have been caused by the fact that in the older cohorts elite careers were determined by moves from leading positions in party organizations into professional jobs and back or even back and forth several times. In contrast, at the time when the younger cohorts entered into the labor force most of the positions in the party and state apparatus were occupied. The elite positions of the younger cohorts were mainly professional positions. Due to specialization and the costs of reorientation it was always more difficult to move between professions. This might be one possible explanation for why only in the oldest cohort was the number of moves in occupation at the elite level higher than at all other levels, except for the unskilled level.

Regarding the lateral moves at the *skilled level* connected with changes in occupation, one feature is interesting. The openness of the occupational structure at this level decreased only from the cohort 1951-53 to the youngest

cohort, and that means in the 1980s. In the first three cohorts of our study it remained almost at the same level. We can at least mention one explanation for this finding (compare sub-hypothesis 3.2). Prior to the 1980s the occupational structure of skilled as well as unskilled jobs was subject to several developments in the economic system. For the first two cohorts we already mentioned the process of industrialization. For the cohort 1951-53 the concept of "scientific technological revolution" had caused partial changes in the occupational structure. New occupations in electronics, biology and chemistry at the skilled level occurred - in which people were needed and into which they could additionally move. We cannot find such processes in the 1980s when the youngest cohort had their job careers.

Something similar happened to the jobs at the *unskilled level.* Furthermore, the opportunities for occupational moves on that level were restricted. In the course of reorganizing the occupational structure an ongoing process of "renaming" unskilled into skilled jobs took place. In 1957, for example, 111 unskilled jobs were renamed into skilled jobs. That means they were still the same jobs in their content, tasks and operations - but now they required an occupational training. The result was that the opportunities for unskilled workers to move between occupations clearly decreased over time. However, the rate of moves is fairly high even in the youngest cohort. This also might reflect the fact that the job careers on the unskilled level were characterized by a high degree of fluctuation.

Summarizing the patterns of lateral mobility, we can state that, regarding sub-hypothesis 3.2 seems to describe the lateral mobility processes most appropriately. *Even though lateral mobility played an important role in all four cohorts considered, the opportunities for moves between occupations at a lateral level decreased over time.* Whereas about 50% of the lateral moves in the oldest cohort were connected with changes in occupation, it was only about half, namely 27% in the youngest cohort.

IV. Outcomes of intragenerational mobility

In the last part of the paper we analyze the outcomes of the occupational careers of the men of the four birth cohorts at age 30. In a restrictive way, we only try to look at determinants of the *probability of an upward move in occupational position between the first job and age 30.*

{{{Figure 2 here/Table 5 A}}}

By comparing the distribution of the occupational positions achieved in the first job (figure 2a) and in the job held at age 30 (figure 2b) we can see that the different patterns of intragenerational mobility described above led to cohort-specific outcomes in upward mobility. The men of the two older cohorts could

realize upward moves into elite positions and jobs on a semiprofessional or skilled level to a much greater extent than the men of the two younger cohorts could.

But what else, besides the cohort membership, affected men's chances of upward moves? To get closer to an answer we have estimated a logit regression model. In our model we have included variables which are usually applied in status attainment models - such as social origin or occupational position achieved in the first job. To test our hypothesis 4, we also included a specific variable - overt versus no overt system loyalty. This variable in particular might explain differentiation in the chances of upward mobility in the GDR as a "state-socialist country."

{{{Table 6 here }}}

One will miss variables like the level of occupational training or changes in the level of occupational training between entry into the labor force and age 30. As one can see in Table 6 where the association between qualification and occupation is presented, these variables are highly correlated with occupational position and upward moves, respectively. We calculated lambda-values as a predictive measure of association between the following variables:

- the occupational position achieved in the first job and level of occupational training achieved at that time;
- the occupational position achieved in the job held at age 30 and the level of occupation achieved at that time; and
- the occurrence of an upward move in occupational position and upward moves in level of qualifications.

All figures are very high and increase over the cohorts. The fit between occupational position and level of qualification was very high in the GDR. There is only one exception: the association between upward moves in occupational position and qualification for the men in the youngest cohort. The lambda-score in the last row of Table 6 might indicate that the men of the youngest cohort had less opportunities to translate upward moves in qualification into upward moves in occupational position. But nevertheless, these associations forced us to decide which of these variables we should include in the model as the independent variable: occupational position achieved or level of qualification achieved. Since we are interested in career mobility we have chosen "occupational position." We had to make a similar decision regarding our dependent variable. Instead of estimating who could realize an upward move until age 30 it is also possible to estimate who could increase the level of occupational training achieved until age 30. For the same reason as mentioned above, we decided in favor of upward moves in occupational position.

What are the results of the stepwise logit regression of upward mobility in occupational position between first job and at age 30 - of course, only including men who could not realize an elite position in the first job?

{{{ Table 7, Panel A}}}

First motivated by the findings in Figure 2 we estimated the effect of *cohort membership*. As everybody would expect, "cohort" had a significant impact on the chance of upward mobility. (The improvement of fit is about 98 by 3 degrees of freedom.)

In a second step, we included *parents' social origin*[2] - since "mis-fits" between origin and occupational position achieved in the first job or special allocation treatments by social background might have had a special impact on upward mobility. But neither origin itself nor the interaction of origin with cohort membership could improve the model fit. "Origin" certainly played an important role for the status achieved in the first job, but it did not seem to determine the chance of upward mobility in the further occupational career. That might also be caused by the fact that different (status-specific) driving forces resulted in the same outcome: mis-fits as a driving force for sons of parents occupying elite positions, and special treatment as a driving force for sons with working class or farmer origins.

In a third step, we included the *occupational position achieved in the first job* . It should show a significant effect if the first position had provided special resources for upward moves. As we see in Table 7 A, it indeed had a large impact on the chance of realizing upward moves. This finding holds for all cohorts.

In a last step, we included *presence or absence of overt system loyalty at age 30*[3]. We also included the interaction of this variable with cohort in order to find out whether there were period-dependent differences in the mechanisms of upward mobility. As one would expect for a state-socialist country, system loyalty played an important role in the chance of upward mobility. For the East-German men analyzed, we additionally find that the impact of system loyalty differed between the two older and the two younger cohorts.

Summarizing, we can conclude that the chance of upward moves in occupational position between the first job and age 30 was determined by:

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2 "Origin" is measured by the occupational position of the head of the household. That is, independently of who occupied the position, the mother's or father's highest position determines the family's social position.

3 This "loyalty" is measured when entering into the job held at age 30 and, therefore, before the position considered was occupied.

- cohort membership,
- first occupational position and
- presence or absence of overt system loyalty in interaction with membership in the two older versus two younger cohorts.

How did these variables covary with the chance of upward mobility in detail?

{{{Table 7, Panel B}}}

First, the chances of intragenerational upward mobility decreased over the cohorts. The contrast between the two older and the two younger cohorts is especially remarkable. The odds that men in the cohorts 1951-53 and 1959-61 would realize an upward move between their first job and the job held at age 30 were only 27% and 15% of the odds in the oldest cohort.

Second, the occupational position achieved in the first job had a crucial influence on the chance of realizing an upward move in relation to no upward move. Compared to the skilled workers, unskilled workers had a much higher chance to make an upward move. That might be due to the fact that the barrier between the skilled and unskilled levels was weaker than the barriers between the other occupational positions. The finding that farmers and self-employed were less able to realize upward moves is not surprising. We know that they either moved into skilled jobs or that their entry into one of these two groups can be characterized by a certain "rootedness to one's native soil."

Third, men who were overtly loyal to the system, either as a party member or by occupying a leading position in one of the pro-party organizations, had a much greater chance to realize an upward move by age 30 than men with no overt system loyalty. This distinction between "loyal" and "non-loyal" men regarding upward mobility even increased in the two younger cohorts, it was almost twice as high as in the two older cohorts.

What do these estimates mean for men being born in different birth cohorts, starting their occupational careers in different positions and being overtly loyal to the system or not?

{{{Figure 3 here}}}

First, let us consider men starting at a skilled level, semiprofessionals, and farmers or self-employed (the first two figures). We can see that in the two older cohorts the chance of upward moves for skilled workers with overt system loyalty was not that much lower than the chance of staying on the status level of the first job (about 60%). In contrast, in the two younger cohorts, even for skilled workers with overt system loyalty the chance to realize an upward move was only less than half the chance to make no upward move. But nevertheless, as

Figure 3 shows, the only chance for skilled workers and semiprofessionals of the two younger cohorts to realize an upward move was to be overtly loyal to the system. The odds for men starting their career in these status groups and refusing to enter the party or even to take on responsibility in pro-party institutions are very small.

The same applies for the unskilled workers, but to a much larger extent. In the two older cohorts, the chance of realizing an upward move was higher than the chance to remain in this position, even for unskilled workers who showed no overt system loyalty. This was not the case for the unskilled workers of the two younger cohorts. In these cohorts, only the overtly system loyal unskilled workers had a higher chance to move upwards than to stay. The odds are larger than 1. The unskilled workers who were not active in political institutions of the party and the state had almost no chance to move upwards. That is, they only had 20% of the chance of unskilled workers overtly loyal to the system.

V. Conclusions

What are the main conclusions we can draw from this first empirical analysis of the patterns of occupational careers of men in the former GDR?

1. So far we find evidence for the first of our hypotheses, namely that the overall amount of intragenerational mobility of men in the former GDR, whether it is vertical or horizontal mobility, declined cohort by cohort. In particular, the opportunities for upward shifts deteriorated in the younger cohorts while the significance of the level of the first job increased.

We find great career opportunities in the cohorts 1929-31 and 1939-41. In particular the cohort 1929-31, whose members experienced severe hardships and disadvantages with respect to their qualifications and start into work life after the Second World War, were able to benefit from the specific historical conditions of the economic and political development in the former GDR during the fifties and sixties. While the proportion of men who entered into the labor force at a higher level of qualification increased in the following cohorts, the opportunities for later improvements of occupational status deteriorated. Additionally, the proportion of men in elite positions at age 30 did *not* increase over cohorts, it was even *smaller* in the youngest cohort 1959-61 than in the other cohorts.

High status jobs (executive personnel, professionals and other qualified non-manual positions) were mainly occupied by the older cohorts. Since the late seventies there was no expansion of this part of the labor market anymore. Therefore, on the one hand, the competition for the decreasing vacancies in this segment of the labor force increased. On the other hand, it is important to know that skilled level workers in particular were (partially) unwilling to make upward

shifts in their career. As a result the barriers between the different status groups rose substantially.

2. One could have expected that in the younger cohorts the former pattern of vertical mobility has changed to a pattern of lateral occupational mobility. We saw that the overall amount of mobility in the younger cohorts remained fairly high. However, in contrast to hypothesis 2 and in accordance with hypothesis 3.2, we also found a decline in the proportion of job shifts leading to an occupational change and an increase in what we called "simple" job shifts. Compensation of misplacement in the labor force by state regulated allocation of the labor force in the planned economy of the GDR may have taken place. However, up to now we have not been able to find this empirically in our data. The increasing majority of "simple" job shifts must have had other reasons. This point deserves more detailed investigation to learn more about the conditions and motivation for job shifts in the younger cohorts.

3. The finding of a decreasing amount of upward mobility in status over cohorts is confirmed by a logit regression of the upward mobility between the first job and the job held at age 30. It is interesting to note that the contrast of the probability of an upward move between the different occupational positions achieved in the first job is independent of cohort membership: unskilled workers are the most likely to realize upward mobility in each cohort.

Another interesting finding is that overt system loyalty, i.e., being a member of a party or occupying a leading position in a pro-party organization, improved the likelihood of an upward shift. The relevance of system loyalty is significantly larger in the younger cohorts. In accordance with what we proposed in hypothesis 4, this is in part due to the fact that there was increasing competition for a shrinking pool of high level positions (Engler 1992). Or in contrast, in the case of unskilled jobs, it could be caused by the disproportion between the economic demand for people doing unskilled work and a shrinking pool of people willing to do these jobs. Unskilled workers who were overtly system loyal had a better chance to move up into jobs at a skilled level.

The story of the comparison of occupational mobility between our cohorts is one of an ongoing process of decreasing career opportunities: in the sense of status mobility *and* in the sense of occupational mobility defined as a change in occupational activity.

Table 1: Occupational mobility of East-German men by cohort until age 30

A Average number of changes in

	All cohorts	Cohort 1929-31	Cohort 1939-41	Cohort 1951-53	Cohort 1959-61
jobs	1,79	2,53	1,81	1,42	1,47
occupations (ISCO)	1,03	1,66	1,08	0,76	0,58
occupations (2-digit DDRC*)	0,89	1,50	0,89	0,63	0,50
levels of qualification (3rd-digit DDRC)	0,49	0,85	0,52	0,28	0,28
occupational positions (5 cat-version**)	0,51	0,95	0,53	0,29	0,25
firms	1,21	2,05	1,20	0,88	0,70

B Number of jobs (in %)

One spell	20	14	12	26	28
Two spells	29	16	35	33	31
More than two spells	51	70	53	41	41
Number of cases	1137	289	294	290	263

(* DDRC is a 4-digit classification scheme of occupations for the former GDR. The first two digits indicate the occupational field differentiated into 54 categories. The third digit indicates the levels of qualification needed for the job - ranging from unskilled to highly qualified levels. The last digit allows specification of the concrete job among about 600 jobs included in the classification.)

(** The 5 categories are: elite position; semiprofessional; skilled worker; unskilled worker and farmer/self-employed.)

Source: Own calculations, Life History Study of East Germany, MPI Berlin 1993

Table 2: Upward, lateral, and downward mobility of East-German men by cohort until age 30 (Shifts in the occupational position, 5 category-version)

A Average number of shifts

	All cohorts	Cohort 1929-31	Cohort 1939-41	Cohort 1951-53	Cohort 1959-61
All shifts	1,80	2,53	1,81	1,42	1,38
Upward shifts	0,32	0,63	0,37	0,17	0,11
Lateral shifts	1,31	1,63	1,30	1,16	1,15
Downward shifts	0,16	0,27	0,14	0,10	0,12

B Distribution of shifts (in %)

	All cohorts	Cohort 1929-31	Cohort 1939-41	Cohort 1951-53	Cohort 1959-61
Upward shifts	17	27	20	10	7
Lateral shifts	75	63	73	83	86
Downward shifts	8	10	7	7	7

Source: Own calculations, Life History Study of East Germany, MPI Berlin 1993

Table 3: Occupational mobility out of unskilled and skilled jobs and into elite positions of East-German men by cohort until age 30

A Mobility out of unskilled jobs (in % of spells)

Destination	Cohort 1929-31	Cohort 1939-41	Cohort 1951-53	Cohort 1959-61
Elite	2	5	0	0
Semiprofessionals	3	4	5	3
Skilled level	31	35	21	19
Unskilled level	58	55	66	76
Others (farmers, self-employed)	6	1	8	3
Number of spells	267	119	61	70

B Mobility out of skilled jobs (in % of spells)

Destination	Cohort 1929-31	Cohort 1939-41	Cohort 1951-52	Cohort 1959-61
Elite	7	5	2	1
Semiprofessionals	9	9	6	3
Skilled level	66	76	81	85
Unskilled level	16	10	9	10
Others (farmers, self-employed)	2	1	2	1
Number of spells	356	318	270	265

C Mobility into elite positions (in % of spells)

Origin	Cohort 1929-31	Cohort 1939-41	Cohort 1951-52	Cohort 1959-61
Elite	43	53	78	81
Semiprofessionals	15	16	8	6
Skilled level	33	21	12	13
Unskilled level	5	8	0	0
Others (farmers, self-employed	4	1	2	0
Number of spells	76	73	51	16

Source: Own calculations, Life History Study of East Germany, MPI Berlin 1993

Table 4: Proportion of lateral shifts with a change in the occupation* of East-German men.
By occupational position and cohort (in %).

Position	Cohort 1929-31	Cohort 1939-41	Cohort 1951-53	Cohort 1959-61
All positions	49	42	36	27
Elite	49	31	20	23
Semiprofessionals	41	42	50	0
Skilled level	33	38	33	24
Unskilled level	80	68	68	43
Others (farmers, self-employed)	31	20	33	25

(* "Change in occupation" is measured as changes in the first two digits of the GDR classification of occupation. This is rather a conservative approach since changes in occupation within the occupational fields themselves are not included.)
Source: Own calculations, Life History Study of East Germany, MPI Berlin 1993

Table 5: First occupational position of East-German men by cohort

A All men (in %)

Position	Cohort 1929-31	Cohort 1939-41	Cohort 1951-53	Cohort 1959-61
Elite	5	6	14	12
Semiprofessionals	2	5	6	4
Skilled level	58	69	69	73
Unskilled level	30	15	10	8
Others (farmers, self-employed)	5	5	2	3
Number of men	289	294	290	263

B Occupational position of men with one-spell careers (in %)

Position	Cohort 1929-31	Cohort 1939-41	Cohort 1951-53	Cohort 1959-61
Elite	22	9	22	30
Semiprofessionals	10	9	12	10
Skilled level	56	63	58	54
Unskilled level	10	9	7	3
Others (farmers, self-employed)	2	9	1	4
Number of men	41	33	74	76

Source: Own calculations, Life History Study of East Germany, MPI Berlin 1993

Table 6:
Association between qualifications in training and occupation of four birth cohorts of East-German men.
(Lambda-values*, N=1137)

Dependent variable	Independent variable	Lambda	s.e.
Occupational position in the first job	Level of occupational training achieved at that time		
all cohorts		0,60	0,03
cohort 1929-31		0,52	0,05
cohort 1939-41		0,59	0,06
cohort 1951-53		0,68	0,05
cohort 1959-61		0,66	0,06
Occupational position in the job held at age 30	Level of occupational training achieved at that time		
all cohorts		0,44	0,03
cohort 1929-31		0,32	0,05
cohort 1939-41		0,45	0,05
cohort 1951-53		0,56	0,05
cohort 1959-61		0,51	0,06
Upward move in occupational position between the first job and the job heldat age 30**	Upward mobility in the level of qualification in occupational training until age 30***		
all cohorts		0,39	0,04
cohort 1929-31		0,39	0,06
cohort 1939-41		0,38	0,07
cohort 1951-53		0,53	0,09
cohort 1959-61		0,16	0,17

(* Lambda is a predictive measure of association between two categorial variables. It reflects the extent of proportional reduction in the prediction error by knowing the independent variable. Lambda is also called "Guttman's coefficient of relative predictability".)
(** Only men who did not occupy an elite position in the first job, N**=1036.)
(*** It is coded as "1" for any upward move in the level of qualification of occupational training and "0" else.)

Source: Own calculations, Life History Study of East Germany, MPI Berlin 1993

Table 7A:

Logit regression of upward mobility in occupational position between first job and at age 30. East-German men.

Model specification

Dependent variable = Upward mobility between first job and job at age 30

Selected variables	Additional variables	Improvement of fit	d.f.
Mean		(1125,1)*	1024
	c	**98,3**	**3**
c	o	3,1	4
c	c*o	8,8	12
c	occf	**129,1**	**3**
c + occf	occf*c	6,8	9
c + occf	occf*c2	2,4	3
c + occf	loyal30	**44,6**	**1**
c + occf + loyal30	loyal30*c	3,7	3
c + occf + loyal30	loyal30*c2	**3,0**	**1**
c + occf + loyal30*c2	loyal30*c50	0,4	1
c + occf + loyal30*c2	loyal30*c60	0,5	1

Legenda:

c	: cohort membership (1929-31, 1939-41, 1951-53, 1959-61)
c2	: two older vs. two younger cohorts
c50	: member of the cohort 1951-53
c60	: member of the cohort 1959-61
o	: origin (class position of parents)
occf	: first occupational position
loyal30	: party member or leading positions in pro-party organizations

Final model:
Cohort + First occupational position + Loyality at age 30 * Older versus younger cohorts
Improvement of fit: 272,0 (d.f. = 8)

(* scaled deviance)
(N=1025 East-German men, with 244 upwardly mobile men)
Source: Own calculations, Life History Study of East Germany, MPI Berlin 1993

Table 7B:
Logit regression of upward mobility in occupational position between first job and at age 30. East-German men.

Coefficients of the final model

Dependent variable = Upward mobility between first job and job at age 30

Variables	Logit coefficients	s.e.	Odds ratios
cohort			
(cohort 1929-31)*			
cohort 1939-41	-0,13	0,21	0,88
cohort 1951-53	-1,31	0,31	0,27
cohort 1959-61	-1,90	0,35	0,15
first occupational position			
(skilled workers)*			
semiprofessionals	0,16	0,39	1,17
unskilled workers	2,19	0,20	8,90
farmers / self-employed	-1,20	0,62	0,30
loyalty at age 30	0,98	0,21	2,68
(no overt loyalty)			
additional effect on loyalty of the two younger cohorts	0,66	0,38	1,93
constant	-1,56	0,20	0,21
proportion of upwardly mobile men	244/ 1025		

(* Reference category)
Source: Own calculations, Life History Study of East Germany, MPI Berlin 1993

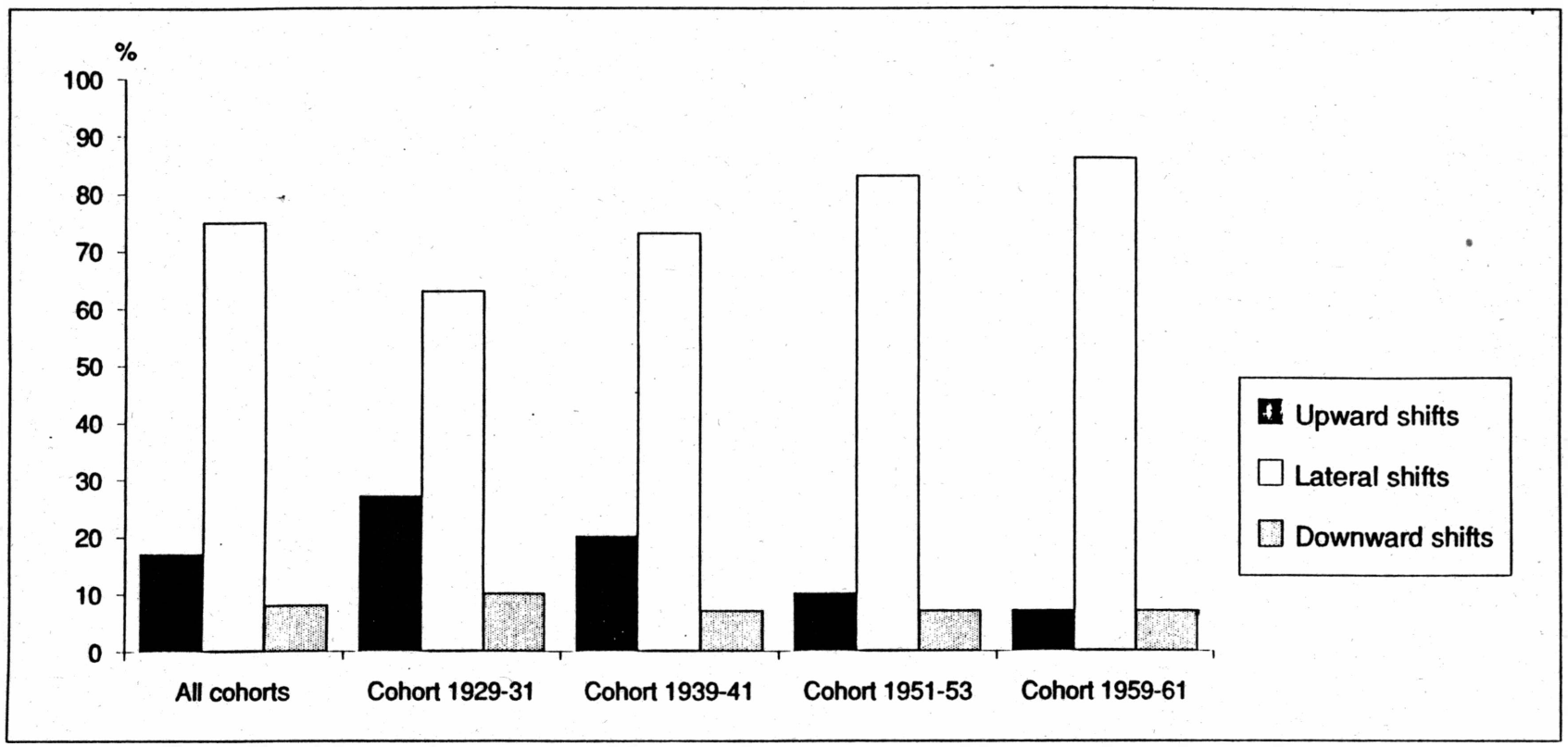

Figure 1: Distribution of upward, lateral and downward shifts in occupational position of East-German men by cohort until age 30.

Source: Own calculations, Life History Study of East Germany, MPI Berlin 1993

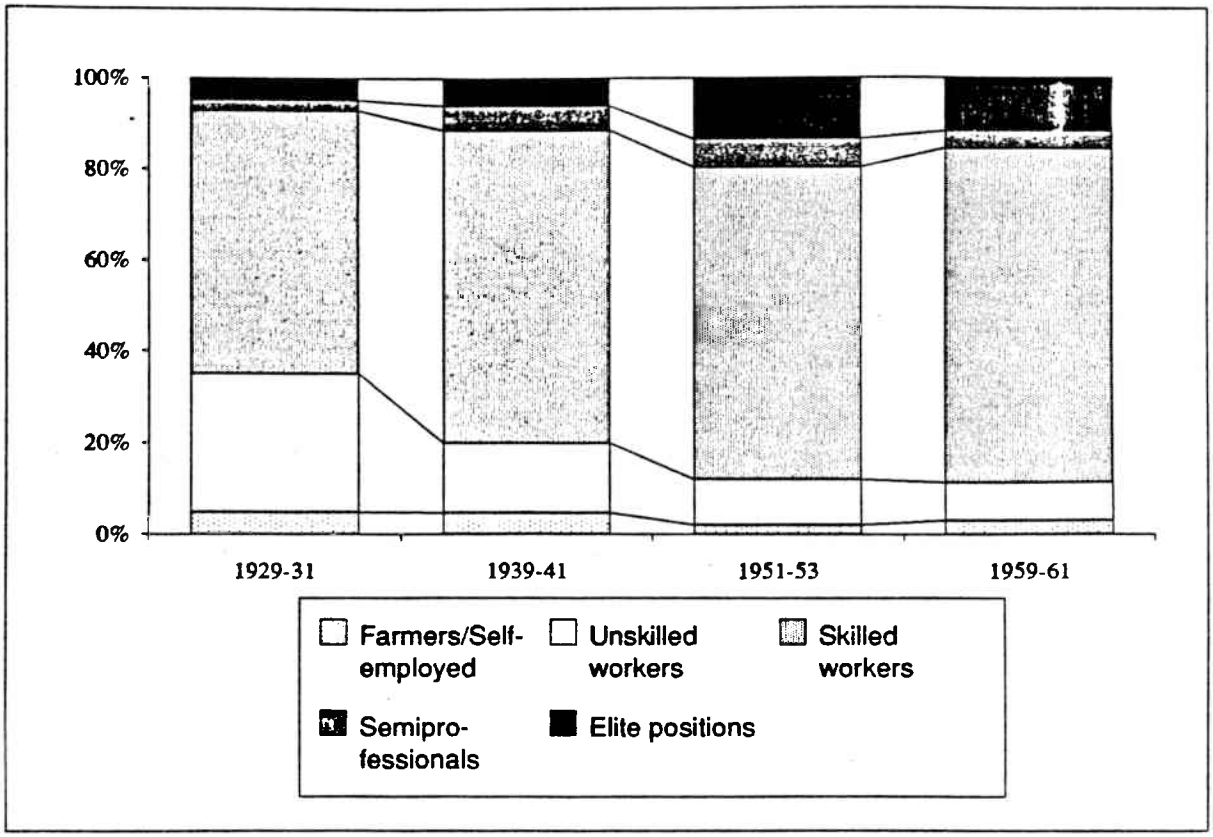

Figure 2a: **Occupational postions in the first job. Four birth cohorts of East-German men.**
(N=1137)

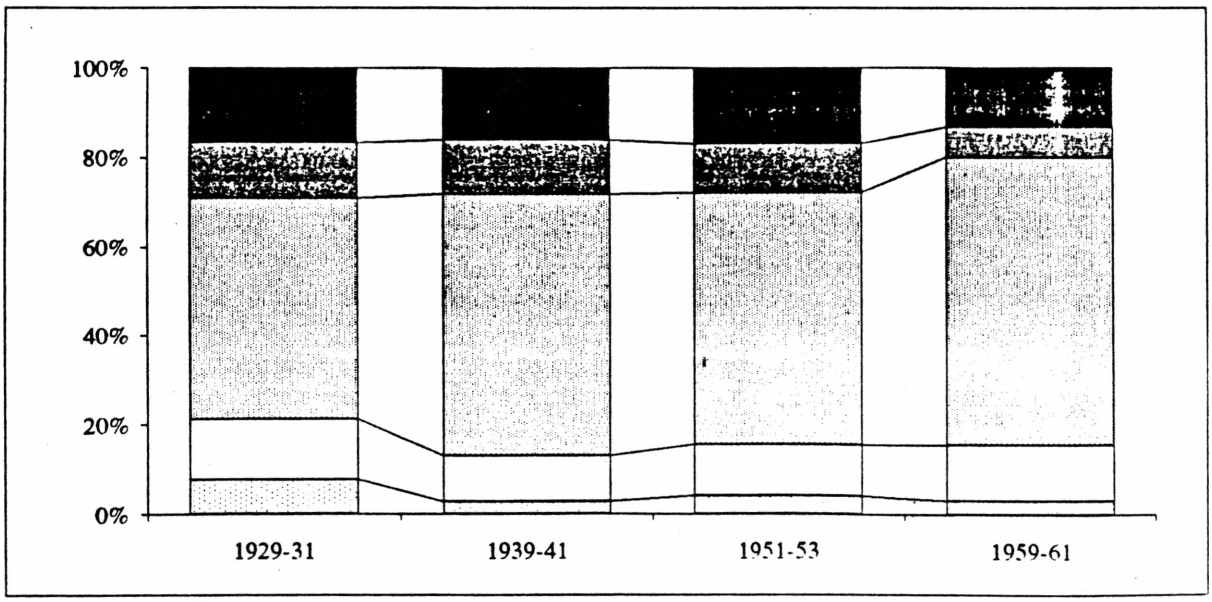

Figure 2b: **Occupational positions at age 30. Four birth cohorts of East-German men.**
(N=1137)

Source: Own calculations, Life History Study of East Germany, MPI Berlin 1993

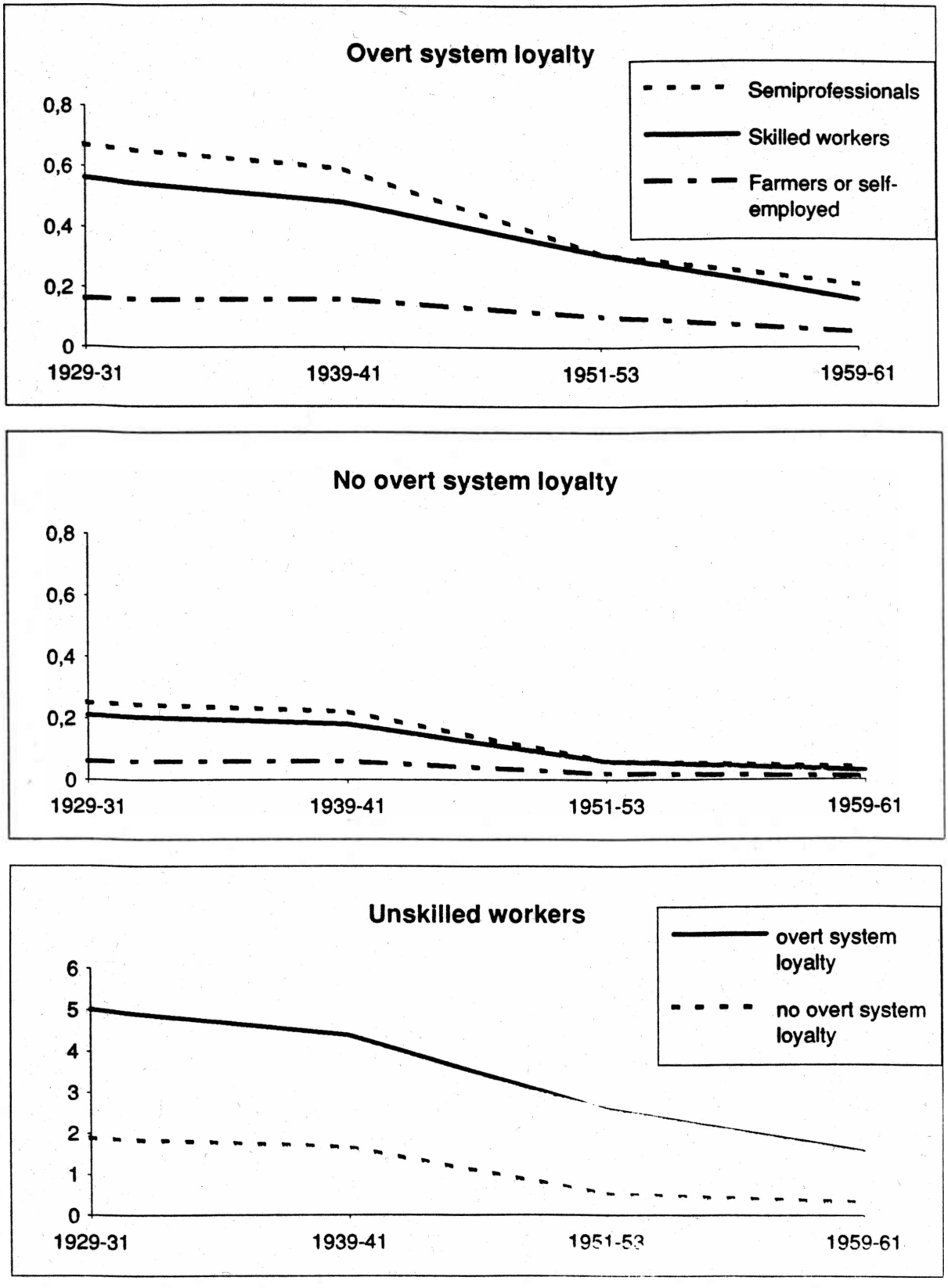

Figure 3:
Odds of intra-generational upward mobility prior to age 30 depending on first occupation and presence/absence of overt system loyalty* of East-German men

(* "Presence of overt system loyalty" means being a party member or occupying a leading position in pro-party organizations.)
Source: Own calculations (N=1025 men), Life History Study of East-Germany, MPI Berlin 1993

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