WHILE EDUCATIONAL INEQUALITIES DECREASED, DID DOWNWARD MOBILITY DIMINISH BECAUSE GOVERNMENTS ENHANCED UPWARD MOBILITY?

Changes in the Netherlands during the 20th century

Wout Ultee
University of Nijmegen
e-mail: w.ultee@maw.kun.nl

Ruud Luijkx
Tilburg University
e-mail: r.luijkx@uvt.nl

This version : 24/02/2003 00:36

Paper for the meeting of Research Committee 28 on Social Stratification and Mobility of the International Sociological Association, held at the Institute of Social Science, University of Tokyo, February 28 to March 3, 2003.

Is inequality much of a question, is mobility a poorly posed problem?

Textbook sociology advertises stratification of human societies as one of sociology's long-standing and deep-rooted questions. But is income inequality, a prime aspect of stratification, much of a question; is the issue of income dispersion precise enough to demand interest? Some decades ago Parkin (1979: 9, 185) commented that income disparities might decrease in two ways: by lifting the disadvantaged up to the level of the advantaged, and by pressing the advantaged down to the rank of the disadvantaged. He added that although communist ideology had promised to raise the standard of living of the workers up to that of the old bourgeoisie, in the end the standard of living of the workers in communist societies hardly differed from the level of living of the working class in free market societies. In communist societies the old bourgeoisie was brought down to the standard of living of the workers. The question of inequality is underdetermined, since it leaves the point of equality suspended.

So how about intergenerational class mobility, another part of the issue of societal stratification? Does research on mobility pose the problem poorly too? Although sociologists often talk about social mobility, their research attest that they do not intend to contrast social stability with all forms of non-stability lumped together. Their questions often focus upward mobility, with an additional distinction between short- and long-range upward mobility. Downward mobility receives less attention. This seems the case because sociologists often spotlight effects of political experiments in societal change. The question of what social democracy did against inequalities, is about moving up from the unskilled manual classes to the highly skilled white collar classes. Social-democratic governments seek to eliminate financial obstacles to obtaining credentials, the prime ticket for entering the highly skilled white collar occupations. As far as we know, no such government tries to increase downward mobility from highly skilled white-collar occupations to unskilled manual occupations. Admittedly, Parkin (1971: 107) remarked that 'the extent of downward mobility in a society is generally regarded as a more telling index of its openness than the rate of upward mobility'. Maybe he was right as far as indications for the openness of a society's system of stratification goes. But he was decidedly wrong about the drift of the questions addressed in empirical investigations. And he was even more off the mark about the intentions of social democracy. Communism, after gaining control of the state, demoted the children of its old class enemies. But communism soon retracted.

Since Goldthorpe (1980: 77), questions about father-son class mobility are framed as questions about the degree of inequality in the outcomes of competitions between persons originating in the lower and higher classes for destinations in the higher or lower classes. Computing relative mobility chances or odds ratios is the hallmark of the third generation of mobility studies (Ganzeboom, Treiman & Ultee 1991). However, it may be wondered whether social-democratic governments sought to equal these competitive outcomes. Questions about more equal relative mobility chances, like questions about declining income disparities, do not specify the point of equality. Did a situation come about in which upward and downward mobility increased? Or did the chances of moving up from the lower classes increase and the chances of remaining high for the higher classes too, but to a smaller extent? The current practice of computing odds ratios for relative mobility chances bypasses questions about upward mobility versus downward mobility. The question of relative mobility chances is non-specific. Questions about changing odds ratios are to be supplemented with questions for earlier and later cohorts about the odds to rise from a lower to a higher level and the odds of falling down from a higher to a lower level.

In this paper we address questions about father-son and father-daughter educational mobility. The country studied is the Netherlands, and we cover five-years cohorts borne from 1900-1904 to 1970-1974. Table 1a presents the used data sources. In the first two columns of

Table 1b the number of men and women in each cohort are presented. We take it as unproblematic that relative chances of educational mobility became more equal in the course of the 20th century in the Netherlands. The major study presenting this finding is De Graaf & Ganzeboom (1990). The data we will analyse are the same as analysed in that paper, although we add recent surveys. To wit, our data were not collected in one survey, but form a super-file from all the surveys ever conducted in the Netherlands and preserved in digital form containing information about a person's year of birth, gender, level of education, and the level of education of this person's father. A person's education was coded into four categories: at most primary school finished (level 1), a diploma for lower secondary education (2), a diploma for higher secondary education (3), a diploma for higher education (level 4). Father's education was coded in the same way.

Contributing to the third generation of mobility studies

Around 1980 paradigms shifted in intergenerational mobility research. The linear regression models of the second generation of mobility studies went out, loglinear modelling was the logo of the third generation. In addition, one preoccupation of the first generation of mobility studies took a severe beating. The question of how to separate percentages for total mobility into portions for structural mobility and for circulation mobility went out. In came the third-generation question of relative mobility chances and the question of how these chances, as determined by the cell frequencies of a mobility table, together with the marginal distributions of a mobility table, result into total mobility (Erikson & Goldthorpe 1992: 59). In the preceding section we questioned the wisdom of computing relative mobility chances, that is, dividing the odds of persons from a high origin to stay in a high destination rather than fall to a low destination, by the odds of persons from a low background to obtain a higher rather than a lower destination. Questions about upward mobility and about downward mobility deserve separate attention. Other unwholesome tendencies have shown up in third generation intergenerational mobility studies too. We now will list them and outline our remedies.

In what follows, we will, in the end, not be proposing much 'news'. Indeed, the presented paper may be viewed as an attempt to execute the programme of the third generation of mobility studies more fully. It does so from three methodological points of view: the logic of questions (Ultee 2001), the fit between these questions and the hypotheses at hand (Ultee 1996), and the degree to which analytical techniques square with those hypotheses (De Graaf & Ultee 1990). Our emphasis on odds rather than odds ratios, for instance, amounts to little more than a plea to interpret the constant of a logistic regression model. In addition, it has been held for more than a decade that total mobility results from relative chances and marginal distributions. And Erikson & Goldthorpe (1992: 207) performed an exercise answering the question to what extent structural differences, relative to differences in social fluidity, affect cross-national variation in absolute mobility rates. In the present paper we take this idea one step further by deriving and testing the proposition that higher odds for upward mobility in one cohort lower the odds of downward mobility in the next cohort.

The general theories around in the field of stratification and mobility allow for rather detailed research questions and quite specific hypotheses. These questions and hypotheses are not addressed by the elegant statistical models around right now. These models saturate marginal frequencies; specify uniform association and postulate linear effects of time. In the analytical part of this paper, we therefore present such a simple statistical model for changes in educational inequalities in the Netherlands. After that we explore our data in various informal ways, starting from our detailed questions and more informative hypotheses. Finally

we attempt a statistical analysis attuned to our hypotheses. But first a discussion of unwholesome tendencies in third generation mobility research and a presentation of remedies. After that we elaborate our hypotheses.

Unwholesome tendencies in studies of the third-generation

Odds ratios and parameters of loglinear models, which may be interpreted as odds ratios, by leading scholars of the third generation are taken as measures for describing a table (Goldthorpe 2000). However, sociology is not only about describing phenomena as accurately as possible, but also about explaining them. For the latter task, logistics regression is more appropriate. Indeed, there is no reason to interpret odds ratios as purely descriptive measures. In some sense or other, father's class is a cause of son's class. Having a father from a low class disadvantages persons in a competition for higher-class positions. Also, measurements are as such that father's class precedes son's class. Therefore, the present paper will employ directional statistical models rather than non-directional ones.

Another trend in third generation mobility research is to capture relative mobility by as few parameters as possible. Hout & Hauser's (1992) main criticism of Erikson & Goldthorpe's (1992) core model for relative mobility in a dozen industrial societies in the 1970s, was that this model could be more parsimonious by bringing in symmetry and hierarchy. However, if a researcher's questions are not descriptive but about trends, this tendency is unfortunate. Questions about changes are misleadingly easy to answer when two points in time are considered and one parameter charts them. But any conclusion is firmer if the odds ratio for the competition between origin classes A and B for destination classes A and B increased (decreased or stayed the same), as well as the odds ratio for the competition between B and C for B and C, and the one for the competition between C and D for C and D, etc. The present paper presents a disaggregated analysis of 4*4 father-son and father-daughter educational mobility tables.

Related to the tendency to describe relative mobility chances by as few parameters as possible, is the tendency to fit models postulating a linear trend towards more equal relative mobility chances. That changes are linear may be a simpler assumption than that they are quadratic, but no hypothesis around in mobility studies or general sociology allows for this model. Popper (1957) maintained that the assumption of a linear trend is not even an hypothesis. It is merely an unconditional statement about developments in the past continuing into the future. Time is never a cause like that. What is more, if a cause for a trend is asserted, it also is clear when that trend will not be as strong: when the cause becomes less potent. And a trend will no longer assert itself if the condition making for it, no longer applies.

As stated, the focus in the third generation of mobility studies on relative mobility chances is unfortunate. Attention should go out to odds. Of course, there is an objection to this. The next section contains hypotheses about changes in time in the chances of downward mobility. One hypothesis holds that they decreased. Small wonder, a sceptic might retort, the number of places down under decreased. And for that reason a researcher is advised to compute odds ratios. These measures are independent of marginals. But is a researcher to eliminate consequences of marginal frequencies for mobility, or to ascertain them? We hold that researchers should avoid the former. Coleman's (1987) criticism of the second generation of mobility research applies to the third generation too. Studies on social mobility should not eliminate effects of marginal distributions, they should incorporate them. This might be done by devising independent variables pertaining to marginal distributions. They allow for incorporating structural effects into statistical models. This proposal is not novel. Indeed, it is implied by Erikson & Goldthorpe's injunction to view total mobility rates as an outcome of relative chances and marginal distributions.

Yet Coleman's idea does not go far enough. Mobility studies of the third generation take marginal distributions as pre-given: most statistical models saturate marginal frequencies. Surely, technological change has its own dynamics. But it is an empirical matter to determine the extent to which 'functional requirements' of (post)industrial societies are met. And one early third-generation study voiced doubts: 'culture may itself shape occupational structure; the pace of industrialization and the particular direction it takes may well be determined by political forces' (Heath 1981: 199).

That the frequencies in the destination marginals are not externally determined and result from individual striving and governmental policy, becomes clear if no longer intergenerational class mobility tables are being analysed, but intergenerational educational mobility tables. For a person looking for a job there is something like a pre-given supply of jobs. However, it is difficult to maintain that for each generation of children a certain number of slots for a particular level of education is available. Perhaps this is true for entering the most prestigious university in Japan, the United Kingdom and the United States. It is not true for any particular university in the Netherlands. Nor is it true for the whole educational system of the four countries. Some educational establishments reject applications, all taken together do not. If the educational distribution upgrades, it is because more people continue to a higher level of education. In this case, structures are the aggregate outcome of individual acts. Hypotheses of the kind 'as education expands, relative chances of educational mobility become more equal' are about societies and take a macro-phenomenon as a cause, whereas that phenomenon is an aggregate implication (no empirical effect) of individual decisions to continue or leave school. Of course, in contrast to marginal distributions for destinations, marginal distributions for origins might be taken as given and saturated.

In addition, marginal distributions for educational destinations are affected by politics; that is by a powerful corporate actor. One instance is obligatory primary schooling, another raising the age of leaving school. Yet another one is taking a degree in higher education below cost price in the wake of state support for institutions of higher education and state subsidies to students with the proper entrance papers for university but without parents having sufficient means to finance their offspring's education.

This is not to deny that 'structures' in some vague sense of the word condition choices. In the next paragraph we posit that, if going from birth cohort I to birth cohort II the odds for children from a lower level of education to obtain a higher level of education increase, going from birth cohort II tot birth cohort III the chances of children from a higher level of education to obtain a lower level of education drop. Note that this hypothesis following up on Coleman's criticism does not so much amount to simultaneously modelling the marginal and the cell frequencies of one mobility table. This hypothesis makes the frequencies in certain cells of a mobility table dependent upon the frequencies of other cells in a mobility table for an earlier birth cohort.

Finally, in the present paper we will not be computing odds for children from a high-level education background to remain at that level (as contrasted with falling to a lower level). We will compute the odds of falling to a lower level of education (contrasted with remaining at a higher level). This does not seem much of a difference. However, we do so, because we aim to compare the chances for people from a low background to climb up with the chances for people from a high background to fall down. An old problem in sociology is the circulation of elites (Pareto 1966). Of course, it may be wondered whether the persons with higher education form an elite. But if the circulation in and out advantaged slots is to be studied, and we aim to do so, the chances for people to move into the top group are to be contrasted with the chances of people to fall from it. Is there some kind of symmetry, or to what extent do asymmetries prevail (cf. Sobel, Hout & Duncan 1985)? Models of uniform

association assume quasi-symmetry, that is, symmetry after saturating origin and destination marginal frequencies (Hout 1983).

Educational expansion as a spiralling process

According to some of the hypotheses around in sociology, social democracy does work. In addition, this hypothesis is well corroborated. In countries with a long tradition of social-democratic government various kinds of inequalities - income dispersion, intergenerational class mobility, the effect of background on education - are smaller (for a review of the evidence, see Ultee, Arts & Flap 1992). Against these 'naive' theories, Bourdieu (1979) held that members of a society's higher classes resort to various strategies to compensate at least to some extent governmental measures that aim to help persons originating in the lower classes to attain higher rungs on the social scale. However, Bourdieu's 'ironic' comment that social-democracy has perverse effects, cannot be regarded as a full-fledged theory. We will state several hypotheses about educational expansion in (post)industrial societies during the 20th century.

In devising these hypotheses, we hold that educational expansion does not inhere in the logic of industrialism (Kerr, Dunlop, Harbison & Myers 1960). It results, under the condition of a rising standard of living, from a competition between a society's lower and higher classes (Collins 1979) in which education is a 'positional good' (Hirsch 1977). If a person is more educated than another person, the returns to investment in education are higher. But if more people attain a higher level, yields will be lower.

By taking this route, we follow up on the idea of competition explicit in Goldthorpe's (1980:77) interpretation of odds ratios. Not only at one point in time is there a 'loaded' contest between persons from higher and lower classes, at later points in time, the outcomes of earlier competitions affect the investments in later ones. However, a 'Goldthorpe-like' competition is a race for a pre-given number of high places. This may be the case when explaining why certain people wind up in the highest class of a society and others not. In the present study we are concerned with explaining a person's level of education. In that case it must be said that educational institutions are only too happy to meet increasing demand for more education. This time the competitive process taking place is 'Elias-like'. We are referring to Elias (1939), and his research delineating a trend towards more refined manners. When states established their monopoly on the means of violence, the old arms-bearing nobility became more dependent upon the state, and to maintain themselves vis-à-vis the members of the bourgeoisie, persons of noble birth refined the rules of behaviour held up to the economically rising bourgeoisie. If one party makes inroads into fields once privileged to another party, the other party starts outdoing the first party by making finer distinctions. Gombrich (1974), termed a similar process in fashion, style and taste 'the logic of vanity fair'. Indeed, Bourdieu (1979) refers to Elias and Gombrich several times, and Bourdieu (1992: 283) to Weber's hypothesis that status groups wage a struggle with symbols.

Predictions for one point in time

Our first hypothesis is about the chances for persons with a father having a low level of education to obtain a higher level of education. All during the 20th century, compared with the odds for children of highly educated fathers, these odds will have been lower. After all, fathers with a lower level of education avail of less financial resources for schooling their children than fathers with a higher level of education. Note that this hypothesis does not assume that lowly educated fathers of children born in 1900 will have the same financial

resources as lowly educated fathers of children born in 1970. Indeed, our fourth hypothesis will maintain the opposite.

Our second hypothesis holds that upward mobility over larger distances will be less likely than upward mobility over shorter distances. Moves from the lowest level of education (1) to the highest level (4) are the least likely, then come moves from 1 to 3 and from 2 to 4, then moves from 1 to 2, from 2 to 3 and from 3 to 4. This hypothesis can be derived from the more general hypothesis that fathers with a lower level of education avail of less financial resources than fathers with a higher level of education, and the auxiliary assumption that upward moves over larger distances require more financial resources and the additional assumption.

Our third proposition involves the odds of downward mobility. We postulate that parents do not like to see their children move down on the social scale. To the extent that they avail of financial resources, they invest them in the education of their children. In this way they maintain their own level of education and, if necessary, give their children a better education than they had themselves. Since the prevention of downward movements over larger distances involve less financial resources than downward moves over shorter distances, downward movement over larger distances will be less likely than downward moves over shorter distances.

We do not know of any way of arguing that movements up are as likely as movements of the same distance down. This assumption may be made in a modelling exercise, but there is no explanatory idea behind it that involves the resources fathers invest in their children. What is more, a fourth hypothesis might hold that the chances for moving down will be smaller than the chances for moving up. What drives the actions of parents, is the aversion of having children with less education than they have themselves. This aversion is stronger than their desire to have children who moved up.

Predictions about changes in the course of time

Our fifth hypothesis says that as the general standard of living in a society rises, the odds for children with a lowly educated father to obtain a higher level of education rises, as well as the odds for children with a highly educated father. In our final analysis we will measure the average standard of living directly. Our data pertain to five-year periods, with the cohort born in 1900-1904 getting the score for the Netherlands in 1910, etc. That is, we take the general standard of living at a point in time shortly afterwards a young person enters compulsory school, which is the age of six years.

We add that we have some qualms about this measure. In 1945 gross domestic product per capita for the Netherlands was much lower than in 1940. However, if pupils were leaving school, they probably did not do so because of money problems, but because of the disruption of the schooling system in the wake of the German occupation of the Netherlands. We give the scores for net domestic product per capita and in constant prices in the third column of Table 1b. Our fifth hypothesis adduces the context in which people find themselves. The rest of our hypotheses do so too.

Our sixth thesis involves the general standard of living and downward mobility. Since preventing downward mobility costs money and the rising standard of living makes these financial resources more readily available, downward mobility becomes less likely in the course of time. If parents avoid downward mobility of their children, a seventh hypothesis is that with a rise in the general standard of living, downward mobility over larger distances decreases more than downward mobility over a shorter distance.

Our eighth hypothesis states that as a consequence of the introduction of compulsory schooling and raising the age for leaving school, the odds for children of lowly educated

fathers to move up, become higher. In the Netherlands child labour (paid work below the age of 12) became outlawed in 1872. This law did not have teeth; supervision became strict only in 1900. In the same year, primary education from the age of six years to the age of 12 years became compulsory. The age for leaving school was raised to 13 or 14 years around 1940. But because the Netherlands got involved in World War II, this law at that time was not executed. In the 1969 the age for leaving school became 16 years, with compulsory part time schooling being introduced up to age 18 years gradually in first part of the 1970s. Nowadays, untimely dropout plagues Dutch institutions for secondary education. We represent the developments in the laws about compulsory education with the two contrasts indicated in the fourth column of Table 1b. According to Veld (1987: 153) in 1850 about 25% of the population aged 6 tot 12 did not visit primary school. This percentage gradually dropped. It was a bit below 20 in 1870 and around 10 in 1900, when primary education became compulsory.

Our ninth hypothesis is about the odds for people from a high education background to fall to a lower level of education. To defend themselves against the inroads of the lower classes into the higher classes because of compulsory schooling and raising the age of leaving school, fathers with a higher level of education invest more in the education of their children than they used to. The available jobs in a society's higher classes are, all other factors remaining the same, more likely to go to persons originating in the lower classes who have attend a higher level of education than to lowly educated children from fathers with a high level of education. However, fathers from the higher classes see to it that all other factors do not remain constant. The higher the chances for a child with a lowly educated father to become more educated, the less likely is a child from a father with a higher level of educated to drop in level of education. Fathers, also fathers with a high level of education, do their best for their children, and if investing in a higher level of education for their children becomes more expedient or even paramount, they do so.

This ninth hypothesis perhaps needs elucidation. Our earlier hypotheses imply that the general level of education rises as an aggregate outcome of a higher proportion of persons with a low background to obtain a higher level of education and as a consequence of a lower proportion of persons with a high background who are downwardly mobile. Our ninth hypothesis predicts educational expansion too. This time we predict expansion among the persons with a higher background as a consequence of a growing percentage of persons with a low background to obtain a high level of education. To put this hypothesis about a process that feeds itself in less paradoxical terms: the rising chances for persons from a low background to obtain a higher level of education, lower the chances for people from a high background to slide on the social scale.

Our ninth hypothesis refers to one strategy that highly educated fathers resort to in order to fight off the negative consequences for their children of policies favouring children from fathers with a low level of education. We will not elaborate additional hypotheses on compensatory strategies here. Rather, we would like to point out brakes on educational expansion as a process that feeds itself. In some countries these brakes will be stronger than in other countries, but they are always there. Going to school involves financial losses. This is not only the case because entry fees have to be paid, but also because people cannot spend the hours they study on earning money. So in countries where tuition fees are higher and stipends lower, educational expansion will not be as strong as in countries where tuition fees are lower and stipends higher. The Netherlands is a country where tuition fees are relatively low and stipends relatively high.

Another brake on the expansion of education might be that as the proportion of persons going on to higher education increases, the proportion of students who do not make the grade rises. The pool of talent will not expand vastly in a relatively short period. However, if there

is a tendency for standards to be lowered because institutions for higher education have a vested interest in expansion, this brake will not be strong. This seems to be the case in the Netherlands. Or at least: the proportion of students taking up more difficult fields like the natural sciences has gone down, the proportion of students pursuing easier fields like communication studies, law, management and psychology has risen.

Uniform association models and linear time effects

Let us return to an hypothesis around in social mobility studies: as time passes, social mobility increases linearly as measured by some parameter for uniform association and saturating the marginal frequencies. As pointed out, time in itself is not a causal condition. In social mobility research time is often taken to stand for level of technology and economic development. But a bit of historical knowledge suggests that a country's level of economic development did not increase linearly with the course of time. As column 3 in Table 1b shows, it certainly did not do so in the Netherlands during the 20th century. Empiricists in sociology, upon encountering this argument, start experimenting with quadratic effects, or something. But the substantive - some would say theoretical - solution is to replace time as an interval variable by an interval measure for economic development. We have already indicated that laws about the length of compulsory schooling changed in the Netherlands during the 20th century.

The hypothesis that the association between father's and child's education is always uniform, but decreasing linearly with time, deserves another comment now that we have stated our hypotheses.. Why uniform association? The substantive hypotheses around are about the distance travelled. Fortunately, distance models are equivalent to models of uniform association. Yet current hypotheses do not say that the odds of moving a certain distance up are the same as those for moving the same distance down. That is, often applied statistical models make assumptions that go beyond current hypotheses.

This is not always bad: simple models are preferable to more complex ones. But sometimes substantive hypotheses say that the world is not that simple. Indeed our hypotheses imply that the introduction of compulsory school and raising the age of leaving school do not affect all movements up uniformly. The introduction of compulsory schooling in the Netherlands in 1900 will have increased to chances of moving up from 1 to 2 and lowered the chances for downward mobility from level 2 tot level 1. But it will not have augmented the chances of moving up from 2 to 3 or from 3 to 4, nor will it have lowered the chances of moving down from 3 to 2 or from 4 tot 3. The chances of moving up from 2 to 3 will have increased by raising the age for leaving school from 12 to 14, and the odds of moving down from 3 to 2 will have been lowered by this governmental measure. Raising the age of schooling from 14 to 16, will have increased the chances of moving up from 3 to 4 and lowered the chances of moving down from 4 to 3.

Results of models saturating marginal frequencies, postulating uniform association and assuming a linear trend

In Table 2 we replicate the analyses of intergenerational educational mobility by De Graaf & Ganzeboom (1990). Unfortunately, we lacked the time to write out the results in full in this paper.

Odds ratios for 2*2 decompositions, odds of rising, odds of sliding

Having argued that models of uniform association with a linear effect, however simple they may be, are not attuned to the quite informative hypotheses around in sociology, we decompose our 4*4 educational mobility tables into 2*2 tables. In what follows, we first analyse in detail the table for 1 and 4 as origins and destinations. Them we review the table with 1 and 3 as origins and destinations, and the table with 2 and 4 as origins and destinations. Finally, we deal with the three tables involving adjacent origins and destinations: 1 and 2, 2 and 3 and 3 and 4. Odds ratios and odds are presented in Tables 3 to 8.

Our first hypotheses were about one point in time. We take the tables for men for the cohorts 1905-09, 1925-29, 1945-49 en 1965-69 as examples to see whether the postulated patterns prevail. Let us start with the hypothesis that upward moves over larger distances are less likely than upward moves over shorter distances. For the 1925-29 cohort, the odds for moving up from 1 to 4 is 0.20, for moving up from 2 to 4 0.66 and for 1 to 3 0.52, and the odds for moving from 3 to 4 0.72, from 2 to 3 0.80 and 1 to 2 0.87. This is as predicted. The respective odds for the 1945-49 cohort are 0.68, 0.85 and 1.82, and 1.28, 0.82 and 2.11. This is not fully as predicted. The odds for 1905-09 are 0.10, 0.63 and 0.16, and 3.22, 0.26 and 0. 43. Here a statistical blip seems to occur. For 1965-1969 the respective odds for moving up are 2.44, 0.88 and 19.94, and 0.91, 1.65 and 4.42. All in all, movements up over larger distances are less likely than movements up over shorter distances.

Now our hypothesis that movements down over larger distances are less likely than movements down over shorter distances. This time we take as examples the same cohorts, but now for women. For women of the 1925-29 cohort the odds of moving down from 4 to 1 are 0.00. The odds for moving down from 4 to 2 are 0.66 and the odds for moving down from 3 to 1 0.58. The odds for moving down from 4 to 3 are 0.47, from 3 to 2 1.03 and from 2 to 1 0.14. This is much as predicted. The respective figures for the 1945-1949 cohort bear our expectation out too: 0.07, 0.38 and 0.19, and 0.47, 1.03 and 0.14. The same goes for the 1905-1909 cohort with its respective odds: 0.00, 0.29 and 0.30, and 0.57, 0.22 and 0.64. The 1965-69 cohort is a confirmation too: 0.02, 0.15 and 0.08, and 0.66, 0.37 and 0.10. However, there are exceptions. Some may be account for easily with hypotheses about changes in the course of time. For instance, for women from the 1945-1949 cohort the odds of moving down from 2 to 1 are lower than predicted with the distance hypothesis. But here laws about the age at which people are allowed to leave school will have its effect.

Our final hypothesis about the pattern in each mobility table, was that downward moves over a certain distance were less likely than upward moves over this distance. All in all we have 90 comparisons for men and 90 for women. Of the 90 for men, 10 were off the mark. They occur in the earlier cohorts. Of the 90 predictions for women, more are at variance: 39 of the 90. They occur in older cohorts too, but the tendency for downward mobility to be more likely than upward mobility persists into the cohorts born after the Second World War. Apparently the financial leeway furnished by the rising standard of living first was spend on sons, and only later on daughters. As said, all comparisons are made on Tables 3 to 8.

We now come to our hypotheses about changes in the course of time. The first and fourth column in Table 3 gives the odds ratios for all the birth cohorts in our data file for the partial table involving 1 and 4 as origins and destinations. The overall trend in the odds ratios seems clear: for men, as well as for women the odds ratios drop. This means that in the long run relative chances of educational mobility became more equal. However, this is a conclusion, which applies to the very long run only. Any trend is far from uniform in the course of time.

The second and fifth column in Table 3 show that there is more than a capricious long run trend. Both for men and women, the odds for person form destination 1 to go one to destination 4 have increased gradually, with the odds for women rising later than the odds for men. Volatile and trendless are the odds for moving down from destination 4 to destination 1. We now know why there was hardly any trend in the odds ratios. Upward mobility went up, but downward mobility was small to begin with and changes in it remained trendless as a consequence of always very limited number of person who were downwardly mobile from the highest to the lowest level of education.

We now move on to Table 4. It refers to educational levels 2 and as origins and destinations. This time the odds ratios for men and women display a somewhat clearer pattern: they go gradually down, not immediately however, and not until the end of the period covered. The pattern for the odds of moving up from 2 to 4 is clear for both men and women: there is a gradual increase in these odds. So, what happened to the odds of moving down? For both men and women these odds seem to have decreased. Given the pattern in the odds ratios, the increase in the odds for moving up was larger then the decrease in the odds for moving down

In Table 5 we take 1 and 3 as origins and destinations. In this case the pattern is quite clear. There is a definite trend for the odds ratios for both men and women to go down. The trend for the odds to move from 2 as origin and 4 as destination, is clear too for both sexes. For both men there is a tendency towards less downward mobility from 3 to 1. Given our hypothesis about changes in the age of compulsory schooling, the differences between 2 and 4 as origins and destinations and 1 and 3 as origins and destinations are as expected. First the 1 and 3 levels will be affected, then the 2 and 4 levels.

According to Table 6, the odds ratios for origins and destinations 3 and 4 decreased a bit for men, but hardly for women. The odds forgoing up increased a bit, the odds for going down seem to have remained the same. The downward trend in the odds ratios for origins and destinations 2 and 3 in Table 7 is clearer, and even clearer in Table 8 for origins and destinations 1 and 2. The trends towards higher odds for moving up are present in all three tables, the trend towards less downward movement is most clear in case of origins and destinations 1 and 2. For both men and women there is a trend towards more downward mobility from 4 to 3.

Where does this all leave us? It certainly seems unwise to limit attention to odds ratios. Trends in the odds for moving up are clearer: upward mobility occurred on al fronts. In most cases there is a trend towards less downward mobility. All in all, as one of our hypotheses held, during the 20th century in the Netherlands there was less downward mobility than upward mobility for men. But this certainly was not the case for women. Downward mobility over larger distances is less likely than downward mobility over smaller distances. In addition, comparing parameters in different tables, upward mobility over larger distances is less likely than upward mobility over smaller distances.

Formal modelling

We now will be estimating models that do away with the assumption of linear trends by replacing time with to covariates, one for net national product per capita, and another one for the age of leaving school. Then we do away with the assumption of uniform association, allowing for asymmetry in upward mobility and downward mobility. Finally, we no longer saturate marginal destination frequencies, making the odds of moving down dependent upon the odds of moving up in the previous cohort.

Conclusion

In the present paper we aimed to contribute to the study of educational father-son and father-daughter mobility along the lines set out by the proponents of the third generation. However, our negative point of reference was a hallmark of the third generation: loglinear models saturating marginal frequencies, assuming uniform association and postulating linear trends. Our alternative was a logistic model. It did not saturate marginal frequencies, but modelled odds to move up and odds to move down the educational ladder. It did so for several combinations of origin and destination, thus doing away with the assumption of uniform association. And it did not postulate a linear trend, but a trend conditional upon the erratically rising general standard of living, the in shocks increasing age of compulsory schooling. It also postulated a trend towards lower odds of downward mobility from the highest levels of education as a function of a trend towards more upward mobility from the lowest level of education.

Deploring the distance between empirical social research and grand social science theorizing, Goldthorpe (2001) indicated bridges between these strands of one discipline. One principle is that theoretical sociology takes the findings of empirical sociology as descriptive phenomena to be explained by it. In the present paper we argued that so-called descriptive models are implicitly theoretical, with the hypotheses behind them at variance with the hypotheses derivable from the theories in contemporary sociology. The choice is not between description and explanation, but is between implicit explanation by way of too simple hypotheses pitched at the level of societies *in toto*, and between explanation of societal phenomena by way of assumptions involving the resources of individuals and the always competitive interactions between them. That is, the explanation we developed was individualistic and utilitarian in kind. However, we did not apply the general assumption that people maximize their own utility under the auxiliary assumption that they do so under the condition that competitive markets for education exist, but the general assumption that people minimize the losses of their offspring and try to outdo others under the auxiliary assumption that the members of a society's upper strata try to compensate for possible governmental policies that favour the members of a society's lower strata. It is in this way that we tried to show that the implicit hypotheses of various statistical models in third generation studies of social mobility are at best approximations, macro-hypotheses in need of improvement by way of individualist assumptions from which they can be derived under auxiliary assumptions that do not always hold.

Literature

Bourdieu, P. (1979). *La distinction*. Minuit, Paris.

Bourdieu, P. (1992). *Les règles de l'art*. Seuil, Paris.

Collins, R. (1979). *The Credential Society*. Academic Press, New York.

Coleman, J. (1987). 'Microfoundations and macrosocial behavior'. Pp. 153-173 in: (eds.) J. Alexander, B. Giesen, R. Münch & N.J. Smelser, *The Micro-Macro Link*. University of Calfornia Press, Berkeley.

De Graaf, P.M. & H.B.G. Ganzeboom (1990). 'Intergenerational educational mobility in the Netherlands for birth cohorts from 1891 through 1960'. *The Netherlands' Journal of Social Sciences* 26: 35-50.

De Graaf, N.D. & W. Ultee (1990). 'Individual preferences, social mobility and electoral outcomes'. *Electoral Studies* 9: 109-132.

Elias, N. (1939). *Über den Prozess der Zivilisation*. Franke, Bern (English translation: *The Civilizing Process*. Blackwell, Oxford, volume 1, 1978, volume 2, 1982, one volume edition 1994).

Erikson, R. & J.H. Goldthorpe (1992). *The Constant Flux. A Study of Class Mobility in Industrial Societies*. Clarendon Press, Oxford.

Ganzeboom, H.B.G., D.J. Treiman & W.C. Ultee (1991). 'Comparative intergenerational stratification research: three generations and beyond'. *Annual Review of Sociology* 17: 277-302.

Goldthorpe, J.H. (1980). *Social Mobility and Class Structure in Modern Britain*. Clarendon Press, Oxford.

Goldthorpe, J.H. (2000). *On Sociology. Numbers, Narratives, and the Integration of Research and Theory*. Oxford University Press, Oxford.

Gombrich, E.H. (1974). 'The Logic of Vanity Fair', pp. 925-957 in (eds.) P.A. Schilpp, *The Philosophy of Karl Popper*. Open Court, La Salle Ill. (Reprinted as pp. 60-92 in E.H. Gombrich, *Ideals and Idols*. Phaidon, Oxford, 1979.)

Heath, A. (1981). *Social Mobility*. Fontana, Glasgow.

Hirsch, F. (1977). *Social Limits to Growth*. Routledge, London.

Hout, M. (1983). *Mobility Tables*. Sage, Beverly Hills.

Hout, M. & R.M. Hauser (1992). 'Symmetry and hierarchy in social mobility: a methodological analysis of the CASMIN model of social fluidity'. *European Sociological Review* 8: 239-266.

Kerr, C., J.T. Dunlop, F.H. Harbison & C.A. Myers (1960). *Industrialism and Industrial Man*. Harvard University Press, Cambridge.

Pareto, V. (1966). *Sociological writings*. Selected and introduced by S.E. Finer. Pall Mall Press, London.

Parkin, F. (1971). *Class Inequality and Political Order*. Granada, Frogmore.

Parkin, F. (1978). *Marxism and Class Theory: A Bourgeois Critique*. Columbia University Press, New York.

Popper, K.R. (1957). *The Poverty of Historicism*. Routledge, London.

Sobel. M., M. Hout & O.D. Duncan (1985). 'Exchange, structure, and symmetry in occupational mobility'. *American Journal of Sociology* 91: 359-372.

Statistics Netherlands (1984). *Historical Series of the Netherlands 1899-1984*. Staatsuitgeverij, 's-Gravenhage.

Ultee, W.C. (1996). 'Do rational choice approaches have problems?'. *European Sociological Review* 12: 167-180.

Ultee, W.C. (2001). 'Problem selection in the social sciences: methodology'. Pp. 12110-12117 in (eds.) N.J. Smelser & P.B. Baltes, *International Encyclopedia of the Social and Behavioral Sciences*. Elsevier, Amsterdam.

Ultee, W., W. Arts & H. Flap (1992). *Sociologie: vragen, uitspraken, bevindingen*. Groningen: Wolters-Noordhoff.

Table 1a Data sources

AKRO	ABBREVIATED STUDY TITLE	Year	Men	Women	Total	Percentage
net71	Parliamentary Election Study	1971	753.3	608.2	1361.5	3.2%
net74p	Political Action Survey I	1974	409.0	406.0	815.0	1.9%
net76j	Justice of Income Survey	1976	531.8	86.4	618.2	1.4%
net77	CBS Life Situation Survey	1977	1556.0	1484.0	3040.0	7.1%
net77e	Parliamentary Election Study	1977	707.0	756.0	1463.0	3.4%
net79p	Political Action Survey II	1979	643.0	612.0	1255.0	2.9%
net81e	Parliamentary Election Study	1981	795.0	901.0	1696.0	4.0%
net82e	Parliamentary Election Study	1982	564.0	593.0	1157.0	2.7%
net82n	National Labour Market Survey	1982	1030.0	1048.0	2078.0	4.9%
net82u	National Prestige and Mobility Survey	1982	431.0	218.0	649.0	1.5%
net85o	Strategic Labour Market Survey	1985	985.1	926.2	1911.3	4.5%
net86e	Parliamentary Election Study	1986	617.0	631.0	1248.0	2.9%
net86l	CBS Life Situation Survey	1986	1450.1	1492.9	2943.1	6.9%
net87j	Justice of Income Survey	1987	341.0	348.0	689.0	1.6%
net88o	Strategic Labour Market Survey	1988	644.6	641.8	1286.4	3.0%
net90o	Strategic Labour Market Survey	1990	362.2	349.8	712.0	1.7%
net90s	Social and Cultural Trends	1990	916.0	822.0	1738.0	4.1%
net92f	Family Survey I	1992	809.7	781.6	1591.3	3.7%
net92o	Strategic Labour Market Survey	1992	466.3	445.7	912.1	2.1%
net94e	Parliamentary Election Survey	1994	673.7	735.8	1409.6	3.3%
net94h	Households in the Netherlands pilot	1994	413.1	370.8	783.9	1.8%
net94o	Strategic Labour Market Survey	1994	394.3	368.6	762.9	1.8%
net95h	Households in the Netherlands	1995	954.0	906.0	1860.0	4.3%
net96	Social Inequality in the Netherlands	1996	338.3	309.1	647.4	1.5%
net96c	National Crime Study	1996	500.0	611.0	1111.0	2.6%
net96o	Strategic Labour Market Survey	1996	595.1	543.2	1138.3	2.7%
net98	Social and Economic Attitudes	1998	409.9	343.6	753.5	1.8%
net98e	Parliamentary Election Study	1998	666.2	739.5	1405.8	3.3%
net98f	Netherlands Family Survey II	1998	929.0	919.0	1848.0	4.3%
net98o	Strategic Labour Market Survey	1998	945.7	906.2	1851.9	4.3%
net99	Use of Information Technology	1999	1067.6	998.4	2066.0	4.8%
	Total		21899.1	20903.0	42802.2	

Table 1b

Cohort	Men	Women	Net domestic product	Age compulsory schooling
1900 - 1904	215.0	249.9	27	12
1905 - 1909	339.0	394.0	31	12
1910 - 1914	542.8	562.0	35	12
1915 - 1919	731.4	699.5	36	12
1920 - 1924	1136.8	993.4	41	12
1925 - 1929	1368.7	1299.2	34	12
1930 - 1934	1798.5	1582.9	32	12
1935 - 1939	1965.3	1733.2	18	14
1940 - 1944	2314.9	2094.5	44	14
1945 - 1949	3053.0	2822.8	52	14
1950 - 1954	2720.4	2541.7	59	14
1955 - 1959	2292.2	2227.8	71	14
1960 - 1964	1734.6	1829.9	88	16
1965 - 1969	1149.1	1267.9	93	16
1970 - 1974	432.0	491.2	100	16

Table 2 Loglinear models for intergenerational educational mobility in the Netherlands; birth cohorts 1900-1974
Replication of De Graaf and Ganzeboom (1990) plus some extensions

Panel A: Analysis of collapsed table for men and women over 15 cohorts

Model					Uniform Association					Homogeneous equal scalings					Homogenous unequal scalings				
					df	L2	p	BIC	Dis	df	L2	p	BIC	Dis	df	L2	p	BIC	Dis
A.1	(O+D)*S	DIAi*S		U*S	8	173.9	0.00	88.7	1.28%	6	171.4	0.00	107.5	1.23%	4	2.7	0.60	-39.9	0.15%
A.2	(O+D)*S	DIAi	DIA*S	U*S	11	187.0	0.00	69.7	1.52%	9	173.1	0.00	77.2	1.29%	7	4.1	0.76	-70.5	0.28%
A.3	(O+D)*S	DIAi		U*S	12	191.9	0.00	64.0	1.63%	10	181.8	0.00	75.2	1.47%	8	13.4	0.10	-71.9	0.65%
A.4	(O+D)*S		DIA*S	U*S	14	564.0	0.00	414.8	3.76%	12	232.0	0.00	104.1	2.06%	10	115.1	0.00	8.5	1.63%
A.5	(O+D)*S		DIA	U*S	15	565.7	0.00	405.8	3.77%	13	239.7	0.00	101.2	2.13%	11	121.2	0.00	4.0	1.75%
A.6	(O+D)*S		DIA	U	16	570.9	0.00	400.3	3.83%	14	249.2	0.00	100.0	2.19%	12	133.1	0.00	5.1	1.87%
A.7	(O+D)*S			U	17	923.5	0.00	742.3	5.12%	15	481.9	0.00	322.0	3.74%	13	380.2	0.00	241.6	2.87%

Panel B: Analysis of 15 cohorts for men and women seperately

Homogeneous equal scalings				Men					Women				
				df	L2	p	BIC	Dis	df	L2	p	BIC	Dis
B.1	(O+D)*T	U*T	DIA*T	103	177.4	0.00	-920.5	2.32%	103	184.7	0.00	-913.2	2.37%
B.2	(O+D)*T	U*T	DIA*Y	116	189.4	0.00	-1047.1	2.56%	116	214.3	0.00	-1022.2	2.77%
B.3	(O+D)*T	U*T	DIA	117	211.5	0.00	-1035.6	2.68%	117	225.4	0.00	-1021.7	2.87%
B.4	(O+D)*T	U*Y	DIA	130	226.9	0.00	-1158.8	2.81%	130	234.6	0.00	-1151.1	2.94%
B.5	(O+D)*T	U	DIA	131	261.6	0.00	-1134.7	2.92%	131	254.7	0.00	-1141.6	3.00%

Homogenous unequal scalings				Men					Women				
				df	L2	p	BIC	Dis	df	L2	p	BIC	Dis
C.1	(O+D)*T	U*T	DIA*T	101	137.2	0.01	-939.4	2.00%	101	151.6	0.00	-924.9	2.13%
C.2	(O+D)*T	U*T	DIA*Y	114	149.8	0.01	-1065.4	2.23%	114	180.5	0.00	-1034.6	2.61%
C.3	(O+D)*T	U*T	DIA	115	181.3	0.00	-1044.5	2.45%	115	193.5	0.00	-1032.3	2.70%
C.4	(O+D)*T	U*Y	DIA	128	194.7	0.00	-1169.7	2.58%	128	201.5	0.00	-1162.9	2.76%
C.5	(O+D)*T	U	DIA	133	229.8	0.00	-1187.9	2.69%	133	224.2	0.00	-1193.5	2.84%

O=Origin; D=Destination; S= Sex; DIAi = immobilityparameters for each diagonal cell; DIA = common immoblity effect for all diagonalcells
T=Cohort nominal; Y= Cohort linear
df= degrees of freedom; L2 = Likelihood ratio chi-square; p = probabilty; BIC = Bayesian Information Coefficient; Dis = Dissimilarity Index

Table 3 The odds ratios for the competition between the highest (4) and lowest (1) educational origin for the highest (4) and lowest (1) educational destination; plus the odds of moving up from 1 to 4 and the odds of moving down from 4 to 1; men and women in the Netherlands 1900-1974.

Year of Birth	men odds ratios	odds up	odds down	women odds ratios	odds up	odds down
1900-04	92.8	0.04	0.25	.	0.05	0.00
1905-09	.	0.10	0.00	.	0.06	0.00
1910-14	.	0.10	0.00	83.0	0.03	0.35
1915-19	75.9	0.13	0.10	65.8	0.04	0.36
1920-24	146.7	0.19	0.04	187.0	0.04	0.15
1925-29	97.1	0.20	0.05	.	0.05	0.00
1930-34	256.9	0.31	0.01	235.4	0.08	0.06
1935-39	74.2	0.43	0.03	159.5	0.12	0.05
1940-44	32.5	0.73	0.04	132.9	0.24	0.03
1945-49	58.3	0.68	0.03	56.6	0.27	0.07
1950-54	24.9	1.29	0.03	53.2	0.58	0.03
1955-59	91.3	2.03	0.01	39.9	0.99	0.03
1960-64	26.4	2.44	0.02	.	1.43	0.00
1965-69	18.6	2.41	0.02	26.2	1.64	0.02
1970-74	.	8.87	0.00	6.8	3.42	0.04

Table 4 Odds ratios for educational origins 4 and 2 and educational destinations 4 and 2; plus the odds of moving up from 2 to 4 and the odds of moving down from 4 to 2; men and women in the Netherlands 1900-1974.

Year of Birth	men odds ratios	odds up	odds down	women odds ratios	odds up	odds down
1900-04	17.6	0.23	0.25	5.1	0.29	0.67
1905-09	9.4	0.63	0.17	17.5	0.19	0.29
1910-14	21.9	0.33	0.14	14.5	0.15	0.47
1915-19	19.8	0.20	0.25	8.5	0.32	0.37
1920-24	22.8	0.30	0.15	9.7	0.27	0.39
1925-29	30.6	0.76	0.04	5.4	0.28	0.66
1930-34	10.5	0.66	0.14	13.0	0.24	0.32
1935-39	10.4	0.69	0.14	9.4	0.31	0.34
1940-44	12.4	0.76	0.11	8.9	0.30	0.37
1945-49	7.4	0.85	0.16	9.1	0.29	0.38
1950-54	8.1	0.96	0.13	4.7	0.59	0.36
1955-59	8.9	1.01	0.11	11.1	0.66	0.14
1960-64	9.7	0.88	0.11	14.2	0.58	0.12
1965-69	6.0	1.06	0.16	6.7	0.99	0.15
1970-74	14.2	0.82	0.09	16.2	1.06	0.06

Table 5 Odds ratios for educational origins 3 and 1 and educational destinations 3 and 1; plus the odds of moving up from 1 tot 3 and the odds of moving down from 3 to 1; men and women in the Netherlands 1900-1974.

Year of Birth	men odds ratios	odds up	odds down	women odds ratios	odds up	odds down
1900-04	52.0	0.07	0.29	13.7	0.08	0.96
1905-09	27.5	0.16	0.23	46.2	0.07	0.30
1910-14	21.0	0.15	0.33	85.4	0.04	0.32
1915-19	67.6	0.23	0.06	41.8	0.09	0.28
1920-24	38.6	0.35	0.07	20.0	0.11	0.45
1925-29	20.7	0.52	0.09	15.2	0.11	0.58
1930-34	4.7	0.55	0.39	17.5	0.24	0.24
1935-39	4.0	0.67	0.37	11.0	0.33	0.28
1940-44	4.1	1.21	0.24	7.3	0.44	0.31
1945-49	5.1	1.82	0.16	7.0	0.74	0.19
1950-54	5.6	3.46	0.10	6.7	1.06	0.14
1955-59	6.5	4.76	0.04	5.9	1.96	0.09
1960-64	5.4	4.49	0.04	4.2	3.27	0.07
1965-69	4.9	19.94	0.05	2.8	4.63	0.08
1970-74	0.4	0.82	0.12	2.0	9.55	0.05

Table 6 Odds ratios for educational origins 4 and 3 and educational destinations 4 and 3; plus the odds of moving up 3 to 4 and the odds of moving down from 4 to 3; men and women in the Netherlands 1900-1974.

Year of Birth	men odds ratios	odds up	odds down	women odds ratios	odds up	odds down
1900-04	1.8	0.59	0.96	1.0	0.60	1.74
1905-09	.	3.22	0.00	3.8	0.47	0.57
1910-14	3.9	0.75	0.34	1.8	0.57	1.00
1915-19	2.0	1.49	0.33	5.1	0.36	0.54
1920-24	4.3	0.70	0.33	2.8	0.32	1.12
1925-29	8.7	0.72	0.16	2.1	0.64	0.73
1930-34	4.1	0.95	0.26	5.4	0.72	0.26
1935-39	3.8	1.20	0.22	2.3	0.79	0.56
1940-44	3.5	1.18	0.24	2.3	0.87	0.50
1945-49	2.3	1.28	0.34	2.4	0.89	0.47
1950-54	3.2	1.01	0.31	2.0	0.89	0.55
1955-59	3.4	1.04	0.28	2.4	0.86	0.48
1960-64	2.1	0.90	0.52	2.1	0.83	0.57
1965-69	1.7	0.91	0.64	2.0	0.77	0.66
1970-74	1.9	0.94	0.55	2.7	0.79	0.46

Table 7 Odds ratios for educational origins 3 and 2 and educational destinations 3 annd 2; plus the odds of moving up from 2 to 3 and the odds of moving down from 3 to 2; men and women in the Netherlands 1900-1974.

Year of Birth	men odds ratios	odds up	odds down	women odds ratios	odds up	odds down
1900-04	3.7	0.91	0.29	.	0.44	0.00
1905-09	2.6	0.26	1.49	16.1	0.29	0.22
1910-14	2.6	0.53	0.73	5.0	0.30	0.67
1915-19	7.6	0.31	0.43	3.5	0.46	0.63
1920-24	5.1	0.59	0.33	2.9	0.43	0.80
1925-29	2.6	0.80	0.47	2.3	0.45	0.97
1930-34	2.1	0.87	0.54	2.5	0.40	1.02
1935-39	2.7	0.80	0.47	2.4	0.41	0.99
1940-44	2.2	0.78	0.58	2.3	0.39	1.12
1945-49	2.0	0.82	0.62	2.1	0.46	1.03
1950-54	2.1	0.96	0.49	1.5	0.76	0.88
1955-59	1.8	1.20	0.47	1.7	1.05	0.58
1960-64	2.1	1.08	0.45	2.1	1.08	0.43
1965-69	1.7	1.65	0.35	1.5	1.80	0.37
1970-74	2.1	1.45	0.33	4.4	1.53	0.15

Table 8 Odds ratios for educational origins 2 and 1 and educational destinations 2 and 1; plus the odds of moving up from 1 to 2 and the odds of moving down from 2 to 1; men and women in the Netherlands 1900-1974.

Year of Birth	men odds ratios	odds up	odds down	women odds ratios	odds up	odds down
1900-04	15.9	0.27	0.23	10.0	0.17	0.59
1905-09	7.9	0.43	0.30	8.2	0.19	0.64
1910-14	5.0	0.50	0.39	7.4	0.22	0.60
1915-19	7.6	0.63	0.21	6.0	0.33	0.50
1920-24	7.3	0.73	0.19	4.1	0.41	0.59
1925-29	4.6	0.87	0.25	5.2	0.52	0.37
1930-34	3.2	0.97	0.32	2.8	0.89	0.40
1935-39	3.3	1.28	0.24	2.3	1.20	0.36
1940-44	2.9	1.92	0.18	3.2	1.94	0.16
1945-49	3.3	2.11	0.15	3.1	2.35	0.14
1950-54	2.2	2.82	0.16	2.2	2.78	0.16
1955-59	2.8	4.08	0.09	3.7	3.17	0.08
1960-64	1.7	5.62	0.10	4.5	4.04	0.05
1965-69	2.1	4.42	0.10	2.1	4.64	0.10
1970-74	0.5	17.42	0.12	1.8	6.74	0.08