



# Trends in the Intergenerational Transmission of Cultural and Economic Status

**Paul M. de Graaf and Matthijs Kalmijn**

Nijmegen University and Utrecht University, The Netherlands

## ABSTRACT

Research on intergenerational occupational mobility in The Netherlands has shown that the association between the occupational positions of parents and their offspring has decreased over time. This article elaborates on the idea that the occupational stratification includes both a cultural and an economic hierarchy and that the process of intergenerational mobility follows different patterns in these two dimensions. The main hypothesis is that the intergenerational transmission of cultural status is related more strongly to the indirect channel, via educational attainment, than the transmission of economic status, and that the equalization of educational opportunities has especially affected the cultural transmission of social status. Data from The Netherlands' Mobility File are used, and the occupational mobility of 5,921 men and 3,457 women between 35 and 65 years of age is analyzed for cohorts who entered the labor market between 1923 and 1984. The findings are that the direct transmission of both cultural and economic status has virtually disappeared by the end of the observation period, for both men and women. For men, the indirect channel via education has decreased in the cultural dimension but not in the economic dimension. For women, the trends in the total effects of fathers' cultural and economic status are much weaker than those for men, which is caused by an increase of the indirect channel via education in both dimensions.

*Paul M. de Graaf, Department of Sociology, P.O. Box 9104, 6500 HE Nijmegen, The Netherlands. E-mail: [pdegraaf@mailbox.kun.nl](mailto:pdegraaf@mailbox.kun.nl)  
© Scandinavian Sociological Association 2001*

## 1. Introduction

In the stratification of modern Western societies, cultural and economic hierarchies constitute different but equally relevant dimensions of distribution and reproduction. Cultural and economic dimensions can be found in many domains of inequality and its correlates, such as occupation, education, partner selection, leisure and consumption, and values (Porter 1967; Bourdieu [1979]1984; DiMaggio & Mohr 1985; de Graaf 1986; Lamont 1992; Petersen & Simkus 1992; Kalmijn 1994). In this contribution, we focus on the two-dimensionality of the occupational space. Occupations can be characterized by the amount of cultural and economic resources they require and by the cultural and economic resources people acquire when working in a particular occupation.

Cultural resources include language skills, creative and artistic abilities, and knowledge of art, history and science. Economic resources include income, wealth, entrepreneurial and commercial skills, and knowledge of trade and the economy. Prime examples of high cultural occupations are artists, teachers, professors, journalists, and librarians. Examples of high economic occupations are managers, accountants, bankers, brokers, and owners of businesses. Cultural and economic occupations are sometimes referred to as constituting distinct and discrete elites, but it is more realistic to speak of two continuous and correlated dimensions, with some occupations having high positions in only one hierarchy, while others have high or low positions in both. The amount of overlap, though present throughout the hierarchy, is generally believed to be smaller at

the top than at the bottom. That there is less specialization at the bottom of the occupational space is illustrated by occupations such as cleaners and farm laborers, occupations that have little cultural and little economic status.

The concept of cultural and economic occupational hierarchies is best known from the work of Bourdieu. In his classic study *Distinction*, Bourdieu examined a wide variety of lifestyle differences between occupational groups in France and showed that people in high cultural and economic occupations have distinct ways of living (Bourdieu [1979] 1984). Differences between the two elites were found for a number of lifestyle indicators, including musical tastes, appreciation and perception of the fine arts, table manners, styles of dress, conversation topics, entertainment of guests, sports participation, and modernity. In Bourdieu's view, the well-known distinction between the elites of the *rive gauche* and the *rive droite* is a local example of the more general distinction between the cultural and economic elite in French society as a whole.

While Bourdieu's studies point to the existence of the two elites in France in the 1960s, other research has shown that a two-dimensional stratification system can be found in other Western societies as well. A recent comparative study of the upper middle class in France and the United States by Lamont (1992), for example, examined the criteria people use in choosing friends and the characteristics people value in their children. Lamont shows that in the United States, elite cultural occupations emphasize values such as intellectual ability, being refined, and an openness to the world more so than elite economic occupations. Elite economic occupations, on the other hand, usually stress hard work and socio-economic achievement as criteria for judging others and evaluating themselves. Similar, though somewhat less pronounced differences have been found in France. Another study has shown that the two dimensions of status can also be seen in American marriage patterns. An analysis of detailed occupations of brides and grooms shows that cultural status and economic status serve as boundaries in the marriage market and that there is little intermarriage between high-status economic occupations and high-status cultural occupations (Kalmijn 1994). Finally, a study of lifestyles in The Netherlands has shown that high cultural occupational status is associated with participation in high culture, reading of literature and national newspapers, being

liberal on moral issues, and an egalitarian division of labor between spouses; high economic occupational status, on the other hand, is associated with expensive holidays, consumption of luxury goods, support of free-market ideology, and a traditional orientation toward politics, sex roles, and moral issues (Ganzeboom 1988).

Although the notion of a two-dimensional occupational hierarchy is generally accepted, in the empirical literature on occupational scaling, many studies on the measurement of occupational stratification have addressed questions about alternative one-dimensional scales (e.g. prestige scales versus socio-economic status) and questions about discrete versus continuous approaches (e.g. status versus class). Few efforts have been made to develop two-dimensional scales (Grusky & Van Rompaey 1992). Related to this, is that the concept of two hierarchies has rarely been applied to the process of status attainment. While there have been many studies on the transmission of occupational status across generations (Treiman & Ganzeboom 1990), no studies have been undertaken to examine intergenerational mobility from a two-dimensional perspective. We thus know much about the ways in which fathers' and sons' occupations are correlated, but we know little about how economic and cultural status groups reproduce themselves across generations. This is the first question of our contribution. A second and related question is how the transmission of cultural and economic occupational status has changed over time.

To examine how cultural and economic status is reproduced over generations, we combine insights from Bourdieu's work on cultural capital (Bourdieu 1973, [1979] 1984; Bourdieu & Passeron 1979) with classic hypotheses from the status attainment approach (Blau & Duncan 1967; Treiman 1970). To develop hypotheses about historical change, we pay particular attention to the question of how the rise of higher education – and the concomitant transition from ascription to achievement as a mechanism for allocating rewards – has modified the ways in which cultural and economic status positions are transmitted across generations. Our basic argument is that high-status cultural occupations have traditionally relied on education as a means for reproducing their status in subsequent generations, while high-status economic occupations have relied more on direct routes. With the rise of higher education, schooling has become the central

mechanism for allocating high-status positions, a change that has limited the possibilities to transmit economic status across generations. Our underlying question is whether under these changing conditions, the economic elite has used schooling as a 'compensatory strategy of reproduction' (Bourdieu & Passeron 1979:90–93).

In order to examine these issues, we analyze the process of status attainment in The Netherlands. Data on The Netherlands are well suited to answer our questions because the existence of a two-dimensional occupational hierarchy is well-documented in this country, and because scales for cultural and economic occupational status have been validated in The Netherlands (de Graaf & Kalmijn 1995). In addition, a rich history of research on social stratification has resulted in a large amount of data suitable for analyzing long-term trends in The Netherlands. We combine data from multiple surveys that were held in The Netherlands between 1971 and 1994 and examine mobility by comparing the occupations of 9,378 fathers and their children (both sons and daughters). We assess trends by comparing cohorts who entered the labor market between 1923 and 1984.

## 2. Background and hypotheses

Are there differences in the extent to which cultural and economic occupational status positions are transmitted across generations? And, more importantly, have the mechanisms of reproduction changed differently for the two stratification dimensions? To answer these questions, we believe theories explored in Bourdieu's innovative work on two-dimensional stratification can be fertile when translated into the basic concepts of stratification research. Vice versa, stratification research can benefit from insights suggested by Bourdieu's two-dimensional framework. We therefore attempt to develop an integrative framework below, using Blau and Duncan's (1967) now classic status attainment model as a starting-point.

### *The classical status attainment model*

The status attainment approach decomposes the association between parental and children's occupational status into the direct effects of fathers' occupational status on children's status on the one hand, and the indirect effects of fathers' status through children's education on

the other hand (Blau & Duncan 1967). An *indirect effect* occurs when sons or daughters of high-status parents attain higher levels of schooling than others *and* when highly educated persons are better able to enter high-status occupations than others. The indirect effect thus consists of two theoretically distinct mechanisms of distribution: it can be strong when the educational system is relatively closed to children of lower-status groups, and it can be strong when allocation on the labor market is largely governed by educational credentials. The former effect is often considered a force of ascription, whereas the latter is usually called achievement. The *direct effect* of fathers' occupational status occurs when sons or daughters of high-status backgrounds occupy higher status positions than the sons or daughters of lower status backgrounds who have similar educational credentials. This effect is often considered as pure ascription and non-meritocratic, since parental background is something people cannot change and should not affect occupational opportunities.

The distinction between direct and indirect effects has been a central theme in research on status attainment and occupational mobility and much is now known about how these effects have changed in the 20th century. In The Netherlands, the total effect of fathers' occupational status on sons' occupational status has declined by 40 per cent in the period 1930–80 (de Graaf & Luijkx 1993; Hendrickx & Ganzeboom 1999). This trend is partly due to a decline of the direct effect, which is consistent with the notion that ascription has become a less important criterion for the allocation of rewards in modern society. In addition, the effect through schooling has declined, which is caused by the fact that the effect of parents' status on the educational attainment of their children has declined, a trend that reveals that the Dutch educational system has become increasingly meritocratic. There has also been an increase in the effect of educational attainment on occupational status, but this increase is relatively small. The number of trend studies on status attainment in other countries is somewhat limited. In a few countries, similar patterns of change have been observed, such as in the United States (Hout 1988; Grusky & DiPrete 1990), Australia (Marks 1992) and Hungary (Luijkx et al. 1998); in other countries no trends have been found, such as in Ireland (Breen & Whelan 1993). In this article, we focus on historical changes in The Netherlands, using

the concept of two equally important status hierarchies as a way of examining trends.

### **Status attainment in two dimensions**

What can we expect when trends in intergenerational transmission are analyzed from a two-dimensional perspective? To answer this question, we consider the direct and indirect effects in the status attainment model and discuss how these effects may differ for the two stratification dimensions, as well as how the effects may have changed over time.

In The Netherlands, occupational positions are increasingly distributed on the basis of educational credentials. The rising importance of education for occupation has replaced direct sponsoring of parents and families as a criterion for allocating occupational positions. There are several reasons why the direct transmission of occupational status can be expected to decline (Treiman 1970). First, owing to the increasing complexity of work, occupational skills and knowledge cannot be so readily acquired in the parental environment; skill requirements are increasingly based on educational credentials. Second, there has been a decline in the number of family businesses, reducing the importance of direct inheritance. Third, the practice of arranging a position in a firm or business for one's children is increasingly considered an illegitimate way of allocating jobs. Fourth, there may have been a decline in the influence parents have on the occupational preferences and educational choices of their children. All these trends have made it more difficult for parents to transmit status directly. If parents want to transmit their status to the next generation, they are increasingly dependent on how far their children get ahead in school.

The declining opportunity for direct transmission of status applies to both dimensions, although it is likely that the decline of ownership has limited direct transmission of status somewhat more strongly in the economic dimension. Hence, our first expectation is that in the period we are studying (the past six decades), the direct transmission of economic occupational status has decreased more than the direct transmission of cultural status.

The indirect (educational) route to mobility was likely to be used more extensively by the cultural elite than by the economic elite. Studies on educational inequality in Europe and the United States, for example, have shown that children who acquire cultural capital at home are more likely to do well in school and

subsequently have better chances of achieving high levels of schooling than others (DiMaggio 1982; de Graaf 1986). There are several reasons why cultural capital is believed to be an asset in the schooling process. Children who are exposed to cultural capital in the parental home may be better prepared to master academic material, they may develop a greater taste for learning abstract and intellectual concepts, and they may be favored directly by teachers over children who have less cultural capital. Since the amount of cultural resources parents can provide their children with is strongly related to the cultural characteristics of the occupations parents have, it is likely that the effect of fathers' occupational status on their children's schooling is stronger for the cultural dimension than for the economic dimension.

Over time, dependence on education for transmission of status has become more difficult because of the growing openness of the educational system. In The Netherlands, the effect of parents' resources on schooling has declined considerably over the past century (de Graaf & Ganzeboom 1993). This trend not only applies to the financial resources of parents, but also to the cultural capital that parents have. The major reason for the decrease in the impact of family background in The Netherlands lies in the rapid expansion of higher education, a trend that was accompanied by a leveling of financial and cultural barriers. Because the cultural dimension has traditionally relied more on education as a way to pass on status than the economic dimension, it can be expected that the growing openness of the educational system will have affected the transmission of cultural occupational status more than it has affected the occupational transmission in the economic dimension.

Counterintuitive as it may seem, we also expect that the indirect effect through schooling has not changed much for the economic dimension of occupational status. This is the result of two parallel processes. First, we expect that because direct transmission of occupational status has become more difficult, the effect of parents' economic status on the educational attainment of their offspring has grown over time. Parents of high economic status now need to encourage their children to do well in school more than they needed to do some decades ago. According to Bourdieu, such groups would turn to the school as a 'compensatory strategy of reproduction' (Bourdieu & Passeron 1979:90-93; Swartz 1977:551-



552). However, there is a second process: the growing openness in the educational system has also limited the ability of the economic elite to use the indirect effect of schooling. The trend towards growing openness might offset the trend toward increasing efforts by the economic elite to foster their children's educational careers, resulting in a stable indirect effect in the past decades. For the cultural dimension of status, only the former trend occurs, and not the latter, resulting in a decline of the indirect effect.

### 3. Data, measurement, and models

We examine our expectations using data from the *Netherlands' Mobility File* (de Graaf & Ganzeboom 1993). This data set combines mobility data from a number of surveys, including election surveys, labor-market surveys, and level of living surveys. The surveys we analyze were collected between 1971 and 1994 and are representative of the Dutch population. All surveys offer detailed information on the father's occupational position, the respondent's educational attainment, and the respondent's occupational position. We used more than just one survey to have as much statistical power as possible, which is especially important for describing historical trends.

We study the status attainment process of men and women separately, largely because occupational careers of men and women are so different in nature. It is not only the usual aspects of the division of labor within families, and industrial and occupational segregation that make careers different, but in The Netherlands married women, especially married women with children, have had hardly any participation in the labor market until the 1970s. Because of these important differences, we analyze the occupational mobility of men and women separately. Although not our primary objective, we also discuss whether, and in what ways, multidimensional patterns of occupational mobility of men and women differ. In our analysis a total of 5,921 men had valid data; for women, the number was 3,457.

In this article, we first discuss how we measure the cultural and economic dimensions of occupational status. Subsequently, we present the other measures we used and discuss how we analyze the status attainment process as well as the trends therein.

#### ***The measurement of economic and cultural occupational status***

As discussed above, occupations can be characterized by the amount of cultural and economic resources they require and by the cultural and economic resources people acquire when working in a particular occupation. To measure such resources, the focus can be on either the content of the work that is being done in an occupation, or on the characteristics of the incumbents of an occupation. Both approaches are valid ways to develop status scales, but the latter approach is simpler and more readily defended because it does not require expert judgements of occupations. For this reason, some authors in the past have developed scales by aggregating characteristics of individuals in an occupation. In the United States, Kalmijn (1994) has used the average income level of the members of a particular occupation as an indicator of economic status, and the average level of schooling as an indicator of cultural status. This approach can be regarded as a decomposition of Duncan's original Socio-Economic Index of occupations (1961), which was a weighted average of occupational income and occupational education (for a brief overview of earlier disaggregated occupational scales, see Grusky & Van Rompaey 1992).

Because Duncan's index has been used extensively in trend analyses of status attainment (e.g. Grusky & DiPrete 1990), this simple decomposition is also attractive for trend analyses in two dimensions of status attainment. A possible disadvantage is that the schooling and income levels of occupations have increased over time, and that such increases are not necessarily the same for all occupations. Recent evidence, however, suggests that this may not be a problem, at least not for the cultural dimension. In The Netherlands, educational upgrading has been present in all occupational and industrial sectors (Huigen 1990). Although this finding does not imply that the pace of upgrading has been the same in all occupations, it does suggest that the rank order of occupations with regard to their educational status may not have changed much over time. We note that similar problems exist in trend analyses of socio-economic status, and that for comparative purposes, we seek to stay close to the one-dimensional approach.

In our study, we developed status scales for The Netherlands along the same lines as the scales that were introduced in the United States. We used multiple survey data on the charac-

Table 1. *Cultural and economic occupational status scores of 55 detailed occupations.*

Occupation	Cultural status	Economic status	Number of individuals
Physical scientists	2.14	1.59	180
Higher technicians	1.00	1.16	466
Laboratory workers	0.55	-0.31	414
Medical assistants	0.14	-0.98	356
Architects	1.17	0.89	1268
Intermediary technicians	0.53	0.66	876
Boatmen	0.05	0.14	235
Physicians	2.57	2.43	425
Nurses	0.36	-0.71	1118
Economists	1.19	1.51	641
Jurists	1.53	1.71	505
Teachers	1.48	0.60	3162
Clergymen, priests	2.20	0.57	94
Journalists	0.56	0.62	181
Artists	0.49	0.31	146
Designers	-0.19	-0.09	238
Librarians	1.10	-0.50	114
Social scientists	2.00	0.94	212
Social workers	1.14	0.06	576
Heads of firms	0.08	2.35	1788
Higher managers	0.62	1.69	1525
Clerical workers	-0.36	-0.34	5547
Bookkeepers	-0.04	-0.43	1871
Expedition heads	-0.63	0.66	323
Sellers	-0.26	0.61	1129
Shopkeepers	-0.45	0.05	1394
Drivers	-1.21	-0.31	1703
Mail men	-1.07	-0.56	410
Buyers	-0.30	0.78	1000
Shop assistants	-0.89	-1.26	1977
Delivery men	-0.90	-0.59	333
Hotel, restaurant managers	-0.89	-0.69	419
Domestic personal	-0.96	-1.25	4379
Policemen	0.16	0.57	362
Farmers	-0.57	0.29	2143
Farm laborers	-0.97	-0.80	1232
Manual supervisors	-0.25	0.42	1510
Glass workers	-1.24	-1.00	142
Textile workers	-1.18	-1.00	684
Food processors	-0.96	-0.37	594
Chemical workers	-0.86	-0.01	448
Graphical workers	-0.62	0.02	410
Paper production workers	-1.26	-1.03	135
Wood, furniture workers	-1.06	-0.95	120
Textile workers	-0.64	-1.26	164
Metal workers	-0.82	-0.64	1643
Repairmen	-0.52	-0.46	1723
Electricians	-0.35	-0.31	969
Production controllers	-0.58	-0.30	217
Instrument-makers	-0.28	-0.08	114
Painters	-0.54	-0.01	669
Construction workers	-0.97	-0.42	2199
Crane operators	-1.27	-0.27	600
Loaders	-1.29	-1.13	736
Road construction workers	-1.40	-0.52	634

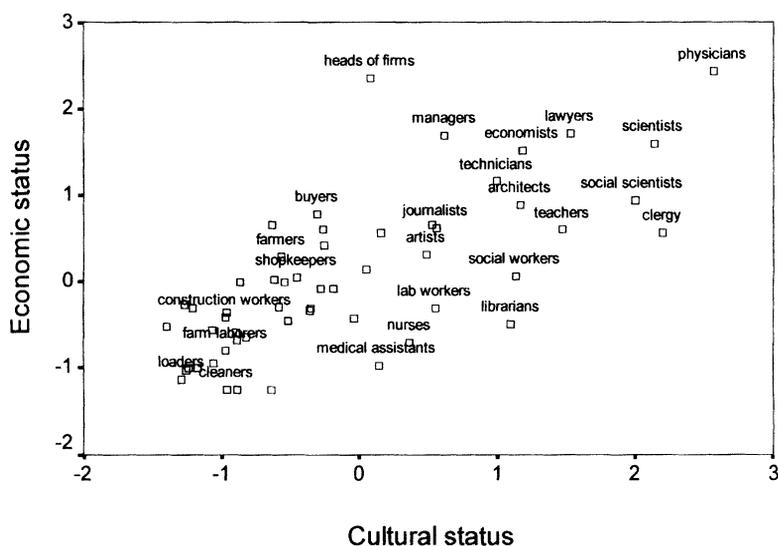


Fig. 1. The cultural and economic status of 55 occupations.

teristics of 52,453 working individuals. To solve the problem of occupations containing few members, we merged detailed occupations into 55 occupational groups (listed in Table 1). Occupations were combined when they were roughly similar with respect to industry and type of work. In so far as possible, occupations that were similar in type of work but different in earnings or education were kept separate. The number of individuals ranged from 94 for clergymen, to 5,547 for lower clerical workers, with an average of 954 individuals per occupation. To measure economic occupational status, we used the average monthly labor income of the members of an occupation. Cultural occupational status was measured by the average level of education of the members of an occupation. Education was measured as the number of years of education that is formally necessary for the respondent to qualify for the highest certificate. Scale scores were standardized in both dimensions and are presented in Table 1. More details of the scaling procedures can be found in de Graaf & Kalmijn (1995).

To assess the face validity of our approach, we present the values of the two status scales for the full set of 55 occupational groups in a scattergram (Figure 1). The horizontal axis displays the cultural status scale and the vertical axis displays the economic status scale. Although Bourdieu argues that the two dimensions of occupational status are different, particularly at the top of the hierarchy, he also believes that there is a certain amount of

overlap between the dimensions: occupations that are high in one respect, tend to be higher in another respect as well. In other words, Bourdieu predicts a moderately strong – but not perfect – correlation between the two dimensions. The correlation between our two scales is  $r = 0.71$ , which is in line with Bourdieu's conjectures. When we subsequently focus on occupations which are high in one dimension, but not in the other, we see that our scales fit the expectations we have about the two stratification dimensions reasonably well. Occupations that have a higher economic than cultural status include heads of firms, managers, lawyers, economists, buyers, and, to a lesser extent, technicians and farmers. Occupations that have a high cultural status without a corresponding economic status include teachers, social workers, librarians, clergy, and social scientists.

A somewhat unexpected feature of our scales is that differentiation between the two status dimensions not only occurs at the top of the hierarchy, as suggested by Bourdieu, but also at the bottom. Prime examples of occupations that have a relatively low position on the economic status ladder are personal service occupations, such as cleaners, medical assistants, and nurses. Occupations that have a relatively low position on the cultural dimension include mostly skilled and unskilled manual laborers, such as construction workers, paper workers, and crane operators. These examples suggest that next to two distinct elites,

there may also be two distinct deprived groups of occupations: culturally deprived occupations and economically deprived occupations.

Our scales seem to have a fair degree of validity, but our scaling procedure also has some disadvantages. Artists, for example, constitute an important example of a high cultural occupation, but their position on our cultural status scale is relatively low. The reason for this is that the average level of education of artists is not all that high, perhaps because some of them are self-taught. Hence, when the cultural resources of an occupation are judged solely on the basis of the educational level of its incumbents, we underestimate the status of some cultural occupations. Expert judgements on the content of work in an occupation would in this case yield higher scores. A similar pattern is observed for bookkeepers. Even though bookkeepers have commercial skills and knowledge of trade and the economy, the average income of bookkeepers is relatively low, which places them in the middle of the economic hierarchy.

#### **Individual level variables**

In the *Netherlands' Mobility File*, information on the three central stratification variables is available at the individual level: father's detailed occupation, respondent's educational attainment, and respondent's detailed occupation. Father's occupation is reported by the respondent, and refers to the period in which the respondent was living with his parents, at about age 14. If the father was not working when the respondent was 14, we used information on the father's last occupation. Fathers' and children's detailed occupations were coded into the cultural and economic status scales. In the surveys, educational attainment is measured with alternative instruments, and we therefore coded education into a common metric: the number of years of education necessary to qualify for the certificate.

We did not include fathers' education in our models, largely because in some of the surveys in the file, this information was missing. In addition, we did not have data on fathers' income, as is generally the case in retrospective data. Previous research has shown that fathers' education and income levels do not have direct effects on their children's occupational status, but have indirect effects on children's outcomes, especially via educational attainment. Because father's cultural and economic status is measured by the average level of education

and income in his occupation, our estimates of the effects of father's cultural and economic status in part reflect the effects of father's education and income. In general, we believe that the effects of father's economic and cultural occupational status are a mixture of pure occupational effects on the one hand, and effects of father's individual income and education on the other hand. Previous research in The Netherlands suggests that both effects indeed exist. Analyses of cross-sectional data show that the two dimensions of occupational status retain their effects on a range of outcome variables when individual schooling and income are controlled for (de Graaf & Kalmijn 1995).

We assess historical trends in the transmission of cultural and economic occupational status by comparing labor-market cohorts. Because most of the surveys we use offer no information on the year in which the respondents entered the labor market, we used an indirect assessment. The year of entry is approximated by the sum of the respondent's year of birth and the estimated years of schooling (based on the highest educational level the respondent has reached). Because degrees can be acquired at different ages, and because there may be some delay between leaving school and entering the labor market, this yields only an approximation of the actual year in which a person entered the labor market. Nonetheless, we believe our approximation distinguishes cohorts fairly well. Our oldest labor-market cohort entered the labor market in 1923 and the youngest cohort entered the labor market in 1984. Hence, we are able to study historical change over a 60-year period.

Differences between successive labor-market cohorts cannot be used to assess historical developments without a correction for life-cycle effects. The more recently a cohort has entered the labor market, the less opportunity it has had to make progress in its career. Several solutions to this problem have been suggested. Because we have surveys that were collected in different years, one option is to include labor-market experience explicitly in the models. In this paper, we choose a simpler option: we limit our sample to respondents who are in the middle or advanced stages of their careers (older than 35 and younger than 65). We assume that in these stages of their careers, people will experience few changes in occupational status (although they obviously will experience income changes). For those who were not working at the time of the interview, we used



the last occupation as a proxy for occupational status.

### Models

We examine the process of cultural and economic occupational status inheritance by estimating regression equations in which the respondent's two-status positions are the dependent variables. Our model is a simpler version of Blau and Duncan's original status attainment model (Blau & Duncan 1967) and includes three variables: father's occupational status, respondent's education, and respondent's occupational status. We estimate three theoretically relevant effects: (a) the total effect of father's occupational status on the occupational status of his son or daughter, (b) the direct effect of father's occupational status, and (c) the indirect effect of father's status through his son's or daughter's educational attainment. To make the effects comparable, we standardized all variables in the analysis (all variables are transformed to variables with an average of 0 and a standard deviation of 1). Standardization is performed separately for men and women.

We analyze associations between corresponding statuses only. In other words, the regression equation for the respondent's cultural status includes only father's cultural status as an independent variable; similarly, the equation for the respondent's economic status includes only father's economic status as an independent variable. The reason for not including both dimensions in one model is that partitioning direct and indirect effects, although technically possible, becomes theoretically cumbersome when we include independent variables that are not causally linked (father's cultural and economic occupational status).

Whether simultaneous modeling is needed depends in part on the existence of crossing effects, i.e. the effects of one dimension on the other. We examined this possibility by estimating models with education, labor-market cohort, father's cultural status, and father's economic status as independent variables. In the model predicting son's economic status, we found a small and non-significant effect of father's cultural status (the standardized coefficient was 0.023 with a  $p$ -value of 0.21). In the model for son's economic status, we found a negative significant effect of father's cultural status, but the effect was small (the standardized coefficient was  $-0.038$  with a  $p$ -value of 0.01). These findings show that for men, most of the transmission across generations occurs

within and not across status dimensions. For women, one interesting deviation from this pattern can be observed. Father's cultural occupational status positively affects the economic status of his daughter. We think that traditional attitudes among the lower-educated categories against women in higher status jobs can explain this finding. In general, however, crossing effects are negligible.

A related question is whether the correlation between the two dimensions of status has changed. If this correlation has changed in the paternal generation, trends in the effects of the two status dimensions when modeled separately may be biased in unpredictable ways. We examined this possibility by comparing the correlation between sons':father's cultural status and sons':fathers' economic status across respondents' labor-market cohorts. The analysis shows the following correlations: .70 (1923–39), .72 (1940–49), .70 (1950–59), .72 (1960–69), .75 (1970 and later). These findings suggest that the correlation is very stable.

We estimated four regression models (presented in Table 2):

- A. Baseline model: the total effect of father's occupation.
- B. Baseline model with trends: changes in the total effect.
- C. Extended model: the effect of father's occupation, controlling for respondent's education.
- D. Extended model with trends: changes in the effect of father's occupation, controlling for respondent's education.

Model A yields the total effect of father's occupation and Model C the direct effect. By comparing these models, we are able to decompose the total effect into direct and indirect effects. The indirect effect is computed by taking the difference between the total and the direct effect. The decomposition is presented in Table 3.

Trends in direct and indirect effects are assessed by including interaction effects in our models. The interaction effects are multiplicative: they model whether the total (Model B) and direct effects (Model D) of father's occupational status have changed over cohorts. In order to interpret the main effects of father's status, we transformed the entry year to 0 for the labor-market cohort 1923, and to 6.1 for the labor-market cohort 1984. The main effect can then be interpreted as the effect in 1923, while the interaction term can be interpreted as the linear

Table 2. Regression of occupational status on father's corresponding occupational status and respondent's education: men and women 35–64 years of age entering the labor market between 1923 and 1984<sup>a</sup>.

	A. Baseline		B. Baseline + trends		C. Extended		D. Extended + trends	
	Cultural	Economic	Cultural	Economic	Cultural	Economic	Cultural	Economic
MEN (n = 5921)								
Father's corresponding status	0.318*	0.237*	0.422*	0.305*	0.125*	0.135*	0.209*	0.211*
x cohort								
Respondent's education			-0.032*	-0.021~	0.597*	0.442*	-0.025*	-0.024*
x cohort							0.524*	0.434*
Cohort	0.156*	0.119*	0.156*	0.120*	-0.027*	-0.029*	0.022*	0.003
Intercept	-0.471*	-0.360*	-0.465*	-0.360*	-0.081*	0.088*	-0.026*	-0.028*
R-squared	0.149	0.080	0.150	0.080	0.415	0.235	0.075*	0.087*
							0.416	0.235
WOMEN (n = 3457)								
Father's corresponding status	0.334*	0.202*	0.354*	0.218*	0.128*	0.072*	0.219*	0.164*
x cohort								
Respondent's education			-0.006	-0.005	0.608*	0.500*	-0.026*	-0.027~
x cohort							0.488*	0.474*
Cohort	0.197*	0.154*	0.197*	0.154*	-0.002	-0.019	0.034*	0.008
Intercept	-0.652*	-0.511*	-0.651*	-0.511*	0.005	0.064*	-0.000	-0.019
R-squared	0.175	0.075	0.175	0.075	0.446	0.269	-0.008	0.062
							0.447	0.270

<sup>a</sup> All status variables and education are standardized.\*  $p < 0.05$ , ~  $p < 0.10$  (two-tailed tests).

Table 3. *Transmission of cultural and economic occupational status between generations: direct and indirect effects through education<sup>a</sup>.*

	Cultural status		Economic status	
	Effect	Percentage	Effect	Percentage
<b>MEN (n = 5921)</b>				
Direct effect father's occupation	0.125*	39	0.135*	57
Effect father through respondent's education	0.193 <sup>b</sup>	61	0.102 <sup>b</sup>	43
Total effect father's occupation	0.318*	100	0.237*	100
<b>WOMEN (n = 3457)</b>				
Direct effect father's occupation	0.128*	38	0.072*	36
Effect father through respondent's education	0.206 <sup>b</sup>	62	0.130 <sup>b</sup>	64
Total effect father's occupation	0.334*	100	0.202*	100

<sup>a</sup> Based on parameter estimates of Model A and Model C in Table 2.

<sup>b</sup> Total effect minus direct effect (significance level not assessed).

\*  $p < 0.05$ ,  $\sim p < 0.10$  (two-tailed tests).

change in the effect of father's occupation over 10 years. By comparing Models B and D, we can also derive trends in the indirect effects of father's occupation. The trend in the indirect effect is simply the difference between the trend in the total effect and the trend in the direct effect. The trends are summarized in Table 4. In all models, we also include the main effect of the labor-market cohort (entry year).

#### 4. Results

##### **Status attainment in two dimensions**

Table 3 provides an overall view of the intergenerational transmission of cultural and economic status. The figures in Table 3 are based on Models A and C from Table 2, and show that the transmission of cultural occupational status is stronger than the transmission of economic status. We first address these basic findings for men, and observe that for all birth cohorts together the total effect of father's cultural status on the cultural status of his son is 0.318; the effect of father's economic status on his son's economic status is 25 per cent lower, 0.237. Apparently, for men, achieving high positions in the economic status hierarchy is less sensitive to whether one's father has a high position in that hierarchy. The decomposition of

the total effect in direct and indirect effects reveals both similarities and dissimilarities. The direct transmission of occupational status seems to be equally important for the cultural and economic dimensions (0.125 versus 0.135), whereas the indirect effect is more important for the cultural dimension than for the economic dimension. The attainment of cultural occupational status through the educational channel equals 0.193, whereas the corresponding indirect effect for the economic status dimension is only 0.102. If we express these values in percentages, the difference becomes even more pronounced: the transmission of cultural status runs through the educational channel for 61 per cent; for the economic status this is 43 per cent.

One of the first conclusions drawn from these models is that for men the cultural hierarchy is more rigid than the economic hierarchy. This occurs especially because in the cultural dimension, the indirect transmission of occupational status – the schooling channel – proves to be stronger than in the economic dimension. While this is not surprising, we also conclude that the direct intergenerational transmission of occupational status is of the same magnitude in the two dimensions. We expected that the direct transmission of economic status is stronger than the transmis-

Table 4. Trends in the transmission of cultural and economic occupational status between generations: implied direct and indirect effects for labor market cohorts 1923 and 1984, and differences between cohorts 1923 and 1984<sup>a</sup>.

	Cultural status			Economic status		
	Effect in 1923	Effect in 1984	Difference	Effect in 1923	Effect in 1984	Difference
<b>MEN (n = 5921)</b>						
Direct effect father's occupation	0.209	0.057	-0.152*	0.211	0.065	-0.146*
Effect father through respondent's education	0.213	0.170	-0.043 <sup>b</sup>	0.094	0.112	+0.018 <sup>b</sup>
Total effect father's occupation	0.422	0.227	-0.195*	0.305	0.177	-0.128*
<b>WOMEN (n = 3457)</b>						
Direct effect father's occupation	0.219	0.060	-0.159*	0.164	-0.001	-0.165*
Effect father through respondent's education	0.135	0.257	+0.126 <sup>b</sup>	0.054	0.189	+0.135 <sup>b</sup>
Total effect father's occupation	0.354	0.317	-0.037	0.218	0.188	-0.031

<sup>a</sup> Based on parameter estimates of Model B and Model D in Table 2.

Cohort ranges from 0 (1923) to 6.1 (1984). Effect in 1923 is main effect in Model B or D; effect in 1984 is main effect plus 6.1 times the corresponding interaction effect.

<sup>b</sup> Trend in total effect minus trend in direct effect (significance level not assessed).

\*  $p < 0.05$ ,  $\sim p < 0.10$  (two-tailed tests).

sion of cultural status, especially because material possessions can be inherited. A possible explanation for our finding lies in the observation that not all occupations with high economic status are characterized by the ownership of businesses. Physicians, accountants, and lawyers usually do not affect the occupational choices of their offspring via the transmission of material possessions. The self-employed and the owners of firms and businesses appear to be present throughout the economic status hierarchy. That the direct transmission of occupational status is about as strong in the economic dimension as in the cultural dimension suggests that socialization and the development of occupational taste may play a greater role than the inheritance of occupation-specific resources. After all, what kind of work people choose depends not only on skills and opportunities, but also on what people like and dislike. Earlier research shows that such 'occupational tastes' are formed at an early age and have a significant effect on the career choices children make later in life (Sewell & Hauser 1980).

For women, we observe a different pattern. The total effects of father's occupational status

show that the cultural transmission is somewhat stronger for women, whereas the economic transmission is somewhat weaker. For women, too, we find that cultural transmission is more likely to run through the educational channel than economic transmission. The difference with the results for men, however, is that the direct transmission of economic status is rather weak. For men, the direct effect of father's economic status is 0.135, for women it is only 0.072. One interpretation of this finding lies in parental strategies: parents probably encourage and support sons more than daughters to make a career in the economic status hierarchy. The consequence is that, for women, the transmission of economic status runs through the educational channel in the same proportion as the transmission of cultural status (62 per cent and 64 per cent).

For both men and women the indirect transmission of occupational status runs more through education in the cultural dimension than in the economic dimension. This is a result of both the larger effects of educational attainment on the attainment of cultural status, and the larger effects of father's cultural status on educational attainment. The overall larger



effects of educational attainment on cultural status can be seen in Model C of Table 3. The effects of educational attainment on cultural status are 0.597 and 0.608 for men and women, respectively, and the effects of educational attainment on economic status are 0.442 for men and 0.500 for women. The effects of father's status on educational attainment are not shown in the tables. The effects of father's cultural status on educational attainment are 0.323 for men and 0.339 for women, and the effects of father's economic status on educational attainment are 0.231 for men and 0.260 for women.

### ***Changes in status attainment in two dimensions***

Does the intergenerational transmission of the two dimensions of occupational status change? Do both dimensions reveal a trend from ascription to achievement or is this trend stronger for the cultural than for the economic dimension? And does the role of schooling in the two-dimensional status attainment process change? Loosely based on Bourdieu's work, we argue that the expansion of higher education and the decline of direct status transmission have compelled high-status economic occupations to rely more on schooling for passing on their advantageous position to the next generation. For high-status cultural occupations, in contrast, it will be more difficult to strengthen the educational channel, largely because they relied on this channel so much to begin with. We therefore expect that the transmission of economic status is more resistant to change than the transmission of cultural status.

In Table 2, we add interaction effects with labor-market cohort to the baseline model and to the extended model. The baseline model with trends (Model B) allows us to assess changes in the total effect; the extended model with trends (Model D) allows us to assess changes in the direct effect. By subtracting the two trends, we can assess the trend in the indirect effect. The three trends are summarized in Table 4. In this table, we present the effects for the oldest and youngest cohorts (1923 and 1984), as well as the difference between these effects, which can be interpreted as the change in the entire six-decade period. Note that the effects in Table 4 are not the observed effects in the two specific cohorts (owing to the limited numbers of cases in separate cohorts the observed effects would be less reliable), but effects that are implied by our linear trend estimates in Table 2.

Table 4 shows that, for men, the total effects of father's occupational status decreased significantly over time in both dimensions. This finding supports one-dimensional studies of status attainment in The Netherlands, which have observed a weakening effect of family background (de Graaf & Ganzeboom 1993; de Graaf & Luijkx 1993). The new finding in our study is that the downward trend has been stronger in the cultural dimension than in the economic dimension of occupational status. The total effect of father's cultural status on his son's cultural status has decreased by 0.195 over the six decades covered in our study, whereas the total effect of father's economic status has decreased by 0.128. Although both downward trends are strong and statistically significant, it is clear that the downward trend of the economic dimension is weaker. Despite these differences, however, the intergenerational transmission of cultural occupational status in the most recent cohort is still larger than the transmission of economic occupational status in that cohort. In relative terms, the downward trends are about equal for the two dimensions: the total effect of father's economic occupational status has decreased by 42 per cent, and the total effect of father's cultural status by 46 per cent.

Breaking down the trends for men into direct and indirect effects again reveals both similarities and dissimilarities between the two dimensions. First, we look at the trends in the direct transmission of occupational status. This effect represents the impact of family background controlled for educational attainment and is the best indicator of ascription as a mechanism for occupational status attainment. Do sons of fathers with lower occupational status still end up in lower status jobs, even if they have the same level of schooling as sons with higher social origins? Table 4 shows that the direct effect has decreased in both dimensions by about the same magnitude. According to our linear trend model, the direct effect decreased from 0.209 to 0.057 for the cultural dimension and from 0.211 to 0.065 for the economic dimension. The decreasing importance of ascription is clear in both dimensions of occupational status, and we observe no difference between the two dimensions.

In contrast to the parallel decline of the direct effects, and as expected, trends in the indirect transmission of occupational status from fathers to sons are different in the two dimensions. The indirect transmission of cul-

tural status has decreased by 0.043, whereas the transmission of economic status has become somewhat stronger, although the increase is small (0.018). This finding supports the expectation that the democratization of the educational system has affected the intergenerational transmission of cultural status more than the intergenerational transmission of economic status. Another way of looking at this result is by comparing the importance of the educational channel for the two dimensions in the two cohorts. In the early cohort, the indirect effect was 2.3 times stronger for the cultural dimension than for the economic dimension. In the recent cohort, this proportion has declined to 1.5. The two occupational status dimensions have become more similar in this respect.

The slight decrease in the indirect transmission of the cultural dimension of occupational status is the result of two opposite trends in the underlying direct effects. First, the direct effect of sons' educational attainment on attained cultural status has become larger. According to Model C (Table 2) this direct effect has increased from 0.524 in the 1923 labor-market cohort to 0.659 in the 1984 labor-market cohort. Second, the direct effect of father's cultural status on son's educational attainment has decreased from 0.406 in the oldest labor-market cohort to 0.258 in the youngest cohort. These opposite trends have made for little change in the indirect channel of cultural status inheritance. For the economic dimension, both underlying effects are stable. The effect of son's educational attainment on economic status has increased from 0.434 to 0.452, and the effect of father's economic status on son's educational attainment has increased from 0.217 to 0.248. As a result, the overall indirect effect has increased slightly. An important conclusion is that during the 20th century, for men, the effects of schooling on status attainment have increased in the cultural dimension of occupational status and been stable in the economic status. Educational qualifications have become more important to entering culturally high occupations.

For women, we again observe different patterns. Our trend models show that the intergenerational transmission of occupational status has not decreased in the same way as it has for men. Over six decades, the total effect of father's occupational status has decreased by only 10 per cent in the cultural dimension and by only 14 per cent in the economic dimension; neither trend being significant. As for men, we

see that the direct transmission of occupational status has virtually disappeared, and the trends in the two dimensions are of a similar magnitude as for men.

The indirect effects for women, however, have *increased* in both dimensions. For daughters, the educational channel has become more important for inheriting their fathers' occupational status. The increases in the indirect effects are of about the same size in the two dimensions of occupational status: 0.126 in the cultural dimension, and 0.135 in the economic dimension. Relatively, the increase is larger in the economic dimension (250 per cent increase versus 90 per cent increase), a finding that is consistent with the notion that high-status economic occupations have increasingly needed to rely on the educational system. In both dimensions, the increase in the indirect effect is the result from both increasing effects of educational attainment on occupational attainment and increasing effects of father's status on educational attainment. In the cultural dimension, the effect of schooling on status attainment has increased from 0.488 for the oldest labor-market cohort to 0.537 for the youngest cohort (derived from Model D in Table 2), and the effect of father's status on educational attainment has increased from 0.277 to 0.479 (additional computations). Likewise, the increase in the indirect transmission of economic status is the result of an increasing effect of schooling on status (from 0.114 to 0.362) and an increasing effect of father's status on schooling (from 0.474 to 0.523).

## 5. Conclusion

In studies on trends in the status attainment process in The Netherlands, evidence has been found for what is called a 'transition from ascription to achievement'. Direct transmission of occupations across generations has declined considerably, partly because direct inheritance has become obsolete in the labor market, and partly because parental influence on and interference in the occupational choices and careers of children have weakened. Indirect transmission of status through the educational system has also become less important, partly because the educational system has become more meritocratic, and partly because parental support for extended schooling of offspring has become the practice throughout the status hierarchy. While these findings are well

known, trend studies pay little attention to the notion that status is a multidimensional concept. As a result, studies tend to focus on a simple distinction between 'high' and 'low', without considering the specific nature of occupations.

We attempt to add occupational content to the study of status attainment by using the well-known distinction between cultural and economic occupational hierarchies. That different, though partly overlapping, hierarchies exist, is generally accepted and also documented in research on lifestyles, values, and partner selection. How the status attainment process functions, and how the process has changed, when considering these dimensions, however, is not known. We have analyzed changes in direct and indirect status transmission across generations using earlier developed and validated scales of cultural and economic status. Our comparison of cohorts who entered the labor market between 1923 and 1984 has yielded results that are consistent with earlier one-dimensional studies, but has also brought us a number of new insights.

We first find that for the whole period we have studied, both for men and for women, the cultural transmission of occupational status has been stronger than economic status transmission. In addition, we find that in the cultural domain, a larger part of the transmission runs through the educational system. Because cultural status is measured by the schooling level of occupations, and economic status by the income level of occupations, we can also regard these findings as evidence that there is more income mobility across generations than there is educational mobility. One way of explaining this is that mobility in the cultural sphere is governed more strongly by the socialization practices of parents, an interpretation that fits well in a cultural capital perspective. To put it another way, it is perhaps easier for parents to motivate their children to read books or to become interested in culture and school than it is for parents to make their children rich. In that sense, the economic hierarchy appears to be more open, at least in The Netherlands.

When analyzing trends, we first find that the direct transmission of occupational status has disappeared in both dimensions, a finding that does not provide additional insights to what we already know from one-dimensional studies. What is new is that, for men, the indirect transmission (the transmission through education) has decreased only in the cultural dimen-

sion, not in the economic dimension. One-dimensional studies have also found that the indirect effect of fathers' occupational status has declined. Our results suggest that this process has not occurred in the economic hierarchy. In other words, the growing equality of educational opportunities has primarily affected the transmission of high-status cultural occupations; high economic occupations have been resistant to this trend. The economic dimension of fathers' occupational status has become more important for children's educational attainment; education has become less the domain of the cultural elite.

We previously argued that high economic status groups would begin to rely more on the educational system because opportunities to transmit their status directly have declined. In the terminology of Bourdieu, the economic elite would use a 'compensatory strategy' to reproduce itself. Whether this interpretation is correct remains unclear, because our results also show that the direct effect has not declined more strongly for the transmission of economic occupational status than for the transmission of cultural occupational status. The notion of a compensatory strategy is therefore less plausible and we need additional arguments to explain why the educational channel has not become less important for the economic elite. One explanation is that the ideal of higher education has traditionally only been present within the cultural elite. With the rise of higher education, perhaps all social groups have come to recognize the importance of schooling as a route to mobility for their children. Hence, not only lower-status groups are likely to begin to encourage their children to do well in school, but high economic status groups as well.

Our analyses also reveal differences between men and women in the status attainment process. While the transmission of cultural status looks fairly similar for men and women, the transmission of economic status is different. Most importantly, the direct effect of fathers' economic status on their children's economic status is weaker for women than for men, suggesting that in high economic status groups, strategies of parental influence, such as socialization, sponsoring, or inheritance, have been used less intensively for women than for men. When examining trends for women, we find that the indirect effects of father's status through schooling have increased rather than decreased. This trend is stronger for the economic dimension of status than for the

cultural dimension. This finding further supports the notion that the indirect route to reproduction, the schooling channel, has become relatively more important for high economic status groups.

First version received March 23, 2000

Final version accepted November 15, 2000

## References

- Blau, P. M. & Duncan, O. D. 1967. *The American Occupational Structure*. New York: Wiley and Sons.
- Bourdieu, P. 1973. Cultural reproduction and social reproduction. In R. Brown (ed.), *Knowledge, Education and Social Change*, pp. 71–112. London: Tavistock.
- Bourdieu, P. [1979] 1984. *Distinction*. London: Routledge and Kegan Paul.
- Bourdieu, P. & Passeron, J. C. 1979. *The Inheritors: French Students and Their Relation to Culture*. Chicago: University of Chicago Press.
- Breen, R. & Whelan, C. 1993. From Ascription to Achievement? Origins, Education and Entry to the Labour Force in the Republic of Ireland During the Twentieth Century. *Acta Sociologica*, 36, 3–17.
- de Graaf, P. M. 1986. The Impact of Financial and Cultural Resources on Educational Attainment in The Netherlands. *Sociology of Education*, 59, 237–246.
- de Graaf, P. M. & Ganzeboom, H. B. G. 1993. Family Background and Educational Attainment in The Netherlands for the 1891–1960 Birth Cohorts. In Y. Shavit & H.-P. Blossfeld (eds.), *Persisting Inequality: A Comparative Analysis of Educational Stratification in Thirteen Countries*, pp. 75–100. Boulder CO: Westview Press.
- de Graaf, P. M. & Kalmijn, M. 1995. Culturele en economische beroepsstatus: Een evaluatie van subjectieve en objectieve benaderingen [Cultural and Economic Occupational Status: An Evaluation of Subjective and Objective Approaches]. *Mens en Maatschappij*, 70, 152–165.
- de Graaf, P. M. & Luijkx, R. 1993. Trends in Status Attainment in The Netherlands: from Ascription to Achievement. In H. A. Becker & P. L. J. Hermkens (eds.), *Solidarity of Generations? Demographic, Economic and Social Change, and its Consequences Volume I*, pp. 437–467. Amsterdam: Thesis.
- DiMaggio, P. 1982. Cultural Capital and School Success: The Impact of Status Culture Participation on the Grades of U.S. High School Students. *American Sociological Review*, 47, 189–201.
- DiMaggio, P. & Mohr, J. 1985. Cultural Capital, Educational Attainment, and Marital Selection. *American Journal of Sociology*, 90, 1231–1261.
- Duncan, O. D. 1961. A Socio-economic Index for All Occupations. In A. J. Reiss (ed.), *Occupation and Social Status*, pp. 109–138. New York: Free Press.
- Ganzeboom, H. B. G. 1988. *Leefstijlen in Nederland; een verkennende studie* [Life styles in The Netherlands: An Explorative Study]. Rijswijk: Sociaal en Cultureel Planbureau.
- Grusky, D. B. & DiPrete, T. A. 1990. Recent Trends in the Process of Stratification. *Demography*, 27, 617–637.
- Grusky, D. B. & Van Rompaey, S. E. 1992. The Vertical Scaling of Occupations: Some Cautionary Comments and Reflections. *American Journal of Sociology*, 97, 1712–1728.
- Hendrickx, J. & Ganzeboom, H. B. G. 1999. Occupational Status Attainment in The Netherlands, 1920–1990; A Multinomial Logistic Analysis. *European Sociological Review*, 14, 387–404.
- Hout, M. 1988. More Universalism, Less Structural Mobility: American Occupational Structure in the 1980s. *American Journal of Sociology*, 93, 1358–1400.
- Huigen, F. 1990. The Training of Workers and Their Occupational Level. *The Netherlands' Journal of Sociology*, 26, 91–111.
- Kalmijn, M. 1994. Assortative Mating by Cultural and Economic Occupational Status. *American Journal of Sociology*, 100, 422–52.
- Lamont, M. 1992. *Money, Morals and Manners: The Culture of the French and American Upper-middle Class*. Chicago: University of Chicago Press.
- Luijkx, R., Robert, P. de Graaf, P. M. & Ganzeboom, H. B. G. 1998. From Ascription to Achievement: The Status Attainment Process in Hungary from 1910 to 1992. In P. Nieuwbeerta & H. B. G. Ganzeboom (eds.), *Conference Proceedings Transformation Processes in Eastern Europe*, pp. 93–120. Den Haag: ESR.
- Marks, G. 1992. Ascription Versus Achievement in Australia: Changes Over Time 1965–1990. *Australian and New Zealand Journal of Sociology*, 28, 330–350.
- Petersen, R. A. & Simkus, A. 1992. How musical tastes mark occupational status groups. In M. Lamont & M. Fournier (eds.), *Cultivating Differences: Symbolic Boundaries and the Making of Inequality*, pp. 152–186. Chicago: University Press.
- Porter, J. 1967. Consumption Patterns of Professors and Businessmen: A Pilot Study of Conspicuous Consumption and Status. *Sociological Inquiry*, 37, 255–282.
- Sewell, W. H. & Hauser, R. M. 1980. The Wisconsin Longitudinal Study of Social and Psychological Factors in Aspirations and Achievement. *Research in Sociology of Education and Socialization*, 1, 59–99.
- Swartz, D. 1977. Pierre Bourdieu: The Cultural Transmission of Social Inequality. *Harvard Educational Review*, 47, 545–555.
- Treiman, D. J. 1970. Industrialization and Social Stratification. In E. O. Laumann (ed.), *Social Stratification: Research and Theory for the 1970s*, pp. 207–234. Indianapolis: Bobbs-Merill.
- Treiman, D. J. & Ganzeboom, H. B. G. 1990. Cross-national Comparative Status-attainment Research. *Research in Social Stratification and Mobility*, 9, 105–127.