The Implication of Social Classification for Analyses of the Field of Higher Education—the Case of Sweden

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I. Introduction

Inspired by Pierre Bourdieu's and his collaborators' pioneering work in France we have since the mid-1980's been using correspondence analyses in order to explore the Swedish field of higher education.[1] The aim has been to grasp the system of relations between different educational programmes at different universities. In order to construct such a space, we have, for each program at each higher education institution, created a "profile" based on the its recruitment of students. In other words, educational programmes at different institutions are characterized by the properties of its students, or to be more precise: by the amount and composition of different species of inherited and acquired capital possessed by its students. One important distinguishing mark for a certain program is the portion of sons and daughters of physicians, engineers, journalists and so on among its students. Further, besides the information on the parents' occupations, we have access to other data on the students' social origin, such as the parents' education, income, and the type and size of the parental dwellings. We also have data on the students' previous educational careers (for example type of upper secondary education, grades in different school subjects, and scores from entrance tests to the university). Our data sets now comprise these kinds of data for all students in Swedish higher education during the years 1993-1999.

The research has given valuable insights in the development and structure of the Swedish field of higher education, that is the system of relations between different programmes at different educational institutions. Its divisions, hierarchies and polarities are far from common knowledge in a country like Sweden where the egalitarian rhetoric has been predominant. On the surface the Swedish educational system appears rather homogenous. Since 1977 all Swedish post-secondary education (including for example professional training of teachers, nurses and social workers) is incorporated into the same public higher education organization, and there are few institutions commonly recognized as elite institutions and virtually no private higher education schools. This false image of a socially rather homogenous educational system is reinforced by the predominant one-dimensional view on social stratification. In the public debate and also in most of the research on recruitment to education only "vertical" divisions—that is hierarchies such as upper classes, middle classes, lower classes—are taken into account. Thereby, "horizontal" distances between groups with the same amount but different composition of assets collapse. The social space does not appear as a multi-dimensional space but as a ladder.

For our studies on the field of higher education—and also for other purposes—it was necessary to achieve social classifications that permit the exploration of the multi-

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[1] We were at Bourdieu's centre at Maison des sciences de l'homme given the opportunity to follow the work reported in Pierre Bourdieu & Monique de Saint Martin, "Agrégation et ségrégation. Le champ des grandes écoles et le champ du pouvoir", *Actes de la recherche en sciences sociales*, vol. XIII, no 69, septembre 1987, pp. 2-50, and Pierre Bourdieu: "Variations & invariants. Éléments pour une histoire structurale du champ des grandes écoles", *Actes de la recherche en scien*ces sociales, vol. XIII, no 70, novembre 1987, pp. 3-30. Revised versions of these two articles is to be found in Pierre Bourdieu, *La noblesse d'État. Grandes écoles et esprit de corps*, Minuit, Paris 1989. One of our early attempts to map the Swedish field of higher education was Donald Broady & Mikael Palme, "Le champ des formations de l'enseignement supérieur en Suède — bilan de recherche", pp. 1-19 in Monique de Saint Martin och Mihai D. Gheorghiu (éd.), *Les institutions de formation des cadres dirigeants. Étude comparée*, Maison des sciences de l'homme, Centre de sociologie européenne, Centre de sociologie de l'éducation et de la culture, Paris novembre 1992.

dimensionality of the social space. In Sweden we are blessed with exhaustive data sets from censuses and other sources available for research purposes. It is, however, not obvious how these data are to be used in sociological analyses and interpreted. In this paper we will discuss problems and possibilities concerning social classification, and at the end present some results from the analyses of the field of higher education.

The paper starts with an examination of the Swedish nomenclatures for social classification with respect to the main principles for the division of social groups and the implications for sociological analyses. This examination will lead to a discussion of how such nomenclatures can be used to establish a classification system that represents the social space as multidimensional. A classification comprising 33 social groups is presented. Thereafter we examine these 33 social groups in order to delineate more precisely what they bring together and what they keep apart. Crucial questions are: How are households to be constructed? What differences can be found between men and women, and between social groups regarding, for example, income, educational level, working time and marriage patterns? So far, our considerations have related to more general social classification problems, not only of interest for the sociology of education. Finally, our social classification scheme is employed to analyse the field of higher education in Sweden in the late 1990's.[2]

II. Social Classification Systems

Social classification—in the following means national and international nomenclatures for occupations and socio-economic groups—is not only a technical matter. Alain Desrosières and Laurent Thévenot from the French statistical institute INSEE state that social classification can be regarded as an act of representing the society with three different functions, one statistical, one political, and one cognitive. The aim of statistics is to represent society by the means of the table. By the same token, the categorization is also a political act—the classification system, through its categories, distinguishes particular groups, recognises them and separates them from other groups. Finally, this has a cognitive side related to how we perceive society in our daily life and how we differentiate social groups based upon our common sense knowledge. The perception of society both mark and is marked by the classification of occupations, as it is expressed in, for instance, tables in official statistics.[3] These functions are intertwined. Already the etymology of the word statistics shows its connections to the state. However, the state administration is not the only producer of social statistics and classifications. Social scientists take part in the struggles on the definition of social categories. Other agents such as labour unions, employer's organizations, and marketing and public opinion institutes have vested interests in promoting certain social classifications. To the latter it is not the social categories in themselves that are significant, but rather how they relate to social phenomena such as consumption, political behaviour, salaries, working conditions, etc.

In a comparison of social classification nomenclatures in France, Great Britain and Spain, Duriez, Ion, Pinçon and Pinçon-Charlot argue that there are two main features of any classification system: first, by some means it separates occupations from each other; second, it contains a method for aggregating the separated occupations into larger groups.[4] We will focus on the latter function when examining the two social classification systems that are used in Swedish official statistics, the NYK (Nordic Standard Occupational Classification)[5] and the SEI (Swedish Socio-economic Classification).[6] Duriez et al. also distinguish between multidimensional and (socio-) hierarchical classification systems—a distinction that can serve as a starting point for our understanding of the NYK and the SEI.[7] To begin with the NYK, this nomenclature is based upon occupations and identifies over 3,000 different occupations. Despite its sheer number of categories, the classification system is not primarily to be seen as

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[3] Alain Desrosières & Laurent Thévenot, *Les catégories socio-professionelles*, fourth edition, Éditions La découverte, Paris 2000 [1988], pp. 30-49.

[4] B. Duriez, J. Ion, M. Pinçon et M. Pinçon-Charlot, "Institutions statistiques et nomenclatures socio-professionnelles. Essai comparatif : Royaume-Uni, Espagne, France" pp. 29-60 in *Revue française de sociologie*, janvier-mars 1991 XXXII-I.

[5] "Nordisk yrkesklassificering," see SCB, *Yrkesklassificering i FoB 85 enligt Nordisk yrkesklassificering (NYK) och Socioekonomisk indelning (SEI). Alfabetisk version*, Meddelanden i samordningsfrågor, 1989:5, SCB, Stockholm 1995 [1989]. The NYK is since 1996 exchanged by the Swedish Standard Classification of Occupations (SSYK), see http://www.scb.se/klassifikationer/ssyk.asp. However, we will not consider SSYK in this paper since all the statistical data we use are coded according to NYK.

[6] "Socioekonomisk indelning", see SCB, *Socioekonomis indelning (SEI)*, Meddelanden i samordningsfrågor 1982:4, Reprint 1995.

[7] B. Duriez, J. Ion, M. Pinçon et M. Pinçon-Charlot, "Institutions statistiques et nomenclatures socio-professionnelles. Essai comparatif : Royaume-Uni, Espagne, France" pp. 29-60 in *Revue française de sociologie*, janvier-mars 1991 XXXII-I, p. 40.

multidimensional. While no other criterion than the occupation is built into the scheme, the classification is hierarchical in the sense that the basic unique categories, *the individual occupations*, (5-digits), can be aggregated into *occupation families* (3-digits) and furthermore into *minor groups of occupations* (2 digit) and *major groups of occupations* (1 digit). This does not imply, however, that it is socially hierarchical. On the contrary, the occupations are strictly aggregated into larger groups according to branches. For example, all occupations within the health sector are coded into the major group '1 Health and nursing work, social work.' It is impossible to say whether this major group or the major groups '0 Professional, technical and related work' or '2 Administrative, managerial and clerical work' are on a higher social level than the other ones. Also a major group such as '3 Sales work' or '4 Agricultural, forestry and fishing work' contains occupations that can be classified as socially dominant positions.

The SEI, on the other hand, is a multidimensional classification. It only contains 14 categories, which are divided according to four types of criteria. Employees are separated from owners and the self-employed. The employees are divided into blue-collar workers and white-collar workers, and the self-employed into farmers, the self-employed (excl. farmers), and freelance professionals. Within the categories blue-collar workers and white-collar workers distinctions are made according to the general level of qualifications required for the occupations—blue-collar workers contains the categories skilled and unskilled, and white-collar workers are separated into four categories, lower grades,[8] intermediate grades, senior, and managers. Finally, blue-collar workers, skilled as well as unskilled, are split in two groups, service-producing and goods-producing. Even though it was not designed as a social hierarchical scale, the SEI is, paradoxically, often treated as an indicator of social hierarchies when social scientists and statisticians use it.

To clarify the difference between the two nomenclatures it is helpful to think in terms of "horizontal" and "vertical" classification systems. Despite its multidimensional construction, the SEI is primarily a vertical classification, where the socio-economic groups are distributed on a social scale, or ladder, to use a widely spread metaphor.[9] There is, for example, no possibility within the classification system of distinguishing between occupations as different as clergymen, sales managers, physicians, editors and lawyers; they will all be classified as white-collar workers within senior positions. The NYK can be seen as the horizontal classification system *par excellence*. It is extremely detailed with its more than 3,000 individual occupations. Nevertheless, it is not feasible within the NYK to distinguish technicians from engineers, or administrators on senior levels from administrators on intermediate levels.

If we compare the two social classification systems with international and national counterparts, we find some interesting similarities and differences. The latest international classification, ISCO-88, developed by the International Labour Organisation (ILO), and its European version, ISCO-88 (COM),[10] is a combination of the two types of social classification, the "horizontal" and the "vertical" classification systems. Among the 10 major groups, a hierarchical principle based upon skill level divides '1 Legislators, senior officials and managers,' '2 Professionals,' '3 Technicians and associate professionals,' and '4 Clerks.' Other groups such as '5 Service workers and shop and market sales workers,' '6 Skill agricultural and fishery workers,' '7 Craft and related workers,' and '8 Plant and machine operators and assemblers' are on the same skill level but differentiated according to a branch principle. The NYK is since 1996 replaced by

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[8] This category also contains two subcategories, grade I and grade II.

[9] The SEI contains a domination principle for reducing two parents to one household position, which implies a hierarchical structure.

[10] ISOC-88 (COM): http://www.warwick.ac.uk/ier/isco/isco88.html.

Swedish Standard Classification of Occupations, SSYK, based upon the ISCO-88 (COM), which, from our perspective, is troublesome, since some of the social groups that can be created by combining the SEI and the NYK (se below), will be impossible to establish by the SSYK and the SEI.

In Great Britain, there exist two different social classification systems, which to some extent can be regarded as equivalent to the Swedish SEI and NYK. The National Statistics Socio-economic Classification (NS-SEC) is primarily hierarchical,[11] while the Standard Occupational Classification (SOC2000)[12] is a based upon the ISCO-88 (COM) and is thus more branch oriented in its construction. A similar classification as the NYK is found in the US classification, Social Occupational Classification (SOC).[13] On the second most general level, it separates 23 major groups, among which we find: 'Business and Financial Operations Occupations,' 'Computer and Mathematical Occupations,' 'Architecture and Engineering Occupations,' 'Life, Physical, and Social Science Occupations,' 'Legal Occupations,' and 'Arts, Design, Entertainment, Sports, and Media Occupations'—clearly branch divided categories. The only distinctive hierarchical category, which does not indicate any specific branch, is 'Management Occupations,' but a hierarchical principle can also be found in the division of, for example 'Healthcare Practitioners and Technical Occupations' and 'Healthcare Support Occupations.' Finally, the French classification system, Professions et catégories socioprofessionnelles (PCS),[14] is an interesting combination of the two classification systems. On the most aggregated level, it resembles the SEI, separating 'Agriculteurs exploitants,' 'Artisans, commerçants, chefs d'entreprise,' 'Cadres et professions intellectuelles supérieures,' 'Professions intermediaries,' 'Employés,' and 'Ouvriers.' The second level comprises 31 socio-occupational groups,[15] where a number of different criteria are incorporated in the classification. Both branches and hierarchical position are separated. Blue-collar workers, for instance, are split into skilled and semi-skilled workers, which are divided into industrial production and trade or handicraft production. Contrary to all other social classifications, a division according to sector is applied for certain categories (administrators on senior level and on intermediate level) and three classes of farmers are established based upon the size of the property. The French classification system—with its multidimensional construction and sociologically useful categories—has served as a model for our classification system for Swedish social groups, which will be presented and analysed in the next section.

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[11] It contains the following "analytical classes": 1 Higher managerial and professional occupations (divided in two sub-groups: 1.1 Large employers and higher managerial occupations and 1.2 Higher professional occupations), 2 Lower managerial and professional occupations, 3 Intermediate occupations, 4 Small employers and own account workers, 5 Lower supervisory and technical occupations, 6 Semi-routine occupations, 7 Routine occupations, 8 Never worked and long-term unemployed. See http://www.statistics.gov.uk/methods_quality/classifications.asp for further details.

[12] See http://www.statistics.gov.uk/methods_quality/soc/structure.asp.

[13] See http://www.bls.gov/soc/.

[14] See http://www.insee.fr/fr/nom_def_met/nomenclatures/pcs82/pages/pcs82.htm for the classification dated 1982 and http://www.insee.fr/fr/nom_def_met/nomenclatures/pcs/pages/pcs.htm for the 2003 version. There are only small differences between the systems (see http://www.insee.fr/fr/nom_def_met/nomenclatures/pcs82/htm/dpas8203.htm) and we will here only take the 1982 version into account.

[15] Categories "socioprofessionnelles". There are 23 posts at this level in the classification when only the employed are counted and the self-employed, farmers, free professionals and entrepeneurs are excluded.

III. An Analysis of a Multidimensional Social Classification

Bourdieu states in La Distinction:

> The particular relations between a dependent variable (such as political opinion) and so-called independent variables such as sex, age, and religion, or even educational level, income and occupation tend to mask the complete system of relations which constitute the true principle of specific strength and form of the effects registered in any particular correlation. The most independent of 'independent' variables conceals a whole network of statistical relations which are present, implicitly, in its relationship with any given opinion or practice. Here too, instead of asking statistical technology to solve a problem which can only be displaced, it is necessary to analyse the division and variations which the different secondary variables (sex, age etc.) bring into the class defined by the main variable, and consider everything which, through present in the real definition of the class, is not consciously taken into account in the nominal definition the one summed up in the name used to designate it, or therefore in interpreting the relationship in which it is placed.[16]

These principles serve as guiding lines for the discussion presented below.

III.1 Construction of a Multidimensional Occupational Classification

In order to construct a multidimensional representation of Swedish society, it is necessary to combine the two Swedish classification systems. Taking the NYK as a starting point, a number of relatively distinct occupational groups can be established according to branches, for example University teachers, Art producers, Journalist and Physicians. Thereafter the SEI can be utilised in order to separate certain occupations hierarchically. Technicians and Engineers, who are not separable within the NYK, can be distinguished from one another by adding the SEI; white-collar workers on a senior level can be coded as the latter and white-collar workers on an intermediate level as the former. For large occupational groups with a rather balanced composition of public and private sector employment, the information concerning sectors is introduced into our classification scheme.[17] Table 1 displays how our social classification system is constructed, and how the 33 level social classification system can be collapsed into seven social classes, which approximately corresponds to the SEI.

In this section, we will first discuss the concepts "family" and "household." Then the 33 different social groups as well as the SEI-categories will be explored with regards to the social groups' levels of education, income distributions, marriage patterns, geographical dispersion, sex ratios, housing conditions, etc. We will both analyse differences between the sexes within each social group, and differences between the social groups among men and women respectively. The results serve as a ground for an analysis of the question of household composition.

The data set used in the following is the population of grade nine leavers (normally 16 years old) in 1988, approximately 110,000 individuals, and their parents. We will exclusively focus on the parents, and will leave the data on the pupils aside. For the

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[16] Pierre Bourdieu, *Distinction—A Social Critique of the Judgement of Taste*, Routeledge, London 1984 [French original: La distinction. Critique sociale du jugement, Les Editions de Minuit, Paris, 1979], p. 103.

[17] It would be meaningless in a Swedish context to separate University teachers according to sector since almost everyone is employed by the state. The same holds true for Officers.

parents we have information from the national census 1990 (the latest accomplished census in Sweden) containing data on occupation (NYK), socio-economic group (SEI), sector, highest level of education completed, total income, country of birth, year of birth, housing, geographical data (county and municipality of residence), civil status, number of children, etc. The reason for choosing this population is that it is the closest we have had to a representative sample of the Swedish population.[18] It is though important to keep in mind that the population only contains persons with children leaving the compulsory school in 1988, thus concentrating the population to certain ages, and biasing it towards groups with children.[19]

III.2 The Concepts of "Family" and "Household"

For official statistics and the social sciences, social background is of great importance, as in studies on education and social mobility. The family or household of origin, most often constituted by two parents, is a measure of the social background. It is implicitly taken for granted that "family" and "household" are meaningful categories without further investigation of the origin and development of the institutions "family" and "household." We cannot develop the social history of the family in this context, but it is relevant to point out that the family in the modern sense, denoting a two-generation relation, is a very limited construction for social analyses. There are strong arguments for enlarging the basic analytical entity, the family, in at least two ways. First, by including more generations, at least the grandparents, in order to better understand the trajectory of the family. Second, by widening the concept of family to both siblings and uncles and aunts. It is a common strategy among bourgeois families to spread their investments in a number of fields, thus enlarging the total amount of capital at the family's disposal. A more complex analysis that could grasp such familial strategies is clearly to be desired, but it is in our data only possible to link the individuals to their parents, and not to either siblings or grandparents. Thus, we are not in a position to develop more complex analyses of the social origin here.

    To indicate social origin, the highest social position of the parents is usually utilised. As a consequence, a family with, in the most common case, two parents is reduced to the characteristics of one of them. In order to carry out this operation, a principle of selection is required. Until quite recently, the most common procedure has been to let the father represent the family. Nowadays, with the entry of women into the working force, the positions of both parents are more frequently considered. But what does it actually mean to reduce the household to one position? What information is lost in this operation? To answer these questions, we will first have to analyse the differences between men and women, before adding them together in the construction of a household.

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[18] Other choices would have been the population of parents to pupils in secondary school or in higher education, but these samples are biased by the fact that not all individuals in a given birth cohort are continuing to secondary school, and even less so for higher education. We are now in the position of having data for the whole Swedish population over 16 years for the years 1990, 1994, 1997 and 2000, but it still remains substantial work with recoding the variables before the material can be analysed.

[19] Since the number of children is varying some between different social groups, they are unevenly represented in the population, but these effects are probably insignificant.

III.3 Differences Between Men and Women

The domination of women by men is highly visible in our data. Among the men/fathers, 13,3 % are classified as belonging to the most dominant SEI-category, Senior salaried employees,[20] while only 6,8 % of the women/mothers are found in this category. The largest share of women within the group of white-collar workers, 16,3 %, is found in the lowest ranked category, Lower grades, where we find the lowest number among the men, 6,7 %. Men among blue-collar workers are predominantly found in the category Skilled workers (13,2 % against 12,1 % Unskilled workers); women are more frequently working in occupations denoted as Unskilled (23,7 % in relation to 7,5 % Skilled workers). On a more detailed level, a larger number of men than of women are found in all nine categories belonging to the upper class, except Subject teachers. Men more frequently work in the private sector, 73,6 %, compared to women, 37,0 %. For women, the public sector is predominant, 53,5 %, while only 20,9 % of the men are to be found in this sector.[21] This opposition is valid for all the 33 social groups where sector is not part of the definition of the group. Furthermore, men work more than women. Among the men who are working, 92,4 % work more than 34 hours a week, while the corresponding figure for women is only 58,6 %. The difference between the sexes is smaller for the more dominant groups. 78,8 % of the women in occupations classified as Senior salaried employees work full time, which is less than eight percentages lower than for the men. This can be compared with women in Unskilled blue-collar occupations where fewer than 50 % work full time, while the same figure for the men is almost 85 %.

Not only—but substantially—as a consequence of the fact that men more frequently work in the private sector, work more, and have higher-ranked positions, there are large income differences between men and women to the advantage of the former—the mean income for the men is 219,200 SEK and 132,000 SEK for the women, thus a difference of 84,000 SEK (approximately 9,000 €) in favour of the men.[22] The absolute difference is largest for the most socially dominant groups, the Senior salaried employees, where the men earn 316,000 SEK and the women 204,000 SEK (65 % of the men's income). The lowest average income of women counted as a proportion of the average male income is found among the self-employed, where women only earn 58 % of the men's income. On the more detailed level, men earn more than women in all the 33 social groups. The largest absolute differences between the mean incomes are found among Executive managers (166,100 SEK), Merchants and tradesmen (144,000 SEK), Lawyers (135,800 SEK) and Physicians (107,200 SEK).[23] Women who are Subject teachers, Class teachers and Engineers come closest to the men's income, reaching between 82 and 84 %.

In comparison with the income differences, the differences in educational level between the sexes are smaller. For certain social groups, such as Engineers, Class teachers, Journalists, Art producers, and Technicians in the public sector, there are relatively speaking more women with a university education.[24] There is a tendency for the underrepresented sex to have a higher level of educational capital—this is the case for

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[20] A group that contains the three categories 56 White-collar worker (Senior); 57 Self-employed, Freelance professionals; and 60 White-collar worker (Managers).

[21] 9,2 % of the women and 5,5 % of the men are not part of the working force and cannot be placed in a sector.

[22] The figures are for the income year 1989.

[23] One can note that for three of these four groups, the difference between men and women in the share of fulltime workers is less than 15 percentages (for physicians is it 20 percentages), and this can hardly be the explaining factor behind the wide gap in mean income within the groups.

[24] University education is defined as 'Post-secondary education ≥ 3 years' and 'Postgraduate education.'

women in the groups Engineers, and Technicians in the public sector, but also for men in Medical and health professions, Administrative clerks, and Mid-level administrators. Nevertheless, among the most dominant groups, where men are over represented, such as Physicians, Lawyers, University teachers, Executive managers, Private senior administrators and Senior civil servants, the men have larger shares with university education than the women.

III.4 Differences Between Social Groups

Leaving the differences between the sexes aside, we will now focus on the difference between social groups. In order to not introduce the bias of gender differences into the analyses, we will concentrate on differences between men in different social groups. One critical question is what kind of differences can be found within the SEI-categories, the most commonly used categories in the Swedish social sciences. The two main factors examined will be income and level of education, here used as indicators of economic and cultural capital, respectively, and the most important species of capital in the construction of a social space according to Bourdieu.

To start out with income, the SEI-categories can, if we exclude Farmers, clearly be treated as a scale variable, ranking White-collar workers according to their level of qualification first, and thereafter the Self-employed, Skilled blue-collar workers, and Unskilled blue-collar workers. This is also true for women, with the exception of the Self-employed, who in fact have the lowest income after Farmers. When we examine the income distribution on the more detailed level of the 33 social groups some interesting differences can be found, especially within the category Senior salaried employees. We can differentiate three groups. The highest income is earned by Executive managers (430,500 SEK), Lawyers (405,000 SEK), Physicians (377,000 SEK) and Private senior administrators (344 000 SEK). On an intermediate level with average incomes ranging from 301,500 SEK to 275,500 SEK we find University teachers, Engineers, Officers, and Civil senior servants. Subject teachers clearly have the lowest average income (239,000 SEK), and some groups categorised mainly as SEI White-collar worker Intermediate grades have higher incomes: Journalists (256,000 SEK), Private mid-level administrators (256,000 SEK) and Merchants and tradesmen (252,000 SEK).[25] For the social groups that are divided according to sector, it is clear that it is more profitable, economically, to work in the private sector than in the public sector.[26]

The internal income differences tend to be larger within the economic elite: the standard deviation is highest for Lawyers, Merchants, Private senior administrators, and Executive managers.[27] The income distribution is more differentiated (some individuals earning a lot more than others, while the majority have more modest incomes) for the

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[25] Regarding the average income of women some differences from the men's average income can be noted. Executive managers do not have the highest incomes; Physicians as well as Layers have higher incomes (270,000 SKR and 269,000 SKR against 264,000 SKR). It is also a rather small difference between University teachers and Secondary teachers (209,000 SKR against 201,000 SKR). Merchants and tradesmen have a relatively small income, 108 000 SKR, and, for example, Clerks, Self-employed and Clerks, commerce all have higher incomes.

[26] For the Senior servants/administrators, the difference is almost 70,000 SKR, for the Technicians and Mid-level administrators ca 40,000 SKR.

[27] The standard deviations for these groups are: 745,000 SKR, 528,000 SKR, 449,000 SKR, and 437,000 SKR. These figures can be compared with the corresponding figures for Physicians 141,000 SKR, University teachers 112,000 SKR, and Secondary teachers 61,000 SKR. The medium standard deviation is 203,000 SKR.

social groups primarily relying on economic capital for their social position, resulting in a substantially higher average income than median income. The differences between the economic elite and the cultural elite are less pronounced when we base the comparison on the median income. The group with the highest median income is Physicians (379,100 SEK), followed by Executive managers (349,200 SEK), Lawyers (342,300 SEK), Private senior executives (294,600 SEK), and University teachers (284,800 SEK). Subject teachers also more clearly distinguish themselves from the social groups classed as Middle class—only Private mid-level administrators have a higher median income (232,000 SEK against 231,200 SEK for Subject teachers).

Regarding education, the differences are even more pronounced than for income. While over 50 % of the Senior salaried employees have a university degree, only one other group reaches over 10 % (the average share for all men): white-collar workers on an intermediate level, for whom the corresponding figure is 12,7 %. The differences among women are even more evident. The proportion holding a university degree is 10 % for the women too, but as many as two out of three women in the category Senior salaried employees hold this degree, which is true also for one out of four among the White-collar workers on an intermediate level. Moreover, the educational capital is unevenly distributed among the social groups. The strong link between the professions (primarily Lawyers and Physicians) and the educational system is manifest in an extremely high proportion of individuals holding a university degree (for the Lawyers 97,2 % and 98,6 % for the Physicians). Likewise, University teachers, Officers, and Subject teachers have high shares, 93,2 %, 92,1 % and 83,2 %. Civil senior servants, Private senior administrators and Engineers form a middle group (49,9 %, 39,0 % and 32,7 %), while Executive managers have the lowest share, 26,2 %. In other words, the educational capital seems to be more unevenly distributed among the social groups classified as Senior salaried employees, than is the economic capital.[28] To this one can also add that some groups classified as Mid-level administrators, or middle class, such as Class teachers, Journalist and Art producers, have larger proportions with university degrees than Executive managers have.

In conclusion we can by the distribution of cultural and economic capital define three different sub-groups within the highest ranks of the Swedish society:

1) groups well-represented with both economic and cultural (Physicians, Lawyers, and University teachers),
2) groups with more cultural capital than economic capital (Subject teachers, Senior civil servants, and Officers), and
3) groups with more economic capital than cultural capital (Private senior administrators, Engineers, and Executive managers).

III.5 The Household as a Seat for Capital Accumulation

We are now at a point where we can return to the question of how to construct a household for sociological analyses. We have seen that capital assets, especially the

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[28] The relation within the Senior salaried employees category between the most educated and the least is a relation between four out of four on the one hand, and one out of four on the other hand. For the economic capital, the group with the highest income have less than double the income than the group with the lowest income. The income as an indicator of economic capital does not adequately capture the fortune (the total income, the variable we have used in our analyses, to some extent covers this lack of information since it also include all sources of income, such as income from shares, bonds, revenues, etc.), which of course is more exclusively distributed among the population and the social groups.

economic capital, are unevenly distributed among men and women, to the formers advantage. This male domination is at hand within all the different social groups. Furthermore, we have shown that the different social groups possess different amount of capital and that the composition of economic and cultural capital is differently structured, most clearly expressed within the category Senior salaried employees, where three sub-groups can be identified. All these analyses have taken the individual as the primary analytical entity. The next step in the analysis is to break with the individual representation of society (where the social origin is represented by one individual) and analyse the household as a seat for capital accumulation, to which both the man and woman contributes.

First a few words on the effects of not only using the father's occupation to denote the household. One of the main reasons for using both the mother's and the father's occupations is that the cases for which data is missing decreases sharply. If we only use the father's occupation, we lack information on occupation for 26,5 % of our cases. When we add the information of the mother's occupation, the share of missing cases decreases to 13,5 %. But the composition of the social groups also changes. On a more aggregated level, the higher social ranks increases; Senior salaried employees increases from 13,3 % of the men to 16,2 % of the households and Mid-level administrators from 14,3 % to 19,2 %.[29] Unskilled blue-collar workers also increase, a group where single women households are over represented.

In the following, we will take the household indicated by the highest position of the parents as the ground for our analyses. We can on the level of the 33 social groups identify a number of combinations regarding the social position of the men and the women. Among the household classified as Senior salaried employees, some social groups are characterised by the fact that it is the father who holds the dominant position, thus defining the household position, and where the position of the mother is relatively low by social standards. This is the case for Officers (98 % of the men are Senior salaried employees and 15 % of the women), Executive managers (95 % and 17 %), Engineers (92 % and 19 %), and Private senior administrators (81 % and 32 %). A middle category is constituted by Lawyers (90,5 % and 38 %) and Civil senior servants (75 % and 44 %). Finally, a high rate of both men and women being Senior salaried employees are found among Physicians (81 % and 48 %), University teachers (79 % and 53 %) and Subject teachers (65,5 % and 54 %).[30] The reversed structure is found if we take into account the parents holding blue-collar working positions—sorted by the lowest share of the women: Lawyers (1 % of the men and 3,5 % of the women), Physicians (1 % and 4 %), University teachers (1 % and 4 %), Subject teachers (3 % and 8 %), Senior civil servants (5 % and 11 %), Private senior administrators (4 % and 14,5 %), Executive managers (1 % and 17 %), Engineers (0,5 % and 21 %), and Officers (0,4 % and 23 %).

These differences can be understood as an outcome of the different strategies developed by groups who are more dependent upon profound educational investments for their social positions and groups for who the economic capital is more relevant than the cultural. The former are more akin to form a household with a person that holds the same social position. In addition, it seems that the educational capital is more crucial than the

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[29] This is an effect of both the domination principle used for choosing the parent to represent the household (in households with two parents the women occasionally holds higher positions than the men and the household position is then underestimated if only the father's occupation is used) and that new information is added for the household with only a mother and no father.

[30] University teachers, Physicians, and Lawyers are the social groups with the highest proportions of both parents classified as Senior salaried employees (36 %, 29 %, and 28 %), while Executive managers, Private senior administrators, and Officers have the lowest proportions (12,5 %, 13 %, and 13 %).

economic capital. For men and women in households classified as Physicians, University teachers, and Lawyers, the proportions with university degree are larger than proportions holding a position classified as Senior salaried employees. This stands in contrast to Civil senior servants and Private senior administrators where both men and women have lower shares with university degrees than they have shares in Senior salaried employees-positions. Executive managers and Engineers have a large discrepancy for the men (the social position is not built upon profound educational investments).

One main effect of the marriage strategies is that the cultural elite compensate their relatively weaker revenue with having two rather well-paid positions instead of one extremely high income and one marginal, which more often is the case for the economic elite. For instance, Lawyers as a household have higher total income than Executive managers, and the difference between University teachers and Physicians on the one hand, and Executive managers on the other hand, decreases when we consider the household income instead of the father's income.[31] If we instead of the mean income use the median income as an indicator of the economic capital possessed by the household, we can note that University teachers also have higher incomes compared to Private senior administrators.[32]

The analyses of the households also reveal differences in the relations between the sexes. Social groups belonging to an economic elite have more asymmetrical relations. It is predominantly the men who define the social position of the household. The men also work full-time to a larger extent (99 % of the men and 54 % of the women in Executive manager-households; 99 % against 58 % in households defined as Engineers; 98 % against 65 % for Private senior administrators, which can be compared with 96 % against 71 % for University teachers; 91,5 % against 74 % for Subject teachers; 97 % against 72 % for Senior civil servants and 97 % versus 63 % for Physicians). Consequently, the differences between the sexes in income are larger for the former groups than for the latter ones. The men in Executive manager-household earns on average 275,000 SEK more than their spouses and the corresponding figures for Lawyers, Physicians, and Engineers are 195 000 SEK, 167 000 SEK, 143,000 SEK, respectively. The smallest differences are found among University teachers, 109,000 SEK, and Subject teachers 57,500 SEK. Regarding the educational capital, the difference between the spouses is less pronounced.

III.6 Social Origin as a Condensed Variable

The social origin, indicated by the highest social position of the parents, is a powerful "explanatory factor" for a wide range of social phenomena. The reason for this is that the variable efficiently captures a number of dimensions of the social origin; for instance, economic capital and educational capital are both, as we have seen above, correlated with the social position. Nevertheless, the strength of the correlation between social origin and, let's say, grades in primary school, is a dubious correlation, not to say, dangerous, for the social scientists. It opens for simplistic and misleading analyses. The socio-economic groups (SEI), which is the regular variable to measure the social origin, only

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[31] Physicians earn 86,7 % of the income of Executive managers when we only consider the income of the father, but 91,9 % when we compare the household income. For the University teachers the corresponding figures are 70,0 % and 80,8 %.

[32] For the fathers, the median income for University teachers is 284,500 SKR and for the Private senior administrators 294,600 SKR, which can be compared to the figures on the household: 451,700 SKR and 427,900.

separate social groups in a hierarchical way. The vertical differences constituted by the possession of different species of assets, primarily economic and cultural capital, among the social groups are completely invisible within the SEI since all elites are collapsed into one category. Moreover, the net of relations (age, sex, geographical dispersion, income, education, marriage patterns, housing, social trajectory, etc.) associated with each social group or class, are veiled behind the concepts "class" or "social group", thus masking the social conditions that determine the practices of each social group.

Hence, the social category Physicians is primarily designating a set of properties: having a university degree, earning large incomes, constituting a household where both the spouses holds positions classified as Senior salaried employees, and very rarely positions as blue-collar workers. But the groups is also defined by a low proportion of women in single households (5 % compared to 9 % for the whole population), a large share of households where the parents are married or living together (85 % compared to 75 % on average), have more children per household than all other of the 33 social groups (2,44 on average compared to 2,06 for all households), have a higher age (48,0 years for the men on average, the corresponding figure for all men are 47,1 years; 46,1 years for women in households denoted as Physicians, compared to 44,6 years for all women), have a smaller age difference between men and women (1,9 years against 2,5 years), are over represented in Stockholm county (20 % of all Physician-household are found in Stockholm county, which residence 15 % of our total population), own their own housing to a larger extent than many other social groups (79,5 % compared to 62 % for all), more rarely live in rented dwellings (10 % in comparison with 17 %), have a higher proportion born in Sweden (84 % against 74 %), but have a high share of mixed marriages, where one of the parents is born in a foreign country, and one in Sweden (10 % compared to 6 %). These properties obtain their meaning in relation to the properties of the other social groups. If we, for example, make a comparison with Unskilled labours in the service sector, the specificity of the properties of Physicians becomes clear. Unskilled labours in the service sector have, beside low educational level and low incomes, a large proportion of women single household (32 %/9 %), a small share households where the parents are married or living together (40 %/75 %), do to a small extent own their own housing (45 %/62 %), are almost three times more often living in rented dwellings (42 %/17 %), have a higher proportion that are born in foreign countries (17 %/6,5 %).

But also among the social groups categorised as upper class can distinctive differences be noticed. Groups for whom the economic capital is more important than the cultural capital (Engineers, Private senior administrators and Executive managers) are married or cohabiting more often than other elite groups. Additionally, they have the highest proportion owning their residence, the smallest percentage who live in rented dwellings, live more frequently in Stockholm county, have higher shares born in Sweden. At a closer look at the three social groups that combine substantial incomes with profound educational investments, Lawyers are distinguished from University teachers and Physicians in the sense that they are closer to the economic elite than the other two groups: Lawyers are more often married, have a smaller proportion women single households, have a share living in Stockholm county, have a smaller share foreign born, and more frequently work in the private sector, which is almost non-existing for Physicians and University teachers. Thus, with the exception of the large educational capital, most of the factors point towards that Lawyers have more in common with the economic elite than the cultural elite.

IV. The Field of Higher Education in Sweden

Let us now examine the structure of the field of higher education in the late 1990s in Sweden. The first analysis is based upon our 33 social groups divided on sex (separating daughters of university teachers and sons of university teachers, daughters of lawyers and sons of lawyers, etc.; in total 66 categories) and almost 1,400 different educational programmes/courses having more than 40 registered students with information on social origin the autumn 1998.[33] The educational programmes/courses contain information on institutions of higher education, type of education on a detailed level distinguishing, for example, Master of science (MS) in engineering physics from MS in computer sciences and engineering and MS in electrical engineering, and if it is a programme or a course. We have employed simple correspondence analysis (CA)[34] on a table with 66 columns and close to 1,400 rows. To this supplementary variables (programmes in upper secondary education, grades from upper secondary education, scores on the Swedish national aptitude test, the annual income of the parents, and the parents' highest level of education) are added.

IV.1 A three-dimensional structure

Graphic 1 presents a stylised version of a CA where the social groups differentiated by sex[35] and the 1,388 educational programmes are active and a number of supplementary variables. The first, most fundamental opposition that the CA points out is between the sexes. To the right, we find all the medium points for the men, and to the left the entire medium points for the women. Since the supplementary variables are not divided by sex, they are not separated in this dimension, and are positioned in the centre. A few interesting exceptions can nevertheless be noticed. The upper secondary programmes are distributed according to a gender logic. Especially studies in humanities, but also in social science and two years theoretical programmes (containing studies in media and art), have positions to the left, the female part of the field, which is contrasted by studies in science and, particularly, technology, to the right. Low credentials are differentiated in the way that women have more frequently low scores on the national university aptitude test, while the men in general have lower grades from upper secondary school. Regarding the higher education programmes and courses, the primarily opposition separates educational programmes/courses in technology, which are heavily dominated by men, and educational programmes/courses in teaching, nursing and social care, where women are in a clear majority.

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[33] Our focus is on the relations between educational programmes/courses. We have therefore included all different educational programmes/courses any individual is registered at. This means that certain individuals are appearing more than one time in the dataset. The total number of individuals registered on unique educational programmes/courses is for the autumn 1998 318,200. In order to obtain better quality on the data, we have omitted all students older than 35 years (there is no information in secondary education or social origin for these students). This leaves us with a dataset with 264,200 students under 35 years and more than 2,500 educational programmes/courses. After choosing only those educational programmes/courses with more than 40 individuals with information on social origin, the number of educational programmes/courses is reduced to 1,388, which represent ca 227,700 students.

[34] We have used SPSS for all data management and SPAD for the correspondence analyses.

[35] We have put the social groups that do not contain any specific occupational status (Others, Not employed, Not in the national census) as supplementary variables.

The second dimension in the CA opposes the social groups with considerable amounts of capital from social groups lacking these recourses. The supplementary variables clearly underline this opposition. The highest educational level of the parents is almost perfectly distributed according to a social hierarchical logic. In the bottom of the graphic, low educational levels of the parents are found (primary school 6 years, primary school 9 years, and upper secondary school 2 years, i.e. vocational training education) and, while moving upwards in the graphic, the level of education increases (upper secondary school 3 years, post-secondary education less than 3 years, post-secondary education 3 years and more, and finally, post- graduate school at the top). The economic capital is not dispersed as perfectly as the educational capital. The higher incomes are distinctively placed in the upper part of the field, but the lower and the medium incomes are mixed just below the origin of coordinates. The interpretation of this is that the educational capital of the parents is much more fundamental for the construction of the field of higher education than the parents' economic capital, which is also apparent when we study the positions of the social groups. The most dominating positions in the social hierarchical dimension are occupied by social groups where the educational capital is built into the definition of the groups, i.e. the professions, Physicians, Lawyers and University teachers. Social groups primarily dependent upon economic capital, Private senior administrators, Engineers, and Executive managers, are positioned distinctively below Physicians, Lawyers and University teachers, and are also clearly distanced by some social groups, which can be classified as Middle class, Journalist and Art producers, who hold more dominant positions. The importance of the educational capital is also stressed by the fact that the students own educational capital, whether indicated by grades from upper secondary school or by scores on the national university aptitude test, is almost perfectly correlated to the social hierarchical dimension. In fact, the credentials of the students are a more distinctive factor for structuring the field of higher education than the social origin. At the most prestigious educational programmes, all students have the highest possible grades or scores, but still, not everyone have a high social origin (students with a social elite background are over represented four to five times, and constitute at the maximum ca 60 per cent of the student body). Another aspect of the students' former educational investments is the programmes attended in upper secondary school. These are also structured with regards to the social hierarchical logic. The most distinguished upper secondary programme, International Baccalaureate (IB), is positioned right at the top of the graphic. Beneath, we find the second most renowned and the largest elite programme, the science programme, which is off set from all the other programmes preparing for higher studies (the programmes in humanities, social science, economy and technology). At the bottom of the graphic, the vocational training programmes are found.

The social elites (comprising both the cultural and the economic elites) are over represented at the traditional universities (Uppsala, Lund, Stockholm and Gothenburg) and professional schools (Stockholm School of Economics, Karolinska institutet,[36] Chalmers University of Technology, Royal Institute of Technology, Swedish University for Agricultural Science, National Academy of Mime and Acting, Royal University College of Fine Arts, Royal University College of Music). At an intermediate level, where students originating from the middle class dominate, the less prestigious and more recently founded universities in Umeå and Linköping are positioned among some of the more dominating university colleges, such as Södertörns högskola (University College),

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[36] Note that Karolinska institutet do not translate its name into English on its Webb-site. It is the only medical university in Sweden, all other faculties of medicine form part of a larger university (Uppsala, Lund, Gothenburg, Linköping and Umeå), and the clearly most prestigious institution within its research field, responsible for the Noble Price in Medicine among other distinctive features.

located in the southern part of Stockholm, Växjö University College and Örebro University College.[37] In the bottom of the graphic, we find the less prestigious university colleges and the colleges of health science, attended by proportionally more students from modest social backgrounds than other backgrounds. The social hierarchical dimension sets the most profitable educational programmes in terms of professional careers (medicine, MS in architecture, MS in engineering physics, MS in engineering and business administration, MS in economics at Stockholm School of Economics, MS in laws) apart from less profitable ones (BS in social care, BS in nursing and Bachelor of education). The former ones are long programmes, ranging from 4,5 years to 5,5 years in general, are the most competitive, demanding the highest grades and scores at the national university aptitude test, and are conceived as "elite educational programmes" with long traditions, while the latter ones are shorter programmes, just recently upgraded to three years of studies from generally two years programme, are non-selective, almost admitting all applicants, and holds ambiguous opinions regarding the academy and its tradition.

Moreover, the opposition contains both temporal and spatial dimensions. The elite pole is constituted of traditional universities and professional school with *ancienneté*, often distinguished by being the oldest institution of its kind Sweden, and of educational institutions that are concentrated to the traditional university towns Uppsala (the oldest university in Scandinavia, founded in 1477) and Lund (the second oldest university in Sweden, dated back to 1666) or to the capital, Stockholm, and the second largest city, Gothenburg. Almost all educational institutions are thus located in one of the three major urban regions, the Uppsala-Stockholm-region, the Gothenburg-region, and the Malmö-Lund-region. On the other hand, the institutions of higher education that are located far from the three major urban regions are mainly found at the dominated pole. This is to some extent a consequence of the dispersion of social groups in the geographical space— groups possessing vast amounts of different species of capital are concentrated to the major urban regions, while groups less well to do are over represented in the less populated areas of Sweden. But, even more important is the geographical recruitment. The most prestigious institutions have a national recruitment, while the dominated institutions mainly recruit their students from the surrounding region. In addition, the gap between the elite institutions and the rest increased under the great expansion of the higher education in the 1990s, since the most sought after institutions were in a position where they did not expand as much as the university colleges in the province, leading to a even more tough competition for the positions at, for example, the programmes in medicine, journalism, engineering and business administration, which have resulted in an more socially selective student population than before at these institutions.

The two primarily dimensions together form a two-dimensional space, where the educational programmes and courses are positioned in a triangular shape. The difference between the sexes is most evident at the base, where the students from lower social classes dominate (at some of the educational programmes there is a 90/10 ration between the sexes). For the social elites, the sexes meet at some of the most prestigious educational programmes, especially the medical programme. There are no clear-cut male or female dominated elite programmes, but for the economic programmes, the Stockholm School of Economics distinctively sets itself apart as being the only program dominated by men with high social origin, with the programmes in International Economy with French as the counterpart for women with the same social origin.

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[37] The latter two have together with Karlstad University College obtained the status as university in 1999.

The third dimension, which becomes apparent when we exclude the variable sex in the analysis, is the opposition within the upper class, between groups who are more dependent upon educational and cultural capital than of economic capital for upholding their social positions, and groups with the reverse composition of capitals. In Graphic 2, this polarisation is displayed in the second dimension; the first being the socially hierarchical one. We find in the left lower corner of the graphic students having parents working as Physicians and University teachers, contrasted to the children of Lawyers, Private senior administrators, and Executive managers in the left upper corner. The polarisation is also a split between social groups mainly employed in the public sector (University teachers, Subject teachers, and Physicians), and social groups exclusively or predominantly working in the private sector (Lawyers, Executive managers and Private senior administrators). The supplementary variables support an interpretation of the opposition in economic and cultural terms. We find that high grades from upper secondary school, and high scores on the national university aptitude test, as well as post-graduate studies as the highest educational level for the parents, are drawn towards the cultural pole, while high incomes are more oriented to the economic pole. The upper secondary school programmes are differentiated according to the same logic, the science programme, which is the most demanding programme and the royal road to academic studies, is positioned at the cultural pole, distinctively separated from the economic programme and the technology programme, which both are the most significant background for the economic fraction of the middle class. For the cultural fractions of the middle class, studies in humanities sums up the distinctive previously educational investments, while studies in social science at the upper secondary level do not seem so distinctive at all.

Regarding the educational programmes and courses, the opposition place university medical degree, university degree in dental surgery, veterinary programme, music, theatre, and architecture against international economy: French, engineering and business administration, MS in laws, and economics. In other words, the educational investments are to a large extent reproducing the occupational positions of the social groups. On a more detailed level, it is interesting to notice that the programmes in engineering are differentiated according to the cultural/economic dimension. Architecture, physics, chemistry are closest to the cultural/public pole, while engineering and business administration and materials engineering (and vehicle engineering, engineering, electrical engineering) are positioned in the economic/private pole. Also the cultural educational programmes are to some extent positioned along the same axis. Music tends to be more preferred by the social groups for whom the educational capital is most valued, Physicians, University teachers, and Subject teachers, whereas fine arts are more attractive to also the economic elite groups.

IV.2 The Social Space Inscribed in the Field of Higher Education

To sum up, the field of higher education in Sweden can be described as a three-dimensional space. The first dimension differentiates men from women. The second dimension is a social hierarchical dimension, separating the social elites, especially those who posses large amounts of educational capital, from students with lower social background. These two dimensions taken together show that it is plausible to speak about two distinct different educational worlds, one female, one male, when we consider the lower classes distribution over the educational programmes and courses. For the cultural elite, the educational investments tend to go hand in hand for men and women,

exemplified with the even ratio at the medical programme. The economic elite, on the other hand, have more differentiated educational strategies among men and women, the former prefer the MA in engineering and computers science, while the latter especially favour the economic programmes. Against the background of the analysis of the composition of the household, presented above, the asymmetrical relation between men and women within the economic elite and the more symmetrical relation within the cultural elite can be found in their offsprings' educational investments. The cultural elite's sons and daughters are to a large extent found at the same educational programmes, forming a common ground and experience, whereas the sons and daughters of the economic elite tend to invest in different educational trajectories, i.e. educational programmes that are separated on different educational institutions. The third dimension more clearly polarise the economic elite and the cultural elite (in the sense of having profound educational capital; not primarily working in the artistic fields). This opposition depicts, beside the differences in educational fields (i.e. medicine, art, and architecture versus economic, law and engineering), a geographical structure, where the traditional university towns of Uppsala and Lund are opposed to the universities and professional schools in Stockholm and Gothenburg. Linking these results back to our analysis of the social groups and their characteristics, the spatial dimension of the cultural and economic capital can be revealed in the field of higher education. The economic elite is concentrated to the Stockholm area, and prefer educational institutions located there, while the cultural elite is most over represented in the relatively small university towns of Uppsala and Lund, which are the predominant choices of seat of learning for these groups.

V. Conclusion and Further Research

In this paper, we have examined the two Swedish classification systems for social groups and occupations, the NYK (Nordic Standard Occupational Classification) and the SEI (Swedish Socio-economic Classification), and presented a system for classifying social groups for multidimensional sociological analyses based upon the two Swedish nomenclatures. The created system, which comprises 33 different social groups, has been explored with regards to the social groups' levels of education, income distributions, marriage patterns, geographical dispersion, sex ratios, housing conditions, etc. We have sought to both analyse differences between the sexes within each social group, and differences between the social groups among men and women respectively. One of the main findings is that the upper class, or the Senior salaried employees as they are denoted in the SEI, is a very heterogeneous category if we consider the implicated social groups' possessions of economic and cultural capital. Furthermore, when we analyse the households instead of the individuals, it becomes clear that the different marriage strategies of the economic elite and the cultural elite create a difference. The social groups belonging to the cultural elite are able to compensate their weaker economic capital the individuals posses separately by forming households where both spouses are high-income earners, while the social groups constituting the economic fraction of the dominant class tend to have more asymmetrical relations between the sexes, and thus not drawing on the resources from two high incomes.

The sociological usefulness of a more differentiated social classification becomes apparent in the analyses of the field of higher education in Sweden. If we had used only the SEI classification, the two-dimensional structure presented in graph 2, would have completely collapsed into a one-dimensional, linear representation of the relation between social groups and higher educational programmes and courses. The multidimensional classification allows us to, on a very detailed level, analyse profound differences in educational investments between the cultural fraction and the economic fraction within the dominant class—differences that are made invisible by the standard classification of socio-economic groups.

However, our analyses still contain several weaknesses. Hitherto, we have mainly used simple correspondence analysis, which do not permit analyses of the clouds of individuals, and thus not allows for proper analyses of the network of relations that constitute the social space in the sense of Bourdieu.[38] Our ambition is to accomplish multiple correspondence analyses for the whole Swedish population[39] in order to construct a national social space. There are many possibilities with such a construction. It makes it possible to in a more complete fashion analyse the characteristics of the social groups, using the social groups as structuring factors in the space of individuals, and hereby obtain a clearer picture of the dispersion of the social groups in the constructed

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[38] On the merits and constrution of Pierre Bourdieus analyses of social space in La Distinction, see Henry Rouanet, Werner Ackermann, Brigitte Le Roux, "Geometcial Analysis of Questionnaires: The Lesson of Bourdieu's La Distinction," in *Bulletin de Méthodologie Sociologique*, Nr. 65, January 2000, pp. 5-16.

[39] We do now have at our disposal data for the whole Swedish population over 16 years for the years 1990, 1994, 1997 and 2000, including information on education, occupation, income, martial status, age, sex, country of origin, year of immigration and emmigration, housing, number of children. The data is on individual level and contains links to family-constalations allowing for construction of individual households.

space. Also, the educational programmes, at upper secondary as well as post-secondary level, can be analysed with the same approach.

Another promising path, is to explore the socio-geographical space. We possess geographical data on a more detailed level than municipalities (i.e. socially homogenous housing areas) for the whole Swedish population. It is possible to create maps with a high level of resolution over the dispersion of social groups (or other social factors) in the geographical space and thereby link the social space with the geographical space.

Appendix

Table 1. Classification of Social Groups, 33 Groups Level, and Socio-economic groups.

Social class	Occupational Category	N	Senior salaried employees	Intermediate-level non-manual employees	Lower-level non-manual employees	Self-employed entrepreneurs	Farmers	Skilled workers	Unskilled and semi-skilled workers	Others	Total
1. Upper class	1. Engineers	2 708	100,0								100,0
	2. Physicians	1 762	99,6			0,4					100,0
	3. University teachers	683	96,3	0,6		3,1					100,0
	4. Subject teachers	2 542	96,7	2,0		1,3					100,0
	5. Lawyers	346	99,7			0,3					100,0
	6. Senior civil servants	2 179	100,0								100,0
	7. Private senior administrators	4 062	100,0								100,0
	8. Military officers	2 173	100,0								100,0
	9. Executive managers	250	99,2			0,8					100,0
2. Middle class	10. Art producers	954	25,4	21,0	30,0	16,1		7,5			100,0
	11. Journalists	510	35,3	59,0	1,0	4,7					100,0
	12. Public technicians	1 760		86,1	13,2			0,4	0,2		100,0
	13. Private technicians	8 309		87,5	7,9	2,4		1,8	0,3		100,0
	14. Public mid-level administrators	1 038		100,0							100,0
	15. Private mid-level administrators	4 122		92,5		7,5					100,0
	16. Class teachers	4 224	8,4	84,7	4,4	1,8		0,0	0,7		100,0
	17. Medical and health professions	6 734	8,1	38,6	7,1	2,0		44,0	0,1		100,0
3. Lower middle class	18. Public administration, clerks	2 799			98,6				1,4		100,0
	19. Private administration, clerks	4 049			99,6				0,4		100,0
	20. Clerks (commerce)	3 621			59,3			1,2	39,4		100,0
	21. Farm owners	2 459		3,5	4,6	8,1	83,7				100,0
	22. Small entrepreneurs	3 073				100,0					100,0
	23. Merchants and tradesmen	1 547				100,0					100,0
	24. Policemen	1 446		52,5	36,4				11,1		100,0
4. Skilled workers (Upper working class)	25. Foremen	1 441			100,0						100,0
	26. Skilled workers in production	9 930						100,0			100,0
	27. Skilled workers in service	618						100,0			100,0
5. Unskilled workers (Lower working class)	28. Farm workers	746						16,2	83,8		100,0
	29. Semi-skilled workers in production	8 535							100,0		100,0
	30. Semi-skilled workers in service	5 848							100,0		100,0
	31. Others	1 526								100,0	100,0
6 o 7. Missing	32. Missing (Internal)	3 698								100,0	100,0
	33. Missing (External)	14 969								100,0	100,0
Total		110 661	16,2	19,2	11,6	5,2	1,9	12,6	15,1	18,2	100,0

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CARME 2003 (Correspondence Analysis and Related Methods), Barcelona, 29 juni - 2 juli 2003

Table 2. The Mothers' Socio-Economic Group (SEI) and Different Characteristics, the National Census 1990.

|	N	%	Women within SEI-category %	Form household with man from the same SEI-category %	Adj. Residual	Man: Senior salaried employee %	Man: blue-collar worker %	Un-married %	Married %	Divorced %	Public sector %	Work 35 h/w or more %	University ≥ 3 years %	University %	Sec. school %	Pri. School only %	Total income (SEK) Mean	Median	Std. deviation	Living in Stockholm County %	Immigrated to Sweden %
Senior salaried employees	7 575	6,8	34,0	41,5	74,8	41,5	8,9	3,7	77,5	15,2	74,3	78,8	68,1	81,0	93,3	5,8	204.300	193.700	134.800	27,4	6,7
Intermediate-level non-manual employees	17 364	15,7	52,4	23,3	37,3	26,1	16,7	4,2	79,7	13,0	77,5	64,3	26,7	72,6	89,4	9,8	154.500	152.300	60.400	21,3	7,3
Lower-level non-manual employees	18 092	16,3	71,1	10,0	20,0	16,1	25,7	6,1	76,5	14,3	42,4	62,3	2,5	9,5	59,5	39,1	132.800	130.100	58.600	22,1	6,5
Self-employed entrepreneurs	3 218	2,9	34,6	41,2	90,2	12,2	14,0	3,8	84,1	9,6	0,8	59,1	5,5	13,7	49,9	49,0	107. 300	94.900	94.100	16,1	9,7
Farmers	1 130	1,0	33,4	81,2	189,1	0,9	7,3	1,9	94,8	1,3	4,1	63,0	2,2	7,7	33,4	66,1	81.100	78.300	55.800	1,7	2,5
Skilled workers	8 323	7,5	36,1	21,7	23,2	9,1	38,0	7,8	75,5	13,8	78,9	56,3	0,6	3,0	74,7	24,6	119.700	119.200	33.300	14,4	12,2
Unskilled and semi-skilled workers	26 214	23,7	66,1	23,2	63,0	5,8	45,7	7,6	77,1	12,0	57,3	47,6	0,5	2,1	36,9	62,3	112.400	110.700	41.300	10,8	13,7
Others	2 623	2,4	54,2	12,6	39,1	10,0	24,1	8,0	72,6	15,0	51,5	11,9	4,7	10,3	37,1	42,4	110.500	102.600	220.400	20,6	15,4
Not employed	7 647	6,9	61,9	15,0	48,3	8,9	31,0	7,1	74,7	12,6			3,5	8,8	34,5	61,0	54.800	43.800	82.800	15,1	24,4
Not in the 1990-cencus	18 475	16,7	38,6	81,0	183,8	2,9	6,9														
Total	110 661	100	50,0			13,3	25,5	6,1	77,5	13,0	53,8	58,6	10,0	20,5	49,5	32,2	126.500	122.800	83.900	17,4	9,2

Table 3. The Fathers' Socio-Economic Group (SEI) and Different Characteristics, the National Census 1990.

	N	%	Women within SEI-category %	Form household with man from the same SEI-category %	Adj. Residual	Man: Senior salaried employee %	Man: blue-collar worker %	Un-married %	Married %	Divorced %	Public sector %	Work 35 h/w or more %	University ≥ 3 years %	University %	Sec. school %	Pri. School only %	Total income (SEK) Mean	Median	Std. deviation	Living in Stockholm County %	Immigrated to Sweden %
Senior salaried employees	14 730	13,3	66,0	21,3	74,8	21,3	15,4	1,9	92,0	4,7	41,9	96,5	53,6	67,6	89,3	9,7	316.300	275.400	260.600	23,3	5,6
Intermediate-level non-manual employees	15 773	14,3	47,6	25,7	37,3	8,1	30,1	3,3	89,7	5,5	30,7	95,5	12,7	32,4	79,3	19,7	231.100	215.400	120.600	18,1	6,9
Lower-level non-manual employees	7 367	6,7	28,9	24,7	20,0	5,1	37,2	4,2	88,2	6,2	29,1	94,8	5,1	17,1	49,8	48,9	212.100	191.800	202.700	16,4	5,8
Self-employed entrepreneurs	6 070	5,5	65,4	21,8	90,2	4,9	28,5	5,3	87,3	6,0	0,3	91,8	4,9	9,7	40,5	57,5	183.700	154.000	310.500	16,3	10,3
Farmers	2 258	2,0	66,6	40,6	189,1	2,6	23,1	3,0	93,1	2,7	2,0	88,9	1,6	6,2	29,7	67,4	106.500	94.400	100.700	2,3	0,9
Skilled workers	14 754	13,3	63,9	12,2	23,2	2,4	52,1	7,3	85,5	5,8	9,8	95,2	0,4	1,6	36,5	62,5	179.400	174.900	61.600	12,6	11,6
Unskilled and semi-skilled workers	13 425	12,1	33,9	45,3	63,0	2,4	55,5	7,7	84,8	6,1	14,4	92,5	0,9	2,6	29,6	69,3	168.000	162.200	69.100	10,7	13,6
Others	2 217	2,0	45,8	14,9	39,1	6,0	29,5	6,4	84,1	7,9	19,6	22,9	5,9	10,4	26,1	30,9	204.300	171.300	369.500	23,2	14,1
Not employed	4 705	4,3	38,1	24,4	48,3	5,6	34,6	5,3	84,6	7,5			6,5	11,6	35,6	46,6	137.100	108.700	287.000	18,5	26,5
Not in the 1990-cencus	29 362	26,5	61,4	51,0	183,8	4,6	17,4														
Total	110 661	100	50			6,8	31,2	4,9	87,9	5,7	20,9	92,4	10,1	16,7	39,8	31,2	211.500	187.600	197.400	16,3	7,3

Table 4. The Households' Socio-Economic Group (SEI) and Different Characteristics, the National Census 1990.

	N	%	Fat. Senior empl. %	Fat. Blue-collar worker %	Mot. Senior empl. %	Mot. Blue-collar worker %	Work 35 h/w or more Fat. %	Work 35 h/w or more Mot. %	University ≥ 3 years Fat. %	University ≥ 3 years Mot. %	Primary school only Fat. %	Primary school only Mot. %	Total income Mean	Total income Median	Married %	Mot. Single house-hold %	Age Fat. Mean	Age Mot. Mean	Dif.	Number of children Mean	Living in Stockholm county %	Own the housing %	Dwelling %	Country of birth Foreign %	Country of birth Foreign/Sweden %	Country of birth Sweden %
Senior salaried employees	17 908	16,2	81,1	2,9	37,1	11,9	96,5	65,8	45,5	37,0	15,0	9,8	464.500	427.200	86,0	3,9	45,8	43,8	2,0	2,2	24,6	82,6	10,2	2,5	7,4	90,1
Intermediate-level non-manual employees	21 216	19,2	1,0	9,3	2,7	20,8	94,2	64,5	9,7	14,9	24,8	15,6	357.400	342.000	79,2	7,1	45,1	42,8	2,3	2,2	19,4	78,1	13,8	4,2	7,1	88,7
Lower-level non-manual employees	12 871	11,6	1,3	20,9	0,9	17,8	91,7	67,3	2,9	3,1	41,2	26,6	330.000	312.200	66,1	12,5	44,8	42,4	2,4	2,1	20,8	65,5	22,7	5,1	5,7	89,2
Self-employed entrepreneurs	5 781	5,2	0,3	4,6	1,7	23,9	93,0	49,7	4,3	4,4	48,3	31,0	292.900	260.300	84,5	3,6	44,8	42,1	2,7	2,3	15,7	82,5	11,8	6,6	7,6	85,8
Farmers	2 058	1,9	0,0	2,0	1,0	21,0	91,9	48,6	1,3	4,5	55,0	22,6	195.400	181.500	92,3	1,1	47,1	43,9	3,2	2,5	2,2	88,3	3,5	0,4	3,4	96,1
Skilled workers	13 911	12,6	0,3	84,1	0,7	70,2	95,1	47,5	0,5	1,2	44,4	26,0	284.400	282.900	78,9	6,6	43,8	41,1	2,7	2,3	12,3	70,3	20,7	9,2	7,3	83,4
Unskilled and semi-skilled workers	16 723	15,1	0,5	65,6	0,4	78,4	87,3	47,7	0,7	1,0	58,5	22,6	269.100	267.200	63,2	16,6	44,4	41,5	3,0	2,3	11,6	58,4	31,0	13,6	5,9	80,5
Others	1 526	1,4	0,8	5,6	0,4	4,8	38,5	11,1	2,9	2,9	36,6	11,7	285.600	258.000	47,0	22,1	45,0	41,7	3,3	2,4	23,5	47,8	34,3	15,0	5,8	79,2
Not employed	3 698	3,3	1,0	7,7	0,6	6,0	51,5	0,6	3,4	3,6	54,3	13,4	213.800	175.000	45,6	22,4	47,1	43,0	4,1	2,6	19,1	42,8	46,5	28,7	5,0	66,4
Not in the 1990-cencus	14 969	13,5																								
Total	110 661	100	14,0	27,8	7,1	32,7	92,4	57,3	10,1	10,0	32,2	17,0	336.000	310.700	74,7	9,3	45,0	42,4	2,6	2,2	15,2	61,7	16,9	6,5	5,7	74,2

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Table 5. The Mothers' Occupation in 33 Groups and Different Characteristics, the National Census 1990.

	N	%	Women within occupation category %	Form household with man from the same SEI-category %	Adj. Residual	Man: Senior salaried employee %	Man: blue-collar worker %	Un-married %	Married %	Di-vorced %	Public sector %	Work 35 h/w or more %	University ≥ 3 years %	Univ-ersity %	Sec. school %	Pri. School only %	Total income (SEK) Mean	Median	Std. deviation	Living in Stockholm County %	Immigrated to Sweden %
Engineers	220	0,2	7,6	19,1	16,1	47,7	7,3	5,9	75,5	15,0	32,3	85,0	65,5	77,3	94,5	5,5	240.700	225.100	104.700	38,6	10,0
Public technicians	884	0,8	36,9	4,0	6,7	23,2	17,8	4,6	78,1	14,8	100,0	58,6	4,0	56,0	88,7	10,7	139.100	137.700	35.400	18,4	5,9
Private technicians	885	0,8	9,4	19,1	12,8	14,6	23,5	7,2	76,0	14,4	0,0	72,1	3,4	18,6	63,1	36,0	157.100	150.700	50.000	21,4	12,9
Foremen	1 294	1,2	47,1	3,1	5,6	11,4	30,4	7,6	72,1	15,6	33,1	63,0	1,1	4,9	45,1	53,7	132.500	130.200	53.000	24,2	6,0
Physicians	837	0,8	36,3	25,7	61,8	56,2	1,9	2,4	76,6	17,3	84,7	73,2	98,4	99,0	99,6	0,1	269.800	227.900	392.300	30,1	11,5
Medical and health professions	14 146	12,8	94,1	2,1	18,9	19,2	25,8	5,6	78,6	12,9	87,7	54,8	9,9	45,1	90,0	9,4	137.700	133.500	49.700	16,1	7,9
University teachers	292	0,3	33,6	12,0	27,3	52,4	4,8	2,7	78,1	14,7	94,2	81,5	86,3	95,2	98,6	0,3	209.200	199.400	73.500	22,3	8,9
Subject teachers	1 947	1,8	52,5	16,2	51,9	49,4	5,4	2,2	81,3	12,6	96,4	75,1	87,4	94,2	98,2	1,4	201.300	202.200	65.500	17,9	6,5
Class teachers	7 627	6,9	81,0	6,4	34,3	29,2	13,8	3,6	81,8	11,4	96,1	65,0	54,5	87,2	94,8	4,7	166.100	168.700	52.000	20,5	7,0
Lawyers	76	0,1	19,3	19,7	31,7	53,9	7,9	3,9	73,7	19,7	59,2	90,8	92,1	93,4	98,7	1,3	268.800	253.600	124.800	52,6	6,6
Journalists	424	0,4	51,6	5,2	16,7	33,0	10,8	5,2	70,5	20,8	31,6	71,0	31,4	57,1	85,6	12,3	197.500	175.800	287.200	42,5	12,0
Art producers	897	0,8	57,1	7,6	27,0	32,2	13,5	7,6	75,0	13,6	61,9	59,6	37,1	47,9	76,6	22,0	138.600	133.400	63.700	28,8	9,1
Senior civil servants	914	0,8	35,7	8,5	17,7	33,9	14,0	5,5	73,9	17,2	100,0	88,1	45,2	65,6	86,3	11,7	205.600	195.800	67.400	33,0	4,7
Private senior administrators	1 128	1,0	24,9	11,5	16,5	26,9	16,3	4,0	76,4	16,8	0,0	87,5	19,1	42,4	81,6	16,9	219.100	204.200	98.900	39,5	6,8
Public mid-level administrators	1 080	1,0	64,2	1,6	4,6	22,5	23,2	6,5	76,3	14,4	100,0	76,0	15,3	33,7	72,7	26,5	153.600	148.400	45.700	22,4	7,1
Private mid-level administrators	3 080	2,8	50,2	6,9	14,1	19,8	17,5	3,2	81,0	13,0	0,1	66,8	4,6	15,6	64,3	33,9	161.100	155.100	109.900	27,1	5,4
Executive managers	158	0,1	7,0	14,6	11,6	29,1	12,0	4,4	75,9	13,9	7,6	93,0	18,4	35,4	72,8	24,7	264.300	226.100	177.600	36,1	4,4
Public administration, clerks	5 813	5,3	91,7	1,2	7,9	15,8	25,8	6,1	75,4	15,3	100,0	63,3	3,4	11,5	64,9	33,8	131.300	132.300	40.500	18,7	6,2
Private administration, clerks	7 530	6,8	83,8	2,4	8,8	16,5	25,7	5,9	77,4	13,9	0,0	63,7	2,0	7,9	56,1	42,4	145.300	141.200	70.100	25,8	6,8
Merchants and tradesmen	971	0,9	36,9	30,5	74,6	9,1	13,8	3,4	84,8	8,8	1,5	76,8	2,9	8,9	38,8	59,6	108.400	95.200	83.400	13,0	8,2
Small entrepreneurs	1 106	1,0	23,7	28,8	48,6	7,7	20,6	5,2	80,5	11,8	0,7	53,0	0,9	2,3	43,3	56,0	96.400	83.000	139.800	15,4	12,8
Clerks (commerce)	4 490	4,1	62,4	6,2	16,8	9,5	36,7	6,5	78,9	11,8	0,0	43,2	1,0	3,7	28,9	70,2	117.700	109.800	51.900	13,3	5,9
Farm workers	238	0,2	19,8	15,1	23,7	5,5	47,5	9,2	77,3	10,5	42,0	68,1	1,7	4,2	26,1	73,5	110.100	111.600	42.800	6,3	10,9
Farm owners	1 196	1,1	30,3	79,8	172,9	1,0	7,4	1,9	94,5	1,5	4,3	63,5	2,5	8,2	33,6	65,7	83.800	80.600	62.900	2,1	3,3
Skilled workers in production	1 217	1,1	8,1	26,2	14,6	5,1	45,4	10,5	69,4	17,3	4,1	72,0	0,7	2,2	34,7	64,7	137.100	135.600	38.200	11,7	25,0
Semi-skilled workers in production	5 132	4,6	33,2	23,4	35,5	5,4	49,2	8,5	75,1	13,3	3,2	65,8	0,4	1,8	34,6	64,5	128.900	129.400	42.000	10,0	22,2
Skilled workers in service	1 022	0,9	72,7	2,3	10,4	7,1	38,6	8,4	74,2	14,4	57,7	53,5	0,4	2,0	49,4	49,0	116.200	115.300	35.400	13,7	14,1
Semi-skilled workers in service	17 085	15,4	90,6	3,5	21,1	5,5	45,6	7,6	76,9	12,0	83,5	44,7	0,5	2,2	40,3	58,8	113.200	111.400	43.100	11,2	12,9
Policemen	221	0,2	13,3	7,2	7,8	9,0	36,7	9,5	73,8	13,1	98,2	60,6	0,9	16,7	76,0	23,1	147.700	144.600	40.800	14,9	4,5
Military officers	6	0,0	2,3		-0,1	33,3	16,7	16,7	83,3		100,0	100,0	16,7	16,7	50,0	50,0	166.800	165.500	8.300	16,7	0,0
Others	2 623	2,4	54,2	12,6	39,1	10,0	24,1	8,0	72,6	15,0	49,4	11,9	4,7	10,3	37,1	42,4	121.300	108.900	312.000	20,6	15,4
Missing (Internal)	7 647	6,9	61,9	15,0	48,3	8,9	31,0	7,1	74,7	12,6	0,0		3,5	8,8	34,5	61,0	61.700	58.200	97.500	15,1	24,4
Missing (External)	18 475	16,7	38,6	81,0	183,8	2,9	6,9														
Total	110 661	100,0				13,3	25,5	6,1	77,5	13,0	53,5	57,3	10,0	20,5	49,5	32,2	132.100	127.800	97.800	17,4	9,2

Table 6. The Fathers' Occupation in 33 Groups and Different Characteristics, the National Census 1990.

	N	%	Men within occupation category %	Form household with woman from the same SEI-category %	Adj. Residual	Woman: Senior salaried employee %	Woman: blue-collar worker %	Un-married %	Married %	Di-vorced %	Public sector %	Work 35 h/w or more %	University ≥ 3 years %	University %	Sec. school %	Pri. School only %	Total income (SEK) Mean	Median	Std. deviation	Living in Stockholm County %	Immigrated to Sweden %
Engineers	2 671	2,4	92,4	1,6	16,1	15,3	22,1	2,1	92,4	4,4	16,1	98,0	39,0	49,9	88,3	10,3	293.900	273.200	112.100	21,9	6,3
Public technicians	1 514	1,4	63,1	2,3	6,7	6,6	33,2	2,6	89,7	6,7	100,0	97,2	5,4	20,5	81,4	18,2	205.900	198.800	47.600	15,3	4,0
Private technicians	8 518	7,7	90,6	2,0	12,8	6,0	34,9	3,3	89,9	5,3	0,0	96,9	5,0	15,6	73,7	25,2	239.700	224.200	109.200	16,5	7,4
Foremen	1 455	1,3	52,9	2,7	5,6	3,8	45,4	5,4	87,8	5,4	52,0	93,2	1,6	5,3	38,0	60,8	174.700	163.500	57.400	12,8	8,2
Physicians	1 468	1,3	63,7	14,6	61,8	35,1	4,6	0,7	93,2	4,2	78,5	96,3	98,6	98,8	99,1	0,3	376.900	379.200	141.300	17,0	11,4
Medical and health professions	882	0,8	5,9	33,9	18,9	9,3	31,4	5,7	85,4	7,3	85,9	92,3	20,5	51,1	85,8	12,2	177.400	166.500	59.700	10,2	8,5
University teachers	576	0,5	66,4	6,1	27,3	42,2	5,6	2,6	91,0	5,2	92,0	95,7	93,2	96,2	99,8	0,0	301.500	284.900	111.800	20,1	12,2
Subject teachers	1 759	1,6	47,5	17,9	51,9	31,3	11,3	1,6	92,2	5,0	93,3	90,3	83,2	94,1	98,0	1,4	239.400	231.200	60.900	11,6	4,8
Class teachers	1 785	1,6	19,0	27,3	34,3	13,6	21,7	4,0	88,7	6,2	87,3	83,6	42,1	82,9	92,7	6,1	201.800	203.500	50. 000	13,4	9,8
Lawyers	318	0,3	80,7	4,7	31,7	30,5	4,1	0,6	92,8	5,3	42,5	98,1	97,2	97,8	98,4	0,6	404.600	342.300	744.900	34,6	2,8
Journalists	397	0,4	48,4	5,5	16,7	21,2	13,6	5,3	85,1	7,1	17,1	90,9	29,0	51,9	78,6	18,9	255.600	229.800	143.700	33,0	8,8
Art producers	673	0,6	42,9	10,1	27,0	16,9	18,0	5,1	84,4	8,8	30,3	88,9	29,6	41,9	66,6	30,6	198.600	190.000	101.200	31,2	11,3
Senior civil servants	1 648	1,5	64,3	4,7	17,7	21,4	15,7	2,4	91,0	5,0	100,0	97,6	49,9	70,8	91,7	7,6	275.500	260.500	84.700	24,9	3,2
Private senior administrators	3 401	3,1	75,1	3,8	16,5	15,5	18,0	2,4	91,0	5,1	0,0	97,9	32,7	56,2	84,6	14,3	344.400	294.600	449.000	31,3	4,4
Public mid-level administrators	603	0,5	35,8	2,8	4,6	11,9	24,2	3,2	88,1	7,0	100,0	95,5	27,4	53,4	83,3	15,4	213.300	204.500	64.400	21,6	6,1
Private mid-level administrators	3 050	2,8	49,8	6,9	14,1	9,3	25,1	3,2	89,8	5,3	0,0	97,1	10,8	27,5	72,8	26,4	255.900	232.000	167.500	24,6	6,9
Executive managers	2 111	1,9	93,0	1,1	11,6	13,0	17,9	1,2	93,9	3,6	2,9	98,2	26,2	42,6	76,1	22,6	430.500	349.200	437.200	25,1	3,7
Public administration, clerks	527	0,5	8,3	12,9	7,9	11,0	31,1	5,7	86,7	6,6	100,0	94,5	18,2	36,2	68,3	29,8	192.600	176.800	94.300	15,0	6,1
Private administration, clerks	1 452	1,3	16,2	12,6	8,8	5,4	36,1	3,4	89,5	5,3	0,0	95,2	6,1	14,5	49,0	49,2	223.900	198.000	125.100	22,7	5,1
Merchants and tradesmen	1 662	1,5	63,1	17,8	74,6	7,2	19,7	3,9	90,0	4,8	0,9	94,0	8,1	15,7	48,7	48,9	252.400	175.500	527.900	18,7	9,1
Small entrepreneurs	3 551	3,2	76,3	9,0	48,6	2,7	34,1	6,1	85,9	6,4	0,2	91,0	0,6	2,1	31,3	67,0	159.300	150.900	120.000	15,0	11,3
Clerks (commerce)	2 706	2,4	37,6	10,3	16,8	5,4	34,1	3,8	88,8	6,1	0,0	96,7	2,9	9,3	41,0	58,1	228.800	207.200	123.900	17,4	4,4
Farm workers	962	0,9	80,2	3,7	23,7	2,6	57,2	10,2	83,1	5,6	27,9	92,5	0,9	2,5	23,3	76,0	158.700	155.000	56.100	4,6	7,0
Farm owners	2 748	2,5	69,7	34,8	172,9	2,6	25,7	3,7	92,0	3,1	5,0	90,1	1,6	8,1	32,6	64,9	118.200	103.900	95.900	2,9	1,5
Skilled workers in production	13 767	12,4	91,9	2,3	14,6	2,4	52,4	7,3	85,6	5,7	8,7	95,3	0,3	1,4	35,6	63,4	182.400	177.500	71.200	12,2	11,3
Semi-skilled workers in production	10 315	9,3	66,8	11,6	35,5	2,2	55,8	7,7	85,0	6,0	6,4	93,2	0,7	2,2	27,7	71,3	171.800	165.500	62.700	9,8	13,4
Skilled workers in service	383	0,3	27,3	6,0	10,4	1,0	47,3	6,5	85,9	6,0	27,7	92,7	0,8	2,6	43,9	54,3	157.000	155.100	46.400	30,3	31,1
Semi-skilled workers in service	1 776	1,6	9,4	33,4	21,1	2,3	55,9	6,6	84,0	7,1	51,5	88,8	1,4	3,8	40,8	57,2	160.600	154.900	48.000	18,4	19,5
Policemen	1 446	1,3	86,7	1,1	7,8	5,3	35,0	3,5	89,6	5,7	97,5	92,6	25,9	75,9	92,1	7,3	229.700	222.500	51.400	12,6	1,7
Military officers	253	0,2	97,7	0,0	-0,1	13,4	22,9	0,4	93,7	4,7	98,8	99,2	92,1	96,0	98,8	0,8	275.900	246.400	83.200	14,2	1,6
Others	2 217	2,0	45,8	14,9	39,1	6,0	29,5	6,4	84,1	7,9	19,6	22,9	5,9	10,4	26,1	30,9	210.000	177.100	206.000	23,2	14,1
Missing (Internal)	4 705	4,3	38,1	24,4	48,3	5,6	34,6	5,3	84,6	7,5			6,5	11,6	35,6	46,6	150.100	115.900	356.400	18,5	26,5
Missing (External)	29 362	26,5	61,4	51,0	183,8	4,6	17,4														
Total	110 661	100,0				6,8	31,2	4,9	87,9	5,7	20,9	92,4	10,1	16,7	39,8	31,2	216.200	190.3	203.000	16,3	7,3

Table 7. The Households' Occupation in 33 Groups and Different Characteristics, the National Census 1990.

	N	%	Fat. Senior empl. %	Fat. Blue-collar worker %	Mot. Senior empl. %	Mot. Blue-collar worker %	Work 35 h/w or more Fat. %	Work 35 h/w or more Mot. %	University ≥ 3 years Fat. %	University ≥ 3 years Mot. %	Primary school only Fat. %	Primary school only Mot. %	Total income Mean	Total income Median	Married %	Mot. Single household %	Age Fat. Mean	Age Mot. Mean	Age Dif.	Number of children Mean	Living in Stockholm county %	Own the housing %	Dwelling %	Country of birth Foreign/Foreign %	Sweden %	Sweden %
Engineers	2 708	2,4	96,2	0,5	18,8	21,1	98,9	58,3	38,6	26,0	20,2	6,8	4427,4	4182,0	92,2	0,8	47,2	45,3	1,9	2,06	22,7	88,3	6,1	2,8	8,6	88,6
Public technicians	1 760	1,6	0,3	5,7	2,4	27,8	96,7	59,9	4,7	9,1	25,7	13,0	3343,2	3271,0	82,8	4,5	47,5	45,0	2,5	1,98	15,6	79,3	12,8	2,9	5,7	91,4
Private technicians	8 309	7,5	0,1	3,9	2,3	34,2	98,1	54,1	4,5	7,6	35,2	16,1	3647,9	3486,0	90,1	1,0	46,7	44,5	2,2	1,98	16,3	85,5	8,9	4,2	7,8	88,1
Foremen	1 441	1,3	0,3	9,9	0,7	37,4	92,8	47,8	1,4	1,7	51,0	29,1	2877,3	2813,0	70,9	10,5	47,4	44,6	2,7	1,95	17,4	61,8	26,7	4,9	6,8	88,3
Physicians	1 762	1,6	80,9	0,7	47,6	3,6	96,7	63,3	83,9	59,9	2,9	1,0	5449,4	5382,5	84,7	4,9	48,0	46,1	1,9	2,44	20,4	79,5	10,2	6,2	9,9	83,8
Medical and health professions	6 734	6,1	3,4	32,6	7,0	45,6	84,9	77,9	5,3	9,8	11,4	18,2	3252,8	3119,5	57,8	20,2	46,5	43,9	2,5	2,06	17,7	61,2	25,8	7,0	6,4	86,6
University teachers	683	0,6	79,1	1,2	53,1	4,0	96,3	70,9	80,8	67,3	4,4	0,3	4849,7	4686,5	85,8	3,4	48,7	46,8	1,9	2,17	20,5	81,8	11,0	5,0	10,4	84,6
Subject teachers	2 542	2,3	65,5	3,0	53,9	7,6	91,5	73,7	62,6	61,6	7,0	3,0	4099,1	4059,0	81,9	6,2	48,7	46,6	2,1	2,10	14,4	83,1	10,3	2,0	7,0	90,9
Class teachers	4 224	3,8	5,0	16,0	7,5	8,8	85,6	75,1	18,4	41,7	10,2	12,5	3511,6	3422,0	66,7	14,8	47,4	45,0	2,4	2,07	19,2	72,5	18,3	6,1	6,2	87,7
Lawyers	346	0,3	90,5	1,4	37,6	3,5	98,2	67,5	90,5	49,1	6,6	0,0	5952,2	5222,5	89,3	0,3	48,3	46,2	2,1	2,14	35,5	79,5	11,6	1,2	8,1	90,8
Journalists	510	0,5	22,0	6,1	21,6	9,6	89,7	67,8	18,6	25,5	13,7	20,8	4096,9	3712,0	68,0	10,8	47,5	45,4	2,1	2,06	37,1	62,9	23,9	7,6	7,8	84,5
Art producers	954	0,9	16,2	11,1	16,4	15,5	88,1	65,1	19,8	24,7	22,9	22,6	3381,1	3279,5	70,4	10,0	48,0	45,3	2,7	2,05	31,4	63,1	23,5	5,6	10,9	83,5
Senior civil servants	2 179	2,0	74,8	5,2	42,4	11,4	96,8	71,6	40,1	32,2	15,1	7,7	4315,7	4131,0	84,4	4,7	47,7	45,5	2,2	2,03	26,6	79,1	12,6	1,3	5,6	93,1
Private senior administrators	4 062	3,7	81,3	3,8	31,7	14,5	97,9	65,3	28,4	19,6	20,1	17,7	4897,3	4385,0	88,3	2,2	46,8	44,8	2,0	2,03	32,5	85,2	8,4	1,8	6,9	91,3
Public mid-level administrators	1 038	0,9	1,4	18,0	2,4	13,5	92,5	75,8	15,5	13,6	27,7	15,8	3470,9	3346,5	73,0	9,2	47,3	44,8	2,5	1,99	21,4	72,3	18,6	4,4	7,1	88,4
Private mid-level administrators	4 122	3,7	0,4	8,8	2,6	17,9	95,5	67,0	7,5	8,3	33,3	24,6	3898,8	3629,5	81,9	5,3	46,9	44,6	2,3	1,93	25,4	79,1	13,2	2,9	7,9	89,2
Executive managers	2 173	2,0	95,0	0,8	17,5	16,8	99,1	54,2	25,3	18,7	26,1	21,8	5725,2	4926,0	93,7	0,7	46,9	44,9	1,9	2,03	25,4	85,9	9,2	1,0	6,6	92,4
Public administration, clerks	2 799	2,5	1,3	34,4	0,5	5,9	87,3	78,9	3,0	3,2	34,7	17,6	3212,6	3092,0	51,9	19,4	47,1	44,4	2,7	1,84	20,0	55,8	30,5	6,4	5,0	88,6
Private administration, clerks	4 049	3,7	1,1	30,0	0,3	11,2	89,6	75,1	2,9	2,4	43,6	27,5	3499,5	3254,5	60,0	15,8	46,7	44,2	2,5	1,90	27,4	62,2	24,2	5,8	5,1	89,1
Merchants and tradesmen	1 547	1,4	0,2	6,3	1,7	16,7	93,7	57,1	6,3	3,9	50,1	34,9	3620,3	2800,0	85,5	3,7	47,2	44,7	2,5	2,01	16,0	84,7	10,4	5,7	7,9	86,4
Small entrepreneurs	3 073	2,8	0,1	3,9	0,6	31,8	93,5	42,3	0,5	1,4	53,4	33,5	2656,0	2565,0	85,0	2,9	46,4	43,8	2,6	2,07	14,6	81,6	12,0	8,2	6,9	84,9
Clerks (commerce)	3 621	3,3	0,3	27,5	0,9	53,2	93,0	55,7	1,9	2,3	56,1	35,2	3338,1	3091,0	72,4	9,7	46,3	44,0	2,3	1,96	16,8	70,5	19,8	3,4	6,1	90,5
Farm workers	746	0,7		93,4	0,5	65,7	94,2	34,3	0,8	2,4	60,7	26,8	2593,2	2578,0	83,5	3,8	47,5	44,4	3,1	2,18	3,4	78,8	15,7	5,4	5,5	89,1
Farm owners	2 459	2,2		1,8	0,9	24,4	92,9	47,2	1,4	4,4	53,9	21,8	2106,9	1947,5	91,7	1,1	49,3	46,2	3,2	2,24	2,7	87,8	4,3	0,7	3,7	95,7
Skilled workers in production	9 930	9,0	0,1	96,5	0,6	64,1	96,9	35,1	0,2	1,2	53,3	27,2	2868,7	2851,0	86,3	1,6	46,2	43,6	2,6	2,07	10,0	75,2	17,0	9,1	7,4	83,5
Semi-skilled workers in production	8 535	7,7	0,2	85,6	0,5	70,4	93,3	42,5	0,5	1,1	58,3	26,1	2766,7	2729,0	78,0	6,7	46,8	43,9	2,9	2,13	8,8	65,7	25,0	13,5	6,5	80,1
Skilled workers in service	618	0,6	0,3	61,2	0,2	82,0	86,1	59,9	0,5	0,8	48,4	21,7	2663,7	2703,0	59,9	17,0	47,4	44,1	3,2	2,12	20,6	49,4	39,6	16,3	10,2	73,5
Semi-skilled workers in service	5 848	5,3	0,5	32,2	0,1	92,7	69,2	51,7	0,9	0,7	56,2	15,4	2602,0	2599,0	40,3	32,4	47,6	44,2	3,4	2,22	16,2	45,0	42,5	17,0	5,2	77,8
Policemen	1 446	1,3		9,6	2,2	38,0	94,9	56,4	23,6	7,2	30,1	8,6	3543,1	3456,0	88,7	1,5	46,5	44,7	1,8	1,98	12,7	83,1	10,4	0,4	4,9	94,7
Military officers	250	0,2	97,6	0,4	14,8	22,8	100,0	61,3	91,6	17,2	26,0	0,8	4140,1	3939,0	95,2	0,0	46,5	44,7	1,7	2,10	14,0	86,8	8,8		6,8	93,2
Others	1 526	1,4	0,4	3,7	0,2	4,7	38,5	11,1	2,9	2,9	36,6	11,7	3111,9	2746,0	47,0	22,1	47,8	44,5	3,3	2,19	23,5	47,8	34,3	15,0	5,8	79,2
Missing (Internal)	3 698	3,3	0,7	4,6	0,5	6,1	51,5	0,6	3,4	3,6	54,3	13,4	2402,1	1867,0	45,6	22,4	51,5	46,7	4,7	2,23	19,1	42,8	46,5	28,7	5,0	66,4
Missing (External)	14 969	13,5																								
Total	110 661	100	13,3	25,5	6,8	31,2	92,4	57,3	10,1	10,0	32,2	17,0	3457,1	3171,0	74,7	9,3	47,1	44,6	2,5	2,06	15,2	61,7	16,9	6,5	5,7	74,2

Graphic 1. The Field of Higher Education in Sweden, the Autumn 1998, 33 Social Groups Divided by Sex and 1,388 Educational Programmes/Courses.

Axis 2 - 10.11 %

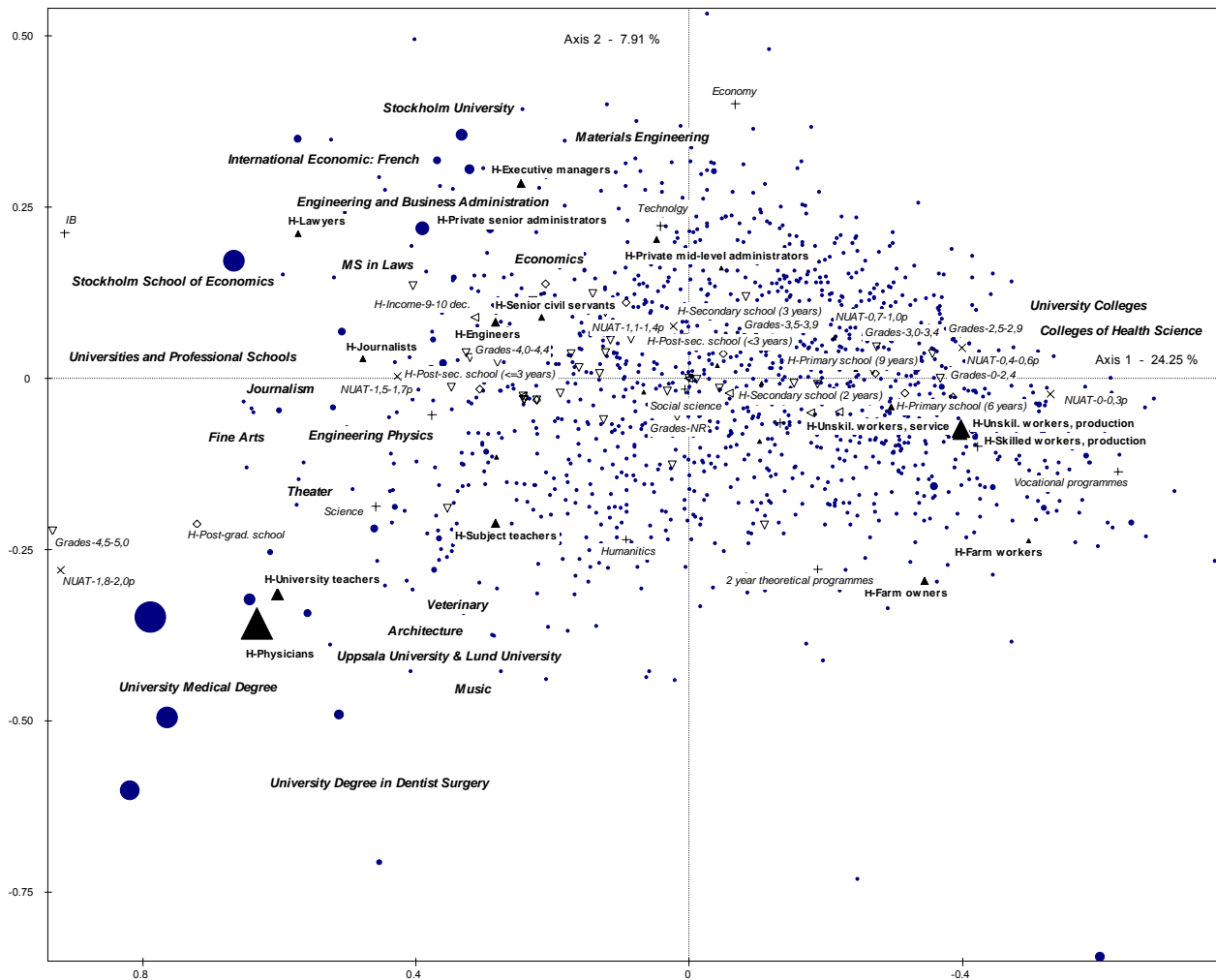Axis 1 - 29.66 %
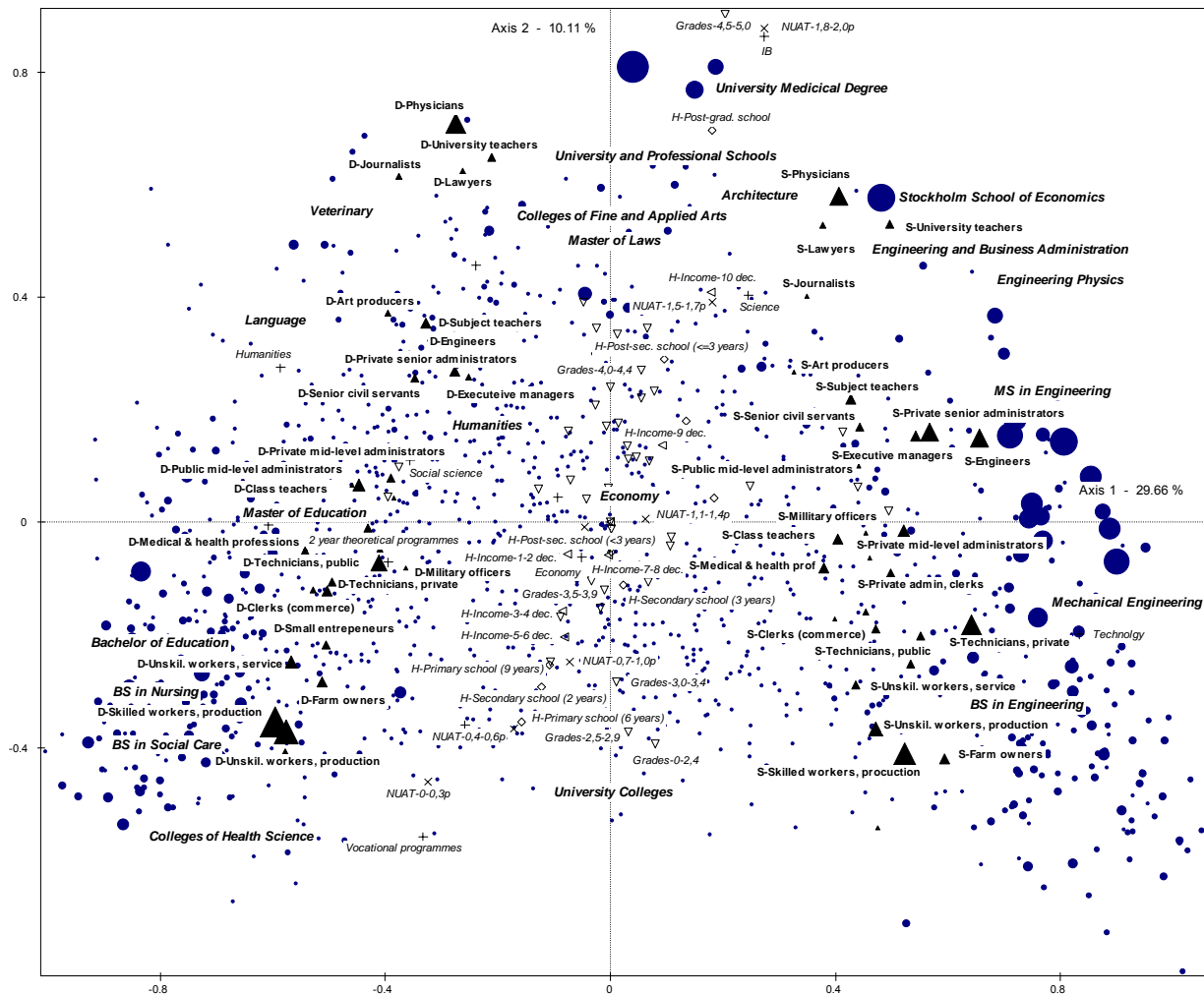
Active variables:

▼   Social groups (here divided by the students' sex).

●   Educational programmes/courses by institution of higher learning.

The size of the triangles and circles is proportional to the contribution value.

Supplementaty variables:

◁   The total annual income of the parents.

◊   Highest level of education for parents.

+   Upper secondary education.

X   Scores at the national university aptitude test.

,   Grades from upper secondary school.

Graphic 2. The Field of Higher Education in Sweden, the Autumn 1998, 33 Social Groups and 1,388 Educational Programmes/Courses.

Active variables:

▼   Social groups.

●   Educational programmes/courses by institution of higher learning.

The size of the triangles and circles is proportional to the contribution value.

Supplementary variables:

◁   The total annual income of the parents.

◇   Highest level of education for parents.

+   Upper secondary education.

X   Scores at the national university aptitude test.

,   Grades from upper secondary school.