

Education and Social Mobility In Spain (\*)

by

Juan Díez Nicolás  
 Ubaldo Martínez Lázaro  
 María José Porro Minondo

Publicado en: <u>Education Inequality and Life</u> <u>Chances</u> . París: OCDE, 1975, pp. 563-612.
--

INTRODUCTION

## 1. The Conceptual Framework in Social Mobility Studies

Ossowski (1) has studied in detail the way in which the social experience of inequality is articulated throughout history in the consciousness of the literate members of various societies. Nevertheless, the consciousness of social inequality failed to acquire practical and ideological importance until the time of the struggle between the bourgeoisie and the "ancien régime". In the beginning, sociology made this consciousness of the opposition between modern and ancient society the centre of all its conceptual models: the opposition of status to contract, community to society, persists until the Parsonian patterned variables. In contrast to the inequality and the oppression of the "ancien régime", the new bourgeois order will be legitimized by its ideal definition of the realms of freedom for essentially equal men.

Social mobility can only be considered as a fundamental and defining phenomenon of a certain type of social structure, if the dynamics of this society do not depend directly on the opposition between those above and those below, those who give orders and those who obey them, those who know and those who do not, the haves and the have nots. The conventional studies of social mobility can more easily be referred to a hierarchical conception of the social structure, in which power, knowledge and wealth are distributed along a continuous scale which can be divided, on the basis of various criteria, into different strata. Individuals are thus classified in various categories. The more or less arbitrary limits of these categories mean that such groupings cannot be viewed as subjects of historical development. Of course, the very concept of social mobility implies a stratum permeability that would differentiate the new class system from the traditional one (2).

---

\* We wish to thank the team of the "Department of Human Resources Prospective" of the I.N.C.I.E. (Instituto Nacional de Ciencias de la Educación) for its continuous help. We also wish to thank M.S. Miller, M.P. Wiles and A. Revitz for their useful comments.

a) Theoretical and methodological orientation of the social mobility paradigm

It is well known that orthodox functionalism takes concepts such as plurality of status, continuity of position and permeability of strata and integrates them into the framework of a global theory of social structure (3).

Not all social mobility studies can, or will, be so summarily integrated within the purest functionalist orthodoxy, but, they would nevertheless share its fundamental orientation. One of the fundamental works on the topic, the authors of which would hardly think of themselves as functionalists, defines the problem as "related to the process by which individuals change from one position to another". The study of social mobility implies the analysis of the movement of individuals from some given position to another in the social system. The result of this process can be seen as a distribution of intelligence and knowledge so that privileges and rewards increase proportionally with the difficulty and responsibility of the tasks. Quite clearly, it is impossible to establish an "ideal" relationship between the knowledge and rewards distribution in a given society but, precisely, the approximation towards this ideal, or the failure to attain it, is what makes the study of social mobility fascinating (4).

This does not, of course, imply for Bendix and Lipset a perfect social stability. There are changes over time in the requirements of the tasks and in the "amount" of available knowledge, and both types of changes imply that the elite occupying the privileged positions must permit some form of mobility in order to keep its dominant place in society. But this very theoretical ambiguity of juxtaposing the functionalist view to a particular theory of "circulation of elites" shows the need for continuously adapting this theoretical model (mostly by "a critical empiricism") in order to be minimally in line with social reality. An example of important theoretical precisions, but still within the same orientation, can be drawn from the controversy between Davis and Moore on the one side and Tumin on the other, the latter emphasizing the dispensability and non-functionality of present social stratification (5).

The majority of investigations follow this basic theoretical direction and this can be seen in the parallel between the line of most social mobility studies and Davis and Lipset's approach; as Kreckel points out, "the great theoretical complexity of the phenomenon of mobility has been reduced, during the period of the 'boom' of mobility research, to the very special question of vertical intergenerational mobility among men, evaluated by means of a model of prestige stratification. Furthermore, there has been great interest in the measurement of the amount of vertical mobility within societies" (6).

## b) Ideological connotations

Both Davis' model and more explicitly that of Lipset and Bendix imply two assumptions which are taken foregranted in certain ideological conceptions: an assumption of equivalence between the functional value of the different tasks expected from different statuses and the rewards assigned to them; and the assumption of an optimal allocation of human resources in society (7).

The functionalist legitimation of social inequality is consistent in principle at least with the basic assertions of the liberal tradition those of neo-classical economics. It is also consistent with the classic liberal ideology, in the sense that individuals are considered to be equal because they are free to prove their ability through the market. Two important considerations which link up with the more modern American conception of liberal policy, are in order here: first, that human capital may be increased through education and, therefore, individual ability is predetermined by a previous social inequality; second, that human ability has to be tested in a market already built up with a certain degree of monopoly, i.e., in an integrated system of social positions. The idea of equality is, therefore, no longer expressed as the "formal" freedom of the individual against society, nor is the optimal allocation of resources assumed. In order to reach both goals, knowledge has to be made available to every individual. Social equality can then be equated with equal opportunities to undertake the different tasks, which means equal opportunities in education.

The measurement and comparison of the degree of social mobility is meaningful within the basic liberal character of these assumptions. The two reference points are the traditional society of ascribed status, and the ideal modern society of acquired status in which equal opportunities would be a fact. The notion that this change from traditional to modern society takes place at the same time as the change from an agrarian to an industrial society is "historical law" which is perhaps most constantly assumed and developed in sociology. The degree of social mobility and the degree of industrialization in any society will follow the same path from caste society to open society. Both mobility and industrialization could be taken as milestones of this path or, if no coincidence between them were found, that could be integrated as deviance from a trend of historic normative validity. This thesis of Spencerian flavour allows the social formations to be ordered in a vectorial continuum; about its empirical validation, Lipset and Bendix conclude that "the results confirm the thesis that considers social mobility as an integral and continuous aspect of the urbanization, industrialization and bureaucratization processes"(8).

In other works, however, this complication is not clear. In Smelser and Lipset's words "there is a puzzling lack of association between indicators of economic development and measures of social mobility ...". The findings reported from the authors "so contradict the logical expectation that economic growth should result in a pattern of high upward and low downward mobility (...) that we wonder whether these negative results are a function of the methodological weaknesses suggested above" (9).

Ammasari (10), Goldthorpe (11), Duncan (12) and others cast serious doubts on this conclusion. The interesting thing here is the underlying assumption: that it is possible to compare societies at different stages of development as if there were some kind of mechanism of necessary transition teleologically oriented from one stage to the next. Even Bendix has later expressed his doubts about the possibility of studying mobility and stratification in a purely national framework, without taking into account regional differences and those arising from the international market relationships (13). It is not difficult to see the relationship between this assumption and the importance given to intergenerational mobility by scholars.

From another point of view, this assumption implies what Goldthorpe called "paraevolutionary Marxism"; the idea that industrialization and technological change have meant changes so radical in the structure of society that it is now approaching the ideal "society" similar to Marx's. At the same time the revolutionary potential Marx ascribed to the existence of two antagonistic classes is diminishing. This line of thought supports the notion of an open society which was the centre of the "convergence theory", during the 60's; "meritocracy" was seen as the form of social mobility in a perfectly open society, and "technocracy" as the model of Government in a society in which ideology was dying (14).

## 2. Inconsistency of the Theoretical Orientation

The conceptual and empirical orientation of research in social mobility is consistent not only with a certain liberal ideology but also with the central assumptions of the sociological orthodoxy of the fifties. Nevertheless, the empirical limits that this double consistency implies must be verifiable.

Some of the empirical limits may stem from the suspicion that the idea of a society in which all statuses are the result of personal achievement is inconsistent with the hereditary transmission of power and advantages on which industrial societies are based. Nowadays, what is valid for equal opportunities is valid a fortiori for equal educational opportunities: from access barriers to cultural barriers (15), education appears as a mechanism for the perpetuation of privileges.

If this is so, we may legitimately enquire as to why there are different degrees of mobility among societies. The thesis of a parallelism between mobility and industrialization then becomes dubious; industrial development certainly requires skilled manpower but, precisely because of that, a certain degree of social mobility can become "functional", not for the social system but for the prevailing inequality system. It may also be that social mobility softens the tensions not only because it legitimizes ideology but also because it channels aspirations to change.

### 3. Towards a Theoretical Re-orientation of Social Mobility Research

Both the functionalist assumptions about the value of education and the ascription of the different statuses, and the interpretation of mobility as an ideal social equality, to be attained with the progress of industrialization, are incompatible with the thesis stated above. Needless to say, this theory of social mobility being functional for the stability of the privilege system is difficult to verify empirically. It is however clear that the idea of equal opportunities has a legitimizing function; nearly all the critics of functionalism and technocratic ideology agree on this (Marcuse, Habermas, etc.). Yet, to assume that the power elite is able to perpetuate the structure of power and privilege in any circumstances and at no cost, would be to fall into the most naïve functionalism of "the whole and the completely other" (16).

The hypothesis of non-coincidence between increasing social mobility and increasing equality implies a turning point for research, about which a growing number of scientists seem to agree. Bendix has pointed out the need to look at the other side of the coin; that is "the ability of families to perpetuate their privileges" and; to analyze "the mechanisms through which power and domination and exploitation and the other things the Marxists are fond of talking about, are transmitted". The degree and means of status ascription and the extent to which they prevent both access to education and its productive utilization, cannot be reduced to the simple subjective dimension of stratification; a questioning of the mechanisms and of the compliance of the less favoured should transcend the simple social consensus or simply ignore it: the apprehension of power as an objective phenomenon is a correlative of the agreement by which power is transformed into persuasion.

The importance of education for social structure and mobility now appears in a different light. It is no longer a panacea for social inequality but rather a mechanism for perpetuating or restructuring inequalities, a means to acquire power, wealth and prestige, and to convince those exploited that their exploitation is legitimate, as shown in the symbolic representation of the status. At the same time, education is seen as a very important factor of social dynamics whose effects must be considered as multidimensional given its interrelation with other features of social change. This change of perspective requires not only a change of hypothesis but also changes in the design and analysis of social mobility studies.

#### 4. The Liberal-functionalist Theoretical Model and Social Mobility Studies in Spain.

With some modifications, these theoretical-ideological lines hold for much of the work done in Spain (17). First of all, the historical situation of Spanish sociology meant that American models were taken over practically wholesale. Secondly, the insecure circumstances in which most of the work was done implied a technical simplicity which usually coincided with the theoretical limits of an imported philosophy. Thirdly, during the 60's the official ideology was dominated by a naïve philosophy of development (which has been called "mechanistic materialism") in which the essential element was to increase the different levels of per capita income. If this were achieved the rest would follow automatically, and it was this "automatic follow-on" that sociology studied in its subsidiary role. Fourthly, official ideology wanted the verification of its achievements to be made on its own terrain, since the "immanent" criticism offered an excuse for deferring political questions. Where the official philosophy declared "per capita income", however, the student of empirical sociology could read "industrialisation and democracy" between the lines. The majority of these social scientists agreed that the basic implications of "future development" and "technocracy" implied that Spain could follow "other societies" in the transition from a traditional to a modern society. For all these reasons, it was only natural to set aside, temporarily at least, real historical contradictions.

Such a way of thought was soon to appear incomplete in terms of empirical results, and inappropriate to the real evolution of the society. Having said this, it is nonetheless true that to begin by assuming that inequality is a product of unequal opportunities of access to given positions, and not a result of the positions themselves; to assume a high correlation between occupation and position in society and that access to those positions is through education, so that unequal educational opportunities are responsible for social inequalities was probably the only possible way to begin sociological research given the data available to the empirical-minded sociologists. This empirical sociology disregarded and even ran counter to the real facts in a country where particularism penetrates the entire social structure, and where bureaucratic particularism is the specific way to share in the power of the middle classes where social and economic power are the monopoly of an inaccessible elite, and education is a means of reinforcing and perpetuating inequality. Where inductive rigidity was not modified by perspicacity or intuition to compensate for the bias of the indicators, the result was little more than a reinforcement of theoretical assumptions through tables interpreted "ad hoc" or some statement about the lack of validity of old prejudices about "the Spanish reality".

In fact, to equate social inequality in Spain with unequal educational opportunities was equivalent to ignoring, through either naiveté or machiavelism, the real social structure. The basic hypothesis about the functionality of a certain degree of educational mobility in the process of anarchic economic growth, as a "movement toward progress" for the purpose of keeping everything the same, is especially relevant here. A quite different matter is whether or not the sorcerer's apprentices will be able, finally, to control the forces which they themselves helped to unleash.

### The Contemporary Spanish Society

This paper is a preliminary report on the first results of our work, and to place them in a more intelligible perspective, we shall start with a few remarks on some of the major contemporary changes in Spanish society and, more exactly, on how they are understood and documented by existing mobility studies (18).

The very rapid process of economic growth in Spain over the last few years has caused a tremendous transformation of the social structure, which is clearly seen in the distribution of the active population among the different sectors of the economy. Rural migration, together with the urban development it entails, and the increase of regional inequalities, have meant for agriculture the loss of manpower to the industrial and service sectors.

Changes in production necessarily imply changes in occupation, way of life and standard of living. It is possible to observe: within the upper class, the transfer of the center of gravity from the agricultural landlord-financial sector to the industrial-financial sector; in the middle class, the decreasing role (absolute and/or relative) of the traditional middle classes, many of them self-employed and correspondingly, the increasing importance of new middle classes (more and more bureaucratized) which fill the jobs generated by the development of the industrial and service sectors; in the lower strata, the transformation of agricultural labourers and small farmers into skilled or unskilled industrial workers.

Amando de Miguel, made the following comments on the trend shown in Table 1:

- i. A systematic and sizable decrease in the category of agricultural labourers and a parallel increase in the number of industrial workers during the period 1860-1960, continues today.
- ii. A slow decrease in the number of independent farmers and an equally slow increase in the urban middle classes during the same period.

iii. In 1950, agricultural labourers still represented the major category in the occupational scale (23%). From then on, this proportion diminishes systematically, and in 1965, they accounted for only 10% of the labour force. This is the fundamental change in the occupational revolution.

iv. With the exception of unskilled workers, who remain at the same level, there is also an increase in all non-agricultural categories during the period 1950-65.

v. In 1965, the major occupational category was that of skilled workers (non agricultural) representing 22% of the active population.

vi. All these tendencies continued during the period 1965-71, when the process of change was accelerated. The expansion of the working class sector comes to a halt, whereas there is a rapid increase in the urban middle classes.

vii. To summarize, the difference between the 1971 occupational pyramid and that of 1950 is far greater than that of the 1950 pyramid with respect to that of 1860. That is, the social change that has occurred in the space of two decades is far more important than the one taking place over the whole century(19).

The new social structure resulting from this evolution cannot be explained merely by classifying the population into three or more "stratification groups" - high, middle and low. The various attempts at such a classification give very different results, depending on the criteria used and, needless to say, on the ideological biases of the authors. Variations from 1 per cent to 20 per cent for the upper classes, from 27 per cent to 52 per cent for the middle classes and from 72 per cent to 28 per cent for the working classes have been found.

Murillo (20) made some interesting remarks on the composition and provincial distribution of "his" middle class: its proportion being much greater in the rich industrialized provinces of the North and North-East (up to 50 per cent) than in the poor agricultural provinces of the South (from 23 per cent); in the latter there is above all an "old" middle class, whose values and numerical importance are being replaced by a "new" middle class.

A more detailed picture of the new conditions prepared by Martin Martínez (21) on the basis of a comparison of three different sources leads one to suspect that Spanish economic growth has implied, above all, "gross mobility", or rather not promotions and demotions in the "social ladder", but fundamentally, essential changes in the different "steps", in their articulation and their structure.

De Miguel has attempted to study this situation using data provided by the survey of the Youth Office\* (1960) and the

---

(\* ) Instituto de la Juventud.



FOESSA reports of 1966 and 1970. We shall try to summarize his main conclusions:

- Upward mobility is greater than stability, which is in turn greater than downward mobility: 40 per cent of urban workers have an agricultural background, whereas 30 per cent of farmers will have children in the urban sector; 25 per cent of the middle classes have their origins in a working class milieu, and - the only important downward movement - 22 per cent of workers have a non-manual father (22).
- The "index of inheritance" appears to be highest among people with managerial occupations; the further up the social ladder, the higher this index, which in general is greater than in Germany, Japan or France. This leads to the conclusion that "the rate of gross mobility in Spain is due to newly created employment opportunities rather than to actual promotions and demotions" (23).
- The change from a rural to an urban situation does not imply a superior status, and only by convention can this be considered as upward mobility. The only sector responsible for the gross (and even net) mobility would then be the middle classes.

One of the co-authors of the present report held a very different view in another article. Analyzing male-inter-generational-vertical-social mobility through three generations with Madrid respondents, he stated that "transmission of family status predominates over mobility, and the pretended equality of opportunities is therefore very doubtful" (24).

Gómez Reino and Orizo take horizontal mobility as upward mobility, because of the quite different way of life (access to education and culture, etc.), in the cities. Yet, the authors' lack of ability for conceptual discrimination and their oblivion of such elementary distinctions as "collective" and "individual" mobility, structural changes and changes of the individuals within a given structure, etc., leads to a discussion of the subjective meaning of (geographical) "situs", (social) status and the like that can only be distorting and confusing (25).

#### The Expansion of the Spanish Educational System. A Brief Outline.

At the turn of the century, approximately 56 per cent of the Spanish population was illiterate. According to Census data, in 1960, illiteracy ran as high as 12.1 per cent of the total population, although for the same year, another source reports that 20 per cent of army recruits, i.e., a cohort of

able young men, aged around 21, did not fit the UNESCO definition of a literate individual (26). In the 1970 Census, the corresponding figure was 8.9 per cent.

According to the same source, approximately 70 per cent of the population with some schooling have not gone beyond primary school. This figure, while revealing the low educational level may underestimate the transformation of the Spanish educational system.

Since 1925-26, the rate of enrolment has almost doubled in primary schools, it is fifteen times higher in secondary education and nearly seven times greater in higher education. The rate of increase of primary education during the period 1925-36 may be seen as the culmination of a far-reaching effort to bring "a school to each village". The maintenance of the rate (which actually declines for 1942-43) in the post-war years until 1962-63 shows a striking similarity with other economic indicators, such as the agricultural production, which only recovered its pre-war level in 1956. The improvement in educational achievements since 1962-63 (36 per cent) coincide both with the period of greater increase of per capita income, and a conscious governmental effort to extend compulsory schooling from 6 to 14 instead of 6 to 12. The fact that the population pyramid has considerably reduced its base since 1945 must also be taken into account.

There is a constant increase in secondary education: the number of pupils doubled approximately at each of the two first periods of 15 years (with a noticeable acceleration between 1930-36), and a surprisingly fast recuperation in 1942) and became four times greater in the last 17 years.

The university boom took place some years after, but the rate of increase in the last five years is twice as fast as in secondary schooling. This must have been highly surprising even for the authorities, since it has led to a considerable lack of facilities. In 1970 a major educational reform was launched with the publication of the Ley General de Educación, a law that meant a decisive attempt to renew the educational system. Since the law is still in the process of being implemented, enrolment rates are expected to increase over the next few years.

The study of the overall changes in Spanish society and the expansion of formal education is a challenge to the researcher. For the rest of this paper attention will be given to two main problems. In the first place, we shall try to explore the extent to which the Spaniards have profited differentially from these educational benefits. This is, by itself, a complex and many-sided question and the research will be limited to the influence of social origins on the educational attainments of students. Secondly, and in relation to the consequences of educational changes we shall try to estimate the effects of schooling on the occupational and economic status of the individual.

## SOCIAL BACKGROUND AND EDUCATIONAL ATTAINMENT

### 1. Education and Father's Occupation

The first subject for discussion is the relationship between a father's occupation and the educational level of his children. Tables 1 and 2 show the relationship between these two variables. Table 1 shows the percentage composition of the different levels of education, according to the father's occupation, calculated on the basis of the 1970 Census.

The first general impression is that the inequalities are greater in the higher educational levels, especially if comparisons are made with the different size of the occupational categories (28).

By and large, the different occupational categories are represented in primary education more or less proportionately to the weight they carry in the active population (29), but their representation is inverted as the educational level increases. The proportion of children of skilled workers, which is 27.4 per cent in primary education drops to 23.0 per cent in the first cycle of secondary education. In the second cycle, their representation is 13.2 per cent and it drops to 11.4 per cent in college education, while their percentage at the university level is only 4.3 per cent.

In turn, the category of top executives and officials, whose representation in primary education is 1.2 per cent, reaches 11.6 per cent in university education, after a gradual increase through the intermediate levels (except for college education, where its representation decreases since the educational expectations for their children are those of a university education).

The extent of the inequalities becomes obvious if we group the categories and centre our attention on high-level studies. It can then be seen that although the working class represents 50.8 per cent of the active population, only 9 per cent receive a university education, whereas the children of high-level managers and civil servants, who represent 2.9 per cent of the active population, account for 25.1 per cent of university students.

Education has expanded rapidly in recent years and it would be very interesting to examine the impact of this expansion on the selection mechanisms of the educational system. Unfortunately, because of lack of data, we can do no more than outline some indicative and provisional conclusions.

With regard to this problem, we have tried to analyze the evolution over time of the percentages of college and secondary education students, classified according to the socio-economic status of their parents, during the period 1962-1970.



Table 2Percentage of University Students by Father's Occupation

	Labour Force			
	1962-63 (1)	1968 (2)	1970 (3)	1970 (4)
Farm owners	4.2	8.6	5.5	16.5
Farm workers	1.8	-	0.6	8.3
Proprietors of industrial, commercial and services enterprises	23.0	29.6	10.5	9.4
Professional and similar	27.8	7.3	6.4	0.8
Top executives and officials	0.6	1.6	7.1	0.9
High level managers and civil servants	4.2	14.7	11.6	1.2
Middle managers, clerical and sales	28.4	29.8	23.1	16.2
Foremen and skilled workers	4.7	5.6	5.4	28.1
Labourers and unskilled workers	0.5	1.4	0.8	6.6
Service workers	0.5	1.4	2.2	7.8
Armed forces	-	-	4.0	1.1
Others (5)	4.4	-	10.4	4.2

Sources:

- (1) INE, Estadística de la Enseñanza Superior en España. Curso 1962-1963.
- (2) INE, Encuesta de Equipamiento y Nivel Cultural de la Familia.
- (3) Censo de la Población en España, t. III, INE. Ministerio de Planificación, 1974.
- (4) Censo de la Población en España. Total Nacional, t. III. Características de la población, INE, Madrid; 1974.
- (5) We have included here those originally listed as "fatherless"; "Non salaried: retired rent recipients and others not in the labour force"; "Labour force participants, N.E.C."

This period was chosen because of the availability of statistics classifying university students according to the socio-economic categories of their parents.

A first reference to the Statistics of Higher Education in Spain, published annually by the National Institute of Statistics, showed that, as regards statistics for the decade 1960-1970, series of cross-tabulated data in the above-mentioned form only exist for the academic year 1962-63, and it is therefore impossible to obtain time series from this source. A similar situation exists with the Census. It would have been very useful to compare information from the 1960 Census with the 1970 Census, but the data required were only available from the latter.

Another source is the "Encuesta sobre Equipamiento y Nivel Cultural de la Familia", published in 1968, and based on a survey of 64,000 families (30).

The lack of homogeneity in the occupational categories included in each of the three sources of information used, and also the arbitrary selection of the categories should be pointed out.

Finally, it must be pointed out that for the academic year 1962-63 referred to in Statistics of Higher Education, for 15.7 per cent of university students, 6.4 per cent of those in the first cycle and 7.4 per cent of those in the second cycle of secondary education, the socio-economic category of the father was not specified. The same occurs with data obtained from the 1970 Census, which groups 12.4 per cent (for the college students) in the category of "persons economically inactive".

Bearing in mind the points mentioned so far and in view of the figures shown in Table 2, any conclusions will be of doubtful reliability.

Table 2 synthesizes the calculations, based on the three sources mentioned above, of the percentages of university students according to the socio-economic category of their parents. In order to make the information more significant, the column at the right shows the percentages of the total active population represented by the different occupational categories in 1970. The same data for 1962-63 are not available and, for this reason, the comparison can only be tentative. In an effort to homogenize, the categories have been regrouped as shown in the Table.

The two first categories, those of students with rural background were taken together. Their percentage share varies little along the time-span considered (the percentage of farm workers' children has decreased from 1.8 to 0.6 per cent and

the percentage of farm workers in the active population has decreased from 40 per cent to 20 per cent approximately; the small degree of reliability of the figures would not warrant any inferences based on a change of less of one per cent.

With respect to the category of industrial entrepreneurs, the enormous fluctuation of the figures corresponding to each of the three periods analyzed would seem to indicate that the content of the categories has not remained constant. Thus, although the number of entrepreneurs has decreased relatively as a result of the economic concentration process which is taking place in Spain, this decrease cannot explain such a drastic drop in their participation in university education as that shown by the figures for 1968 and 1970 (from 29.6 per cent to 10.5 per cent).

The three categories - liberal professions, top executives and high-level managers and civil servants - were taken together, since the figures for each of them are otherwise practically unintelligible, because of lack of uniformity in the criteria used by the different sources, and also to some suspicious as regards the reliability of the coding operations. The percentages of their children at the university have decreased (from 32.80 to 25.2) while the number of college students has increased approximately 3.5 times. According to the 1970 Census, these three categories represent 2.9 per cent of the total active population, whereas 25.1 per cent of university students are children of liberal professionals, top executives and high-level managers, and civil servants, a fact which underlines the elitism of the Spanish University system.

Medium-level managers and civil servants, employees and salesmen are relatively privileged in terms of educational opportunities, since according to the 1970 Census, they represent 16.2 per cent of the active population, but 23.1 per cent of college students are the children of medium-level managers and civil servants.

Foremen and skilled and specialized workers would appear to keep their very low share (5.4 per cent) of the total university students throughout the decade. This category represents 28 per cent of the total active population. The same can be said of labourers and unskilled workers (6.6 per cent of the active population according to the 1970 Census) and for service personnel (7.8 per cent of the active population). The members of the Armed Forces (1 per cent of the active population) are clearly favoured with 4 per cent of college students. In general, it appears that the very small increase in the percentages of working class participation by no means compensates the decreases of the non-manual workers' share, but all depends on the distribution of the 12.9 per cent that appears in the three bottom categories of the 1970 column. The distribution of university students by social origins has not undergone any remarkable shift in the years considered, and the increase in schooling is proportional with the original participation (31).

Table 3 shows the same kind of data from the first and third sources quoted, for Secondary Education (32).

As far as first cycle is concerned, the most striking fact is the increase in the working-class share (from 19.7 per cent to 36.7 per cent). As far as the relative participation of the remaining categories is concerned, a noticeable decrease in all of them can be observed. It seems that the increase in the number of students from working-class families accounts for a proportion of the relative decrease in the non-working class share. In Secondary Education therefore an increase in the participation of the lower socio-economic strata can be observed.

For second cycle Secondary Education, there is a much smaller increase in the participation of working-class students than that observed for the 1st cycle. A relative increase in the share of non-working class children is also shown in Table 3. A much stronger shift in the pattern of student social background is observed in the first cycle. This trend leads to a complete stabilization of the pattern at the University level.

Table 4, which represents an alternative approximation, has also been prepared from data provided by the 1970 Census. This table, gives an overall view of the educational levels attained by students according to the occupational status of their parents.

The information gained from it is very similar to that inferred from Table 1. The more privileged economic classes are under-represented in the lower educational levels (except in kindergarten) while the opposite is true for the less privileged socio-economic categories.

In 1970, the children of agricultural workers were distributed among the different levels of the educational system as follows: 90.7 per cent in primary education, 7.4 per cent in the first cycle of second-level education, 1.3 per cent in the second cycle of the same level, and 0.2 per cent in college education. At the opposite extreme, the children of top executives and officials are distributed in the educational system in such a way that, in the same year, 43.8 per cent are studying at primary level and 17.1 per cent at college level.

A measure of the influence of social origins on the educational level achieved may be drawn from the relative proportion of individuals who achieve a given level of education, i.e. the quotient among those who, with a given origin, attain a given level of education and the percentage of those who, in the total population, have attained the same level.



Table 3

Percentage of Secondary Education students (first and second level)  
by Father's occupation

	<u>1st cycle</u>		<u>2nd cycle</u>	
	1962-63 <sup>(1)</sup>	1970 <sup>(2)</sup>	1962-63 <sup>(1)</sup>	1970 <sup>(2)</sup>
Farm owners	11.9	9.5	8.0	9.5
Farm workers	0.6	3.1	0.9	1.7
Proprietors of industrial, commercial and services enterprises	19.1	13.4	20.7	13.8
Professional and similar	9.0	2.0	15.3	3.7
Top executives and officials	0.6	3.0	0.6	4.7
High level managers and civil servants	0.5	2.3	1.1	4.6
Middle managers, clerical and sales	30.5	20.2	32.0	26.0
Foremen and skilled workers	15.7	24.9	10.5	13.4
Labourers and unskilled workers	2.6	3.9	0.9	1.8
Service workers	0.8	4.8	0.4	3.6
Armed forces	-	3.4	-	4.8
Others (3)	8.7	12.9	9.6	17.2

Sources: (1) INE, Estadística de la Enseñanza en España, Curso  
Curso 1962-63, Madrid, 1964, pp. 62-63.

(2) INE, Censo de la población en España, t. III,  
Madrid 1974.

(3) The categories originally listed as "rent recipients",  
"fatherless", and "no data available" are included here

Table 4

Educational achievements of in-school population by occupation of the head of the household  
Out-flow percentages

	Kindergarten	Compulsory primary education	Total primary education	Secondary education 1st cycle	Secondary education 2nd cycle	Post-secondary non-university education	University	Total
Landowners	100	8.2	47.9	57.3	24.6	10.3	3.1	4.7
Independent farmers without employees	100	7.1	70.4	78.9	14.7	4.1	1.3	1.0
Agricultural managers and overseers and skilled farm personnel	100	9.8	73.2	84.4	11.5	2.7	0.8	0.6
Agricultural labourers	100	9.7	79.9	90.7	7.4	1.3	0.4	0.2
Proprietors	100	14.5	40.6	56.1	27.5	10.0	2.2	4.2
Craftsmen and independent workers	100	13.7	52.1	66.9	23.1	6.4	1.8	1.8
Professionals	100	14.6	30.5	45.6	25.7	14.0	2.7	12.0
Business executives and top level managers (non agricultural)	100	15.8	31.1	47.3	27.8	13.3	2.5	9.0
Higher grades of managers, technicians and civil servants	100	15.6	27.8	43.8	23.3	13.6	2.2	17.1
Middle-level managers, technicians and officials	100	15.6	32.2	48.5	27.1	13.0	5.0	6.4
Other clerical, salesmen and technicians	100	14.8	38.5	54.6	28.8	10.3	2.8	3.5
Foremen and similar workers	100	15.0	43.8	59.8	28.6	7.7	2.1	1.8
Skilled workers	100	15.9	59.5	76.5	18.7	3.3	0.8	0.5
Unskilled workers	100	12.2	72.	85.7	11.7	1.9	0.4	0.3
Services workers	100	11.8	52.9	67.1	24.1	5.9	1.5	1.4
Armed forces	100	13.5	36.7	51.1	29.2	12.0	2.8	4.9
Other economically active persons not elsewhere classified	100	12.9	55.2	70.1	19.5	5.8	2.1	2.5
Total	100	12.7	55.1	69.2	20.0	6.2	1.8	2.8

This quotient, which has come to be known as the "index of association", reflects the relationship between the empirical matrix of intergenerational transition and that constructed on the assumption of statistical independence between social origins and educational achievements.

Table 5 gives the values of this index in 1970 (33). It can be seen that within the rural sector there is a big cleavage between the two categories of farmers. The Census distinguishes between "agricultural entrepreneurs" with and without employees, the second category presumably including small farm owners and the different forms of share-cropping. Both categories are widely heterogeneous in their composition. Still, the differences between them are clear enough. While the educational opportunities of the children of the first are similar to those of the affluent non-agricultural categories, the situation of the children of the second is not very different from that of the children of agricultural workers. As might be expected, the children of agricultural managers are situated in a somewhat intermediate position between those of small farmers and agricultural workers.

Perhaps the most remarkable feature of Table 5 is the very small difference between agricultural workers and other manual workers, with the exception of foremen. The advantage of skilled workers over the unskilled is not very large. Both and especially the former are slightly more likely to send their children to secondary school than those working in agriculture, but other than that, the difference, always small, tends to be associated more with qualification than with geographical location. The situation of skilled workers, as far as their children's education is concerned, is pretty much the same as that of agricultural overseers and the same can be said for non-agricultural labourers and farm workers.

In primary education, the children belonging to the categories of small farmers, farm managers, agricultural workers and skilled workers and unskilled (non agricultural) workers show a value of more than 1.0. For these categories it may be said that there is a barrier to the transition from compulsory primary education to other educational levels, where they are represented less than proportionately. This under-representation becomes greater at the higher levels. Thus, the higher the educational level, the greater the inequalities in educational opportunities. The decrease in the equality of opportunities becomes more acute starting with the second level, first cycle.

There is a revealing pattern with regard to foremen and kindred workers. They send their children to secondary school in a proportion not very different from that of the lowest level of office workers. Nevertheless, their chances of obtaining a higher education for them are less than proportional and nearly half in comparison with the same group. The same pattern appears when craftsmen and small businessmen are compared with the larger entrepreneurs.

Table 5

Student's achievements by occupation of the head of the household. Ratio of actual frequencies to those expected under the assumption of independence

	Primary	Secondary 1st. cycle	Secondary 2nd cycle	Post-secondary non-university	University
Lendowners	0.83	<u>1.23</u>	<u>1.66</u>	<u>1.72</u>	<u>1.74</u>
Independent farmers without employees	<u>1.14</u>	<u>0.73</u>	<u>0.66</u>	<u>0.72</u>	<u>0.57</u>
Agricultural managers and overseers and skilled farm personnel	1.22	0.57	0.43	0.44	0.22
Agricultural labourers	<u>1.31</u>	<u>0.37</u>	<u>0.21</u>	<u>0.22</u>	<u>0.07</u>
Proprietors	<u>0.81</u>	<u>1.37</u>	<u>1.61</u>	<u>1.22</u>	<u>1.59</u>
Craftsmen and independent workers	0.97	<u>1.15</u>	<u>1.03</u>	<u>1.1</u>	<u>0.70</u>
Professionals	0.66	<u>1.28</u>	<u>2.26</u>	<u>1.50</u>	<u>4.44</u>
Business executives and top level managers (non agricultural)	0.68	<u>1.39</u>	<u>2.14</u>	<u>1.32</u>	<u>3.22</u>
Higher grades of managers, technicians and civil servants	0.63	<u>1.16</u>	<u>2.19</u>	<u>1.22</u>	<u>6.3</u>
Middle-level managers, technicians and officials	0.70	<u>1.35</u>	<u>2.10</u>	<u>2.78</u>	<u>2.37</u>
Other clerical, salesmen and technicians	0.79	<u>1.44</u>	<u>1.66</u>	<u>1.55</u>	<u>1.30</u>
Foremen and kindred workers	0.86	<u>1.43</u>	<u>1.24</u>	<u>1.17</u>	<u>0.67</u>
Skilled workers	1.11	<u>0.93</u>	<u>0.53</u>	<u>0.44</u>	<u>0.18</u>
Unskilled workers	<u>1.24</u>	0.58	0.31	0.22	0.11
Services workers	<u>0.97</u>	<u>1.20</u>	<u>0.95</u>	<u>0.83</u>	<u>0.52</u>
Armed forces	0.74	<u>1.46</u>	<u>1.93</u>	<u>1.85</u>	<u>1.78</u>
Other economically active persons not elsewhere classified	<u>1.01</u>	0.97	0.93	<u>1.17</u>	0.92

The chances of the children of medium-level clerical workers getting a secondary education are nearly the same as those for children from higher origins, but they are overrepresented at this level. The children of low-level white-collar workers get more than their proportional share at both levels, but less than the category immediately above them.

The categories of high-level managers and civil servants, liberal professions, business executives and directors and top executives and officials are overrepresented in varying degrees at the higher levels.

## 2. The Inheritance Factor in Education

A second aspect of the study of the relationship between schooling and social origin would be the examination of the association between the education received by parents and that received by their children. Later in this paper, we shall try to integrate both relationships in a simple pattern and to evaluate the independent contribution of the different paternal-socio-economic characteristics to the educational achievements of their children.

Figures shown in Tables 6, 7, 8 and 9 were obtained from the "Encuesta de Equipamiento y Nivel Cultural de la Familia", already quoted. Fathers were asked about the educational level attained by the son having the highest level of education if he was old enough to have been able to attain an educational level similar to that of his father.

As a consequence of these restrictions, figures shown on Tables 6 and 7 represent neither the total in-school population nor the sons of the sample interviewed. The figures should not be taken as an accurate description of distribution of two generations among the various educational levels, nor would it be correct to make comparisons between marginals to determine the changes over time. (FOESSA/70 and the "Encuesta" itself surprisingly concur in such an error). Nevertheless, the figures can be used to infer the relationship between father's and son's education, assuming that there are no systematic differences in education among the children of fathers included in different educational categories. In these tables, the diagonal represents persistency of educational level while the figures above the diagonal represent the upwardly mobile and those below the diagonal the downwardly mobile. More precisely what is shown here are the percentages of families with at least one son at an educational level equal or superior to that of the family head - figures at or above the diagonal - or percentages of families where all the children are at an educational level inferior to that of the family head. In both Tables 5 and 6, it should be remembered that, given the above mentioned assumption, upward mobility is in all likelihood over estimated and that, though the educational process of the fathers is generally finished, the education of some children may still be incomplete. That could be the case of those not at the university but included in the diagonal and above the diagonal. Some of these individuals may continue

Table 6

Son's education by father's education. Inflow percentages

Father's education	<u>Son's education</u>					Total
	Illiterate	Primary Education	Secondary Education	Some University	University	
Illiterate	100	13	1	-	-	9.6
Primary Education	-	85	74	44	31	78.5
Secondary Education	-	2	21	31	37	9.5
Some University	-	-	1	4	2	0.4
University	-	-	3	21	30	2.5
	100	100	100	100	100	
Total	(292)	(40,433)	(16,310)	(2,194)	(1,562)	(60,791)

Source: INE, Encuesta de Equipamiento y Nivel Cultural de la Familia, Madrid, 1968

Table 7

Son's education by father's education. Out-flow percentages

Father's education	<u>Son's education</u>					Total
	Illiterate	Primary Education	Secondary Education	Some University	University	
Illiterate	5	92	3	-	-	100 (5,848)
Primary education	-	72	25	2	1	100 (47,728)
Secondary education	-	14	64	12	10	100 (5,495)
Some college	-	6	44	36	14	100 (225)
College	-	4	34	31	31	100 (1,495)
Total:	0.48	66.51	26.83	3.61	2.57	100 (60,791)

Source: INE, Encuesta de Equipamiento y Nivel Cultural de la Familia, Madrid, 1968

Table 8

Index of dissimilarity between father's education and son's and  
between son's and father's

	<u>Supply</u>	<u>Recruitment</u>
Illiterate	30.0	96.9
Primary	5.5	4.0
Secondary	53.0	12.6
Some college	61.0	45.0
College	63.0	56.6



Table 9

Son's education by father's education. Ratio of actual frequencies to those expected under the assumption of independence

Father's education	<u>Son's education</u>				587
	Illiterate	Primary Education	Secondary Education	Some College	
Illiterate	<u>10.4</u>	<u>1.4</u>	0.1	-	-
Primary Education	-	<u>1.1</u>	0.9	0.8	0.4
Secondary Education	-	0.2	<u>2.4</u>	<u>3.3</u>	<u>3.9</u>
Some College	-	0.1	<u>3.3</u>	<u>10.0</u>	<u>5.4</u>
College	-	0.1	<u>2.2</u>	<u>8.6</u>	<u>12.0</u>

with their education. Consequently, our figures may very well give an inflated estimate of the true amount of persistency and, correspondingly, underestimate the upwards mobility (on the other hand, the downwards mobility should not be overestimated: below the diagonal there are only the sons with no brothers above their father's educational level).

Bearing in mind these remarks, there are some comments to be made on Tables 6 and 7. Though most illiterate parents (92 per cent) have children in or with a primary education, and a meagre 3 per cent have sons in secondary, 5 per cent of them have transmitted their illiteracy to their children; no other fathers have only illiterate children; 100 per cent of illiterates in Table 6 come from illiterate parents. From the fathers with primary education, 72 per cent have no child above their own educational level, and these represent, together with illiterate children nearly all the pupils in primary education considered in Table 6. Scarcely 3 per cent of primary school graduates have a child at the university; their relative importance in Table 6 is not difficult to understand if we consider the size of the marginals.

Of those fathers with secondary education, 14 per cent have no children beyond primary school; 64 per cent of those fathers, however, have at least one child at their own educational level, and 22 per cent send their children to university (Table 7). The latter represent here more than a third of the student population, a high proportion if compared with the 9 per cent of their fathers in the total sample.

Among the fathers with, at least some college education, 62 per cent have children with similar education, 34 per cent have no one above secondary school and 4 per cent have all children with no more than primary education. (Table 7). The corresponding inflow percentages are insignificant at primary level, but substantial at the university, especially if compared with the 2 per cent that the fathers represent in the total sample (Table 6).

The figures in Tables 6 and 7 reveal a similar pattern for all three educational levels; there is, first, a strong persistency of educational status, represented by the figures on the diagonal, and, correspondingly, low figures for mobility; and, second, the large mobility percentages appear in the levels immediately superior and inferior to that of the fathers; it is, then, much more difficult to move two levels above or below the father.

The illiterate differ from one of these common features; the greater figure is not here the diagonal, but the one for primary education; upward mobility and not persistency obtains here? But, again, the mobility of their children is a short-lived one, since access to secondary education and to university is nearly impossible.

Table 8 shows the values of the index of dissimilarity, a measure of the relative distribution, as regards origin or achievement in the different educational levels. That is to say, the sum of the positive differences between the percentage distributions in the different educational categories of individuals with the same origin and the corresponding percentages for the total sample show the greater or lesser concentration as regards the destination of individuals with the same origin in relation to the total population. If the same index is calculated by columns, a measure of the relative concentration of the origin of those who have attained a given education is obtained. Thus, an educational level with high index value as regards the recruitment of its clients attracts individuals from different origins to a more than proportional degree.

This table shows that the individuals with an intermediate level of education come from more widely differing origins, as regards their parent's education, than those situated near the extremes. Both the holders of a college degree and, in a much more pronounced manner, the illiterates, come from a much more homogeneous stratum than those situated at intermediate levels.

The pattern is similar when the phenomenon is looked at from the alternative point of view. The children of college graduates are more concentrated in their destination than the children of parents who received a secondary education, and, similarly, those whose fathers have a primary education attain a greater diversity in their education than the children of illiterate parents.

Table 9 offers some additional information about the relationship between son's and father's education. The table compares the empirical frequencies with those expected if both variables were independent.

With a single exception, the higher value corresponds to the diagonal, reflecting, once again, the weight of inheritance in the processes of status transmission.

The cells above the diagonal correspond to sons with more schooling than their fathers. It can be seen that, in the first place, here is a sizable degree of upwards mobility. The fathers with a secondary education have sent their children to college in large numbers. But those who have primary education only and, in a much more marked way, the illiterates, are under-represented both in secondary and higher education.

Even if there are downwards movements, corresponding to the cells below the diagonal, they do not, for the sons of the better educated, go beyond the level of high school. A floor and ceiling effect seems to be at work in the sorting of children through the educational system. It seems very hard for those coming from the bottom to get more than a secondary school education and almost impossible for those with the right origins to get less than a secondary education.

### 3. Father's Occupation and Education, and Son's Education

The associations between education of children and occupation or education of their father have been examined separately so far. The tabulations of the "Encuesta de Equipamiento" allow for some multivariate analysis.

Table 10 shows the association between father's and son's education for each professional category. Here, we can determine the influence of father's on son's education while holding constant the occupation of the father.

For all the occupational groupings the tables show similar arrangements; first, all the figures in the main diagonal are greater than one; second, most of the values higher than unity appear around the bottom of the main diagonal, while most of the low ones tend to be at the opposite end.

Yet, 10.D has a somewhat inverse disposition, since the larger figures here are on the upper part of the central and left columns and the figures on the diagonal become lower from the top to the bottom. Secondly, it can be seen that at the educational level least common for the members of one occupational category, the association is stronger, whereas at the modal levels the indexes become close to one and much lower at the surrounding cells. So, for category A, where modal education is doubtless primary, children of fathers with secondary education have 13.7 times more probabilities of attaining the same education than the rest of farm children. In category E, where secondary education is the most common, the corresponding central figure of the main diagonal is 1.1, but 1.6 at top left, and 3.0 at bottom right. In D, where higher education is the standard achievement, the few children of fathers with primary education are, again, 3.8 times more likely to get an education similar to that of their father than would be expected under the assumption of independence.

The figures show that any father, no matter what his occupation, tends to get for his sons at least the same education as he has achieved. The degree of success in doing it is shown by higher or lower figures. In general, it can be said that they are more successful if they are educationally overqualified for their occupation. It can also be stated that fathers with secondary education are successful in sending their children to the university, whereas those with primary, as we have seen in other Tables, are much more under-represented in the university than in secondary education.

As a measure of the strength of the associations, we have used Goodman and Kruskal's gamma. As indicated in Table 10, the gamma values for the relationship between father's and son's education within the eight occupation groupings are, with a couple of exceptions, fairly similar, and lower than the overall value (gamma = .88). This emphasizes a not very surprising joint effect of the education and occupation of the father on the son's schooling. Nevertheless, there are exceptions to this pattern. The association is very strong for the small farmers and agricultural workers. The gamma value in the case of unskilled and service workers is basically the same as for the grand total and not very different from the group just mentioned, and points again to the similarities already mentioned between the rural and urban lower strata. In both cases the covariation between occupation and education is too large to differentiate their joint and independent effects on the dependent variables.

Other variables may, of course, account for all these features. In the next section we shall build a model in order to try to determine the effects of some additional variables.

#### 4. Some Multivariate Extension of the Analysis

In this section the analysis is extended by the introduction of new variables, the articulation of their relationships in several recursive models and the least-square estimation of their parameters.

Access to the original data was limited. Thus, there were not only the unavoidable shortcomings of secondary analysis but the additional burden of the lack of control over the analysis and a heavy dependency on the published results of somebody else's analysis.

The data were generally gathered for purposes other than ours and often not as carefully as we would have liked. Table 11 gives the means and standard deviations of some selected status variables based on data gathered in three different surveys, while Table 12 presents the correlation coefficients among them, on which much of the following analysis is based.

Two of the sources used were based on national samples: in the first one, an experienced private research firm carried out 4,497 interviews in 2,500 households during 1967 (34). The second, the "Encuesta de Equipamiento" of the I.N.E. (National Institute of Statistics) interviewed a national sample of 60,791 heads of households during 1968. The third body of data is a 1965 survey of a Madrid sample of 430 males (35).

Table 10

Father's and son's education, by occupation of the father  
SON'S EDUCATION

FATHER'S EDUCATION	Primary	Secondary	University
<u>A. Small farmers and farm workers</u>			
Primary	1	0.95	0.97
Secondary	0.18	13.82	-
University	-	-	-
Gamma = .93			
<u>B. Proprietors of industrial, commercial and farm enterprises</u>			
Primary	1.28	1	0.53
Secondary	0.30	1.11	1.85
University	0.24	0.60	3.21
Gamma = .68			
<u>C. Small businessmen and independent workers</u>			
Primary	1.07	0.92	0.75
Secondary	0.37	1.74	2.90
University	0.13	1.63	5.31
Gamma = .72			
<u>D. Professional, high level managers and top executives</u>			
Primary	3.8	1.5	0.2
Secondary	1.7	1.3	0.7
University	0.4	0.9	1.2
Gamma = .63			
<u>E. Middle managers and clerical</u>			
Primary	1.6	0.9	0.5
Secondary	0.5	1.1	1.3
University	0.3	0.7	3.0
Gamma = .61			
<u>F. Low level white-collar</u>			
Primary	1.24	0.93	0.73
Secondary	0.24	1.66	-
University	-	-	-
Gamma = .75			
<u>G. Skilled workers</u>			
Primary	1.03	0.93	0.93
Secondary	0.39	2.16	2.53
University	-	-	-
Gamma = .69			
<u>H. Unskilled and service workers</u>			
Primary	1.01	0.97	0.7
Secondary	0.27	2.6	-
University	-	0.66	-
Gamma = .87			

Table 11

Means and Standard Deviations of selected status variables

	<u>Means</u>			<u>Standard Deviations</u>		
	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>
Q Grandfather's occupation		36.7			16.8	
T Father's education	5.1	4.9	4.7	2.4	2.2	2.3
V Father's occupation		41.1	36.1		17.3	15.8
U Respondent's education	6.3	6.8	6.1	2.8	4.3	3.2
W Respondent's occupation	41.6	42.3	38.3	11.4	17.3	
X Respondent's income						4.2
Y Son's education	8.5	8.3	8.1	3.4	2.6	3.2

Sources: (1) Fundación FOESSA, Informe Sociológico sobre la situación social de España, Madrid, Euramérica, 1966.

(2) Encuesta de Equipamiento, op. cit.

(3) Encuesta del Instituto de la Opinión Pública, in Revista Española de la Opinión Pública, N° 0, Madrid 1966.

Table 12

Correlation coefficients for a set of status variables in four generations of Spanish males.  
Estimates from three sources.

	Respondent's												
	Q	T	V	U	W	X	Y						
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	
Q													
T	72			42	50							36	
V		63		64	45	43	45			43			
U			49	49	62	61	62			47	36		
W					57	61	59						
X										47	51	53	42
Y										60	48	52	52
													594

Sources: 1) Foessa survey.  
2) Encuesta de Equipamiento.  
3) Instituto Opinión Pública.



The reader will be surprised by the lack of many coefficients. For different reasons access was made available to the 1967 FOESSA survey cards only. For the other two studies, all the computations had to be made from the published cross-tabulations. This has most certainly biased the estimates though, hopefully, not severely.

In all three surveys education was coded in sets of discrete categories, corresponding approximately to different levels of titulation in the Spanish educational system. For the purposes of this research it has been recoded into numbers of years of schooling. Since adequate information was not available, a panel of judges was asked to estimate the average length of schooling needed in order to reach each of the educational levels.

Occupation was also a categorical variable in each of the studies. To make things worse, there is in Spain no systematic effort to build any occupational indices. There has certainly been a considerable amount of research on "the social standing of the occupations", but, without exception such research reveals in a pronounced way, two of the traits of conventional literature on the topic: first, the selection of the occupational titles is arbitrary and biased; secondly, it covers too small a part of the labour force.

To assign a numerical score to the occupational groupings a procedure which follows closely the one devised by Bressard was followed (36). First, the different categories were ranked according to four criteria: characteristics of the family dwelling, possession of a number of certain durable goods, average instruction of those in the category and educational attainments of their offspring. The final score was the addition of all four rankings, among which there was a very high degree of concordance. (37) Income was re-coded according to the midpoint of the intervals used in the original studies.

The limitations of these procedures are evident. The original measurement error has been increased by these manipulations, with the undesirable consequence of biasing the least squares estimates. In this sense, the results should be interpreted with considerable caution and considered more as indications and hypotheses for further research than as reliable research findings. On the other hand, the consistence among independent sources; the verisimilitude of the results and its coincidence with the research in the field are reassuring.

Indeed the concordance of the correlation coefficients is noteworthy. In two cases only the association between the respondent's education and that of his father and the correlation between the education of the first and his son's education shows a sizable discrepancy. Nevertheless in both cases the national estimates are very close, showing that the deviating value is close to the Madrid study. Moreover, the

computed correlation for the Madrid subsample of the INE survey is .48. It cannot be ascertained as to whether this reflects a genuine difference between two populations (Madrid and the whole country) or a methodological artifact.

The magnitude of the coefficients corresponds, roughly, to that found in other countries (U.S.A., Australia, Brazil, Germany, Puerto Rico). Though, for reasons that Duncan exposed in a well-known paper (38) this type of comparison is not altogether warranted. It should be noted that the association between the slightly different variables seems to get weaker in the more recent generations. The correlation between the respondent's father and grandfather is .72, while it has a lower value (around .60) for the association between the respondent's occupation and his father's. Similarly, the value of the correlation between the respondent's and his son's education seems to be lower than in the preceding generation. The association between the respondent's education and occupation is almost identical to that of his father.

To summarize, in the first place, the value of the correlation coefficients is, by and large, similar to that found in similar studies in other countries. In the second place, there seems to be a slight tendency over time towards a loosening of the relationship between the status variables. But neither the magnitude of the differences nor the quality of the data would warrant an over emphasis of those differences.

#### One basic model

The correlation coefficients in the table are the base on which the structural models presented in the following section of the paper have been built.

These models are based on the research tradition started by Blau and Duncan. (39). It is our belief that the increasing use of recursive models has been specially fruitful in the realm of mobility research, as it centres the attention on the systematic character of social inequalities and the mechanisms through which they are transmitted and perpetuated.

It has not been possible to fit all the variables into a single model since the correlations among some of the variables are lacking. A more piecemeal procedure has been adopted. Several specific models have been proposed. Though clearly related to and illuminating each other, they would deal with somewhat different problems.

The first one formalizes the relationship between five variables:

x	-	Respondent's income
w	-	" occupation
u	-	" education
t	-	" father's education
v	-	" father's occupation

Figure 1 is the path diagram representing the structure of the model. The figures besides the arrows connecting the variables are the estimates of the path coefficients that, in this case, are identical to the standardized multiple regression coefficients. They are, under the proper assumptions, unbiased estimates of the causal effects of the variables.

Following a conventional procedure all the coefficients less than .1 in the first estimation were taken as zero and the values of the coefficients were recalculated.

The model in Figure 1 has some interesting peculiarities and deserves a more careful examination than the one offered here.

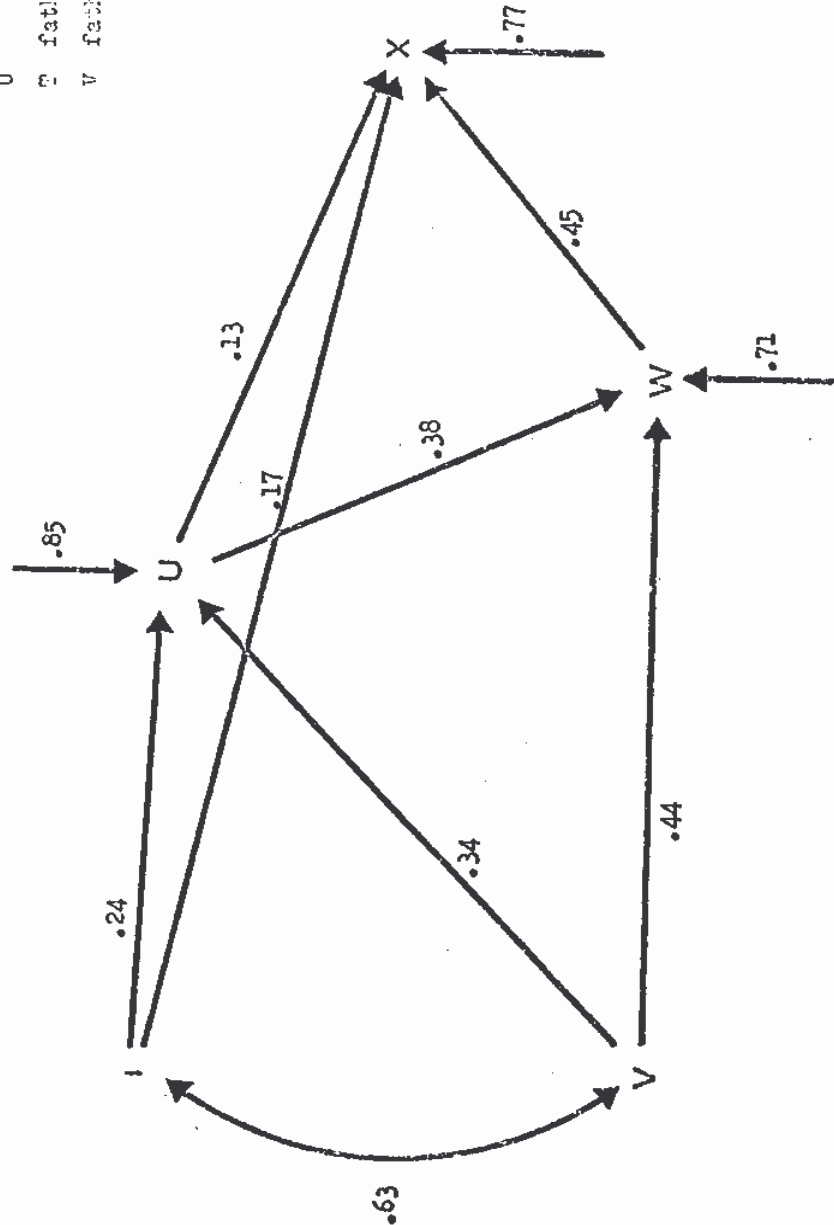
The respondent's income,  $x$ , appears to be determined to a considerable extent by his occupation. The estimate of the path  $P_{wx}$  is larger than we would have expected from previous research on the topic. The finding would have some relevance from the point of view of the conventional theory of mobile studies and would predict for Spain a higher degree of ascription and consequently a lower value of this path and stronger effect of parental variables. There must be misgivings about this type of reasoning and an awareness of the implied trivialisation of theoretical orientations which were highly formalistic to start with. When discussing the size of the path a preliminary question must be asked: is this a regression artifact or a true structural feature of Spanish society? This is by now a moot point, especially since there is no further analysis and no access to the original tape. The distribution of income is certainly a skewed one. On the other hand there is a problem of errors of measurement. The random one would attenuate the regression parameters. There are doubts as to the reliability of the income data in this survey, and it is well known that systematic error may bias the coefficients upwards.

Far behind in quantitative importance stand  $P_{xu}$  and  $P_{xt}$ . Both the respondent's and his father's education make a significant, albeit small, contribution to the explanation of income. The fact that  $P_{xt}$  is slightly higher than  $P_{xu}$  may be surprising, but not too much attention should be paid to this given the small value of the scores.

Fig. 1: Path coefficients for a model of intergenerational mobility

Variables

X	respondent's income
W	" occupation
U	" education
T	father's education
V	father's occupation



The size of the coefficient  $P_{xu}$  has special relevance because of the international impact of Jenck's work, and the controversy surrounding it (40). We shall simply present our findings and express our reserves about their accuracy.

$P_{wv}$ , on the contrary, is fairly high and suggests that the father's occupation has a great influence (a bit more even than that on son's education, if we take the figures literally) on the son's occupation. Our results are consistent with those obtained by applying the original Blau and Duncan model, at least in so far as  $P_{wt} = \text{zero}$  is concerned. Yet,  $P_{wu}$  and  $P_{vu}$  are far larger in our model than in Duncan's, while  $P_{wv}$  is smaller. All this seems to suggest that our previous statement on the low ascription must be qualified. Although very influenced by occupation, income seems not to be "achieved" in so far at least as it may be transmitted through occupation (or occupational labels).

The model also enables us to make some remarks about the role of education as a factor of social mobility in Spain. De Figuel has said that the degree of occupational mobility through education in Spain has been very low, and this was supported to some extent by one of the co-authors of the present paper (41). S. del Campo and L.G. Seara agree with him in a study on the Spanish elites based on an analysis of Who's Who. As they state: "The prevailing function of the Spanish educational system is to strengthen the existing social stratification rather than to reform it" (42).

Orizo and Gómez Reino, on the other hand, hold education and the related low motivational and aspirational level of the industrial working classes responsible for their lack of mobility. For "owing to the professionalization process existing in any industrial country, education is required if one is to have a chance of upward mobility. Education thus becomes the most important vehicle of mobility for the working classes" (43). About the alleged low mobility of the working class, the authors conclude that it is mainly due to the inability of the working class to take advantage of educational opportunities.

Our data would support neither position. Education seems to be more than a symbolic justification of a position achieved and transmitted through mechanisms unrelated to schooling. It is true that education has little direct effect on earnings. On the other hand, education influences considerably the occupational status of the Spaniards. Furthermore, the schooling of the father has a perceptible influence on the education of his children, though not directly on their occupation.

The model, explaining 41 per cent of the variance of income does a slightly better job than some others of similar characteristics: we have been able to account for nearly 50 per cent of the variation on occupation. We are not altogether sure whether these figures reflect a structural trait of our society or are regression artifacts (in fact, the distribution of income is considerably skewed). However, mobility research does not look too bad when measured against the conventional standards of explanation in empirical research. Miller found that the average relation in the articles of the first three 1961 issues of the American Sociological Review accounted for about 10 per cent of explained variance, and Rosenthal estimated that most behavioural research is able to explain no more than 13 per cent of the variance of the dependent variables (44).

#### The Determinants of Education

Figure 2 gives the values of the coefficients of a path model relating the education of Spanish students to their background. The model is based on the correlations estimated from the two national surveys described above. We have relied mainly on the FOESSA study for which we have the original data. But the other study has allowed us to enlarge the model to include some variables which were absent in the FOESSA survey. In any case, concordance of the overlapping correlations is considerable.

It should be noted in the first place, that the estimates of the path  $P_{uw}$ , are very similar in this model and in the preceding one. Coincidence between both models is as clear as expected about the influence of father's occupation on respondent's occupation and education. The determination of the son's education is not very different in either model. The son's education is influenced by his father's education and occupation, just as the respondent's education in the first model was, by both paternal characteristics. However, education is now the most important factor. This fact should be stressed because the difference between both models should translate, although in a confused fashion, changes over time in the process of education transmission, bearing in mind the reservations about the mixture among generations reflected in the survey.

#### 5. Industrialization and Mobility

Figure 3 offers the path estimates of a model relating the status of the father to the education of his son, in three different societies: Spain, Puerto Rico and the United States. Tables 13 and 14 show the correlation matrix for USA and Puerto Rico from which the path coefficients have been calculated.

Fig. 2: A model of determinants of education

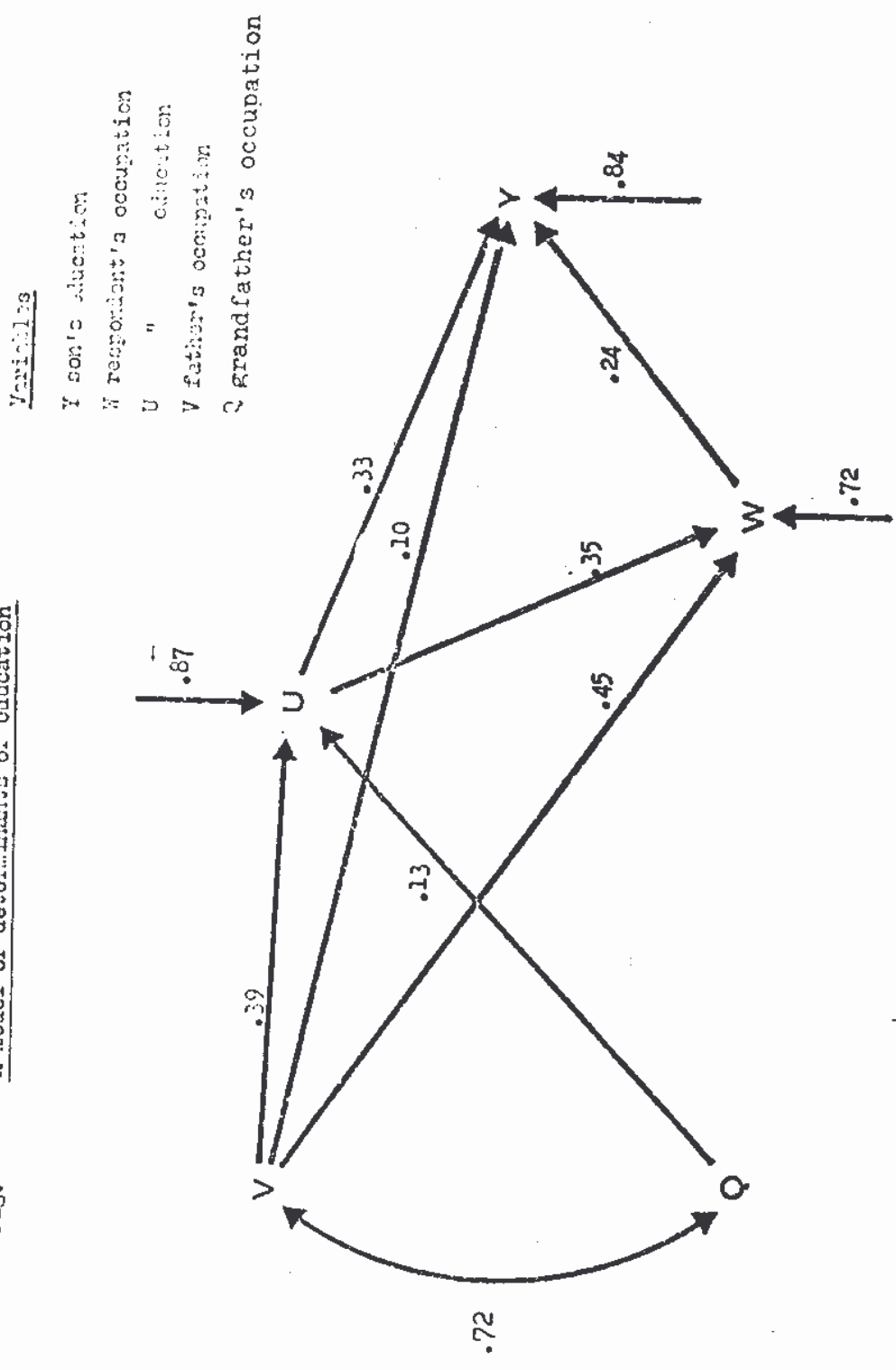


Fig. 3: The influence of parental status on the son's education.  
 Path coefficients estimates for Spain, Puerto Rico and the United States.

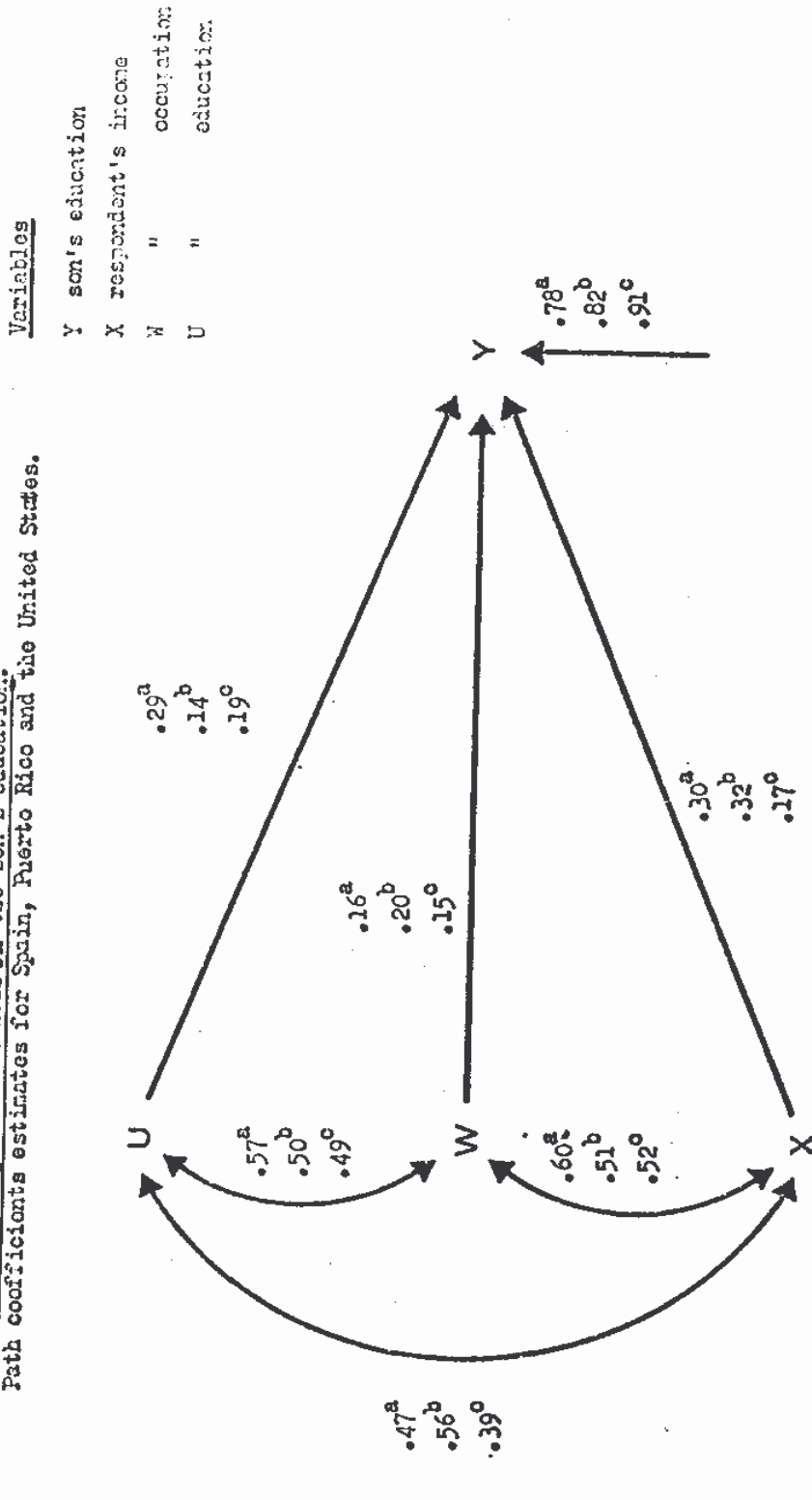




Table 13

Correlation Matrix for the variables U, W, X, Y in U.S.A.

	U	W	X	Y
U				
W	.49			
X	.39	.52		
Y	.33	.33	.32	

Source: W.H. Sewell, A.O. Haller, and G.W. Ohlendorf, "The educational and early occupational status attainment process: remissions and replications" in American Sociological Review, 1970, 35, p. 1014-1027.

Table 14

Correlation matrix for the variables U, W, X, Y, in Puerto Rico

	U	W	X	Y
U	-			
W	.50	-		
X	.56	.51	-	
Y	.47	.44	.50	-

Source: Tumin & Feldman, Social Class and Social Change in Puerto Rico, 2nd ed. Indianapolis, Bobbs-Merrill, 1971, p. 534.

The United States are, of course, far more developed than the other two countries and Spain today is a wealthier and more industrialized society than Puerto Rico in the mid-fifties.

As is always the case with cross-societal comparisons, it is possible to argue endlessly about national peculiarities and common features. But our purpose is modest: to set the Spanish data in a broader context. For that we need only to assume that the comparison is not completely meaningless. In this sense, it is possible to argue that we are comparing three societies with some structural isomorphism; the present political status of Puerto Rico and the fact that it was a Spanish colony until 1898 may add some interest to the comparison.

All three product-moment correlations are most coherent in Puerto Rico; in Spain and in the States the correlation between education and income is lower than in the other two. As a general pattern, it can be seen that the correlations are, by and large, higher in Spain and lower in the U.S.A.

Looking at the tables, it is interesting to note the similarity of the zero-order correlations between education and occupation, on the one hand, and occupation-income, on the other, for Puerto Rico and USA. Both are higher in Spain, where the correlation between education and income is lower than in Puerto Rico, and higher than in the U.S.A.

Looking at the path coefficients in Figure 3, they may now suggest some interesting peculiarities, but no clear-cut pattern. The only sizable differences are the higher value of  $P_{YX}$  for Spain and a lower value of  $P_{XY}$  in the U.S. It seems clear, however, that in Spain the education of the son depends more heavily on the paternal status. That is to say, in Spain, where the status consistency (showed by the underlined higher correlations between the status variables) is higher, the inheritance factor in education (or, what is the same, the class-bias of the educational system) is more marked.

With the data contained in the "Encuesta de Equipamiento" we tried another approach. Many of the objections to international comparisons are obviated if the data of a single survey in one country with large regional differences are used. Table 15 gives the values of the zero-order correlations between the respondent's education and occupation and that of his father in twelve different regions and one additional province. It may be seen from this table that they have a remarkable similarity in nearly all of the cases. In the few deviant cases it is impossible to infer any meaningful pattern.

In a future paper, we shall pursue in detail the analysis of regional differences outlined here. The figures in Table 15 do not however promise radical departures from the national patterns described in this paper. The ubiquity of inequalities and their permanence over time surely imply a deep structural trait in Spanish society, which shows itself at the various levels, as it shapes the entire process of economic and social change.

Table 15

Correlation coefficients between education and occupation of a sample of heads of households and between the respondent's and his father's occupation, for 12 different regions

Cadiz, Huelva, Málaga, Sevilla	.60	.47
Almería, Badajoz, Cáceres, Córdoba, Granada, Jaén	.60	.59
Albacete, Ciudad Real, Cuenca, Murcia, Toledo	.59	.61
Alicante, Castellón, Valencia	.63	.61
Madrid	.48	.61
Avila, Guadalajara, León, Salamanca, Segovia, Soria, Teruel, Zamora	.56	.56
Baleares, Barcelona, Gerona	.55	.48
Huesca, Lérida, Tarragona, Zaragoza	.61	.59
Alava, Guipúzcoa, Navarra, Vizcaya	.43	.59
Burgos, Logroño, Oviedo, Palencia, Santander, Valladolid	.56	.58
La Coruña, Lugo, Orense, Pontevedra	.60	.63
Las Palmas, Santa Cruz de Tenerife	.56	.62
Barcelona	.63	.40

## NOTES

- (1) S. Ossowski, Estructura de clases y conciencia social, Península Barcelona, 1970.
- (2) It would be possible to consider the alternative models of opposing classes and gradual hierarchy as purely epistemological theoretical models of varying degrees of conceptualisation for different social formations. If only because any language implies some ontology, in the sense that some beings are verbally active whereas others, selectively determined, are left in silent oblivion, such an epistemologic asceticism is hardly practicable.
- (3) Kingsley Davis describes a functionalist theory of social stratification. Since society is defined as an interrelated aggregate of different positions, from the unequal importance of the different tasks for the survival of society and the scarcity of the talent at its disposal, one must conclude that society has to find a way to make both compatible, and this way is to grant people performing the more difficult tasks, a greater reward. Davis asserts that "it is not easy to say why some societies institutionalize achieved status and others do not", but where they adopt the acquired status, we will expect the more talented people to fill the more difficult positions.
- (4) S.M. Lipset, R. Bendix; Movilidad social en la sociedad industrial. Eudeba, Buenos Aires, 1970 p. 18.
- (5) For a review of the many articles relating this long controversy, see G.A. Huaco, "The Functionalist theory of Stratification: Two Decades of Controversy", Inquiry, Vol. IX, 1966.
- (6) R. Kreckel, "Toward a theoretical reorientation of the sociological analysis of vertical mobility", in Müller, W.D., Mayer K.W., Social Stratification and Career Nobility, 1973, pag. 162.
- (7) It is easy to see the economic parallel: the idea of a perfect market in which demand and supply determine automatically both the optimal allocation of resources and the right reward for the factors of production. Lipset's observation that the better situated try to retain their privileged position is in line with a monopoly situation.
- (8) Lipset and Bendix, op. cit. p. 238.

- (9) N.S. Smelser, & S.M. Lipset, (eds.) Social Structure and Mobility in Economic Development, Chicago: Aldine: 1966.
- (10) Ammassari, P. "Occupational opportunity structure in advanced societies" in Proceedings of the first Italo-Hungarian meeting of Sociology, Rome, Centro Cultural Italia-Hungaria, 1967. "La divisione sociale del lavoro e i meccanismi di controllo delle scelte professionali", Revue internationale de sociologie, 4:1-3. 1968. "The Italian blue-collar worker", pp. 3-21 in N.F. Dufty (ed.) The sociology of the blue-collar worker, Leiden, Brill, 1969.
- (11) J.H. Goldthorpe, "Social stratification in industrial society", pp. 97-122 in: P. Halmes (ed.) The development of industrial society, Keele, Sociological Review (Monograph N° 8).
- (12) O.D. Duncan, "Contingencies in constructing causal models", in E.F. Borgatta (ed.) Sociological methodology 1969, San Francisco, California. Jossey-Bass, 1969.
- (13) R. Bendix, "Discussion", in Müller and Mayer, op. cit. p. 364.
- (14) The ideal society, governed by merit, where functionally defined tasks will be carried on by individuals according to their ability, appears to some impenitent technocratic theoreticians, as immediately feasible; the ability and knowledge requirements (human capital) will be so fantastic in a programmed or post-industrial society, and social change will be so rapid, that intergenerational mobility will have to be secured through permanent education and constant reallocation of human resources.
- (15) There is wide literature on the subject, and on the political issue of "compensatory education". See Lawton, Social Class, Language and Education, Routledge and Kegan Paul, London 1968. J.S. Coleman et al., Equality of Educational Opportunity, D.C. U.S. Government Printing Office, 1966.
- (16) W.F. Hung used this phrase, in Habermas (ed.) Respuestas a Marcuse, Barcelona, 1971. The same meaning can be found in P. Bourdieu and J.C. Passeron, La reproduction, Minuit, Paris, 1970.
- (17) A recent and fairly comprehensive summary of Spanish work on stratification and mobility can be found in J. Díez Nicolás and J. del Pino-Artacho, "Estratificación y Movilidad Social en España en la Década de los años 70", en M. Fraga Iribarne et al., La España de los Años 70, vol. I, La Sociedad, Ed. Moneda y Crédito, Madrid, 1972.

- (18) It would be impossible to list even the most important references to scientific works on changes in Spanish society since 1930, but the following may be useful. See M. Fraga Iribarne, J. Velarde Fuertes and S. del Campo Urbano (eds.), La España de los Años 70, Vol. I: La Sociedad, Vol. II: la Economía, Vol. III y IV: La Política, Ed. Moneda y Crédito, Madrid, 1972-1974.
- (19) Drawn from Fundación Foessa, Informe sociológico sobre la situación social de España. Euramérica. Madrid, 1971, p. 531 (Hereafter referred to as, Foessa 70).
- (20) Murillo, F. "Los problemas específicos de la clase media española", in Actas del Congreso Internacional del Instituto de clases medias, Tomo II, Madrid, 1960, p. 181-182.
- (21) J.L. Martín Martínez, "La representatividad de las encuestas de opinión: Algunos aspectos importantes", Revista Española de la Opinión Pública, 1968.
- (22) A. de Miguel "Análisis general de la movilidad social en España", en La Promoción Social en España. Centro de Estudios Sociales de la Santa Cruz del Valle de los Caídos. Madrid, 1966, pág. 83-110.
- (23) See Foessa 70, p. 555.
- (24) J. Díez Nicolás, "Motivaciones, aspiraciones e información en la promoción social", en La promoción social en España, op. cit. The author, points out that although education may be considered as an important factor in upward mobility, it may also be viewed as an instrument to reproduce and even reinforce the original family socio-economic status, thus contributing to social inequality.
- (25) Andrés Orizo, F. and Gómez Reino "La movilidad social en los trabajadores", en La Promoción Social en España, p. 129.
- (26) Datos y Cifras de la Enseñanza en España, 1921, Ministerio de Educación y Ciencia. Madrid.

Certainly the public expenditure on education is very low. Spain invests 2% of the gross national product instead of the average proportion of 3.7%.

An expenditure of \$26 per capita is not only less than the figures for Canada, Sweden or USA but less than those for Italy or Ireland, which have an expenditure of \$64 and \$55 respectively.

There has been an attempt to correct this situation; recently the budget of the Ministry of Education & Science which represented less than 9% of the national product in 1963 increased to more than 16% in 1971.

From 1960 to 1970 Spain, with Yugoslavia, and Iceland has been among the first OCDE countries, in relation to the compound annual growth rate of the public expenditure in education.

- (27) See: the collective work La Educación en España, Centro de Estudios Sociales, Anales de Moral Social y Económica, Madrid, 1970, as well as J.L. Romero and A. de Miguel, El Capital Humano, Confederación Española de Cajas de Ahorros, Madrid, 1969, and A. de Miguel, Manual de Estructura Social de España, Tecnos, Madrid, 1974.
- (28) One exception to the general pattern is pre-school education, where participation of the higher occupations is greater than in primary education; the same happens with skilled workers, in relation to agricultural workers. These socially-caused-inequalities of participation in pre-school education leave the lower occupational strata in an unfavourable position from the beginning, and this is reflected at all other educational levels.
- (29) One reason for the differences between the columns is the fact that children in first cycle secondary education have normally a similar age to the older ones at primary. Thus, a high percentage at the former corresponds with a lower at the latter, and vice versa.
- (30) A sample of 1,842 previously stratified sections was used, 55 dwellings with the same probabilities were chosen in each section providing for a total of around 64,000 interviews to be carried out.

It consisted of a stratified and biphasic sampling, the census being taken as the primary unit and the family as the unit to study. The purpose of the survey was to relate people to their habitat. It worked on the basis of the 1960 Census, the 1965 municipal Census and the enumerated population provided by the I.N.E. up to January 1st, 1968. The data provided by those services were not accurate due to the large internal migration taking place at that time but they provided a good means of locating the dwellings.

This survey has not been utilized in Table 0, because of the dissimilarity of its categories for secondary education to those being employed.



- (31) On the origins of university students cf. S. del Campo, "La democratización de la Enseñanza Superior en España", en Revista Española de la Opinión Pública, N° 12, 1968, p. 31-60.
- (32) There is an additional difference between sources in the fact that students included in the 1962-63 table are those who have already the corresponding diploma, whereas the 1970 table includes all students at each level. Comparing percentages might be misleading insofar as the drop-out rates are unequally distributed among the different socio-professional categories.
- (33) The basis is not the total population of school age, but the total student population. With the former, index 1.0 would be given when all destination (students) groups would have the same origins as the total population (and not as the fathers of children actually in school that are the basis for our index 1.0). It would be also given when all origin groups would have the same distribution of destination as the total school age population, (and not as it is the case in our index 1.0., the same distribution of destination as the total student population). Therefore, both our over and under representation indexes may be lower than those obtained with the alternative basis discussed here.
- (34) FOESSA, Informe sociológico sobre la situación social de España. Madrid, Euromérica, 1967.

For this survey, a sample of 2,500 households was drawn, the total number of interviews being 5,000 heads of households and housewives. It was a stratified and aleatory sampling distributed in the following levels:

1. City districts (prominent areas of more than 100,000 inhabitants)
2. Urban districts (prominent areas of less than 100,000 inhabitants)
3. Rural districts (the remainder divided in "regions" according to a distribution more natural than the strictly administrative).

The population distributions and interviews per level were distributed as follows:

<u>PROMINENT AREAS AND REGIONS</u>	<u>POPULATION IN 1960</u>	<u>INTERVIEWS</u>
24 CITY DISTRICTS	8,256,086	719
168 URBAN DISTRICTS	5,037,414	435
12 REGIONS	15,472,077	1,346
TOTAL:	28,765,577	2,500

- (35) The survey was carried out by the "Instituto de la Opinion Publica" in 1965. Abstracts were published in Revista Española de la Opinión Pública. N° 0, Madrid, 1966. 860 people older than 18 and belonging to the Madrid Municipio were interviewed. Only those interviews answered by males (430) were used in the study. Furthermore, in the first part of the study, heads of households were considered (319) and in the second and third parts, both heads of households and others of household were included.
- (36) Marcel Bressard, "Mobilité Sociale et dimension de la famille", Population (July, 1950).
- (37) We are now trying to draw up indexes by methods of canonical scoring. Our first results seem to indicate that our conclusions would be unaffected by the change in the indexing method, as the new index correlates very highly with the one we have used.
- (38) O.D. Duncan, "Methodological Issues in the Analysis of Social Mobility", in N.J. Smelser and S.M. Lipset (eds), Social Structure and Mobility in Economic Development, Chicago: Aldine, 1966.
- (39) P.M. Blau, and O.D. Duncan, The American Occupational Structure, John Wiley & Sons, New York, 1967, p. 170.
- (40) C. Jencks, Inequality, a Reassessment of the Effect of Family and Schooling in America, New York, Basic Books, 1972.
- (41) A. de Miguel, "Análisis general de la movilidad social", en La promoción social en España, op. cit.  
J. Díez Nicolás, "Motivaciones, aspiraciones e información en la promoción social" op. cit.
- (42) S. Del Campo, y L. González Seara, "Análisis de un grupo de la élite española", en La promoción social ... op. cit. pp. 11-129.
- (43) F.A. Orizo, & M. Gómez-Reino, op. cit., p. 162.
- (44) Quoted in P. Derek, Abandoning Method, Aldine, 1974.