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DEMOGRAPHIC TRENDS AND LIVING STANDARDS. THE CASE OF SPAIN DURING
THE 1980'S

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Abstract

In this paper we study the evolution of the standard of living in Spain during the 1980's for a population partitioned by the following individual characteristics: the age group, the relation to economic activity, and the result of the decision on whether to live in a household headed by someone else, or to live on one's own with or without dependents. Our results help to understand the decline of inequality in Spain, which has been formerly investigated only in terms of the household head's characteristics. On the other hand, within the limits of our cross-section data, we provide some evidence on the economic rationale behind the individual decisions about early retirement, household formation, and the female participation in the labor market.

Keywords: Living arrangements; individual characteristics; inequality; welfare.

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INTRODUCTION

In welfare economics one is interested in the standard of living of the individuals who make up the population. However, it is quite clear that an individual's standard of living depends on the demographic and economic characteristics of the household to which she belongs. People enter into different living arrangements for a number of complex reasons, among which we emphasize the pooling of resources. Thus, given household demographic characteristics, individual consumption depends on *household* total resources. In this paper, we identify household resources, representative of a household's standard of living, with current expenditures on private commodity consumption.

The first problem is clear. Households with different characteristics have different needs. Therefore, their household expenditures are not directly comparable. Economists solve this difficulty by means of equivalence scales, which allow us to deflate household expenditures in order to account for differences in needs. Naturally, the greater the needs, the larger the adjustment we should apply. The corresponding adjusted (or equivalent) household expenditures are then comparable across households with different characteristics.

The second problem is the following: how are adjusted household expenditures allocated among different household members? We still lack an adequate theory, generally accepted and empirically supported, about the distribution rule used by households to allocate commodities among their members. Consequently, we follow the usual practice in empirical distributional studies, which consists of the identification of an individual's standard of living with the adjusted expenditures of the household to whom she belongs. This amounts to assuming that every household member enjoys an equal share in the available household resources.

Having solved these two methodological problems in this manner, most empirical studies go on to estimate within- and between-group inequality or social welfare for different partitions of the population. Generally, these partitions are constructed according to characteristics of the *household head*. This poses a formidable obstacle to any attempt to relate studies in this area with demographic studies, which are couched in terms of categories based on the entire population of individuals and not only on the subset consisting of household heads. For instance, when in distributional studies we speak about inequality among the "retired" or the "unemployed", in the first group we exclude a good proportion of pensioners who live in households headed by their sons or daughters, while in the second group we exclude the young unemployed, who, in a country like Spain, reside under their parents' roof.

The main contribution of this paper is the study of the evolution of the standard of living in Spain during the 1980's for a population partitioned by the following individual characteristics: the age group, the relation to economic activity, and the result of the decision on whether to live in a household headed by someone else, or to live on one's own with or without dependents. This is possible because we have good individual information on these matters coming from two representative and comparable budget surveys: the *Encuestas de Presupuestos Familiares* (EPF for short), collected in 1980-81 and 1990-91 by the Spanish *Instituto Nacional de Estadística* (INE for short) with the main purpose of estimating the weights of the Consumer Price Index.

It is well known that recent demographic trends in Spain mirror those found in other countries: the rise in life expectancy, the delay of marital and fertility decisions, and a particularly strong decline in fertility⁽¹⁾. In connection with the labor market, Spain shares with other European countries rather well known features: high unemployment levels, above all among the young; increasing importance of early retirement; and increasing female participation rates. Knowledge about the dependency/independence decision is more scant,

but, as we will see, both the proportion of the old who live on their own as well as the proportion of the young who stay with their parents -already high in 1980-81- have increased also during the 1980's. On the other hand, it is also well known that real inequality of the adjusted household expenditures personal distribution has decreased in Spain during this period⁽²⁾. Since the mean has also increased in real terms, economic welfare from a social point of view has gone up considerably.

Against this background, in this paper we explore three new questions. First, we investigate which subgroups did better (or worse) than average over the 1980's: the old or the young, the employed or those outside the labor force and the unemployed, the independent persons or the dependents, including the important subgroup of minors below 16 years of age? Second, we study which subgroups are characterized by the larger (or smaller) welfare index at the end of the period, i.e. in 1990-91. Finally, within the limits of our cross-section data, we search for traces of the economic rationale behind the individual decisions about early retirement, household formation, and the female participation in the labor market.

The rest of the paper is organized in four sections and a statistical Appendix. The first section is devoted to the presentation of the data and the main demographic trends. In a study of this type, one must make a number of methodological decisions about: i) the best way to measure a household's standard of living in real terms; ii) which household characteristics should be included in the equivalence scales to account for differences in needs; iii) how to make inter-household comparisons of welfare among households with different needs; iv) how to measure an individual's standard of living; and v) how to measure inequality and welfare from a social point of view. Section II contains our discussion of these issues. Section III presents the empirical results on the evolution of the mean, the inequality, and the social welfare of the adjusted household expenditures personal distribution. We examine, in succession, the

partition of all individuals by age group, living arrangements, and the relation to economic activity. The final section concludes and discusses possible extensions.

I. DEMOGRAPHIC TRENDS

I. 1. Data

The EPFs main purpose is the estimation of the weights of the Spanish Consumer Price Index. Nevertheless, it contains valuable information on a variety of demographic and socioeconomic household and individual characteristics which are essential to our work. The two latest EPFs were spread out uniformly during 52 consecutive weeks from April of 1980 to March of 1981, and April of 1990 to March of 1991. Both are large budget surveys of 23,972 and 21,155 observations, respectively, for a population of approximately 10 or 11 million households living in residential housing over all of Spain, including the African cities of Ceuta and Melilla. There are 88,115 and 72,123 individuals in each sample, representative of a population of 37 or 38.5 million people in 1980-81 and 1990-91, respectively.

A household is defined as "the person or set of persons who jointly occupy a residential family dwelling, or part of it, and consume or share food and other commodities under a common budget." Therefore, people living in collective housing -residences for College students or the old, hospitals, hotels, prisons and the like- are not directly interviewed. However, expenditures and characteristics of household members who are entirely dependent on household resources but who live elsewhere at the time of the interview, are recorded in our data⁽³⁾.

I. 2. General Trends

Table 1 presents the evolution of the population during the 80's by age group⁽⁴⁾. From here on, the OLD are the persons with 65 or more years of age, the

YOUNG are those between 16 and 31, the MINORS are those 15 or less, and OTHER ADULTS (or simply ADULTS) are the remaining adult population between 31 and 64 years old. We observe a sharp reduction in minors, accompanied by an increase in all other groups. This reduction, which speaks eloquently about the fertility decline in Spain, represents more than 20 per cent of all minors in 1980-81. The increase in nearly 30 per cent of the old, reflects in part an improvement in life expectancy during the decade. The young population⁽⁵⁾ also increases close to a 20 per cent, while the remaining adults increase only by 9 per cent. According to the EPFs, the population as a whole grows almost by 4 per cent.

TABLE 1. The partition by age group. Cross-section evidence in 1980-81 and 1990-91 (in 1,000 of persons), and population change.

AGEGROUPS	1980-81		1990-91		Rate of change in % = 100(1990 - 1980)/1980
	Number of persons	%	Number of persons	%	
The Old	4,110	11.1	5,321	13.8	29.5
Other Adults	14,283	38.5	15,568	40.5	9.0
The Young	8,022	21.6	9,351	24.3	16.6
Minors	10,654	28.8	8,254	21.4	-22.5
ALL	37,069	100.0	38,494	100.0	3.8

The old = 65 and more; Theyoung = 16 - 30; Other adults = 31 - 64; Minors = Less than 16

Which type of living arrangements have been favored by these age groups? In this paper we classify all individuals into two groups. First, the "independent" persons, who comprise household heads, their spouses, and unrelated persons 16 or more years old. Second, the "dependents", who include sons and daughters of the household head, parents of either the household head or the spouse, and other family related people⁽⁶⁾. Among the independent people, we distinguish between those who live with or without some dependents. Among the dependents, we often treat minors as a separate group.

Table 2, which presents the evolution of the population classified by age group and the dependency/independence condition, serves to illustrate some of the features we emphasize in this paper. In the first place, we observe that, relative to the total population, the proportion of independent old people -with and without dependents- increases from 7.4 to 10.5 per cent, an increment in the number of persons of more than 45 per cent during the period. However, the proportion of the old living as dependents is slightly reduced. In the second place, contrary to anglo-saxon and central European countries but in line with other southern European nations, in Spain the proportion of young people living with their parents is very high⁽⁷⁾. This is reinforced during the decade: the independent, with or without dependents, lose importance, reflecting a delay in

TABLE 2. The partition by age group and living arrangements. Cross-section evidence in 1980-81 and 1990-91 (in 1,000 of persons), and population change.

AGE GROUPS	1980-81		1990-91		Rate of change in % = 100(1990 - 1980)/1980
	Number of persons	%	Number of persons	%	
Old without dependents	1,836	4.9	2,671	6.9	45.5
Old with dependents	938	2.5	1,405	3.7	49.8
Old as dependents	1,336	3.6	1,243	3.2	-6.9
Adults without deps.	1,843	5.0	1,898	4.9	3.0
Adults with dependents	11,246	30.3	12,340	32.1	9.7
Adults as dependents	1,193	3.2	1,329	3.5	11.3
Young without deps.	454	1.2	499	1.3	9.9
Young with dependents	1,967	5.3	1,498	3.9	-23.9
Young as dependents	5,601	15.1	7,354	19.1	31.3
Minors	10,654	28.7	8,254	21.4	-22.5
ALL	37,069	100.0	38,494	100.0	3.8

The old = 65 and more; The young = 16 - 30; Other adults = 31 - 64; Minors = Less than 16
Dependents = Sons and daughters or parents of either the household head or the spouse, and other family related people

wedding commitments. But the proportion of dependents staying with their parents goes up by 4 percentage points. In the third place, the situation of the remaining adults, which represent about 40 per cent of the population, is

essentially unchanged, except for a shift towards households with dependents which parallels the increase in the rate of dependency among the young. It should be mentioned that the number of dependents between 31 and 64 years of age, more than one million in both years, is approximately the same as the number of old dependents.

On balance, we register a loss of minors but an increase in young dependents and the independent old. It would appear as if, within Spanish households where different generations live together, some of the old have gone to live by themselves making room for many of the young who would rather stay home.

This picture will be complete once we consider the information about the relation to economic activity. Table 3 shows the frequency distributions for the population above the legal working age, namely, those 16 years of age or more.

TABLE 3. The relation to economic activity of the working age population. Cross-section evidence in 1980-81 and 1990-91 (in 1,000 of persons), and population change.

	1980-81		1990-91		Rate of change in % = 100(1990 - 1980)/1980
	Number of persons	%	Number of persons	%	
<u>Active:</u>					
1. Employed	10,746	40.7	11,910	39.4	10.8
2. Unemployed	1,614	6.1	2,290	7.6	41.9
<u>Inactive:</u>					
3. Retired	3,766	14.3	5,622	18.6	59.4
4. Student	1,769	6.7	2,821	9.3	49.3
5. Other	8,519	32.2	7,595	25.1	-10.8
WORKING POPULATION	26,415	100.0	30,239	100.0	15.1

According to the EPFs, although the number of people in the labor force goes up by 2,000,000, the increase in the total working population explains why the participation rate for the economy remains essentially unchanged around 47 per cent. Although it is not shown here, part-time employment plays a small role

and even declines through the period, while the unemployment rate goes up from 13 to 16 per cent.

As far as the inactive population, there are important variations. On the one hand, there is an increase in the percentage of what we call retired people, which include those receiving an old-age or a disability pension, as well as a small group of persons living off property income. On the other hand, in connection with the increase of young dependents, we observe that the proportion of students goes up considerably⁽⁸⁾. Finally, notice the reduction in "other inactives", comprising mainly housewives and other women who, except widows, receive no pension or public transfer at all.

TABLE 4. The relation to economic activity of the working age population, by sex. Cross-section evidence in 1980-81 and 1990-91 and population change (in %).

	1980-81, in %		1990-91, in %		Rate of change in % = 100(1990 - 1980)/1980	
	Male	Female	Male	Female	Male	Female
<u>Active:</u>						
1. With a job	62.9	19.9	57.4	22.7	4.2	30.4
2. Unemployed	9.1	3.3	8.6	6.6	7.3	132.5
<u>Inactive:</u>						
3. Retired	16.9	11.8	21.3	16.0	44.5	55.7
4. Student	6.7	6.7	9.0	9.6	54.2	64.2
5. Other	4.2	58.3	3.7	45.1	-4.3	-11.3
WORKING POP.	100.0	100.0	100.0	100.0	14.2	14.7

Table 4 illustrates the differences between male and female behavior in relation to the labor market. We observe a female shift towards the student group, the unemployed, and the occupied. There is also an increase in the females who have retired, although the increase in this category is greater among the males. The number of male students increases, but less so than the number of females. While the percentage of male unemployed remains constant, the male occupation rate goes down. Therefore, the population occupation rate remains constant due to the increase in the female participation rate from 23 to 29 per

cent.

The conclusion is that the evolution of the Spanish population during the 1980's in relation to the economic activity is very different for males and females. The main features are the increase in female activity, the reduction of the male occupation rate, and the increase in both the male and the female student rates.

For our purposes, it is important to connect the situation in the labor market, the age group, and the dependency/independence condition. Perhaps the more important fact in this respect, is the increase in the number of people who retire before the normal age, namely, before reaching 65 years. Presumably, some of this people have taken advantage of the universal public social security system, which allows them to cash in a reduced old-age pension before the normal retirement age. Others may have benefited from disability regulations which are not always applied very rigourously, or from the minimum non-contributive pension system which has been increasingly generous during the second part of the 1980's. A third contingent may have been pushed towards retirement because of an economic crisis in the firm or the sector in which they were employed, particularly during the so-called Industrial Reform which took place during the first part of this period⁽⁹⁾. Since the 1980-81 EPF does not provide any information which permits distinctions within this group, we refer to it in both surveys as "early retired".

To conclude this examination of general trends, Table A in the Appendix presents a rather detailed classification of the population according to the relation to the economic activity, the dependency/independence criterion, and the age group. The main results of this section are the following four:

i) The old and the early retired have increased their demographic share during the decade. As far as the households they live in, both groups behave very similarly. The proportion of those living as dependents (groups 16, and 17) remains constant, while those which we classify as independent, with or without

dependents (groups 1, 2, 7 and 8 in Table A), see their share increase.

ii) The reduction of the "other inactive" of all types in the 16 to 64 age group, consisting mainly of women (groups 4, 10, 11, 19, and 20), gets translated into an increase of the female participation rate in the active and the student population. Thus, in spite of the reduction in the male occupation rate, the participation rate for the economy as a whole remains constant around 47 per cent.

iii) There is a large increase in the proportion of the the young living as dependents, both among the occupied, the unemployed and the students (groups 22, 24, 25, 26, and 27). This increase comes accompanied by a slight decrease in the proportion of independent young people with or without dependents (groups 13 and 15).

iv) Minors of all types lose relative importance, regardless of the situation in the labor market of the household head upon whom they depend (groups 28, 29, 30 and 31).

II. MEASUREMENT PROCEDURES

II. 1. The Measurement of a Household Standard of Living in Real Terms

We agree with Slesnick (1991, 1993) that, ideally, we should identify the standard of living with commodity consumption. Lacking information on leisure and public goods consumption, our starting point must be household total expenditures as an approximation to household consumption of private goods and services. The EPFs have a rather wide concept of total expenditure, including expenditures on items not covered by the Consumer Price Index (like funeral articles; contributions to non-profit institutions; gambling expenditures; fines; hunting, fishing and other fees), as well as a number of imputations for home production, wages in kind and subsidized meals at work. To avoid double counting, transfers to other households or to household members absent from home are excluded.

Recently, bulk purchases of food and drinks for home consumption have been gaining popularity among certain strata from the more urbanized population. This might not cause a major problem in 1980-81 but, concerned with the gradual extent of this practice during the 1980's, the INE collected partial but valuable information on bulk purchases for the 1990-91 EPF. However, this information is not taken into account in the estimates of annual food expenditures contained in the public use tape constructed by the Institute. Fortunately, Peña and Ruiz-Castillo (1998) have studied this issue in some detail, and have produced improved estimates of food and drinks annual expenditures using all the available information on bulk purchases. These estimates have been incorporated in our household total expenditures measure.

Our experience with the 1980-81 EPF indicates⁽¹⁰⁾ that discontinuous household expenditures on some durables, whose occurrence may distort heavily the total, are best considered investment rather than consumption. These refer to current acquisitions of cars, motorcycles and other means of private transportation, as well as house repairs financed by either tenants or owner-occupiers. Life and housing insurance premiums are excluded on the same grounds. Thus, our estimate of household current consumption equals total household expenditures, net of these investment items.

Ideally, we should include an estimate of the consumption services currently provided by these investment flows as well as by the stock of household durables acquired in the past. We do this for housing, the more important household durable. The INE includes a market rental value for owner-occupied housing, as well as for the rest of the stock which is neither rented nor owned by the household occupying it. Such rental values are estimated by the owner or the occupying household, respectively.

The 1980-81 and 1990-91 EPFs provide information on expenditures at current prices. We express both household expenditures distributions at constant prices of the Winter of 1991 by means of household specific statistical price

indices⁽¹¹⁾.

II. 2. Inter-household Comparisons of Welfare

Each household is characterized by his expenditures x^h and a set of characteristics which give rise to differences in "needs". Expenditures of households with different needs are not directly comparable. The usual procedure in this case is to define an equivalence scale in terms of some demographic characteristics, which is then used in adjusting the original expenditures for differential needs. However, as Coulter et al. (1992a) conclude, there is no single "correct" equivalence scale for adjusting incomes. Thus, a range of scale relativities is both justifiable and inevitable. The problem, of course, is that our estimates of the mean, the inequality, and therefore the social welfare of a distribution is known to be sensitive to the scale choice.

To make the analysis tractable we suppose that equivalence scales depend only on the number of persons in the household. Households of the same size are assumed to have the same needs and, therefore, their incomes will be directly comparable. Larger households have greater needs, but also greater opportunities to achieve economies of scale in consumption. Assume that there are $s = 1, \dots, S$ household sizes. Following Buhmann et al. (1988) and Coulter et al. (1992a, 1992b), for each household h of size s we define adjusted or equivalent income by

$$z^h(\Theta) = x^h / s^\Theta, \Theta \in [0, 1].$$

When $\Theta = 0$, adjusted income coincides with unadjusted household income, while if $\Theta = 1$, it becomes per capita household income. Taking a single adult as the reference type, the expression s^Θ can be interpreted as the number of equivalent adults in a household of size s . Thus, the greater is Θ , the smaller are the economies of scale in consumption within the household or, in other words, the larger is the number of equivalent adults.

II. 3. The Individual Standard of Living

Assuming that we have H households in the population, we denote the distribution of adjusted household expenditure by $z(\Theta) = (z^1(\Theta), \dots, z^H(\Theta))$. However, from the social point of view we are more interested in the individuals than in the households as such. Unfortunately, as indicated in the Introduction we still lack an adequate theory, generally accepted and empirically supported, about the distribution rule used by households to allocate total expenditures among its members. Consequently, we follow the usual practice of identifying the individual standard of living with the adjusted expenditures of the household to whom she belongs. Operationally, this means that each household observation is weighted by household size. We refer to this as the adjusted household expenditures personal distribution.

II. 4. The Measurement of Inequality and Welfare

In the field of welfare economics, we often evaluate the social welfare of a population taking into account two types of considerations. First, a preference for efficiency which, in our context, gets translated into a preference for the greatest mean adjusted expenditures. Second, a preference for an egalitarian distribution of that total, which is made operational as a preference for the smallest possible value of an adequate index of inequality.

Let us denote by $W(\cdot)$ the social evaluation function (SEF for short) which, for every overall distribution $z(\Theta)$, provides the social or aggregate welfare. The function $W(\cdot)$ summarizes all the value judgements society wants to impose in order to rank all conceivable distributions. We know formally the conditions for a SEF to be expressed as a function only of the mean and an index of inequality. (See Dutta and Esteban (1991) and the references quoted there). Under those conditions, if we denote the mean by $\mu(\cdot)$ and an index of inequality by $I(\cdot)$, then we know that there exists a function $V(\cdot)$ such that $W(\cdot)$ can be written as:

$$W(\mathbf{z}) = V(\mu(\mathbf{z}), I(\mathbf{z})),$$

where V varies positively with $\mu(\cdot)$ and inversely with $I(\cdot)$.

From here on, let us adopt the concept of relative inequality, according to which a proportional change in all adjusted household expenditures leaves inequality unchanged. Let us denote by $I_R(\cdot)$ any admissible index of relative inequality. The existence of a function $V(\cdot)$ with the above properties is of little help in situations in which both the mean and the inequality move in the same direction. To be able to deal with those situations we pay attention to the SEFs for which there exists a multiplicative trade off between the efficiency and the distributional considerations, that is, a relationship of the following type:

$$W(\mathbf{z}) = \mu(\mathbf{z})(1 - I_R(\mathbf{z})). \quad (1)$$

Equation (1) indicates that we are willing to measure social welfare as the mean of the distribution, corrected by a factor which diminishes as inequality increases. The question is: which inequality index should we use?

An index of relative inequality is additively decomposable if, for any partition of the population, the overall inequality can be expressed as the sum of two terms: a weighted sum of the inequality within the subgroups of the partition, and a term capturing the inequality between the subgroups measured as the inequality of a distribution in which every individual is assigned her subgroup's mean. It is well known⁽¹²⁾ that the family of generalized entropy inequality indices is the only class of indices of relative inequality which, in addition to the usual normative properties, is additively decomposable, a very useful property in practical applications. Similarly, consider the possibility that the SEF $W(\cdot)$ is additively decomposable in the following sense. For any partition into $k = 1, \dots, K$ subgroups, let \mathbf{z}^k and p^k be the subset of adjusted expenditures and the demographic share, respectively, of households in subgroup k . We say that the SEF $W(\cdot)$ is additively decomposable if it can be written as

$$W(z) = \sum_k p^k W(z^k) - \mu(z)IB, \quad (2)$$

where IB is the between-group inequality in that partition. According to equation (2), for any partition overall welfare can be expressed as the weighted sum of welfare within the partition subgroups, where the weights are given by the demographic shares, minus a term which penalizes the between-group inequality. The only member of the generalized entropy family which satisfies equations (1) and (2) is the first index suggested by Theil:

$$I_1(\cdot) = (1/H) [\sum_h (z^h / \mu(z)) \ln(z^h / \mu(z))].$$

(See Ruiz-Castillo (1995a)).

Taking into account our definition of adjusted household expenditures, we have that

$$W(z(\Theta)) = \mu(z(\Theta))(1 - I_1(z(\Theta))) = \sum_k p^k W(z^k(\Theta)) - \mu(z(\Theta))I_1B(\Theta), \quad \Theta \in [0, 1]. \quad (3)$$

The mean, the inequality and the welfare of a distribution $z(\Theta)$ depend on the parameter Θ which captures the importance we want to give to the economies of scale. Consequently, in order to study the robustness of our conclusions, in what follows we would consider different values of Θ .

III. WELFARE RESULTS

III. 1. Welfare Results by Age Group

According to equation (3), for any value of Θ social welfare $W(z(\Theta))$ is equal to the mean $\mu(z(\Theta))$, times an adjustment factor $A(z(\Theta)) = (1 - I_1(z(\Theta)))$ which varies inversely with inequality. Table 5 presents the cross-section evidence and the change over time of the mean, the adjustment factor and the welfare in the partition by age group when Θ takes the intermediate value 0.5. Let

$z_1(\Theta)$ and $z_2(\Theta)$ be the 1980-81 and 1990-91 distributions of adjusted household expenditures, respectively. The proportionate change in the mean $\Delta\mu(\Theta)$, the adjustment factor $\Delta A(\Theta)$, and social welfare $\Delta W(\Theta)$, are defined by the following expressions:

$$\Delta W(\Theta) = \Delta\mu(\Theta) \Delta A(\Theta)$$

where

$$\Delta W(\Theta) = W(z_2(\Theta))/W(z_1(\Theta)),$$

$$\Delta\mu(\Theta) = \mu(z_2(\Theta))/\mu(z_1(\Theta)),$$

and

$$\Delta A(\Theta) = A(z_2(\Theta))/A(z_1(\Theta)) = [(1 - I(z_2(\Theta)))/[(1 - I(z_1(\Theta))]].$$

TABLE 5. The partition by age group. Cross-section evidence about the mean (in 1,000 pesetas), the adjustment factor, and social welfare (in 1,000 pesetas) in 1980-81 and 1990-91. Proportionate change of these variables during the period. Value of $\Theta = 0.5$

AGE GROUPS	1980-81			1990-91			Changes:		
	Mean	Adj. factor	Welfare	Mean	Adj. factor	Welfare	Δ Mean	Δ Adj. factor	Δ Welf.
Old	831.2	0.8066	670.5	1,093.8	0.8229	899.5	1.315	1.0202	1.342
Adults	1,075.6	0.8506	915.0	1,396.0	0.8659	1,208.8	1.298	1.0179	1.321
Young	1,154.9	0.8604	993.7	1,465.5	0.8677	1,271.6	1.269	1.0085	1.280
Minors	1,027.5	0.8585	882.1	1,277.1	0.8764	1,119.3	1.243	1.0209	1.269
ALL	1,051.9	0.8475	891.5	1,345.5	0.8596	1,156.6	1.279	1.0143	1.297

The old = 65 and more; Theyoung = 16 - 30; Other adults = 31 - 64; Minors = Less than 16

Change in the mean, the adjustment factor and social welfare = ratio of the 1990-91 to the 1980-81 value

For the population as a whole, the main features are the following two: a considerable increase of the mean in real terms of almost 28 per cent over the decade, or a 2.8 per cent yearly increase; and a decrease in real inequality which manifests itself in an increase of 1.4 per cent in the adjustment factor⁽¹³⁾. This leads to an increase in real welfare of almost 30 per cent. In this context, the old experience a 31.5 per cent increase in the mean. They have also one of the greatest increases in the adjustment factor, so that their welfare increases more

than 34 per cent, well above the average. The adults between 31 and 64 years old present a similar pattern but two percentage points below the old. On the contrary, the increases in the mean, the adjustment factor and social welfare for the young are below the average. Except for a greater than average decrease in inequality, the evolution of the minors situation is even worse.

In both years the young have the greatest mean, and the largest (or the second largest) adjusting factor reflecting smaller inequality levels. The old exhibit the opposite pattern. They not only have the smallest mean -considerably smaller than the minors- but they have the largest inequality or the smallest adjustment factor⁽¹⁴⁾. Consequently, in spite of the welfare transfer recorded during the period the young are the best off and the old the worse off in welfare terms.

We have seen in Section I that most of the young live with their parents in larger households, on average, than the old. Therefore, we expect that the situation of the old, relative to the young or the minors, would improve as economies of scale are assumed to be smaller, that is, as the parameter Θ increases. In Table 6 we present the welfare indices for 1990-91 and three values of Θ : a value of 0.1, which corresponds to large economies of scale -but not infinite, as a value of 0.0 would imply; an intermediate value of 0.5; and a value

TABLE 6. Mean household size and welfare ranking by age group in 1990-91 as a function of the parameter Θ . Welfare index for the population as a whole = 100

<u>Age groups:</u>	Mean h. size	$\Theta = 0.1$	$\Theta = 0.5$	$\Theta = 1.0$	1990-91 Demogr. Weights
Old	3.12	65.1	77.8	96.2	13.8
Adults	4.25	103.4	104.5	105.8	40.5
Young	4.71	114.5	109.9	104.3	24.3
Minors	5.32	104.4	96.8	88.2	21.4
ALL		100.0	100.0	100.0	100.0

The old = 65 and more; The young = 16 - 30; Other adults = 31 - 64; Minors = Less than 16

of 1.0 corresponding to the extreme case in which we assume no economies of

scale at all, so that adjusted household expenditures coincides with per capita household expenditures. To judge the results, in general it is important to take into account the relative demographic weight of every subgroup in this partition. We reproduce this information for 1990-91 in column 5 of Table 6. Notice how sensitive to Θ is the welfare ranking of certain age groups. In particular, when $\Theta = 1$ the old have a greater welfare index than the minors in both years. In any case, except when $\Theta = 1$ the young are on top of the ranking in spite of the loss in relative positions they experience during the decade.

III. 2. The Impact of the Relation to Economic Activity

In Table 7 we present the population classified by the age group and the situation in the labor market, in the case $\Theta = 0.5$. The first three columns illustrate the dynamic aspects, that is to say, the changes in the mean, the adjustment factor, and the social welfare. Columns four and five show the partition's ranking in 1980-81 and 1990-91 in terms of the welfare index, while column six provides the demographic weights in 1990-91.

Now we are in a position to qualify the welfare shift from the young and the minors to the old and the rest of the adults which we documented in the previous subsection. What we observe is that the subgroups who experiment a below average mean increase are the student population, the young unemployed, and the minors under an inactive or an unemployed person. Since the students experiment also an inequality increase, they have a welfare increase 10 percentage points below the population as a whole. The old outside of the labor force earning no public pension at all ("other inactive, old" in Table 7) is the other only subgroup for whom inequality increases. Together with a weak showing in the mean, they do almost as bad as the students in welfare terms. ii) At the opposite extreme, who benefits the most in welfare terms? The retired and the early retired, whose mean expenditures and adjustment factor improve well above the average, as well as the unemployed and the occupied between 31 and

64 years old. It would appear that social security provisions and unemployment benefits are helping the recipients to improve their lot.

TABLE 7. The partition by age group and the situation in the labor market. Proportionate change of the mean, the adjustment factor and social welfare during the 80's. Welfare indices for 1980-81 and 1990-91, with the welfare index for the population as a whole = 100. Value of $\Theta = 0.5$.

	Proportionate Change:			Welfare Indices:		1990-91
	Δ Mean	Δ Adj. factor	Δ Welfare	1980-81	1990-91	Demogr. Weights
<u>Old:</u>						
Retired	1.356	1.0264	1.392	73.8	79.2	10.8
Other inactivity, old	1.252	0.9703	1.215	75.9	71.1	3.0
<u>Adults:</u>						
Occupied > 30	1.317	1.0223	1.346	109.5	113.6	20.6
Unemployed > 30	1.401	1.0038	1.407	77.6	84.2	2.5
*Early retired < 65	1.375	1.0275	1.413	83.5	90.9	4.0
*Inactive < 65	1.260	1.0122	1.275	99.3	97.6	16.8
<u>Young:</u>						
Occupied < 31	1.270	1.0199	1.295	115.7	115.6	10.3
Unemployed	1.225	1.0207	1.250	97.2	93.7	3.4
Student < 31	1.210	0.9895	1.197	133.2	122.9	7.2
<u>Minors under a h. head:</u>						
Inactive	1.308	1.0095	1.321	75.3	76.7	1.7
Occupied	1.243	1.0213	1.270	104.0	101.8	18.2
Unemployed	1.253	1.0171	1.275	69.5	68.3	1.5
ALL	1.279	1.0143	1.297	100.0	100.0	100.0

Prop. change in the mean, the adj. factor and social welfare = ratio of the 1990-91 to the 1980-81 value

* These subgroups include 3.4 per cent of young people between 16 and 30 years of age

From a static perspective, we now consider the welfare ranking of the subgroups in this partition at the end of the period, i.e. at 1990-91. At an intermediate value of $\Theta = 0.5$, in the first place we observe that the other inactive among the old and the retired stay at 30 or 20 percentage points below the average, respectively. Minors under the care of an inactive or an employed person are also well below the average. The difference between these subgroups is that the first two tend to live in smaller households, while all minors tend to

live in larger ones. Therefore, their relative positions change considerably, and in opposite directions, as a function of Θ . In the second place, it is interesting to contrast the relative situation of the unemployed above and below 30 years of age: the younger unemployed are almost 10 percentage points above the older ones. Let us notice also that the younger people holding a job and, above all, the students, are better off than the older occupied persons. In part, these two facts could be a consequence of differences in living arrangements, as we will see below.

III. 3. The Impact of Living Arrangements

One of the novelties of this paper, lies in the availability of information about living arrangements along the dependency/independence axis. Table 8 presents the proportionate changes and the welfare indices in 1980-81 and 1990-91 in the case $\Theta = 0.5$ for the population classified by this variable and the age group.

The young living by themselves experiment a welfare increase 16 percentage points below the average. In particular, the young with dependents is the mirror image of the minors under the care of a young person with approximately the same relative decline. However, the important group of young dependents, which amounts to 19 per cent of the population in 1990-91, grow slightly above the average. To explain this fact in view of the relative decline of students reviewed before, requires further detail within the young dependents as a whole (see below). At the opposite extreme, the old living by themselves -with and without dependents- improve their relative positions in terms of the mean, adjustment factor and social welfare. However, the increase in inequality within the old living as dependents explains why this third subgroup ends up with the average welfare increase.

As far as the welfare ranking of the subgroups, let us concentrate again our attention in a single year, 1990-91. We observe that the small group of the young people without dependents is the best off, 33 percentage points above the

TABLE 8. The partition by age group and the emancipation/dependency condition. Proportionate change of the mean, the adjustment factor and social welfare during the 80's. Welfare indices for 1980-81 and 1990-91, with the welfare index for the population as a whole = 100. Value of $\Theta = 0.5$.

	Proportionate Change:			Welfare Indices:		1990-91
	Δ Mean	Δ Adj. factor	Δ Welfare	1980-81	1990-91	Demogr. Weights
<u>Old:</u>						
Without dependents	1.388	1.0398	1.444	60.2	67.0	6.9
With dependents	1.320	1.0435	1.377	81.5	86.5	3.7
Dependents	1.314	0.9816	1.290	95.2	94.6	3.2
<u>Adults:</u>						
Without dependents	1.284	1.0297	1.322	94.5	96.3	4.9
With dependents	1.305	1.0157	1.325	105.1	107.3	32.1
Dependents	1.245	1.0253	1.278	92.8	91.3	3.5
<u>Young:</u>						
Without dependents	1.093	1.0383	1.135	156.4	136.8	1.3
With dependents	1.153	0.9866	1.137	104.9	91.9	3.9
Dependents	1.299	1.0104	1.313	111.0	112.3	19.1
<u>Minors under an:</u>						
Old household head	1.201	1.0281	1.235	79.3	75.5	0.5
Adult household head	1.258	1.0224	1.286	99.4	98.6	18.9
Young household head	1.116	1.0249	1.144	99.0	87.3	2.0
ALL	1.279	1.0143	1.297	100.0	100.0	100.0

The old = 65 and more; The young = 16 - 30; Other adults = 31 - 64; Minors = Less than 16
 Dependents = Sons and daughters or parents of either the household head or the spouse, and other family related people
 Prop. change in the mean, the adj. factor and social welfare = ratio of the 1990-91 to the 1980-81 value

average. Second place is for the young dependents, who are better off than the adults with dependents -both of them clearly above the average. In spite of their improvement over time, we have the old without dependents at the bottom of the scale, almost 35 percentage points below the average. Next come the old with dependents, the adult dependents, and the young with dependents. As usual, we must recall that there are important rerankings as a function of Θ (not shown here). For instance, when economies of scale are assumed away, so that $\Theta = 1$, then it is the old people living as dependents and the minors who stay at the bottom, 12 percentage points below the average. In this case, every group without

dependents do considerably better than before.

III. 4. The Combined Impact of All Factors

For the sake of completeness, we present a rather complex Table 9 which combines a classification of all individuals by living arrangements, age group, and the situation in the labor market. Besides the complexity, the price we pay is that certain subgroups are very small so that their estimates must be interpreted with care. The advantage of this effort is that we can illuminate interesting details. By comparing the welfare indices at $\Theta = 0.5$ in both dates, the main conclusions about losers and winners are the following two:

i) There is certainly a youth problem during the 1980's. The young employed and other inactive people with dependents, together with the minors under a young household head (subgroups 13, 11 and 30 in Table 9), experiment a below average increase in welfare. These subgroups of related people represent slightly more than 5 per cent of the population. Moreover, College and other students and the young dependents searching for a first job (26, 27, 25), representing more than 8 per cent of the population, lose also relative positions during the decade.

Who else experiments a below average welfare increase? Other inactive people below 65 years old and without dependents, as well as other inactive of all ages living as dependents (4, 18, 19, 20), who represent almost 5 per cent of the population. These are mostly women without labor earnings nor labor related public transfers.

ii) There are three sets of individuals characterized by an above average welfare increase. The first set consists of the employed. On the one hand, the emancipated adults with and without dependents, both males and females (12, 5), who represent practically 20 per cent of the total. On the other hand, the young people who remain at their parents home (22), amounting to more than 7 per cent. The second set consists of a rather small but interesting contingent: the

TABLE 9. Change in welfare indices by age group, living arrangements and the relation to economic activity in 1980-81 and 1990-91. Welfare index for the population as a whole = 100. Value of $\Theta = 0.5$

	1980-81	1990-91	Demographic Weights
<u>Without dependents:</u>			
1· Retired	60.2	68.2	5.21
2· Early retired	75.2	80.8	1.03
3· Other inact., old	57.0	61.5	1.64
4· Other inact., non-old	96.9	91.6	1.96
5· Occupied	119.4	125.7	2.82
6· Unemployed	93.8	97.0	0.50
<u>With dependents:</u>			
7· Retired	78.2	86.4	2.80
8· Early retired	84.3	95.7	2.41
9· Other inact., old	79.7	83.4	0.73
10· Other inact., adults	103.2	103.3	11.06
11· Other inact., young	98.1	85.8	1.68
12· Occupied > 30	110.6	114.5	17.03
13· Occupied < 30	111.0	98.3	1.97
14· Unemployed > 30	78.7	86.0	1.70
15· Unemployed < 30	84.6	89.0	0.47
<u>Dependents:</u>			
16· Retired	94.8	97.3	2.56
17· Early retired	94.7	90.4	0.60
18· Other inact., old	90.6	85.1	0.65
19· Other inact., adults	85.6	80.1	0.75
20· Other inact., young	92.0	89.3	1.68
21· Occupied > 30	102.3	102.6	1.75
22· Occupied < 30	111.1	117.2	7.36
23· Unemployed > 30	74.6	73.1	0.44
24· Unemployed < 30	94.6	96.9	1.61
25· Searching for first job	100.5	89.9	1.23
26· College students	155.0	141.5	2.57
27· Other students	125.8	114.0	4.58
<u>Minors whose h. head is:</u>			
28· Inactive	75.3	76.7	1.69
29· Occupied > 31	104.2	103.0	16.51
30· Occupied, young	101.8	91.3	1.74
31· Unemployed	69.5	68.3	1.51

independent unemployed (6, 15). However, the unemployed living as dependents, as well as the minors depending on an unemployed household head (23, 24, 31), simply maintain their relative positions during the period. Finally, the third set, who has the greatest rate of welfare increase and represents almost 11.5 per cent of the population, consists of the retired or early retired living by themselves (1, 2, 7, 8).

This is a summary dynamic view, but what is the final ranking in 1990-91? We simply point out the subgroups who occupy the lower and the upper tail of the welfare index distribution. At the bottom there are four sets of people representing almost a quarter of the population: i) the retired and the early retired when $\Theta \leq 0.5$ (about 10 per cent of the total); ii) the other inactive old people in all kind of living arrangements, and those inactives below 65 years without dependents or below 30 years with dependents (5 per cent); iii) all minors when $\Theta \geq 0.5$, except those depending on an employed household head (5 per cent); and iv) all the unemployed, except the young living as dependents who are close to the average (about 4 per cent). At the top, there are two sets of people representing one third of the population: i) the employed and independent, except the young with dependents (20 per cent); and an important contingent of young dependents consisting of the College and other students (7.1 per cent), as well as the employed (7.4 per cent).

To appreciate the importance of the assumption about economies of scale, we include Table B in the Appendix with the welfare indices in 1990-91 as a function of Θ .

III. 5. Cross Section Evidence on Economic Decisions

Cross section data does not allow us to test adequately any model on individual decision making about labor force participation or household formation. However, we can examine the indirect evidence we have on the economic reasons which may have influenced such decisions. Naturally, we will

not assume that individuals are interested in household expenditures or income inequality of the subgroup they happen to belong to. But we may trace some of the economic factors influencing individual behavior by judging the evolution of mean household expenditures and the relative position of specific subgroups in the ranking by this variable. We start with the changes in female inactivity and early retirement, and we finish with a review of the decision to live in a household headed by a person from one's family. The evidence on the mean for the different subgroups is presented on Table 10.

We expect that employed women are better off than employed men. The reason is that the former typically live with an employed man, while the latter pool their resources with either the employed or the inactive women. In 1980-81, employed women, representing 7.3 per cent of the population, were on average 5.8 per cent better than employed men, representing 21.6 of the total. We know that there are more females employed in 1990-91, representing at that time 9.2 per cent of the population. As we can see in Table 10, the mean expenditures of the households to which they belong increases more than the mean of the households with employed males and the population mean. Therefore, in 1990-91 the female mean index is 9 percentage points above the employed males. This experience contrasts with the subset of other inactive women who remain 26 percentage points below the employed ones.

We have seen in Section I that in 1990-91 there are 575,000 more early retired than the 975,000 there were in 1980-81. In spite of this increase in their absolute numbers, mean household expenditures of independent early retired people have increased 41.6 and 37.8 per cent for those with and without dependents, respectively. This means that they did as well as the retired or the unemployed, and better than the employed. However, among the dependents, the order is: retired, employed, unemployed, and early retired; all of them, except the retired, below the mean average growth rate of 27.9 per cent.

TABLE 10. Change in the adjusted household expenditures mean during the 80's and mean indices in 1990-91 for selected subgroups. Mean index for the population as a whole = 100. Value of $\Theta = 0.5$

SELECTED SUBGROUPS:	Mean change	1990-91 Mean index	Demographic Weight, 1990-91
Employed women	1.319	118.2	9.2
Employed men	1.291	109.5	21.7
Other inactive women	1.275	93.8	18.3
<u>Adults without dependents:</u>			
Retired	1.431	70.8	5.2
Early retired	1.378	80.3	1.0
Unemployed	1.298	100.8	0.5
Employed	1.267	124.0	2.8
<u>Adults with dependents:</u>			
Retired	1.380	86.8	2.8
Early retired	1.416	93.2	2.4
Unemployed	1.406	84.6	1.7
Employed	1.321	112.4	17.0
<u>Adults as dependents:</u>			
Retired	1.327	97.4	2.6
Early retired	1.223	87.8	0.6
Unemployed	1.238	73.2	0.4
Employed	1.265	101.9	1.7
<u>Young:</u>			
College students	1.198	142.8	2.6
Other students	1.181	112.8	4.6
Employed, dependents	1.339	112.5	7.4
Employed, with dependents	1.168	100.2	2.0
Unemployed, dependent	1.302	93.7	1.6
Searching for first job, dependent	1.138	85.8	1.2
Unemployed, with dependents	1.309	84.3	0.5
Other inactive, dependent	1.245	87.0	1.7
Other inactive, with dependents	1.103	81.0	1.4
ALL	1.279	100.0	-

As far as the ranking in 1990-91 is concerned, except those living as dependents, the early retired have a mean household expenditures index larger than the retired. Except for the emancipated without dependents, they are also above the unemployed. In brief, they are not as well off as the employed persons,

but they occupy the next spot behind them among comparable subgroups. Finally (although not shown here), it should be noticed that the independent people either retired, early retired, or unemployed, improve their relative positions when $\Theta > 0.5$.

We have seen how, except the active people living as dependents, the young have lost relative positions during the decade. However, it is enlightening to compare the 1990-91 mean household expenditures of young subgroups living with dependents or as dependents. To begin with, College and other students are above anybody else in the population. On the other hand, the employed, the unemployed and the other inactive are always better off as dependents than as independent. As a matter of fact, the young unemployed living as dependents are better off than the older unemployed. The exception is provided by the young dependents searching for a first job, who are 14 percentage points below the population average. The conclusion is inescapable: in Spanish society, when you are young it pays to live as a dependent. The reason must be that that parents of young people may be 40 to 55 years old. At that age, they may have the greatest participation rate in the labor market and the largest earnings, because they are in the better part of their life-cycle. In particular, we know that College students come out of proportion from households whose father is a College graduate⁽¹⁵⁾ and, therefore, likely to have greater income and expenditures.

IV. CONCLUSIONS

In this paper we have used a data source on the evolution of the population and its standard of living in Spain which is rich in individual detail. This has allowed us to connect two formerly separated spheres: the well known demographic features of Spanish society during the 1980's, as well as the recent trends in living arrangements and the labor participation decision, on the one hand; and the evolution of the standard of living, measured as adjusted household expenditures on private commodities current consumption, on the

other.

From the demographic point of view, the main feature of this period is the absolute and relative decline of minors below 16 years of age, and the increase in all other groups, specially the old. From the economic point of view, we measure social welfare for a given subset of individuals as the mean of the adjusted household expenditures personal distribution, corrected by a factor which varies inversely with the distribution inequality. Since the mean in real terms went up by nearly 28 per cent and the real inequality went down, social welfare for the population as a whole went up by approximately 30 per cent. Against this background, we observe a wealth transfer from the young and the minors, towards the old and regular adults above 30 years old. But this conclusion must be qualified in the following respects.

1. Retired, early retired, and the independent unemployed have seen their mean adjusted household expenditures go up above the population average. Since many of these subgroups have experienced also a particularly strong decrease in inequality, their welfare increase approaches 40 per cent. In an important part, this must be the consequence of the way the Spanish Social Security system and unemployment programs have evolved during this period: increased coverage and increased benefits.

2. To a lesser extent, the employed were above average in welfare terms. However, given the increase in the female occupation rate during the period, it is interesting to evaluate separately the two genders performance. Possibly because the majority of employed women pool resources with employed men, the employed women did better than the employed men in 1980-81. The interesting fact is that households with employed women did better than households with employed men, and both better than the population as a whole. Thus, on average, the switch from inactivity to employment has been worth while for females.

3. Turning now towards net losers during the period, notice that other

inactive persons are at best maintaining their relative positions or performing below the population average. This is in part the other side of the coin discussed in the previous point, since these are mostly women, not only out of the labor force, but out of the public transfer system except for widows' pensions.

4. Among the young, the dependents in the active labor force plus the unemployed with dependents experiment at least an average welfare increase. All the rest, specially the independent with dependents, the students and other inactive people lose relative positions.

5. Finally, except those depending on an inactive person, all minors have lost some relative positions. Those depending from either an old or a young household head are the ones who fared worst.

From a static point of view, what is to be said about the welfare ranking of the different subgroups at the end of the decade? We simply reiterate here that College and other students, as well as young people with a job but living at the family home as dependents, join the employed independent people at the top of the distribution. The retired and other inactive old people, the older unemployed, and the young unemployed or inactive with dependents are at the bottom.

All of the above are results for an intermediate value of the parameter which captures our assumptions about economies of scale. Individuals belonging to small households, like independent people without dependents, improve dramatically their relative positions when economies of scale are less important, i. e. when Θ tends to 1.0. The opposite is the case for dependents in general and minors in particular, who tend to live in larger households.

If we take into account that many of the beneficiaries of this wealth transfer are in the lower part of the distribution, while many of the losers are in the upper part, then this study helps to understand the decline of inequality in Spain during this period. Thus, from the point of view of income distribution studies, this paper based on individual characteristics is a welcome complement

to previous work in which population partitions are based on the characteristics of the household head.

From the point of view of demographic studies, this paper is interesting because of the link established between demographic trends and an operational notion of an individual's standard of living. Among other things, this has allowed us to trace the influence of some economic factors on the labor participation decision by early retired people or women in general, and the household formation decision by both the old and the young.

The next step would be to use multivariate techniques to describe the results of the labor force participation and living arrangements decisions. That is, we want to characterize, for instance, those who retire before the normal age, those of the old (or the young) who decide to live by themselves, or that million of adults between 31 and 64 years old who remain as dependents in households headed by someone else. Furthermore, we are interested in characterizing the households who admit dependents of all sorts, including households headed by an older person in whose decision new variables, like housing conditions and housing tenure, may play some explanatory role.

Nevertheless, one would have to wait until truly longitudinal data is available in Spain in order to properly test economic models of individual decision making in the areas just described here.

STATISTICAL APPENDIX

TABLE A. Evolution of the population classified by the relation to the economic activity, the emancipation/dependency criterion, and the age group (in 1,000 of persons)

	Number of persons	%	Number of persons	%
<u>Without dependents:</u>				
1· Retired	1,265	3.41	2,005	5.21
2· Early retired	275	0.74	396	1.03
3· Other inact., old	468	1.26	633	1.64
4· Other inact., non-old	882	2.34	396	1.96
5· Occupied	1,152	3.11	1,087	2.82
6· Unemployed	91	0.25	192	0.50
<u>With dependents:</u>				
7· Retired	657	1.77	1,079	2.80
8· Early retired	519	1.40	926	2.41
9· Other inact., old	194	0.50	280	0.73
10· Other inact., adults	4,374	11.80	4,256	11.06
11· Other inact., young	900	2.43	554	1.44
12· Occupied > 30	6,049	16.32	6,556	17.03
13· Occupied < 30	966	2.61	760	1.97
14· Unemployed > 30	396	1.07	653	1.70
15· Unemployed < 30	96	0.26	180	0.47
<u>Dependents:</u>				
16· Retired	867	2.34	985	2.56
17· Early retired	183	0.49	231	0.60
18· Other inact., old	445	1.20	248	0.65
19· Other inact., adults	425	1.15	289	0.75
20· Other inact., young	908	2.45	647	1.68
21· Occupied > 30	535	1.44	672	1.75
22· Occupied < 30	2,043	5.51	2,834	7.36
23· Unemployed > 30	87	0.24	169	0.44
24· Unemployed < 30	491	1.32	620	1.61
25· Searching for first job	453	1.22	475	1.23
26· College students	477	1.29	989	2.57
27· Other students	1,213	3.27	1,765	4.58
<u>Minors whose h. head is:</u>				

28· Inactive	695	1.88	650	1.69
29· Occupied > 31	8,213	22.16	6,356	16.51
30· Occupied, young	1,005	2.71	669	1.74
31· Unemployed	740	2.00	580	1.51

TABLE B. Welfare indices by age group, living arrangements and the relation to economic activity in 1990-91 as a function of Θ . Welfare index for the population as a whole = 100

	$\Theta = 0.1$	$\Theta = 0.5$	$\Theta = 1.0$	Demographic weight
<u>Without dependents:</u>				
1· Retired	48.2	68.2	105.3	5.21
2· Early retired	57.4	80.8	124.0	1.03
3· Other inact., old	46.9	61.5	85.9	1.64
4· Other inact., non-old	70.6	91.6	127.0	1.96
5· Occupied	92.5	125.7	184.3	2.82
6· Unemployed	70.8	97.0	143.5	0.50
<u>With dependents:</u>				
7· Retired	80.4	86.4	94.6	2.80
8· Early retired	94.4	95.7	97.5	2.41
9· Other inact., old	79.7	83.4	88.5	0.73
10· Other inact., adults	107.6	103.3	98.4	11.06
11· Other inact., young	84.7	85.8	79.2	1.68
12· Occupied > 30	118.1	114.5	110.3	17.03
13· Occupied < 30	94.3	98.3	104.0	1.97
14· Unemployed > 30	88.8	86.0	82.7	1.70
15· Unemployed < 30	87.0	89.0	92.0	0.47
<u>Dependents:</u>				
16· Retired	101.3	97.3	92.3	2.56
17· Early retired	88.0	90.4	93.4	0.60
18· Other inact., old	90.6	85.1	85.1	0.65
19· Other inact., adults	80.8	80.1	79.2	0.75
20· Other inact., young	98.5	89.3	79.2	1.68
21· Occupied > 30	103.3	102.6	101.7	1.75
22· Occupied < 30	125.6	117.2	107.7	7.36
23· Unemployed > 30	72.7	73.1	73.9	0.44
24· Unemployed < 30	104.8	96.9	87.9	1.61
25· Searching for first job	99.9	89.9	78.8	1.23

26· College students	150.9	141.5	130.9	2.57
27· Other students	123.6	114.0	103.1	4.58
<u>Minors whose h. head is:</u>				
28· Inactive	87.4	76.7	65.8	1.69
29· Occupied > 31	111.3	103.0	93.6	16.51
30· Occupied, young	90.9	91.3	92.3	1.74
31· Unemployed	75.2	68.3	60.6	1.51

NOTES

(1) See Fernández Cordon (1991), and Puyol (1997).

(2) For a standard study in terms household head characteristics, see Del Río and Ruiz-Castillo (1997).

(3) For more details on the EPFs, see INE (1983) and INE (1992).

(4) In this paper, we always use the blowing up factors provided by the INE which allow us to obtain population rather than sample statistics.

(5) In 1990-91, the young include three households headed by a minor, and one household where the spouse is a minor.

(6) Unfortunately, in 1980-81 there is no distinction between the parents of the household head or the spouse, and other related persons.

(7) For a comparative study of the situation of the young in three southern European countries -Spain, Greece and Italy- and three central ones - France, Germany and the UK- see Fernández Cordon (1997).

(8) Typically, High school ends when a person is 18 years old. During the 1980's, to complete a College education may last at least 5 or 7 years, depending on the field of specialization.

(9) For the complex relationship between early retirement and Social Security incentives, see Boldrin et al (1997).

(10) See Ruiz-Castillo (1987).

(11) About the construction of these indices, see Ruiz-Castillo and Sastre (1997).

(12) See Shorrocks (1984).

(13) This goes in the opposite direction of the well known increase in inequality during the 1980's in the U.S., the U.K. or Sweden. For the O.C.D.E. evidence, see Atkinson et al (1995).

(14) That the old have the greatest inequality is a characteristic we find in all countries. For the U.S., see for instance Hurd (1990). For Spain, see Ruiz-Castillo (1995b) and Del Río and Ruiz-Castillo (1997).

(15) This evidence complements the results in Revenga (1991) with a 1985 cross-section consisting of more than 9,000 young persons between 20 and 29 years old. She finds that increases in regional unemployment increases the probability that a young adult remains as dependent in the family home.

(16) See San Segundo (1996).

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