

A STUDY OF THE RELATION BETWEEN RESIDENCE-WORK MOBILITY (COMMUTING) AND THE SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE SPANISH POPULATION THROUGH THE 2001 CENSUS

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1. INTRODUCTION: METHODOLOGY AND PRINCIPAL HYPOTHESIS

The 2001 Census introduced for the first time for the whole of Spain and its municipalities a series of questions about mobility between place of residence and place of work/study (commuting), which up to that point had only been included for certain Autonomous Communities. In particular the 2001 Census introduced four questions related to commuting, the first of which asked about the place of work. This is the main focus of this study, which analyzes the working population according to the way in which they commute (internally or externally) in combination with a series of variables which, we believe, influence or are at least related to these two ways of commuting.

By means of the question «Where is your place of work or study?» and the five answers which the census offered, two types of commuting have been identified, **internal or non commuting** which describes people who live and work within the same municipality and **external commuting**, which describes people who work in a different municipality from where they live. This study is based on this simple distinction and tries to ascertain whether there are significant differences between the internal commuting population and the external commuting population in terms of a series of socio-demographic variables (age, sex, civil status, level of education, profession, area of activity and nationality,) and whether these differences can be explained. To begin with two territorial variables have been included: the size of the population of the municipality and the level of commuting in the Autonomous Communities. The information on commuting has been compared with the other characteristics by means of the new and very interesting option ‘crear tablas’ (create tables) on the website of the INE (National Statistics Institute (<http://www.ine.es>), which allows the visitor himself to create and design his own tables.

Once this information has been obtained, the study of the relationship between commuting and each of the different characteristics has been done in the same methodological way. First, the absolute values of both types of commuting have been calculated, producing the following data: there are 10,187,909 people who work within the same municipality (internal commuting) and 6,141,804 people who work in a different municipality from where they live (external commuting). We have reduced both of these groups to 100 and calculated the percentage which each variable represents in both types of commuting. Thus, for example, when analyzing the level of education we have calculated the percentage of those with a higher level of education in the internal commuting group at 19.3% and in the external group at 22.9%. If this variable was not important both groups would show the same (or a very similar) value. If the values were different, this would indicate a certain unevenness in the behaviour of the population in terms of their level of education, and revealing this is precisely the object of the exercise. At the same time, in order to measure the extent of these differences, we calculated the degree of variation between both types of commuting for each variable, giving internal commuting a value of 100, so that the greater the variation the more irregular the level of commuting for that variable.

We should also point out that, as well as studying the population as a whole, for the majority of the variables studied we have divided the population according to sex, with special attention given to the results from the female group, given that this group produced quite distinct results from the population as a whole. We have also divided groups according to age in those cases where we thought age may be important when it came to explaining the results.

Each one of the variables we have studied may offer specific explanations for these differences, however, it should be pointed out that these differences are motivated by the same causes; those which favour or discriminate mobility. Even when all the exceptions are taken into account, there is no doubt that if a person has to travel out of the area in which he lives this means that a greater amount of time is spent commuting, that some means of transport is needed (either public or, more commonly, private), that it is harder to combine work and life, that a greater number of hours are spent away from home etc. Consequently, these factors together mean that certain groups are more likely or are more able to make these longer journeys and hence the importance of studying this differential behaviour and analyzing its causes.

2. PRINCIPAL RESULTS

Below are the themes we have studied and the results obtained for each one of the variables which have been related to both types of commuting:

- a) **Differences according to sex: greater external commuting among men.** In line with numerous studies which have analyzed this variable, in Spain external commuting among working men (41.5% of the total) is considerably higher than among women (31.5). The reasons for this are also well known: women spend more time looking after the family; women are more likely to work in the tertiary sector of industry, where they are less likely to externally commute; women are more likely to have part-time contracts and finally, women have less access to private transport. All these explanations reflect

the reality, or simply the perception, that a woman's income is less important for the family unit and that this does not favour long journeys to work.

In relation with what we have just seen it is worth pointing out that when we analyze the relation between commuting and civil status, the differences are overall not very significant, except for in the case of women, where we can see that external commuting is much higher among single women and confirms some of the explanations offered in the previous paragraph.

- b) Commuting and age: a higher rate of commuting among young adults.** Age is another variable which is usually used in studies on differences in commuting habits. Data corresponding to the Spanish population tend to confirm the results obtained from other studies; that is, a clear relation between age and mobility is observed, so that the older a person the less they commute externally; there is, however, an exception to this rule among the 16-19 age group, where the predominance of internal mobility seems to be related to the lack of a driving licence among some young people. Leaving this exception to one side, how can we explain the predominance of external commuting among young adults? The following reasons stand out: greater job mobility among this group; the fact that many young people do not leave home until they are thirty or even older; the fact this group is more likely to live in the suburbs, etc.
- c) The relation between levels of education and commuting.** This is a highly significant variable, almost certainly because of the close relation which presently exists between a person's profession and their level of education. The results have confirmed the hypothesis that there is a direct relation between level of education and external commuting, so that those people who have a higher level of education are more likely to commute externally. We should point out that is one of the cases where analysis was done by dividing the group according to age because people of different ages can have different levels of education. The aim, therefore, was to prevent the possible distortion of the results by these differences.
- d) Commuting and economic activity.** We have studied the relation between commuting and economic activity according to two classifications: 1) areas of activity (related to the activity of the business) and 2) profession. The results show that professions are much more significant because of their more social character. In particular we can see a greater rate of external commuting among those professions which are higher up the social pyramid, doubtlessly due to the higher economic benefits which these professions enjoy.
- e) Commuting and Nationality:** We have also looked at this subject briefly, in terms of Spaniards and foreigners, and also in terms of other large groups (the EU, the rest of Europe, North America, Latin America, Africa and Asia). The results show that, of these groups, Spaniards, EU citizens and North Americans show a higher rate of external commuting among higher ranking professions.
- f) Territorial differences and commuting.** Finally, we have analyzed briefly this aspect from two points of view: according to the size of the municipality and according to the Autonomous Community of residence. In the first case we can see an inverse relation between the size of the municipality and external commuting; the smaller the municipality the higher the rate of external commuting. It can thus be said that, with

a few exceptions, rural and semiurban centres behave much more like residential districts than working districts.

With regard to differences between Autonomous Communities, the results indicate that, in general, the highest rate of external commuting is found in those regions with a higher degree of urbanization and with large metropolitan areas (e.g. Catalonia, Madrid and the Basque Country).

3. GENERAL CONCLUSIONS

In addition to the specific conclusions which have already been pointed out, the following general conclusions are also of note:

- There is a fairly uneven relation between commuting habits and the various variables we have studied. In general we can say that the most significant sociodemographic variables are sex, age, level of education and professional group, that is, those variables with a greater social or socioeconomic character.
- On the other hand, within each sociodemographic variable there are extreme groups who, when there is a certain level (of education, profession, etc.), show a greater difference between the two types of commuting.
- In the same way, in the territorial variable we can also see significant differences between the two types of commuting, both in relation to the size of the municipality and in regional distribution.
- Finally, we have been able to show, in line with numerous other studies, the particular ways women that commute in the context of the different variables studied, particularly in three aspects: first, we have shown that women find it harder to find work in places which are not close to their homes, that is, they show a lower rate of external commuting than do men. Second, we have seen that the habits of women are different from that of the population overall with regard to certain aspects, for example, civil status, some economic activities. Finally, a highly significant fact is that among women the differences between internal and external commuting appear to be more accentuated in almost all the variables studied, that is, some variations are not close at all to the 100 mark. This indicates that the factors which explain uneven behaviour are more accentuated for working women, which in turn surely shows a greater disparity in working conditions.

All in all, external commuting means a longer travelling time, using some means of (normally private) transport, greater difficulty in combining family and working life, more time away from home etc. This is more usual and more feasible for men than for women (and for single women than for married women). External commuting also seems easier for young adults, for people with a high level of education and a well paid profession, for Spaniards rather than foreigners and, in general, for those people who live in Autonomous Communities with a higher degree of urbanization, although with the apparent contradiction that proportionally it is the people who live in rural municipalities who most often commute externally.