The role of occupational and socio-demographic determinants on the age of retirement in Spain

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Spanish females of 50 to 64 years of age in 2001
Spanish males of 50 to 64 years of age in 2001
Importance of measuring the effect of professional profile on early retirement in Spain

• Recent and future changes in the composition of the Spanish active population.
• Changes caused by generational replacement.
• Certain profiles tend to decrease in favour of others.
• If the probability of remaining active after age 50 is determined by the professional profile, then, activity rates of the population of 50 to 64 years of age could vary simply because of a change in composition, even if everything else remains constant.
Employment situation of Spanish population in 2001

- 8% decrease in the proportion of employers and self-employed, comparing people 35 to 49 and 50 to 64.
- 6.7% increase in employees without tenure.

(*) Missing 447 working people of 14 and 15 years

Source: INE, www.ine.es, 5% of 2001 Census
Own calculations
Occupation of Spanish working population in 2001

- Decrease of skilled workers on primary and secondary sectors and decrease of unskilled.

Source: INE, www.ine.es, 5% of 2001 Census

Own calculations

(*) Missing 447 working people of 14 and 15 years old
- 6,1% decrease of people employed in agriculture and fishery, industry and construction.
- 6,3% increase of people employed in education, health, financial services and Public Administration.
Level of education of Spanish population in 2001

- Decrease of almost 13% of people without formal education.
- 13% increase of people with primary education.
- Almost 20% increase of people with secondary education.
- 8% increase of people with college degree.

Source: INE, www.ine.es, 5% of 2001 Census
Own calculations
Population living in Spain according to 2001 census data

- Significative increase on employment rates expected due to increasing participation of women among younger cohorts.

Source: INE, www.ine.es, 5% of 2001 Census
Own calculations
Methodology

• Binary logistic regression using micro data of more than 97,000 people from 50 to 64 years of age taken from the Spanish Active Population Survey of the years 2000 to 2004.

• Conducted in order to test the relative impact on the likelihood of being out of the labour force of the already mentioned variables: education, employment status, occupation, branch of industry and sex.

• The results of the regression also tested the explanatory power of a model including all these variables as well as age. It was also included the variable year of interview, because the respondents of the data set were not interviewed in the same year but along a four year period.

• Statistical calculations were made using SPSS and STATA.
List of variables

• **Dependent variable:**

  – Working for pay (1=yes / 0=no)
  (people who did not work for pay during the previous 8 years are not included in the study)

• **Independent variables:**

  – Employment status (4 categories).
  – Occupation (7 cat.).
  – Branch of industry (8 cat.).
  – Education (5 cat.).
  – Age (50 to 64).
  – Sex.
Conclusions (I)

- Beside age, employment status and branch of activity are the most important determinants of the list, because when those variables are excluded from the model, its predictive power decreases the most.

- The predictive power of a model excluding year of interview is almost the same as in the general model.
Conclusions (II)

• In order to see how the chosen variables behave if we control for age, I have run separate regressions for people of each given age.

• All independent variables have been found to be relevant and significant at any given age.

• To summarize the relative impact of being a male or a female, having a certain occupation, working in a given branch of industry or having attained a certain level of education the following graphs have been elaborated:
Odd ratios* of having exit from the labour force by age and employment status

* Only values with a level of significance inferior to 0.05
Odd ratios* of having exit from the labour force by age and occupation

* Only values with a level of significance inferior to 0.05
Odd ratios* of having exit from the labour force by age and branch of industry

* Only values with a level of significance inferior to 0.05
Odd ratios* of having exit from the labour force by age and level of education

* Only values with a level of significance inferior to 0.05
Odd ratios of not being employed by age and sex

The value for women of 64 years of age has a level of significance below 0.05.
Conclusions (III)

- The profile with a stronger propensity to early retirement is that of someone with no formal education and unskilled employee on the agriculture, the transportation or the manufacturing industry (not unskilled workers of services).

- On the other hand, those with the highest probability of remaining employed until at least age 65 are employers or self-employed people of any branch of activity and also male employees with university education working in the branches of health care or education.

- Having formal education reduces significantly the likelihood of retiring early.

- There are small differences between having primary, secondary or high school degrees on the likelihood of retirement, but large ones between those with university education and the rest.
Conclusions (IV)

- Overall, the variables considered do not explain more than 17.2% of the variance, which may lead to the conclusion that in Spain structural macro-level determinants could be playing a more relevant role than socio-demographic characteristics of individuals on the age of retirement.

- Patterns for an early out exit from the labour market designed by institutions and social actors might be conditioning the behaviour of individual workers to the extent that individual characteristics such as those analyzed here do not show a more decisive impact on the age of retirement, as it was initially expected.
Muchas Gracias
Vielen Dank
Merci bien
Thank you