

Car ownership in Europe: evidence based on the European Community Household Panel

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This paper utilises the European Community Household Panel (ECHP) to investigate car ownership in 15 European countries. The panel or longitudinal design of the ECHP makes it possible to follow individuals and households over consecutive years, so that information on dynamics and transitions over time can be analysed at the micro level. The conclusions can be summarised as follows:

- Car ownership differs considerably in the different countries: In 1994 the percentage of households with access to a car varied from 49.9% in Portugal to 81.8% in Italy, a difference of 32 percentage points. By 2001, the difference was reduced to 23 percentage points: from 62.6% in Greece to 85.6% in France. In general, growth has been greatest in those countries with the lowest initial car ownership levels, with only marginal increases for countries with the high ownership levels.
- Car availability in each country is very unequally distributed among households with different incomes. The difference amongst countries is most apparent in the lowest income quintile: in 1994 car availability ranged from 26% in Portugal to 72% in Luxembourg, while the range in the highest income quintile was from 81% in Greece to 96% in Luxembourg. By 2001 car availability had increased in most countries for both income groups. In the highest income group, over 90% of households had access to a car in the majority of countries. Access to a car increased in the lowest income quintile in all countries with the exception of Spain.
- Inequality in car ownership amongst income groups measures as the coefficient of variation, indicates that, for both years, Italy has the most equitable car availability and Portugal the least equitable. Over the period, inequality decreased substantially in most countries, but appears to have increased marginally in Ireland, Finland and Sweden.
- The overwhelming majority of households did not change their status as either car households or non-car households during the survey period. A significant proportion, however, do give up their car, and this proportion differs amongst countries. Greece and Spain have the largest proportions (3.8% and 3.4%), while Luxembourg, Germany, France and Belgium have smallest (1.1% to 1.9). For all other countries, the proportion is between 2 and 3%. Over the longer term (7 years) the proportion increases to from 2.5% and nearly 6%. Many households, between 8% and 17%, go from having a car to not having one or vice-versa many times over the years observed. Generally, it seems that households in lower income countries with lower car ownership show the most volatility with respect to car ownership.

- The results of the estimation of binary logit models indicate that car availability increases with income, is lower for households comprised of a single adult than for 2-adult households, increases with the number employed in the household and is lower for households headed by a woman and for elderly households. There are some exceptions for the individual countries: gender plays no role for car ownership in Luxembourg and the over 65s have a greater likelihood of car ownership than younger households in Denmark. The effects of children on car availability vary amongst countries and no overall conclusions can be drawn.
- The influence of locational factors also depends on the country considered. In Denmark, Belgium, France and Ireland car availability is greater for those living in rural area or villages and declines with population density, while the opposite is the case in the Greece, Portugal and Austria.