

# SPATIO-TEMPORAL VARIATIONS OF THE PRIVATE CARS AGE MIX IN ISRAEL

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## Abstract

Tax reduction on imported cars in Israel between 1981 and 1983 revealed a differential shift across all cities away from old and medium aged toward new cars, resulting in spatial variations in the age mix of private vehicles. This study explains the variations with a geo-demographic model. A shift-share technique is used to identify the age shifts and the demand for various aged cars. Path analysis is then applied to estimate the model parameters. A sheaf coefficient is calculated to evaluate the impact of geographical constructs. Changes in the car age mix was found to be dominated by the changing stock of old cars. Intermetropolitan peripheries appear to be "importers" of old cars while metropolitan peripheries, and to a lesser extent, metropolitan cores appear to be their "exporters". Functional space affiliation is found to determine the supply of old cars while the percentage of carless families and the 20-30 age group explain their demand. The findings indicate that the gap between core and periphery in Israel is widening even in a period of growth in the national transport market.