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COMMUTING AND LOCAL LABOUR MARKET AREAS IN THE REGION OF VALENCIA, SPAIN, 1991-2001

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Using the Region of Valencia as a case study, the paper investigates the evolution of travel-to-work flows and the factors explaining it drawing on data from the years 1991 and 2001. The use of a case study is justified in two circumstances. First, it is unfeasible to carry out a similar analysis for the whole country due to the absence of data from the Census of Population 1991. Secondly, by studying a limited territory with a wide range of urban categories and a variety of territorial structures, it is possible to gain an enriched qualitative insight into this phenomenon.

The analysis is carried out at two different territorial levels: municipalities and *local labour market areas* (LLMAs). Such areas are defined, with regard to travel-to-work flows, as functional zones characterised by a high degree of self-containment and internal cohesiveness. The delineation of LLMAs overcomes the limitations associated to the use of administrative zones whose coherence is challenged by economic and social phenomena. LLMAs are composed of municipalities and defined so that the map of LLMAs in a given region covers the whole territory (and not only urban-dominated zones) without leaving any municipality unassigned to a certain LLMAs. Moreover also potential overlapping between the defined labour markets is avoided. In Spain, and differently to other OECD countries, there is not an official delineation of LLMAs. In this piece of work we have used a variation (Casado-Díaz, 2000) of the method proposed by Coombes *et al.* (1986) and ONS (1998) for the delineation of the British *Travel-to-Work Areas* (TTWAs). This procedure is one of those enjoying a longer tradition and a wider and more successful international use. To qualify as a LLMA self-containment must be 75 per cent or higher. This requisite is twofold: it has to be met by both the proportion of workers whose jobs are located within the boundaries of the LLMA of residence (supply-side self-containment) and the proportion of jobs occupied by local residents (demand-side self-containment). In

our exercise, and differently to previous experiences, we do not include any requirement in terms of minimum size. This makes the geography we propose a tool which is more useful for research purposes than for policymaking and statistics, but has the advantage of being more reflective of commuting patterns and functional reality.

The results from the analysis at both levels, municipalities and LLMAs, reveal a clear tendency of increase in commuting flows that result in a noteworthy reduction in self-containment (Fig. 2). The proportion of workers that commute to a municipality different to that of residence has increased from 24.2 to 31.2 per cent between 1991 and 2001. During this period an evolution towards the consolidation of a model characterised by a more diffuse city is observed, with a structure which is progressively less polarised as it evolves towards a network-type¹. This is particularly evident for the North half of the region, in the surroundings of the urban-metropolitan regions of the cities of Valencia and Castellón, and in the hinterlands of the tourist areas of the Northern coast in the province of Alicante. In terms of economic specialisation, inter-municipality commuting flows are in 2001 relatively smaller in the rural zones inland the provinces of Castellón and Valencia, but also in the manufacturing *comarcas* of the province of Alicante, where many highly specialised municipalities are present. On the contrary, inter-municipality commuting is much more significant, as expected, in the zones of influence of the most relevant urban areas, where the service sector has a substantially larger relative weight (Fig. 1).

Among the factors explaining the evolution of commuting patterns stand:

- (a) The trends of geographic redistribution of population towards a more decentralised model (Fig. 3) where some rural *comarcas* have become net receivers of migration after being traditionally characterised as emigration zones. This phenomenon is accompanied by the intensification and territorial diffusion of the process of suburbanisation, notably in the second ring of the metropolitan area of Valencia, but also in the peripheries of smaller cities like Castellón, Alicante, Benidorm, Denia and even Xàtiva. This is also evident in the demographic growth in the coast of Alicante, a strong tourism destination whose scope currently reaches the second and even third line of coast.
- (b) A redistribution of jobs which has a much more limited nature (Fig. 4) and includes the growth of employment in traditional active areas such as the manufacturing *comarcas* in the inner part of the provinces of Valencia and Alicante, and those along the littoral, now joined by radial axes articulating the metropolitan region of Valencia (Valencia-Requena and Valencia-Lliria), and some other very limited clusters of municipalities.
- (c) A considerable increase in the accessibility (Fig. 5) in the interior zones that derives from the First (1988-1995) and, less significantly, the Second (1995-2002) Highway Plan.

¹ In 1991 only 101 municipalities acted as first destinations for the main out-commuting flow from other municipalities. Ten years after the figure was 134. Among them ten first destinations received the main out-commuting flow from 59 per cent of municipalities in 1991, accounting for 50 per cent of total flows. In 2001 these figures fell to 45.5 and 33 per cent, respectively. Valencia, the regional capital city, was the clearer example of this tendency: in 1991 it was the main destination for 26.2 per cent of the municipalities and accounted for more than a half of the flows (51.4 per cent). In 2001 Valencia is the main destination for only 18 per cent of municipalities and concentrates 44 per cent of the flows.

The set of LLMA based on the data from the Census of Population 2001 (Fig. 7) are less numerous and therefore of a larger size than those of 1991 (Fig. 6), both in terms of number of municipalities and of occupied residents and localised jobs. Among the observed relevant patterns, it is worth mentioning the substantial drop in the share of LLMA constituted by a single municipality, and the relatively greater growth of larger LLMA. The analysis of the characteristics that the 1991-based LLMA would have according to the 2001 figures, as well as its comparison with the 2001-based LLMA allows a deeper understanding of the territorial evolution of travel-to-work. As pointed out by Coombes and Casado (2005), the relationship between the evolution of commuting patterns and the associated change in LLMA boundaries can sometimes be misleading. This is notably the case of LLMA whose self-containment levels were very close to the minimum thresholds fixed in the procedures in 1991. In such cases small variations in self-containment can be magnified in terms of boundaries' changes. By combining the developments in the map of LLMA between 1991 and 2001 and the factors behind it, a typology (Fig. 8) has been established that distinguishes between:

- (a) LLMA that merge 'horizontally' after experiencing a reduction in self-containment levels in a context of an increase in the numbers of resident employed population and located jobs. Within this group we include zones with both strong cross-relationships illustrated by low supply and demand-side self-containment levels (a.1) and zones experiencing net in-commuting flows (a.2).
- (b) LLMA that merge 'hierarchically' after experiencing decreasing self-containment levels accompanied by a stable number of local workers and jobs –this is frequently the case of zones that act as net senders of commuters that end up joining more dynamic markets.
- (c) LLMA for which self-containment levels remain stable but a drop in the volume of occupied and jobs is observed –this is typical of small LLMA formed by a single municipality which in 1991 had high self-containment levels, something that allows them to remain autonomous, and
- (d) LLMA with similar self-containment levels in 1991 and 2001 but where the number of both local workers and jobs increases significantly –they are LLMA centred in intermediate size cities that constitute a poorly articulated territory, where each municipality has a very specialised and differentiated productive structure.

A strengthening of commuting flows that includes relationships dominated by hierarchy, as well as other established among equals, is observable, notably in the first two cases. This happens both among LLMA (which, by definition, are relatively autonomous territorial units) and within them, between the constituting municipalities. The links become more complex as traditional commuting flows between the periphery and the centre lose relevance whilst an increase in the flows following the pattern *periphery-periphery* occurs, together with the consolidation of reverse commuting for certain sectors and occupations.

Regarding the future, several relevant factors act in opposite directions. First, the feminisation of the labour force and the increasing relevance of part-time work might

contribute to a reduction in average commuting distances. Second, the increase in average incomes and the education of workers, as well as the generalisation of households where various workers cohabite, can result in higher separation between place of residence and place of work. From an aggregate point of view, if the patterns of location of both residences and economic activity keep on evolving as have done until now, a widening of certain LLMA's already having a significant size is expected. This will be the case of Valencia and Castellón. This growth could in some cases be the result of the incorporation of markets that have until now been autonomous. These markets would not necessarily only add workers to the new expanded market, but could eventually contribute with new employment centres, as has already happened in the past. In any case, this evolution will be dramatically conditioned by changes in transport and communication infrastructures (both by new developments and the erosion and congestion of those already available), by the structural change that the regional economy is facing and, quite obviously, by the momentum in the economic cycle.

The current situation and the likely evolution of commuting patterns raise numerous questions in terms of urban planning and public policies, notably in the field of labour market. As an illustration, one of the aspects drawing more attention in recent times is the likely existence of a dynamic process of polarisation of workers in relation with commuting. This process could contribute to the understanding of some employability problems among certain groups, something that may eventually lead to a situation analogous to that of spatial mismatch that has been the object of significant concern in the Anglo-Saxon literature. This might be related to personal and professional features of employed/unemployed as well as to territorial aspects of the zones where they locate. The lack of detail in this aspect is one of the limitations of the article, which is based on aggregate data resulting in an 'average' picture of the phenomenon. A more detailed analysis, based on the segmentation of working population by sex, age, occupation and sector of activity, will allow a deeper understanding of this question and of the territorial distribution of the relative increases and reductions experienced by the diverse zones in terms of employment and economic activity.