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## Continuity and change in the spatial structure of Australian internal migration

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### Abstract

Internal migration consists of a complex mosaic of flows and counterflows within and between regions which shift over time in response to a myriad of forces. For individual regions the expression of these flows is most readily apparent in fluctuating levels of net migration. At the national level, the movements form an integrated system that has two main elements: intensity and spatial pattern. Together, these determine the *spatial structure* of the migration system.

Recognising its significance for understanding migration, the last decade has seen increasing attention to the problems of measuring spatial structure from a range of scholars. One line of work has analysed the parameters of spatial interaction models to establish the effect of distance on the propensity to move (Shen 1999). Another body of literature has been concerned with spatial focusing, using a variety of indices (Gini coefficients, coefficient of variation) to capture the extent to which migration flows between regions are concentrated or dispersed (Plane and Mulligan 1997). Drawing on these ideas, *inter alia*, Bell *et al.* (2002) argued that four broad dimensions of spatial structure could be recognised, relating to (1) migration intensities (2) migration distance (3) migration impacts and (4) migration connectivity. Rogers *et al.* (2002) pursued an alternative approach based around the parameters of log-linear models of migration.

This paper draws on the battery of measures proposed by Bell *et al.* (2002) to provide the first systematic analysis of interregional migration in Australia. Although originally devised for the purpose of cross-national comparison, these measures are equally applicable to analysis of a single migration system over time. We apply the measures to transition statistics from the Australian Internal Migration database, a unique dataset that contains information on age-sex migration flows between 69 spatially consistent regions of Australia covering five quinquennial intervals from 1976 to 2001. We examine summary indicators (covering the national migration system) but also explore measures for individual regions and selected age cohorts.

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