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**Title**

Fertility, Childcare and Labour Market: Dynamics in Time and Space.

**Abstract**

**Paper [I]** focuses on the effects of time and space dynamics on the description of fertility in Sweden. These effects are expected to be generated by labour mobility across municipalities. The empirical evidence for the period 1985-2008 involved estimating space and time dynamics by using a spatial first-order and serial second-order panel data model. A hypothesis of a positive spatial autocorrelation of fertility is confirmed.

**Paper [II]** contributes to the study of stationarity conditions for a spatial first-order and serial second-order model in the presence of time-lagged spatial interaction are considered. The stationarity conditions on serial autocorrelation parameters are found on the basis of the structural vector auto-regression form for the model. The stationarity in time is expressed as a function of the spatial autoregressive parameters.

**Paper [III]** contributes to an analytical description of the spatial diffusion of fertility, in particular, influenced by labour movements of people between places of residence and work. The analytical model, in which effects on fertility are decomposed, is constructed in the paper on the base of a model of the demand for children, the spatial stock-flow model of a market, and a matching model with a sex imbalance or spatial mismatch as the probability of matching.

In **Paper [IV]** average differences in the first-birth rates of young working women are estimated by bivariate model with endogenous commuting. Empirical evidence based on administrative data (Sweden) reveals that commuting women have a lower probability of first birth at the age 21-28 years old and higher probability at the age 29-32 years old. Therefore, commuting women likely postpone first childbearing.

**Paper [V]** studies earnings and labour force participation (LFP) of native Swedes and recent immigrants in Sweden in response to the childcare reforms of 2001 and 2002 using a difference-in-differences approach and register-based data for the period of 1995-2009. The results show that the reforms had a positive effect on earnings and LFP among native mothers with preschool children. The group of immigrant mothers studied did not experience any gain in labour market outcomes as a response to the reform.

**Keywords**

Fertility, childcare, labour market, earnings, spatial econometrics, panel data

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