

MicroWELT - Microsimulation of Disaggregated National Transfer Accounts (NTAs) for the Comparative Study of Welfare State Regimes

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This paper introduces the MicroWELT model developed alongside an international research program studying the distributional effects of four welfare state regimes - Liberal, Universalistic, Conservative, and Mediterranean - in the context of demographic change. The study uses four country examples representing the welfare state regimes: UK, Finland, Austria, and Spain. MicroWELT is a continuous time interacting population model implemented in Modgen, a freely available microsimulation language developed and maintained at Statistics Canada. While reproducing existing demographic projections in aggregate outcomes, MicroWELT accounts for fertility and mortality differentials and differences in partnership careers by education. The resulting family-demographic and educational projections are integrated with National Transfer Accounts (NTAs). National Transfer Accounts break down National Accounts by age and capture transfers within and between families and through the tax-benefit and social insurance system. While being cross-sectional measures, NTAs are heavily used in studies on the economic and policy implications of demographic change. In a first application of MicroWELT we start by reproducing existing literature based on macro projections. By stepwise dis-aggregating NTA data by sex, school enrollment, educational attainment and family type combined with the corresponding detailed socio-demographic projections of MicroWELT, we explore how findings change when adding detail to projections - and challenge the realism of some published findings.