Comparative Research of the Migration Models in Regional Population Projections

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It is an extremely important problem for regional population projections to set up the migration model. We should be careful that the projection results are different by migration models adopted, though the assumptions of future migration are same for all models. In this paper, population projections by prefecture were derived from five migration models using same population data and same assumptions, and I investigated the merit and demerit of those models through the projection results and comparison with actual population. As a result, migrant pool model and bi-regional model can project the migration trend fairly well, although the number of necessary variants is substantially fewer than Rogers model. On the other hand, the projection results by net migration model and alternative net migration model may be considerably biased in some regions. However, changing the denominator population by the sign of net migration number seems to be appropriate, because the difference from projection results by Rogers model is smaller for alternative net migration model than for net migration model.