

Urbanization and population decline in the final stage of the demographic transition.
The choreography of recent subnational population change in the Netherlands.

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Abstract

In many developed countries population growth has come to an end, as a result of the completion of the demographic transition. In the final stage that marks the completion of the transition natural growth is negative, and to a smaller or larger extent compensated by migration. This process at the national scale is well known and extensively described and explained, for instance in the large body of literature about the demographic transition or about international migration, which is one of the most prominent demographic phenomena today. Aging, the other dominant demographic process, is also related to this stage in the demographic transition, since it is implied by low birth rates combined with low mortality rates, the defining features of the completed stage in the demographic transition.

Surprisingly little is known how this process has affected internal migration. Regional population growth and distribution was a popular topic in the sixties and seventies, as witnessed by the many developments in subnational population methodology at the time, such as matrix methods for population analysis and projections, regional population simulation models, and the advances in models for analyzing migration flows, including spatial interaction models. The interest in these processes and methods has faded however, and has been replaced by a strong focus on micro-level analysis of spatial behavior. While these micro-level insights are very valuable in explaining and understanding spatial preferences of agents, the larger picture at the macro level has become blurred.

The changing population distribution at the subnational level has been described by a various authors as a sequence of a number of phases (Zelinsky, Long), in sync with the stage in the demographic transition, starting with urbanization, followed by suburbanization, counter-urbanisation, reurbanisation. This paper investigates what the consequences are of reaching the final stage in the demographic transition for subnational population redistribution. What happens at the subnational level when the primary source of population growth, i.e. natural growth comes to a halt. What are the consequences for regional population distribution when population growth at the national level is solely dependent on international migration? What are the implications of an aged population structure for internal migration, which is primarily a process for the younger generations?

Stagnating population growth is not evenly distributed at the subnational level. A few key features stand out however. First, cities grow. In line with economic-geographic theories people tend to favour the environment of the larger cities, for work and leisure. The traditional explanation based

on agglomeration and urbanization effects has received new theoretical updates from authors such as Richard Florida (creative cities) and Paul Krugman (increasing returns to scale). Second, the rural countryside tends to stagnate and decline. Population decline has become widespread in many regions of the developed world. Most prominently in Eastern Europe, but also in Western Europe and the US. Also in regions in the developing countries population decline may be observed, but generally for different reasons: war, climate change or famine. The consequences of these processes are often felt in developed countries, since they are important triggers for international migration towards the rich regions of the world, and explain the extreme risks many migrants take to cross the protected borders of the richer world.

In this paper we will look at the differential role of international migration and the selective role of aging on subnational population change. International migration is primarily directed at the larger cities, for reasons of work and schooling opportunities, the role of networks of migrants and diaspora. What is the role of internal vis-a-vis international migration in city growth? Moreover, in an aged society, what is the selective role of age in population change for urban, suburban and rural regions? Do the current developments at the subnational level still fit in the phase of re-urbanization? What about suburbanization processes in an aging society?

These questions will be answered based on an analysis of subnational population processes in the Netherlands. We will use a time series of municipal population data, covering both population stocks by age categories, as well as components of change. Internal migration will be distinguished in short and long distance migration, to delineate housing and work/schooling related motives. The approach is primarily descriptive, using spatial statistics to characterize key features of the processes and patterns.