

6. SPATIAL POPULATION ISSUES: COMPARISON

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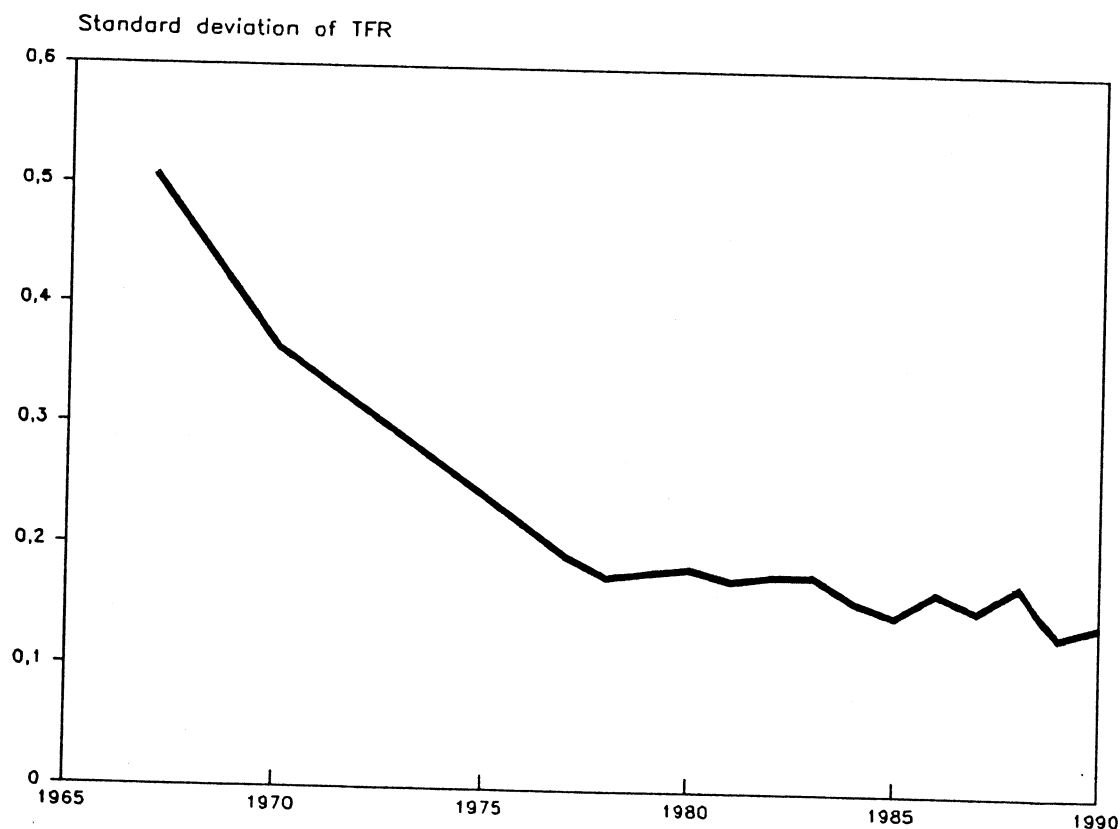
The key question addressed in this part was the effect of a sustained low fertility on the regional distribution of the population. The major conclusion is that, both in France and the Netherlands, the impact of regional fertility differences on population distribution is small. Population redistribution is a consequence of migration mainly. The reason is, of course, the combined effect of relatively low fertility and reduced fertility differences among regions.

In the early 1980s, France and the Netherlands showed similar differences in regional fertility levels. Table 4.1 shows that, in France, the lowest Gross Reproduction Rate is 0.75 (Limousin) while the highest is 1.07 (Nord-Pas-de-Calais). The implied Total Fertility Rates (TFR) are 1.53 and 2.20, respectively. In the Netherlands in 1982, the lowest TFR was 1.34 (North Holland and Limburg) and the highest was 1.91 (Flevoland). An interesting observation is that, although the fertility level in the Netherlands is lower than in France, in both countries the TFR of the region with the highest fertility is about 42% higher than the TFR of the region with the lowest fertility. A comparison of regional data is complicated by differences in (i) the observation method and (ii) the size and characteristics of regions. In France, regional fertility data are available for census periods only; the Netherlands with its population register, has annual data. The choice of geographical units of analysis is important. For instance, if we consider municipalities (714 units) to study differences in fertility levels in the Netherlands, the TFR ranges from 0.59 (Vlist in South Holland) and 0.85 (Grathem in Limburg) to 3.75 (Urk in Overijssel) and 3.89 (Wijngaarden in South Holland) [data for 1984]. In France, if we consider

départements (95 units), the TFR ranges from 1.47 (Haute Vienne in Limousin) to 2.20 (Pas-de-Calais in Nord-Pas-de-Calais). Contrary to the Netherlands, changing the geographical scale of observation does not increase the differences in France. However, higher differences would be observed at a municipality level.

Particular attention was devoted to the convergence assumption which states that spatial differences in fertility levels are decreasing. In France, the observation of the last twenty years confirms the convergence hypothesis, but the hypothesis was rejected from the observation of the forty previous years. Between 1968 and 1975, an important decrease in the standard deviation of the Gross Rate of Reproduction was found, signifying a rapid convergence of fertility levels. In the Netherlands, fertility levels (measured in terms of TFR) converged between the mid-1960s and 1978 (Keilman and Manting, 1987, p. 42). In the five years following 1978, the regional differences increased. The convergence continued after 1983. Figure 4.4 shows the evolution of the standard deviation of the TFR in France; figure 6.1. shows the evolution in the Netherlands, assuming a sex ratio of 1.05.

Figure 6.1. Evolution of the standard deviation of provincial TFR from 1967 to 1990; the Netherlands



Since the impact of regional fertility differences on population distribution is small, a fertility change to replacement level is expected to have no significant impact on population distribution. The analysis for the Netherlands shows that, given a sudden increase of fertility from its current level (TFR 1.55) to replacement level, the ultimate stationary population would be 15 % larger. The difference between the population distribution that would result if the age-specific rates of fertility, mortality and migration would remain constant at their current levels (stable equivalent) and the population distribution that would result if fertility changes to replacement level (stationary equivalent) is negligible. The convergence scenario and the no-convergence scenario give also similar results. The main conclusion of the research is therefore that in France and the Netherlands, patterns of regional fertility differences (convergence or no-convergence) have little effect on the distribution of the population. The impact of migration is considerably larger.

Reference

Keilman, N., and D. Manting (1987), *Tendrapport regionale vruchtbaarheid* (Trend report regional fertility). Intern Rapport nr. 52, NIDI, The Hague.