

## Chapter 1

# INTRODUCTION AND CONTRIBUTIONS OF THIS VOLUME

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### 1. INTRODUCTION

In this chapter the main trends are presented in fertility, age of the mother at having her first child and time spent in fulltime education by young people. Fertility is declining and is now well below the replacement of the population rate in all European countries. To some extent the fertility decline is caused by postponement of maternity in the sense that without mothers of successive generations being older and older the decline would have been smaller. But why do women and men form families so late and what role does the extension of youth education play? These and related issues for ten different countries are addressed by the contributions of this book. This chapter gives an overview of the different contributions.

Young women nowadays are considerably older when they have their first child than used to be the case a few decades ago. For example, the mean age of a first time mother in the Netherlands in 1970 was 25 years. By 2000 it had increased to 29 years, making first time mothers on average four years older in 30 years. All European countries are in the process of postponement of maternity although it started at different points of time, with western and northern Europe being earliest starting from 1965-1970, southern Europe following from 1980-1985 (Bosveld, 1996) and east and central Europe developing postponement of maternity since the fall of the Soviet Union in 1990 (Kohler and Philipov, 2001). Kohler, Billari and Ortega (2002) suggest that what we witness is a 'postponement transition' which will at least not stop in Central and Eastern Europe until age at maternity is similar to that of the rest of Europe.

There are several reasons why a better understanding of postponement of maternity is useful. First, such knowledge contributes to the prediction of fertility trends. As Bongaarts and Feeney (1998) and Bongaarts (1999) have pointed out, postponement of maternity leads to falling fertility rates even if there were no decrease in the cohort completed rate. Simply, if a cohort of women has an equal number of children later in life, than the previous cohort the age-specific period total

fertility rate decreases. The reverse process, preponement of maternity, having children earlier in life, leads to increases in total fertility rates for the same reasons.

A second reason for studying postponement of maternity is that, as the aging of maternity increases, a number of women will hit the biological limit of their reproductive capacity, leading to increasing medical costs, as couples seek medical assistance in order to procreate (Te Velde and Pearson, 2002), or individual unhappiness if such assistance fails (Hewlett, 2002). There are increasing trends of ultimate childlessness particularly among high-educated women (Beets, 1998).

A third reason, is that many European governments worry about below replacement fertility and the resulting ageing of the population and attempt to design public policies, that would make it less costly for young people to form families.

The overall purpose of putting these 12 chapters together in a volume is to try and find policy implications from the studies. What kind of policies could a government try that wants to help young couples to start families? However, this book also aspires to show how difficult it is to arrive at clear policy conclusions even after the most careful statistical analyses because of the interdependency between decisions on family formation, labor force participation, investment in human capital in school and post-school and other life time plans.

## 2. TRENDS IN EUROPEAN FERTILITY, EDUCATION AND TIMING OF MOTHERHOOD

The most common measure of fertility is the period total fertility rate, which has the interpretation of the total number of children born to a woman over her life cycle, if the age specific fertility rates of that year were to prevail. In Table 1.1 we present total fertility rates for a number of countries over the period 1960 through 2000. The lowest fertility rates in 2000 were found in South and East and Central Europe with the Czech Republic at the bottom of the scale at 1.14.<sup>1</sup> In 2000, not a single country among the 16 European countries included in Table 1.1 reached the replacement level of 2.1. This is in sharp contrast to the situation in 1960 and 1970 when almost all European countries had fertility rates above the replacement level or close to it. We include figures for the US, Japan and South Africa, as a comparison to the selected European countries. Whereas in 2000 in Japan, the low fertility rate was comparable to those in the European countries, the fertility rates in the United States and South Africa were higher than the replacement rate in 2000.

### *2.1 Tempo and quantum effects*

Postponement of maternity is one of the determinants of the decrease in total fertility rates in Europe. In an influential paper Bongaarts and Feeney (1998) explain how total fertility rates can be decomposed into the quantum effect and tempo effect. The quantum effect is the total fertility rate, that we would have observed, had there been no change in the timing of births. The tempo effect is the effect of timing changes. To decompose fertility into the quantum and tempo effects one needs birth order