Extended abstract for the European Population Conference 2010:

Timing of education, work and childbirth: Comparisons between native Danes, second generation immigrants and first generation immigrants raised in Denmark

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## Purpose

The purpose of the paper is to examine how the timing of childbirths is related to the timing of education and work for four groups of women: native Danes (group A), second generation immigrants (group B), first generation immigrants who came to Denmark at pre-school age (group C) and first generation immigrants who came to Denmark at school age (group D). The focus is on immigrants with non-Western background.

# Hypothesis

Individuals' preferences with regard to timing of childbirth and labour supply may be influenced by their culture. Culture can be defined as 'those customary beliefs and values that ethnic, religious and social groups transmit fairly unchanged from generation to generation' (Guiso et al. 2006, 23). When individuals emigrate they take some aspects of their culture with them and transmit them inter-generationally. Thus, the children of immigrants may share some of the cultural norms from the country of origin of their parents. However, the preferences of the children of immigrants may also be influenced by the social, economic and institutional environment of the host country, and they will therefore adapt to the norms of the host country (Fernandez and Fogli, 2009). The adaptation hypothesis suggests that the more time individuals with immigrant background spend in the host country and the younger they are when they arrive, the more their preferences (e,g. with respect to fertility and labour supply) are influenced by the current societal context. Thus, we expect not only that groups B-D are influenced by the culture of the parents' country of origin, but also that - because of differences in exposure to the environment of their host country -of the three immigrant groups, group B will most resemble the native Danes with

respect to fertility, educational attainment and employment status, followed by group C and group D.

### Motivation/background

Non-Western immigrants to Denmark typically come from countries that differ from Denmark with respect to norms regarding the timing of childbirths and women's labour supply. At first glance, the differences between the three groups of women with non-Western immigrant background and the native Danish women with respect to educational attainment, labour market status and fertility rate seems to support expectations based on the adaptation hypothesis. Our preliminary analyses show, for example, that the expected pattern of differences holds with respect to labour market status at ages 20 and 30 (see table 1): the percentage outside the labour force is lowest in group A followed by groups B, C and D in that order. The same pattern is found with respect to educational attainment: the educational level is highest in group A and lowest in group D; the only other notable difference here is the large gap between group A and the other three groups (figure not shown). Further, at age 30, the average number of children is 1.0 for native Danes (group A), 1.3 for second generation immigrants (group B), 1.6 for first generation immigrants who came to Denmark at pre-school age (group C) and 1.9 for first generation immigrants who entered the country at school age (group D) (see figure 1).

Yet, closer examination of selected native Danish cohorts suggests that some of these differences in average fertility may be temporary and have more to do with the differential timing of births across the groups rather than differences in average total fertility. For example, for much of their fertile age Danish women born in 1966 had lagged behind their counterparts from the 1954 cohort with respect to average number of children. But by age 45, they had overtaken women from the 1954 cohort (see figure 2).

If this catch-up effect can be generalized to the other three groups, the expectation of differences across the four groups with respect to average total fertility could well be proved wrong. This line of reasoning suggests that it may be more fruitful to examine the adaptation hypothesis in terms of the different pathways to childbirth in terms of both number and timing of births across the four groups. We do

this by focusing on the way the timing of childbirths is related to two other important aspects of the life-course: education and work.

There is a clear gap in the extant literature that our study will fill. While there is some research on first generation immigrants (see e.g. Franséhn et al. 2009, Andersson and Scott, 2007), there is little or no international research on fertility differences between the four groups we have defined. This is particularly so with respect to the relationship between education, employment and the timing of children.

### Data

To further examine the above hypothesis, we use longitudinal administrative register data from Statistics Denmark for the period 1986-2006 of the total population of first and second generation immigrants and a 10% sample of native Danes. The data include detailed information on variables such as education, employment, births and civil status. We focus on women born in 1967-1975, whom we are able to follow up to the age of 30. Given the very small numbers of women with immigrant background in Denmark, we are forced to group the nine birth cohorts together for each of the four groups and treat them as homogenous groups. Since we do not have sufficient observations to distinguish between immigrant groups by country of origin we group the non-Western countries together.

### References

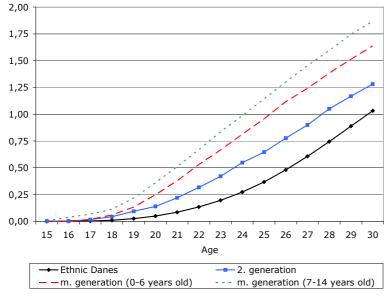
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Table 1. Distribution of labour market status by age 20 and 30. Women born in 1967-1975. Separate for native Danes, second generation immigrants and for two groups of first generation immigrants.

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	Native	Second generation	First generation	First generation
	Danes (A)	(B)	(0-6 years old) (C)	(7-14 years old (D)
Age 20:				
Employed	66.8	52.2	47.0	38.1
Unemployed	10.8	14.1	22.0	23.9
In Education	10.4	16.4	11.2	12.5
Early retirement	0.4	0.6	0.1	0.1
Others out of labour force	11.6	16.8	19.8	25.5
Total	100.0	100.0	100.0	100.0
N	31,242	1,229	1,265	1,956
Age 30:				
Employed	81.0	62.4	57.2	51.6
Unemployed	10.7	18.8	27.2	27.8
In Education	2.3	2.6	2.2	2.1
Early retirement	1.5	2.5	2.2	2.1
Others out of labour force	4.4	13.6	11.1	16.5
Total	100.0	100.0	100.0	100.0
N	30,776	1,177	1,176	1,794

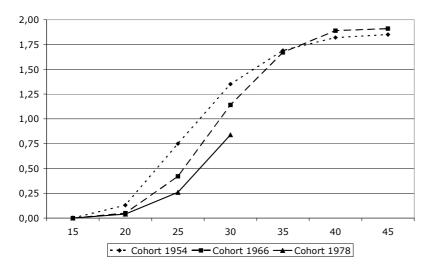
Source: Own calculations based on register data from Statistics Denmark.

Figure 1. Average number of children by age. Women born in 1967-1975 (aged 15-30) Separate for native Danes, second generation immigrants and for two groups of first generation immigrants.



Source: Own calculations based on register data from Statistics Denmark.

Figure 2. Average number of children by age. Native Danish women born in 1954, 1966 and 1978.



Source: Own calculations based on register data from Statistics Denmark.