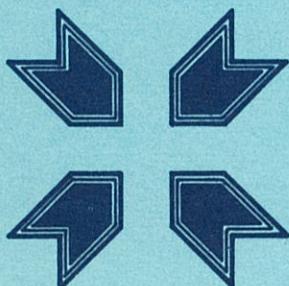


# RAHVASTIKU-UURINGUD POPULATION STUDIES

THE DISTINCTIONS OF POST-WAR  
FERTILITY TREND IN ESTONIA

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demographically developed countries, especially European, the Estonian fertility dynamics lies in the unique situation. By defining the situation as unique I mean that the fertility level in Estonia is high; during the last 20 years it had stayed above the replacement level. For to explain the significance of this fact some historical commentaries are needed.

As a part of demographic transition the fertility decline began rather early in Estonia. Because of the European type of marriage the crude birth rate slowed down since the first half of the XIX century. In the 50-60-ies of the last century the marital fertility began to decline. In the late 20-ies of the 20-th century the fertility went under the replacement level and was one of the lowest in Europe in the 30-ies (Table 1). In brief, the fertility transition in Estonia was generally going in the same way as in Western and Northern Europe. The transition according to time pattern followed some of these countries with certain time lag and was ahead of some others, including all East-European countries and Finland for example.

The post-transitional fertility dynamics in Estonia deviated from the common path. The first unfamiliar feature was the nonexistence of the baby-boom after WW II. The fertility remained under the replacement level until the late 60-ies, i.e. approximately during the 40 years. When starting at the end of the 60-ies fertility decline began in all European countries one after another, there was remarkable increase in Estonia. In the last 20 years the

Demographically developed countries experienced significant fertility decline during the last 20 years. Now fertility is far under the replacement level in most of these countries, especially in Western and Northern Europe. Combined with ongoing changes of women's roles in society, the decreasing marriage and remarriage rates, the rising importance of cohabitation and illegitimacy, the modifying sexual behaviour, fertility changes seem to be enough important to formulate the thesis about the second demographic revolution by Dirk J. van de Kaa (1987). In such a situation the question of future fertility trends often takes the form of balance of two alternatives: (1) fertility will stabilize below replacement in developed countries with growing homogeneity due to the increased fertility where the present level is very low, and the decrease of fertility where the level is relatively high (some of the East European countries); (2) decrease of fertility is going on until all the developed countries will reach the very low level which is characteristic of only the few nowoays. My presentation refers to another possible alternative by putting under question the similarity of the post-transitional fertility trends despite we had experienced this similarity during the transition. The ground is given by the case study of Estonian fertility. Anyhow, the case is worth to be taken into consideration when making prognoses for future fertility tendencies.

Compared to postwar average trend of the

average fertility level is ca 15 per cent higer than during the previous 40 years measured by period total fertility rate. Making such a comparison one must exclude the post-war migration population which had the demographic history rather different from that of the Estonian case. The fertility differences between these two groups are rather important: showing the TFR dynamics Figure 1 includes the samples where possible. After the increase there were futher fluctuations in fertility, but they are not of the primary interest now. It is worth underlining that all these fluctuations took place above the replacement level.

To summarize the historical background, (1) the fertility transition in Estonia followed the general pattern and some of its specific features were not more important than anywhere else; (2) the fertility dynamics after the transition is rather different from the European expierience, the replacement level fertility is the unique situation among demographically developed countries during the last 20 years.

Taking into account the significant influence of specific political and economic circumstances, large-scale immigration and lacking some of the detailed information required many possible causes of strange fertility trend could be discussed I introduce some of these speculations.

1. Changes in timing of childbearing. This argument is often used by Soviet demographers to explain any growth of period fertility indexes in the 60-80-ies for the European

part of USSR including Estonia (Antonov, 1986; Borissov, 1985; 1987; Darski, 1986 etc.).

Indeed up to the late 70-ies the evolution of fertility age pattern (fertility curves) shows (1) the process of rejuvenation and (2) the childbearing concentration by age in Estonia (Figure 2). As a consequence the period indexes of fertility including TFR indicate the higher fertility level in comparison with the cohort indexes. But anyhow the factor under consideration cannot explain the fertility increase at the end of the 60-ies: (1) the fertility rejuvenation and age concentration was in progress during the whole period of 1958-1980, not specifically at the end of the 60-ies; (2) no changes in timing can maintain the fertility for 15 per cent higher during the 20 years in comparison with the previous period. Furthermore, it is possible to estimate the fertility increase by cohort completed fertility rates. The cohorts born in 1925-1935 are characterized by the lowest figures. Younger cohorts show higher fertility already, even the cohorts not yet completed their childbearing (Table 2).

2. The special socio-economic situation in Estonia. It is the loveliest argument of the non-demographers including high level bureaucracy to settle every demographic phenomenon.

To analyze fertility one must remember about the migration population in Estonia. After the WW II the large migration inflow to Estonia took place, mainly from Russia and the other Slavic republics of the USSR. Now this

migration population forms ca 40% of the whole population, in fertility ages even more. It is of the particular significance that up to the 80-ies the fertility increase neither touched this group of population nor their second generation. Their fertility dynamics followed the general pattern characteristic of their home republics. So the fertility growth is common only to the part of the population having been characterized by low (under replacement level) fertility during the previous 40 years. This group is formed by the Estonians. So, the nationality became the main criteria differentiating the fertility in Estonia in the 70-ies. In other words, we can observe two different and somewhat opposite fertility dynamics under the same socio-economic condition.

3. The third possible explanation is a political one. It can be said, that in conditions of national oppression the Estonian part of the population closed itself mostly in family and could realize its life expectations through the family carrier more than through the social carrier in spite of the growing individualization. Such a situation can be accompanied by larger number of children.

If so, it is not understandable why the fertility was so low in the 40-50-ies when the political situation was at its worst in Estonia.

4. The specific parity progression. In the period of low fertility the distribution of women cohorts by births was rather heterogenous. The relatively great share of women

with 0 or 1 completed births was also combined with relatively great share of those having had 4 or more births. Let us suppose that the children's cohort will behave themselves like the parent's cohort: in this case each girl following her mother in her procreation behaviour will have exactly as many children as her mother have had. In such a situation the fertility pattern of the children's cohort will be rather different from that of their parent's, especially in conditions of heterogeneous fertility. The number of the representatives in child cohort of those women orientated to 0 or 1 child will be considerably smaller in comparison with the parent cohort. The situation will be quite contrary when those orientated to larger numbers of children are concerned. In other words, the role of the social groups orientated to low fertility is of less relevance now and the fertility level is mostly determined by representatives of the social groups characterized by high fertility.

If such an intergenerational continuity of procreative behaviour would be true the real parity distribution in 1966/67 (before fertility increase with TFR = 1.89) will form the TFR = 2.64 in the sibling cohort (Tabel 3).

5. Time-lag explanation. It can be assumed that in Estonia the post-war baby-boom was simply postponed and emerged 20 years later. The assumptions of the kind are difficult to be proved true or false.

A certain research work has been carried out for to control these and other possible suggestions explaining the

peculiar fertility trend in Estonia. It seems that the key point is just not to explain the growth in the late 60-ies but the absence of the post-war baby-boom. In this view it is rather surprising that so little research has been done to comprehend the nature of the post-war baby-boom in the European countries. (The most serious works in this field, carried out by P. Easterlin and his followers, are not of great value in case of a specific economic and social system like in post-war Estonia.) Probably then it seemed as a normal reaction to the sufferings of war which in some cases resulted in the postponement of births. If the analogous explanations serve well enough for the emergence of the baby-boom, they certainly do not explain the prolonged durability of the above-replacement fertility in the post-war Europe.

One can make another step: it seems more important, than usually stressed, to clear up the phenomenon of the post-war high fertility level not only for the elucidation of the peculiar fertility in Estonia but also for understanding its present very low level in the other demographically advanced countries.

The Estonian case sets under the question limiting the possible alternatives of the future fertility trends in developed countries only to the two above mentioned variants. The Estonian population is still in a line with most of the European social trends seen as components of the second demographic transition: growing individualization,

high women work participation (the Estonian level is the world highest) and their social independence, plurality of family pattern with growing importance of cohabitation, decreasing marriage and remarriage rates (yet the marriage rates are comparatively high the divorce rates are high too), changed sexual behaviour etc., except fertility trend. So the possibility of the remarkable fertility increase in developed countries (even up to the replacement level) can't be out of the question despite there is little ground to believe it. Further investigations of intergenerational fertility continuity are needed to test this possibility.

In conclusion I should underline some other peculiarities of the Estonian demographic development created by the unusual fertility trend. The role of these phenomena would be remarkable in the determination of the future demogographic situation.

1. For the of negative age-structure growth potential the absolute number of the Estonians began to decline in 1978. It is the situation now where depopulation on the one hand and replacement fertility on the other hand are combined. The age structure of such population is rather interesting. It is the future of any European country if they succeed to arise their population fertility.

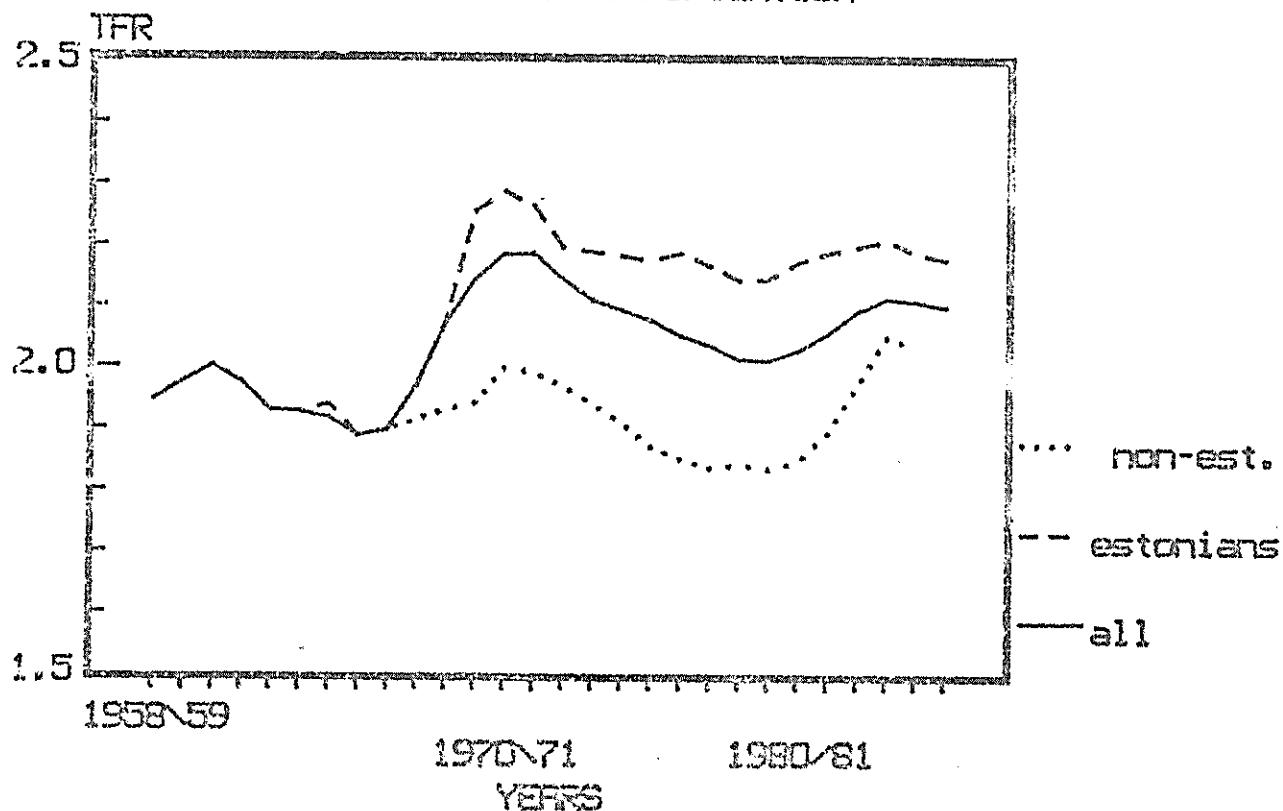
2. I mentioned about the migration inflow to Estonia. In relative terms it is the highest among the European countries compared to the local population. The situation is considered unfamiliar for the migration population has presently lower fertility than the original one. Instability

of age structure of the migration population has many important social consequences. Remarkable future fluctuations in process of aging stand among them and must be underlined.

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TFR DYNAMICS OF R.L. ESTONIA, ESTONIANS  
AND NON-ESTONIANS POPULATION



DYNAMICS OF AGE SPECIFIC FERTILITY RATES  
COMPARED TO 1950-59 LEVEL

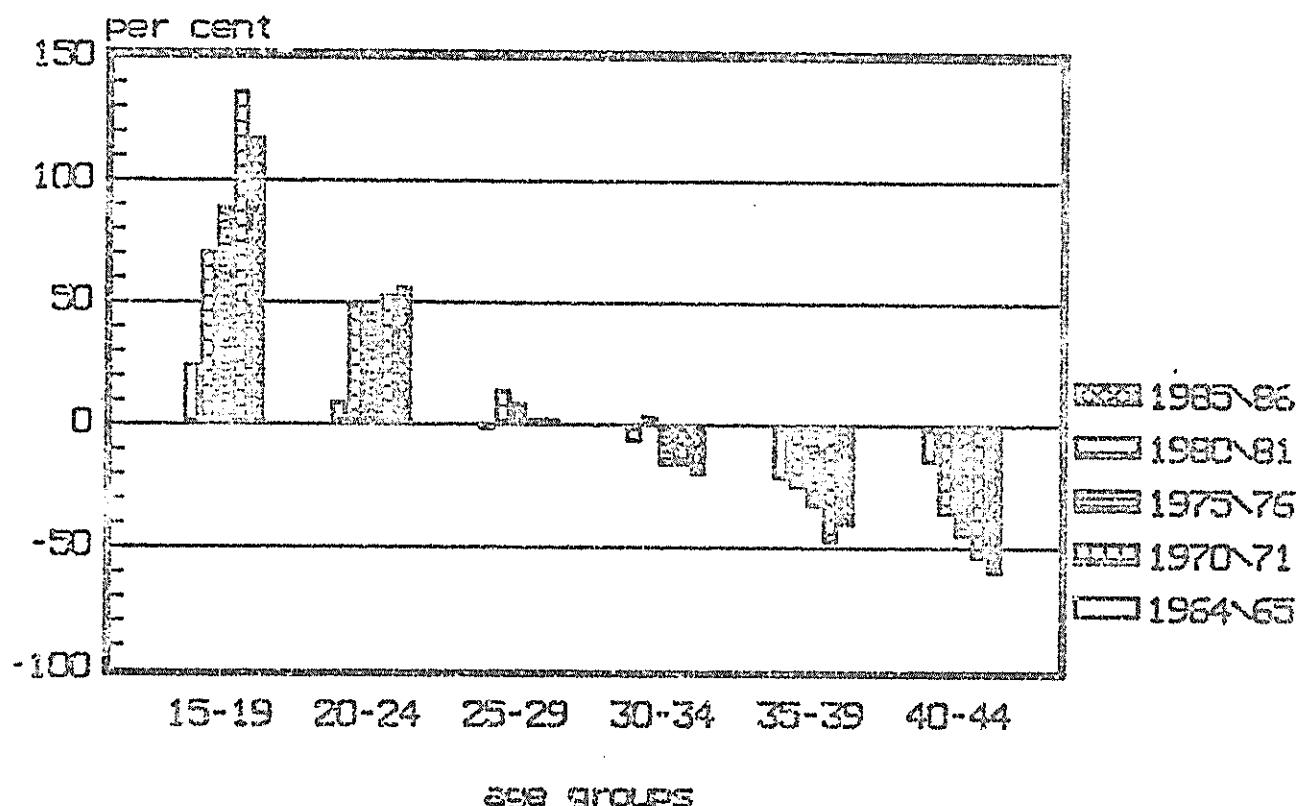


Table 1. FERTILITY INDEXES OF ESTONIAN POPULATION,  
CENSUS YEARS

	1922/23	1933/34
Total fertility rate	2.48	1.88
Births per 1000 women in age 15-49:		
all women	69.4	61.0
married	127.5	110.2
unmarried	8.8	12.0
Coale indexes:		
I <sub>r</sub>	0.192	0.153
I <sub>w</sub>	0.404	0.289
I <sub>h</sub>	0.025	0.030
I <sub>m</sub>	0.440	0.476

Table 2. COMPLETED FERTILITY RATES OF BIRTH COHORTS  
OF THE ESTONIANS

Birth cohorts	-20	20-24	Births in age				Completed and above fertility
			25-29	30-34	35		
1910-1914	...	...	...	...	...	...	1.901
1915-1919	...	...	...	...	...	...	1.913
1920-1924	...	...	...	...	...	...	1.839
1925-1929	...	...	...	...	...	...	1.778
1930-1934	0.071	0.499	0.588	0.359	0.222	1.740	
1935-1939	0.062	0.528	0.609	0.399	0.168	1.807	
1940-1944	0.093	0.605	0.660	0.343	0.148 *	1.849 *	
1945-1949	0.098	0.770	0.648	0.304	0.071 *	1.891 *	

\* age group is opened and fertility is not completed within these group

SOURCE: 1979 census, 1985 partial census

Table 3. PARITY PROGRESSION TABLES OF ESTONIAN  
POPULATION, 1966/67

Parent cohort:

Parity	t	P	d	T	E
0	1.000	0.918	0.082	1.892	1.892
1	0.918	0.712	0.264	0.975	1.062
2	0.654	0.297	0.460	0.321	0.491
3	0.194	0.341	0.128	0.127	0.654
4	0.066	0.443	0.037	0.061	0.915
5	0.029	0.485	0.015	0.031	1.068
6	0.014	0.535	0.007	0.017	1.204
7	0.008	0.556	0.003	0.010	1.250
8	0.004	0.556	0.004	0.005	1.250

Children cohort:

Parity	t	P	d	T	E
0	1.000	1.000	0.000	2.641	2.641
1	1.000	0.860	0.140	1.641	1.641
2	0.860	0.435	0.486	0.780	0.907
3	0.375	0.459	0.203	0.406	1.083
4	0.172	0.546	0.078	0.234	1.360
5	0.074	0.575	0.040	0.140	1.439
6	0.054	0.613	0.021	0.085	1.588
7	0.033	0.623	0.012	0.053	1.591
8	0.021	0.616	0.021	0.032	1.554