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**Working Paper**

## On Population Development in Estonia and Finland

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## **Keskusteluaiheita - Discussion papers**

No. 373

Eike Hindov\*

### **ON POPULATION DEVELOPMENT IN ESTONIA AND FINLAND**

\* Institute of Economics, Estonian Academy of Sciences

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**HINDOV, Eike, ON POPULATION IN ESTONIA AND FINLAND.** Helsinki : ETLA, Elinkeinoelämän Tutkimuslaitos, The Research Institute of the Finnish Economy, 1991. 47 p. (Keskusteluaiheita, Discussion Papers, ISSN 0781-6847; no. 373).

**ABSTRACT:** This paper is part of a research project organized by the Research Institute of the Finnish Economy and the Institute of Economics of Estonian Academy of Sciences. In the paper the demographic structure and development, families, migration and urbanization of the population after first and second world war is compared in both countries.

**KEY WORDS:** Demographic structure, migration, family structure, urbanization

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**TIIVISTELMÄ:** Tämä työ on osa Elinkeinoelämän Tutkimuslaitoksen ja Viron Tiedeakatemian Taloustieteen Laitoksen organisoimaa yhteisprojektia. Työssä vertaillaan Suomen ja Viron väestöjen rakennetta ja kehitystä, perheitä, siirtolaisuutta sekä kaupungistumista ensimmäisen ja toisen maailmansodan jälkeisenä aikana.

**ASIASANAT:** Demografinen rakenne, siirtolaisuus, perherakenne, kaupungistuminen

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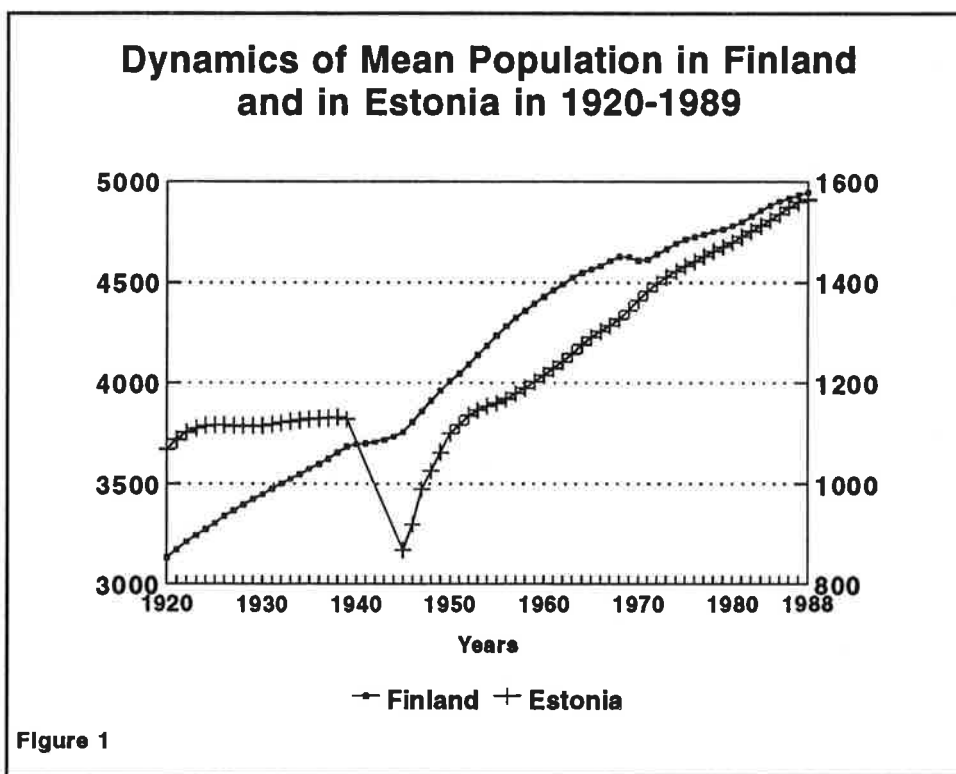
**RESÜMEE:** See uurimus on osa Soome Majandusuuringute Instituudi ja Eesti Teaduste Akadeemia ühisprojektist. Uurimuses on võrreldud Soome ja Eesti rahvastiku struktuuri ja arengut, perekondi, migratsiooni ja linnastumist esimese ja teise maailmasõja järgsel perioodil.

**MÄRKSONAD:** Demografiline struktuur, migratsioon, perekondade struktuur, linnastumine.



### 1. Population Development

In Estonia and Finland population development and changes in the structure of population have been quite different. Excess of birth over death was smaller in Estonia already in the 1930s. Since the violent incorporation of Estonia into the Soviet Union the population changes in Estonia have been conditioned by net immigration from the Soviet Union. At the same time post-war population processes of Finland have been characterized by the low fertility, and net emigration to Sweden. Dynamics of mean population is given in Figure 1.



We can see from the Table 1 that the number of the population of Finland was 3124.8 thousand in 1920. At the same time Estonia had 1067.8 thousand inhabitants. In the 1920s and 1930s, due to low fertility, mean population increase in Finland was 0.65 percent a year. Due to the emigration of Germans in 1939 and the falling fertility rate the population increase in Estonia had fallen to 0.2 percent a year during the pre-war period. As a result of the above-mentioned population changes there were

T a b l e 1. Population changes in Finland and Estonia:  
selected years from 1920 to 1989.

	1000 inhabitants		Yearly per 1000 inhabitants			
	Mean population at the end of the period		Excess of births		Migration gain	
	Finland	Estonia	Finland	Estonia	Finland	Estonia
1920	3132.8	1067.8	-	-	-	-
1921-1930	3449.0	1116.0	8.7	2.2	0.2	0.1
1931-1940	3697.9	1122.1*	5.7	1.6	0.0	-0.1
1941-1950	4008.9	1100.4	10.7	1.7**	-1.1	2.7**
1951-1960	4429.6	1215.6	11.4	5.6	-1.5	4.6
1961-1970	4606.3	1365.0	7.2	4.6	-3.9	7.2
1971-1980	4779.5	1479.2	3.9	3.6	-1.2	4.2
1981-1985	4902.2	1535.8	4.0	2.8	1.1	4.3
1986	4918.2	1549.0	2.7	4.0	0.3	4.7
1987	4932.5	1559.2	2.4	4.3	0.1	4.2
1988	4946.9	1563.8	2.2	4.1	0.3	1.8

\* 1.01.1940

\*\* Data on the period of World War II are missing, the numbers of excess of births over deaths and yearly net migration are calculated on the basis of 1945-1949

Sources: Population: Structure of Population and Vital Statistics, SYB 1989; Rahvastikuprobleeme Eestis. II rahvaloenduse tulemusi. Vihk IV. Tallinn, 1937, pp. 12-13; Eesti Statistika Kuukiri jaanuar 1940. Tallinn 1940, p. 40; Eesti NSV rahvamajandus 1978. aastal. Statistika aastaraamat. Tallinn, 1979, p. 12; Eesti NSV rahvamajandus 1988. aastal. Tallinn 1989, p. 13.

3685.9 thousand inhabitants in Finland and 1128.0 thousand in Estonia in 1939. There is no data on mean population of Estonia in the period of World War II. After concluding the treaty between Stalin and Hitler (MRP) on August, 23, 1939 about 21,400 Baltic Germans left Estonia from October, 1939 to January, 1941. During the first years of the Soviet power (June, 1940 - October, 1941) about 60,000 people were arrested, murdered, deported or mobilized to the Soviet Army. By estimates about 4000 people were executed by Germans and about 10 000 men perished in the German Army. In 1943-1944 about 70,000 people escaped from Estonia to Sweden or Germany, 5000-6000 men ran away from mobilization to the German Army to Finland. We don't exactly know how many of those people came back after the war to Estonia.

The occupation of Estonia by the Soviet Union, the Winter War and World War II caused heavy losses to population in both countries. During the war and by the Peace Treaty of 1944 with the Soviet Union Finland lost about 150 thousand people, i.e. 3.5 percent of the population. The increase in population of Finland was due to perished Finnish men and low fertility rates only 1 percent during the whole period of war. The population of Estonia decreased as much as by 1/4 in that period.

Changes in mean population in 1944 were partly due to diminishing of territories in both countries. Finland and the Soviet Union concluded the Peace Treaty on September 19, 1944. As a result of this treaty Finland lost the city of Viipuri with the isthmus Karelia and the Eastern part of the North-Karelia. The



losses in population were small. These areas, except Viipuri and the eastern coast of the Gulf of Finland, had been sparsely inhabited. Almost all the Finns were removed to Finland from the lost territory. Territory of Estonia was also changed in the end of 1944. A part of Petsjerimaa was joined to the Pihkova Oblast on August 23 and the territory behind the river Narva to Leningrad Oblast on November 24. Estonia lost 39 000 people -i.e. 4.0 percent of the population. These areas were mostly populated with Russians.

Estonia reached the pre-war number of population at the beginning of the 1950s. In the post-war period the increase of population has been due to the immigration from the Soviet Union. At present there are 1575.5 thousand inhabitants in Estonia. During that period natural increase and migration processes in Estonia have produced an average increase of 1.0 percent per annum. In 1990 Finland had 4995.7 thousand inhabitants. Due to emigration and fall in excess of births over deaths during the post-war period the population increase has been 0.6 percent a year.

The growth of population and evolution of its age structure have been determined by natural increase (fertility and mortality) on the one hand, and migration processes (emigration, immigration, urbanization) on the other hand. These will be dealt with in more detail below.

## 2. Natural Increase

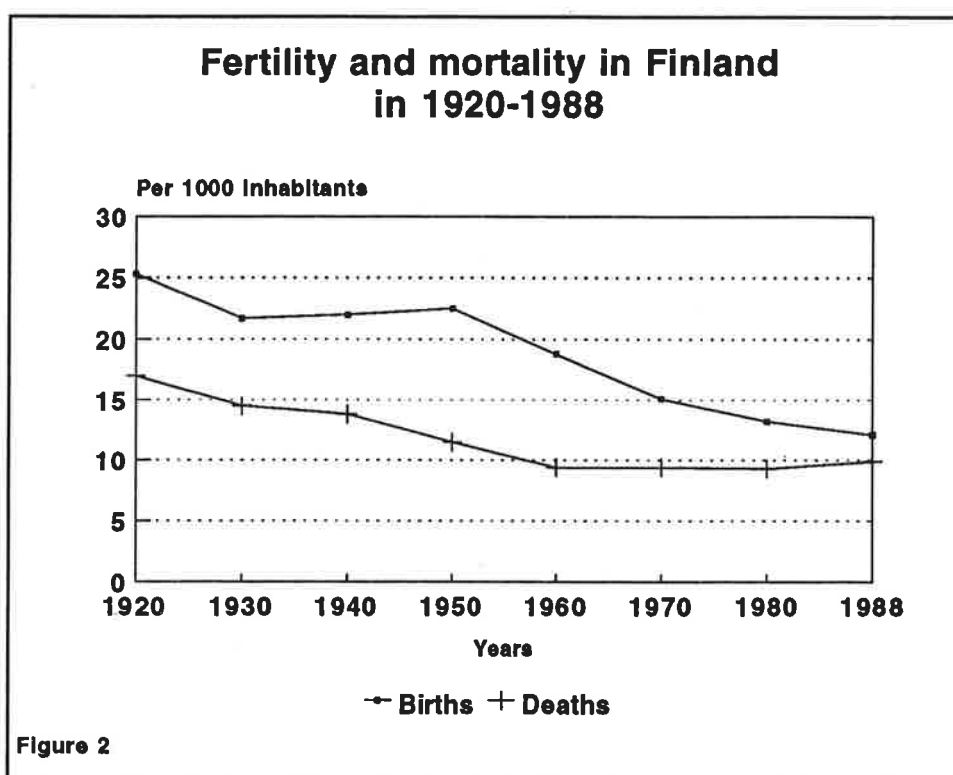
Natural increase of population is a difference of crude birth and death rates (or mortality) - i.e., excess of births over deaths or excess of deaths over births (see Figures 2 and 3). The development of mortality and birth rates have, both in Estonia and Finland, followed approximately the well-known model of demographic transition since the 19th century. Both mortality and birth rates have been falling in Finland and Estonia. Due to the rapid fall of birth rates, especially in the 1950s and 1960s, the growth of population has been quite slow over the whole period from 1920 to 1988.

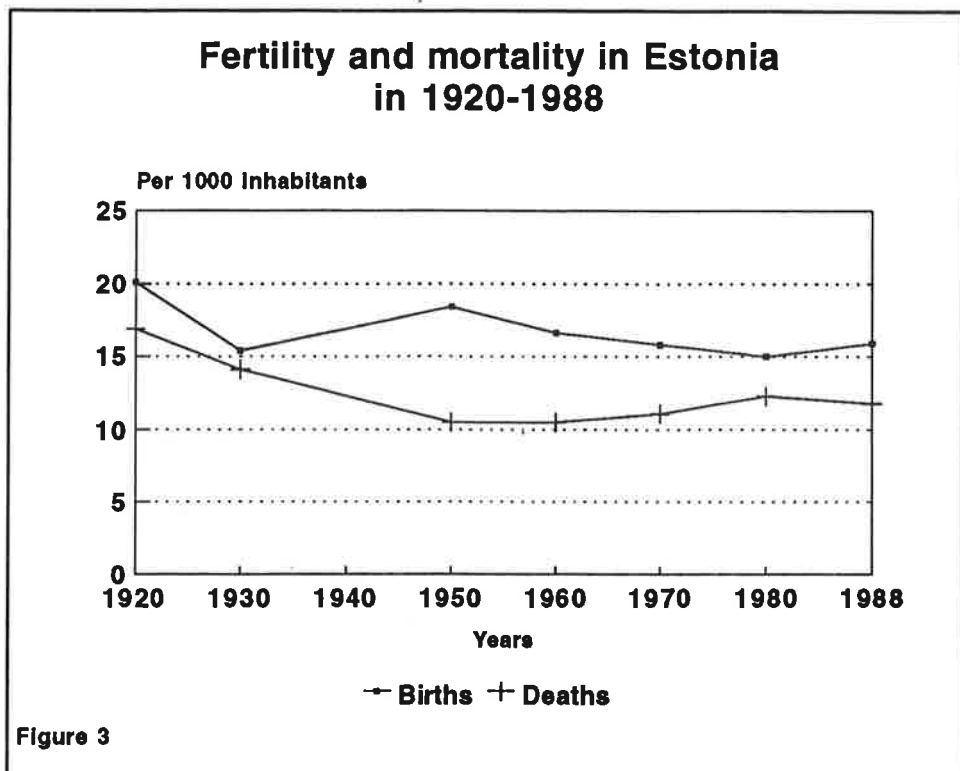
During the 1920s and 1930s the decrease in birth rate was more intensive in Estonia than in Finland. But, at the same time mortality fell more quickly in Finland. As a result of such demographic development the difference between birth rate and death rate was greater in Finland (see also Table 1). It was in the 1930s when the attention was drawn to the problem of depopulation for the first time in both countries.

Rapid growth of birth rate occurred during the "baby boom" after the war in Finland. At the same time there was an increase in birth rate in Estonia too, but it was not as intensive as in Finland. The last time the birth rate of Finland was higher than that of Estonia was in the 1970s. Since the 1950s death rate of Finland have been lower than in Estonia. Due to above-mentioned changes in birth and death rates natural increase was higher in Finland up to 1986. At the present processes of natural increase

are stable in Finland. In 1986, for the first time during the period of 1920-1988 natural increase rose higher in Estonia than in Finland. It was due to the increase in birth rate in 1986-1988 and decrease of mortality since 1986 (see Table 1).

According to population prognoses based on present birth and death rates the number of Finnish population will start to decrease around 2005. Natural increase will not fall in Estonia





before 2015, even if we leave out the in-migration from the Soviet Union.

### 3. Crude Birth Rate and Fertility

Crude birth rate (live births per 1000 inhabitants) is one component of natural increase. In Finland and Estonia the industrialization process, rising prosperity and educational level with attendant urbanization brought on a decline in crude birth rate in the first decade of the 20th century. The fall of birth rate was more conspicuous in Estonia than in Finland (see Table 2). The birth rate continued to show a growing tendency

T a b l e 2. Crude Birth Rate, Total Fertility Rate and Percentage of Abortions in Live Births in Finland and in Estonia

Year	Crude birth rate		Total fertility rate		Percentage of abortions of live births	
	Finland	Estonia	Finland	Estonia	Finland	Estonia
1921-1930	23.6	20.1	3.10	2.46	...	...
1931-1940	19.7	15.4	2.39	1.96	...	...
1941-1950	24.3	18.4*	2.98	...	...	...
1951-1960	20.7	16.6	2.88	2.39**	...	...
1961-1970	16.8	15.8	2.34	2.68	...	...
1971-1980	13.3	15.0	1.64	2.52	32.8	187.3
1981-1985	13.4	15.4	1.69	2.52	21.0	155.1
1986	12.3	15.6	2.12	2.53	22.0	145.2
1987	12.2	16.0	1.59	2.60	21.6	139.5
1988	12.1	15.9	1.69	2.68	20.9	119.7

\* 1945-1950

\*\* 1958-1959

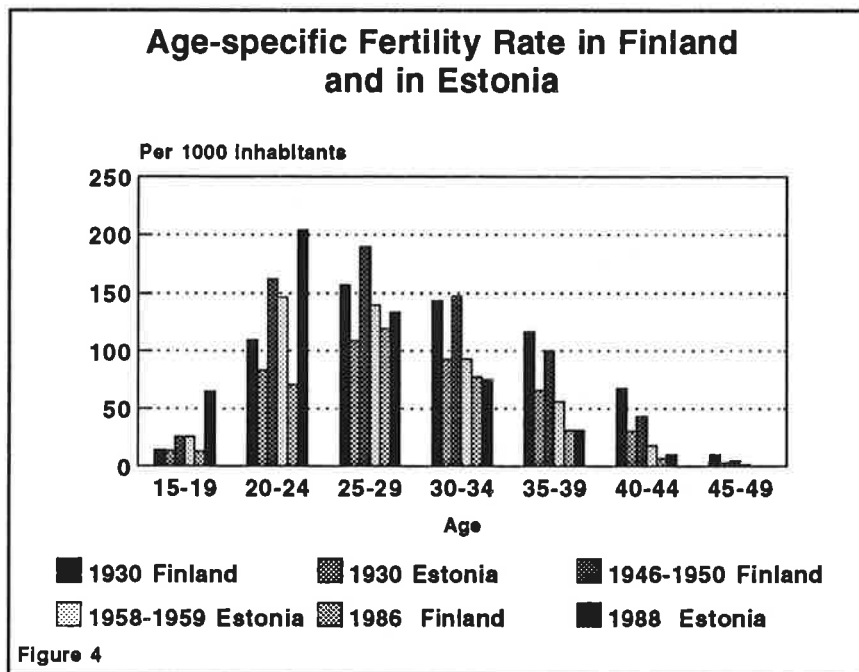
Sources: Yearbook of population research in Finland 1989. XXVII. Helsinki, 1989, pp. 79-80; Rahvastikuprobleeme Eestis. II rahvaloenduse tulemusi. Vihk IV. Tallinn, 1937, pp.117; Naselenie SSSR 1988. Moskva, 1989, pp. 54, 343, 413.

until the first half of the 1930s and fluctuated sharply during the World War II (see also Figures 2 and 3).

Besides crude birth rate changes it is very important to discuss fertility rates (1. age-specific fertility rate is the number of births to mothers of certain age groups over the number of women in the respective age group; 2. total fertility rate is calculated by summing up the age-specific fertility rates and multiplying them by 5). At the same time the decline in birth rate have been due to changes in fertility by ages. Both crude birth rate and fertility have been relatively low in the 1920s and 1930s, and are still declining. From the beginning of the 1920s up to the end of the

1930s total fertility rate was a bit higher in Finland than in Estonia (see Table 2). In both countries the age-specific fertility rates were the highest for age groups 25-29 and 30-34 in the 1930s. In both Finland and Estonia the average age of mother at the birth was 30 years (see Figure 4).

In Finland the first post-war years saw the above-mentioned "baby boom". The peak was reached in 1947 with a total fertility rate of 3.47 (see Table 2). At that time the highest age-specific fertility rates were in age groups 20-24 and 25-29 (see Figure 4). The average age of mother at births was 25. After that a declining trend followed in the birth rate in the 1950s and 1960s. This decline reached such dimension at the beginning of the 1970s Finland ranked among the countries with the lowest birth rate in the world. The low point with total fertility rate of 1.49 in 1973



was followed by a minor increase in the next three years. The slight increase that followed equalized the levels again in the late seventies.

The "baby boom" was much more pronounced in Finland than in Estonia (see Table 2 and Figure 4). After that the decline in fertility was not as steep in Estonia as in Finland. In Estonia that trend continued until 1960, when the total fertility rate reached its minimum (2.39). However, some ten years later it had risen to 2.68. Since the mid-1970s the total fertility rate has been fluctuating from 2.53 to 2.52. Approximately two-thirds of the total number of live births applies to women aged 20-30.

At the end of 1981 fertility began to rise in Finland and continued on a somewhat higher level during the whole following year and at least during the first half of 1983 as well (see also Table 2). This fertility increase occurred quite unexpectedly and the first estimates told of a considerable augmentation. The final number of children born in 1982 was, however, less than the first estimate; the increase was only six percent.

Age-specific fertility rates, however, show that fertility has increased more or less in all age groups. The increase was relatively biggest among those aged 40-45 - 16 per cent. In the most fertile age groups, i.e. women 25-34 years of age, the increase was 6-7 percent (see Figure 4). The absolute increase in the last-mentioned age groups was, of course, much more important than in the age group of those 40-45 years old. The examination of the increase shows that it was almost fully caused by a rise in

fertility rates. Only approximately one-tenth emanated from a change in the age distribution. In 1985-1986 the total fertility rate decreased to the level of the mid-seventies. However, the birth rate is still so low in Finland that it portends a future decrease in the population unless the trend begins to rise again distinctly.

In the 1980s the birth rate grew also in Estonia (see Table 2 and Figure 4). From 1986 to 1988 the increase of the total fertility rate was about 6 percent. The growth of the age-specific fertility rate in Estonia was different from that of Finland. The increase was most obvious in the age-group of women aged 35-39 - 13 percent. In age groups of 25-29 and 30-34 years old the fertility rates rose by 10-11 percent. Since 1987 the birth rate in Estonia has been falling again. The increase in fertility rates and birth rates in Estonia has been a result of various measures of population policy, only ten percent has been due to the changes in age distribution, just like in Finland.

The limitation of the number of children in a family has been brought about by the use of devices preventing pregnancy or by abortion. Abortion is probably the oldest and most common method of preventing an unwanted birth. The rates of abortions (the number of abortions per 1000 females at the age of 15-49) in the Soviet Union as well as in Estonia are considerably higher than elsewhere. It is probable that if people really want to limit the number of children and they have no reliable contraceptive methods at their disposal, they end up resorting to abortion.



We have data on abortions in Finland and Estonia since 1970 (see Table 2). In the 1970s, due to the above-mentioned reasons, in Estonia there were 5-6 times more abortions to births than in Finland. At present the ratio of abortions in relation to births could be expressed by 1197:1000 in Estonia and 209:1000 in Finland.

#### **4. Family, Marriage, Divorces**

A large majority of children are born into a two-parents family. As in Finland, so in Estonia the households gradually began to decrease in size because of industrialization and urbanization. Families got fewer children, and also the number of servants, lodgers and relatives in the household gradually began to decrease. And so, in the 1930s the average size of a Finnish family was 3.1 persons. In Estonia it was a bit larger - 3.2 persons.

In both countries - Finland and Estonia - the most common type of household has been and still is a family with two-parents and children (see Tables 3, 4 and Figure 5). In Finland the share of these families has decreased in the postwar period. This has been caused by the strong increase in the number of men and women living alone. In Estonia the number of families with a single parent and children has diminished during the period between the censuses of 1970 and 1979. In 1975 17.9 percent of Finnish families were couples without children, 18.4 percent women living alone and 8.5 percent men living alone. By the 1979 census 40.9 percent of all families were married couples without children in Estonia. The percentage of single people in Estonia was 13. Not all couples

consist only of the nuclear family. Some households also include one or more relatives. In the 1970-80s in Finland the most common extended family type consisted of a nuclear family and one relative. In 1975, 80 percent of all extended families were of this type. In Estonia the percentage of such kind families was 79 in 1979. According to the 1989 census the average size of an Estonian family was 3.7 persons. In 1984 approximately 80 percent of Finnish population were part of a family.

Table 3. Finnish Families with Children under 18 Years of Age by Type of Family and Number of Children (percent)

Married couples with children *					
	1	2	3	4+	Number
1960	34.4	30.7	17.5	17.4	601 542
1970	40.2	33.9	15.5	10.4	602 076
1980	44.6	41.1	11.1	3.0	588 373
1985	42.4	41.9	15.6 (3+)		560 784
1987	41.1	42.3	13.0	3.6	545 698
Mothers with children					
	1	2	3	4+	Number
1960	61.1	23.0	9.2	6.7	67 381
1970	60.7	23.8	9.5	6.0	66 303
1980	67.7	25.3	5.6	1.4	88 896
1985	70.0	24.5	5.5 (3+)		87 409
1987	69.0	25.2	4.8	1.0	86 377
Fathers with children					
	1	2	3	4+	Number
1960	56.7	24.8	10.3	8.2	9 123
1970	61.1	24.3	9.0	5.6	8 656
1980	71.1	23.0	4.8	1.1	11 463
1985	74.1	22.0	4.2 (3+)		11 677
1987	73.8	22.0	3.7	0.6	11 918

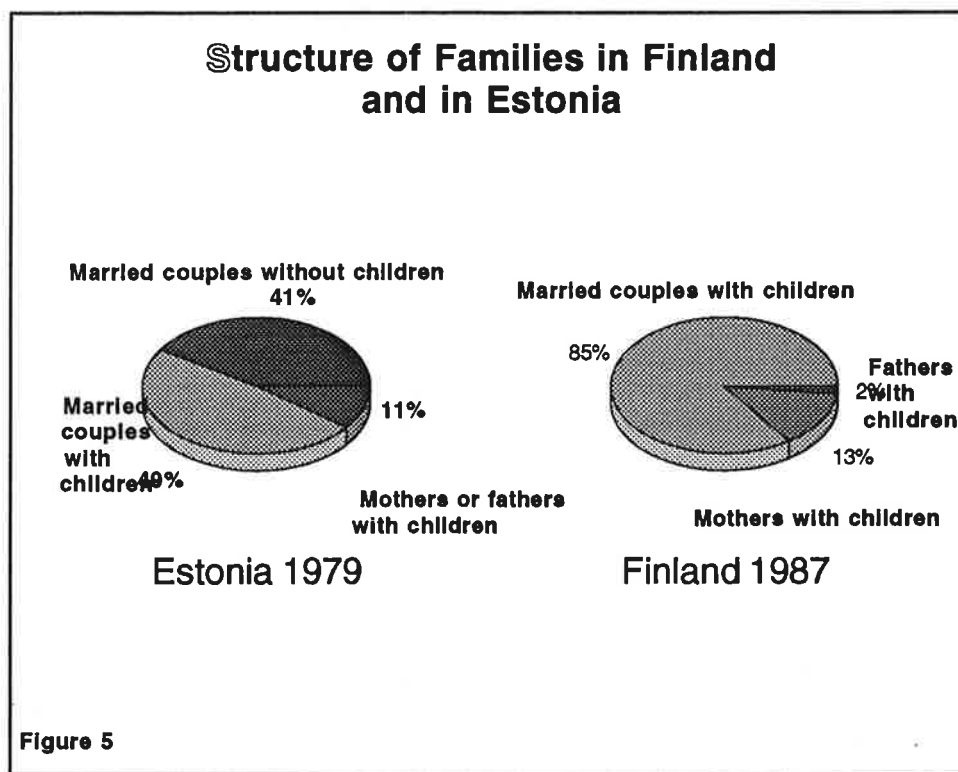
\* incl. unmarried couples with children under 18

Source: Yearbook of Population Research in Finland 1989. XXVII. Helsinki, 1989, pp. 81-82.

Table 4. Estonian Families with Children under 18 Years of Age by Type of Family and Number of Children (percent)

Married couples with children				Number
	1	2	3+	
1970	50.5	38.7	10.8	198 021
1979	52.8	38.1	9.1	191 548
Mothers or fathers with children				Number
	1	2	3+	
1970	74.0	20.5	5.5	62 581
1979	71.1	23.6	5.3	41 591

Sources: Naselenie Estonskoi SSR. Tallinn, 1974, p. 393; Nasele-  
nie Estonskoi SSR ( po dannym Vsesojuznoi perepisi naselenija  
1979 goda). Part 2. Tallinn, 1982, pp.114-115.



Marriage is still the most important foundation for a family. In Finland the marriage rate was very low during the whole prewar period, even lower than in Estonia (see Table 5). This was especially true in towns and for women of Finland. But in 1920, when the marriage rate was at its lowest in Finland, the proportion of those never married among women was only 57 percent in towns and among men 65 percent. In the 1920-30s in Estonia the rate of marriage was higher in towns - 9.2-9.5 in towns and 7.1-7.3 in rural places. The proportions of never-married women and men in Estonia were the same as in Finland. The situation was maybe caused by a social change which weakened economic preconditions for setting up family. This tendency was also strengthened by relatively common employment of young women.

The marriage rate became higher after World War II. This kind of tendency was more noticeable in Estonia than in Finland. The change in marriage rates was connected with economic growth and increase of mobility in both countries. In Estonia the peak of the marriage rate was in 1959, after that it began to decrease. In Finland the number of marriages started to decline in 1970.

In 1980 58.6 percent of the Finnish population aged 18 and over was married, 61.7 percent of men and 55.8 percent of women. The proportion of married men grows constantly until retirement age. The majority of retired men are married (80.2 percent). Women around 40 are most frequently married. The same differences between sexes are common also for Estonia. This situation is due to the fact that men generally marry younger women than themselves. After

divorce, or the death of one's spouse men remarry more often than women. The longer life span of women as compared with men is also an important reason. By the 1979 census 55.0 percent of women and 67.6 percent of men were married in Estonia. By the same source 5-6 percent of Estonian men and 7-8 percent of women never get married.

T a b e l 5. Marriages and Divorces in Finland and Estonia

	Per 1000 of mean population			
	Marriages		Divorces	
	Finland	Estonia	Finland	Estonia
1924	6.4	8.5*	...	0.52*
1930	7.2	7.9**	0.03	0.81**
1940	8.3	...	0.04***	...
1950	8.5	9.5	0.80	0.64
1960	7.4	10.0	0.89	2.1
1970	8.8	9.1	1.40	3.2
1980	6.1	8.8	1.98	4.1
1985	5.3	8.4	1.85	3.9
1986	5.2	8.4	1.98	3.9
1987	5.3	8.6	2.07	3.9
1988	5.3	8.2	2.69	3.8

\* 1922

\*\* 1934

\*\*\* 1933

Sources: SYB 1989; Yearbook of Population Research in Finland 1989. XVII. Helsinki, 1989, pp. 80-81. Rahvastikuprobleeme Eestis. Tallinn 1937, pp. 81, 100. Eesti NSV rahvamajandus 1988. aastal. Tallinn, 1989, p. 23.

In Finland cohabitation has become more frequent. In the 1980 labour survey 200 000 persons reported that they were cohabiting. This is a little less than 7 percent of the adult population. People who cohabit are relatively young. Three out of four are under 35. This is most likely due to the fact that young people start cohabiting well before the possible birth of a child. When a

child is born, it is very usual for the couple to get married. Thus, a large number of women giving birth out of wedlock are actually cohabiting.

The average age at first marriage in Estonia is lower than in Finland. For Estonian men it is 24.1 years and for women 22.6 years. The corresponding data for Finnish men is 26.8 and for women 24.9. Since 1970 the average age of first marriage has risen more than two years. It is a result of frequent cohabiting. The tendency of lowering of this age is still common for Estonia.

Marital dissolution by divorce (other classes are: death of one's husband and death of one's wife) became much more common at the start of this century. It was also due to the industrialization and urbanization process. It is clear that the number of divorces does not totally reflect the "true" number of broken marriages in the 1920s and 1930s. But, during this period the rate of divorces rose in Finland and Estonia (see Table 5). And besides, in Estonia more than in Finland. It was due to the fact that in these years divorces were relatively more frequent in urban settlements than in rural areas and by the end of the 1930s the proportion of urban population was higher in Estonia.

The number of divorces began to increase at about the same time that marriages started to become more frequent. In Finland the first culmination was reached just after the World War, when many war-time marriages dissolved (see Table 5). After that, the number of divorces declined. This new level lasted until the end of the 1960s. This period was quite stable. A change occurred at the turn

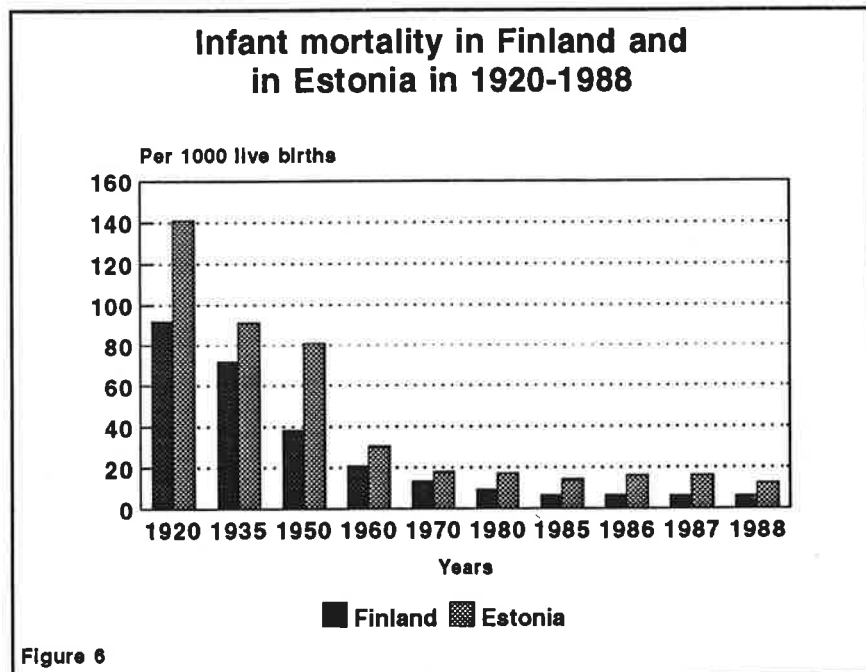
of the seventies, when the number of divorces began to increase. This tendency continued throughout the 1970s. The idea of easing the divorce process, presented in the report of the marriage law committee, was thus based on the real situation, i.e. on the actual prevalence of divorce. The numbers show that the dissolution of marriage (both kinds of dissolution - divorce and death) means living alone or in single parenthood more often for women than men (see Table 3).

During the post-war period the development of divorce rate in Estonia has been different from that in Finland. However, the marriage rate has risen. There were no rise in the number of divorces in Estonia just after the Second World War. The divorce rates grew quite rapidly after the year 1965, when the new marriage and divorce law was introduced. During the next years many earlier broken marriages were divorced, in 1970 1.41 percent of all marriages were divorced. After 1980 the divorce rate has stabilized. In Estonia as well as in the Soviet Union the main reason for divorces is the alcohol consumption by husbands. In some years even four-fifths of divorces proposed by wives were due to it.

### **5. Mortality, Infant Mortality and Life Expectancy**

Mortality is the other side of natural increase of population besides birth rate. In the 1920s and 30s the development of mortality followed approximately the well-known model of demographic transition both in Finland and Estonia. Simultaneously with the decrease of fertility there was a drop of mortality, in

particular among children and young people. The crude mortality rates in all years since 1924 stabilized at the level of 14-15 (see Table 6). Among the countries of Europe Finland and Estonia held a medium position with these rates. In the 1920s a period began for both countries when infant mortality started to fall rapidly to a level characteristic of an economically and socially developed countries. The decline of infant mortality is attributed to the development of possibilities to affect mortality through improved medical knowledge and organized systems of maternity and child care. For Finland and Estonia the importance of the 1920s in the development of infant mortality is the fact that before that decade the infant mortality had not fallen below the "magical" point of 100 infant deaths per thousand live births (see Table 6 and Figure 6).





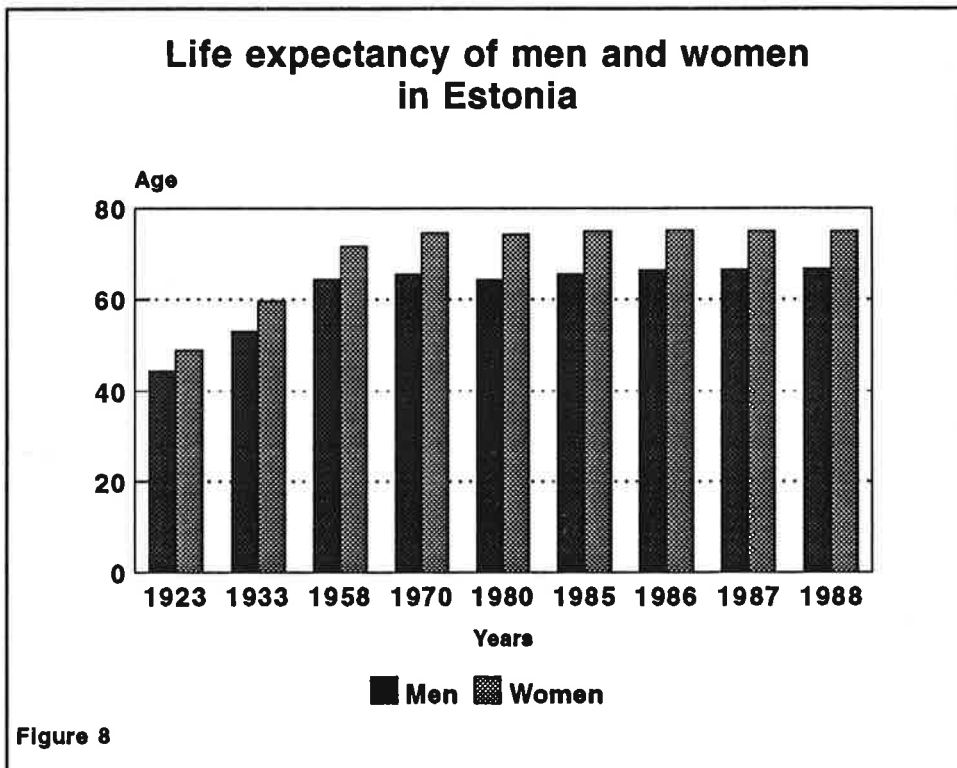
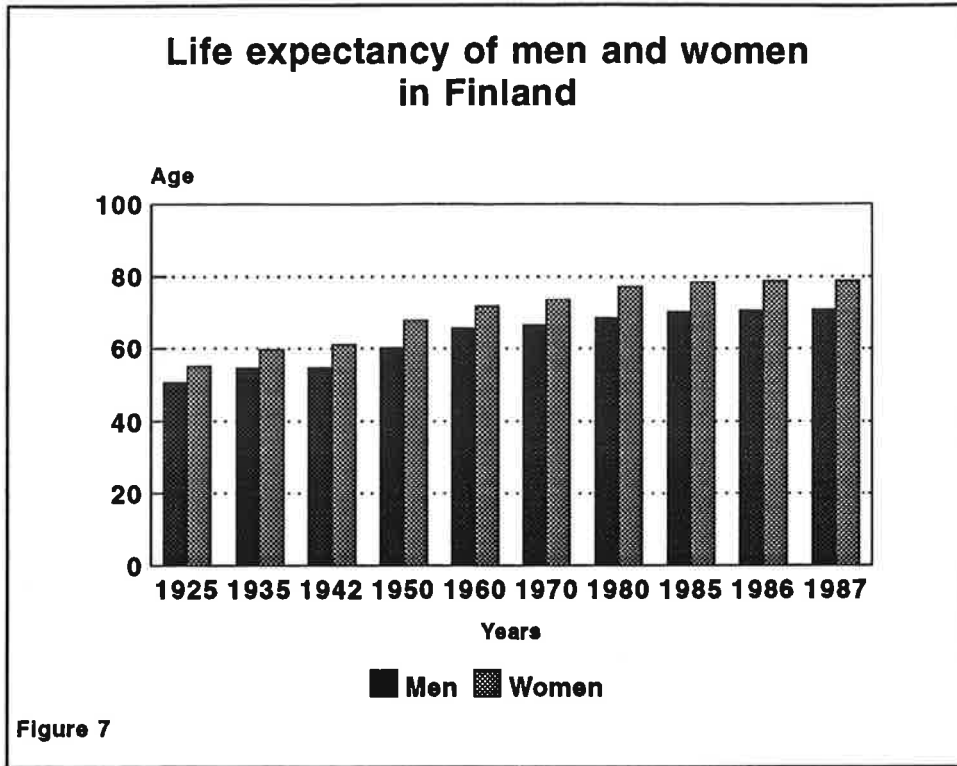
T a b l e 6. Dynamics of Crude Death Rate and Infant Mortality in Finland and in Estonia

	Crude death rate		Infant mortality per 1000 live births	
	Finland	Estonia	Finland	Estonia
1921-1930	14.9	15.9	91.9	113.8
1931-1940	14.0	14.9	72.0	91.1
1941-1950	13.6	10.5*	56.0	80.7*
1951-1960	9.3	10.5	28.6	55.5
1961-1970	9.5	10.8	16.7	24.0
1971-1980	9.4	11.7	11.3	17.4
1981-1985	9.3	12.4	6.3	15.6
1986	9.6	11.6	6.4	16.0
1987	9.7	11.7	...	16.0
1988	9.9	11.8	...	12.4

\* 1950

Sources: Yearbook of population research in Finland 1989, ;Rahvastikuprobleeme Eestis, pp. 135, 142; Estestvennoje i mehanicheskoye dvizhenie naselenia Estonskoi SSR. Tallinn, 1975, pp. 46, 204. Naselenie SSSR 1988, pp.413, 476.

The expectation of life at birth is generally considered as an indicator which best summarizes the mortality conditions of population. Due to the decrease of mortality in younger age-groups in the 1920s and 1930s life expectancy increased during this period (see Figures 7 and 8). By the mid-thirties life expectation had risen to 53 years in Finland and 56 years in Estonia. This difference in life expectancies between Finland and Estonia was due to the slow rise of life expectancy of Finnish men on the one hand and the rapid increase of life expectancy of Estonian women on the other hand (see Figures 7 and 8).



Before World War II Estonian and Finnish mortalities were alike. After the war they started to differ. In Finland the lowest crude death rate was 9.0. It was so for a longer period, starting from the 1950s till 1984 (see Table 6). Since 1985 the crude death rate has risen. It is due to a growing share of elderly and aged people of 60 and older. Estonia achieved the minimum of the crude death rate in the end of 1950s and in the first half of 1960s, when the intensity of mortality was already relatively low, but the aging level was not yet so deep as in the years to come. At present the crude death rate is stable in Estonia.

The development of infant mortality in Finland and Estonia in the post-war period shows us again how well it reflects changes in economic and social processes. After World War II infant mortality declined rapidly in Finland (see Table 6 and Figure 6). The change in infant mortality was relatively favourable in Finland in the 1970s. The infant mortality rate declined by more than 50 percent - from 13.2 per thousand births in 1970 to 6.4 in 1986 and it is among the lowest in the world. After the war infant mortality declined in Estonia in the same way as in Finland. Since 1970 there has been considerably less success in Estonia compared to Finland. Estonia reached the lowest level of infant mortality in 1988, but it was still two times higher than in Finland.

During the post-war period the development of life expectancy was in some ways similar to the development of crude mortality rates and infant mortality. Differences in life expectancy between men and women have increased in both countries. It was due to the

high mortality rate of men aged 35-60. From 1960 to 1986 there was an increase in life expectancy in Finland - 5.1 years for men and 6.1 years for women (see Figure 7). From 1960 to 1988 it was 2.2 years for men and 3.4 years for women. In Finland the difference of life expectancy between men and women was 8.3 years in 1986. This difference was smaller than the maximum difference of 8.8 years, which was observed in 1977. In Estonia female and male life expectancy differed by 9.4 years in 1988. The maximum difference was 10 years in 1965-1980.

#### **6. Causes of Death**

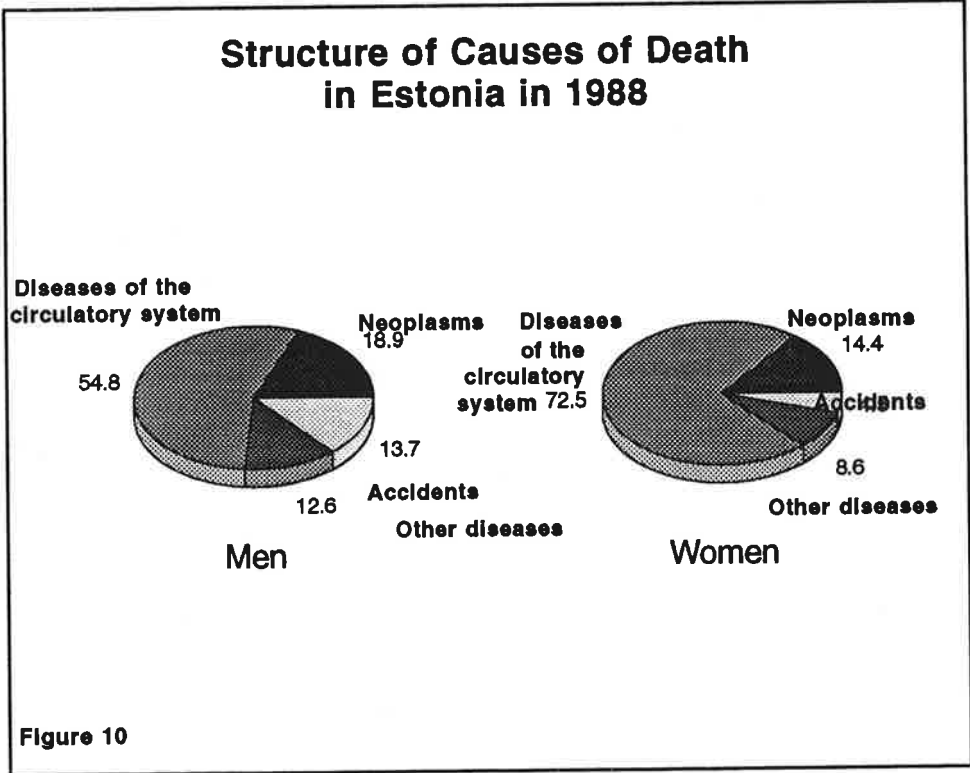
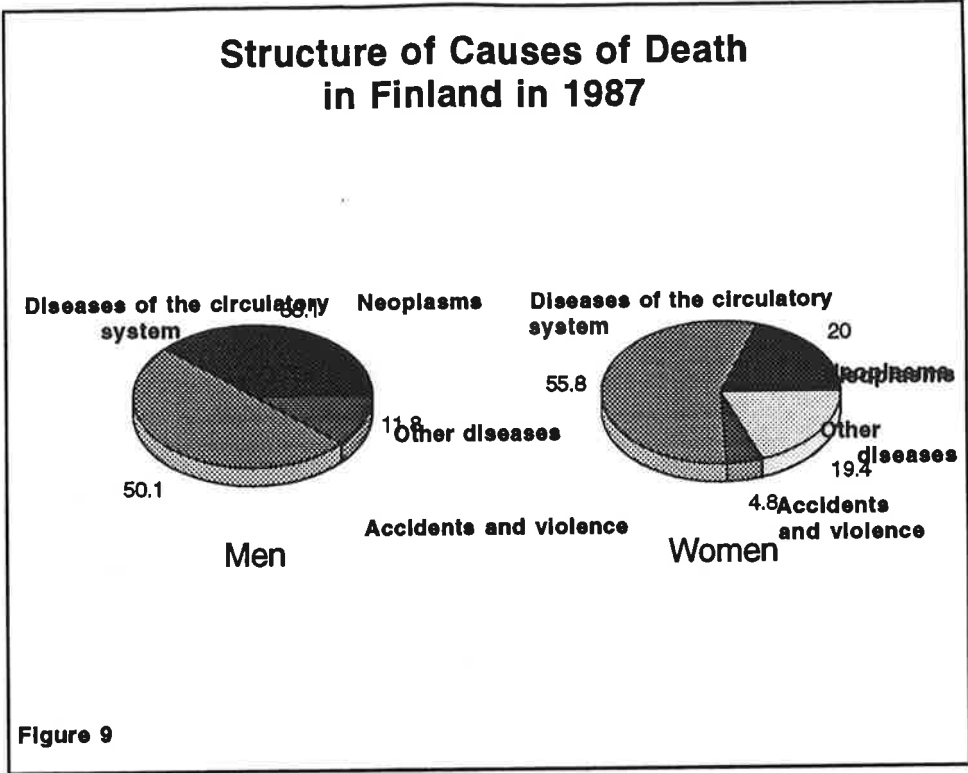
Total mortality is the sum of trends in mortality from different causes of death (e.g., coronary heart disease, lung cancer and suicide etc.). Due to the different cause-of-death classifications used in Finland and Estonia, it would be quite difficult to compare Finnish and Estonian mortality by causes of death. For that reason we'll study only deaths by the four most general groups of death causes: neoplasms, diseases of the circulatory system, other diseases and accidents.

In Estonia mortality is considerably higher in all main classes of causes of death than in Finland. One of the most puzzling aspects of the development of mortality in industrialized countries has been the irregularity of changes in male mortality since World War II. The increase of total male mortality in Finland and Estonia seem to have been closely connected with changes in mortality from cardiovascular diseases, among which

ischemic heart disease is dominant. Cardiovascular diseases together with cerebrovascular diseases belong to the group of diseases of the circulatory system. At present, diseases of the circulatory system are the main causes of death in both countries (see Figures 9 and 10). In Finland the male mortality from cardiovascular diseases rose rapidly in the 1960s, whereas there was a clear decline during the 1970s. Mortality from cardiovascular diseases began to rise in Estonia also in the 1960s, but there isn't yet a considerable decline in the causes of death of this group at present.

In both countries the second biggest group of causes of death is neoplasms (see Figures 9 and 10). Mortality from cancer of bronchi, trachea, lungs and in Estonia also of stomach constitutes almost half of the cases of this group. Death rates from cancer of trachea, bronchi and lungs have increased in both countries.

The third place is occupied by deaths from accidents, poisonings and violence. Mortality due to accidents and other violent causes of death increased among both sexes in the 1960s in both countries, but declined in the 1970s in Finland and in 1985 in Estonia. The most important factor in this development was the rapid fall in motor vehicle accidents. From 1960 to 1984 mortality from violent causes of death was higher than mortality from neoplasms in Estonia. The rapid fall of alcohol consumption in 1985 determined the decline of mortality from street accidents, alcohol poisonings and suicides. Besides, the crude mortality rate of sui-



cides is in Finland and especially in Estonia much higher than in all Scandinavian countries and even higher than in the Soviet Union.

### **7. Migration**

Migration affects all demographic processes as well as the formation of labour force. The geographical mobility of population has taken place not only as internal migration (migration between rural and urban places, intramunicipal movement) but also as international migration.

In the period between the Wars, especially in the 1930s, emigration from Finland was low because of various obstacles (visas, residence and work permits, etc.). It was the period of rapid urbanization in Finland and also in Estonia. Up to 1939 international migration in Estonia was similar to that of Finland. At the end of 1939 about 13 thousand people emigrated from Estonia, mostly to Germany (about 11 thousand people).

Since the Second World War, more than 600 000 Finns have emigrated (see Table 7), most of them to Sweden (73 percent of Finnish emigrants). Five countries (Sweden, FRG, Canada, USA, Australia) may be singled out as significant destinations for Finnish emigrants since the World War II. Next to Sweden migratory exchange has been the liveliest with the Federal Republic of Germany (11 percent). But most emigrants seem to have stayed there for only short periods (16 percent of return migrants have come back from FRG). Allowing for return migration, the net emigration has been a little over 300 000 persons - 6.3 percent of Finnish

Over the period 1945-1988 the migration gain in Estonia was approximately 500 000 (see Table 7). In 1945-1950 out of 241,300 in-migrants about one-third were Estonians returning to their native country. The labour force coming from different regions of the Soviet Union has played an important role in the national economic plan. In 1954-1960 about 28,000 Estonians came back from Siberia. In the period of 1951-1960 about 25,500 and in 1961-1979 about 92,100 mostly non-Estonians came to Estonia, mostly from Leningrad Oblast and Pskov Oblast. Up to the early 1980s the regions of the Soviet Union from where in-migrants came to Estonia widened. People came to Estonia from Central Russia, Siberia, Central Asia, Ukraine. The early 1980s were the years of maximum migration. The migration intensity has fallen since 1987 and migration gain amounted only to 2800 people in 1988. This tendency of migration gain continued in 1989-1990.

Still, in Estonia migration has led to a number of social and economic problems. Numerous migrants came to Estonia not to find a job but in the hope of getting a flat. The labour turnover among the migrants is very high: already during the first year 20-30 percent of the in-migrants leave their first working place. In-migrants from several places of the Soviet Union enjoyed for many years (since World War II to 1989) some advantages in getting hostel accommodation or a flat. During this period nearly a fourth of the flats were given to people who had lived in Tallinn less than 5 years. However, uncontrolled migration made up the bulk of migration, and the in-migrants usually found accommodation at their



current population.

T a b e l 7. External Migration in Finland and Estonia

	Yearly net migration		Per 1000 of mean population	
	Finland	Estonia	Finland	Estonia
1941-1950	-4100	...	-1.1	...
1951-1960	-7003	3748*	-1.5	3.1*
1961-1970	-17763	6955	-3.9	5.4
1971-1975	1936	6155	0.4	4.4
1976-1980	-7493	5552	-1.6	3.8
1981-1985	5347	6015	1.1	4.0
1986	1658	7237	0.3	4.7
1987	667	6490	0.1	4.2
1988	1718	2794	1.8	1.8

\* 1956-1960

Sources: Yearbook of Population Research in Finland 1989. p.83  
 K.Katus. Sisseränne Eestisse. "Eesti Ekspress", 17.11.89;  
 K.Katus. Väljaränne Eestist. "Eesti Ekspress", 24.22.89.

Migration from Finland to Sweden has generally followed economic development in Sweden to the degree that during boom migration has increased, and during recession it has correspondingly decreased. On an individual level, unemployment and better salaries in Sweden have been the dominant motives. Economic factors are also reflected in return migration but they are not of primary importance. The most important motives are: providing for the children's future, homesickness or not liking Sweden, and family, friendship or private life. In the 1980s there was a clear migration gain in Finland from Sweden, mainly due to the return migration. The economic factors affecting the migration to Sweden have disappeared, since the income levels are more or less equal.

relatives or friends.

In Finland internal migration increased steadily in the 1950s, remaining quite stable during the 1960s and increasing again in the early 1970s up to the year 1974 (see Table 8). In 1974 a clear decrease in intermunicipal migration was seen. During that period migration between rural areas experienced a marked decrease: in the early 1950s 50 percent of all moves were made from one rural area to another, but by 1979 such moves accounted for only 13 percent. On the other hand, migration between urban areas has increased correspondingly (13% vs. 36%). Migration from rural to urban areas has remained at a rather stable level, while migration from urban to rural areas has increased slightly.

T a b e l 8. Internal Migration in Finland and Estonia

	Annual average*		Percentage of mean population	
	Finland	Estonia	Finland	Estonia
1921-1930	79 248	...	2.4	...
1931-1939	136 470	...	3.8	...
1941-1950	132 778	...	3.5	...
1951-1960	172 098	55 406**	4.0	4.6**
1961-1970	219 330	57 230	4.8	4.4
1971-1980	213 569	55 917	4.6	3.9
1981-1985	193 681	50 634	4.0	3.4
1986	186 244	49 155	3.8	3.2
1987	201 448	49 106	4.1	3.1
1988	211 678	43 107	4.3	2.8

\* Average in-migration to rural and urban municipalities

\*\* 1956-1960

Sources: Yearbook of Population Research in Finland 1989.p. 84;  
K.Katus. Sisseränne Eestisse. "Eesti Ekspress", 17.11.89.

to Tallinn, the importance of internal migration from other areas of Estonia has decreased since 1976. In 1971-1975 the migration gain at the expense of rural areas was 4300, while in 1976-1980 it was 1700. Since 1983 changes have taken place in migration between urban and rural areas. In 1983-1986 the rural population gained 6100 people by migration. In 1987-1989 the growth of rural population has been due to the in-migration of rural settlements.

### **8. Urbanization and Population Density**

Simultaneously with the general growth, the population of urban areas in both countries has continuously increased. As compared with other industrial countries of Europe a process of urbanization in Finland and Estonia was slow in the 1920s and 1930s. The share of urban population in the total population was higher in Estonia than in Finland (see Figure 11 and Table 9).

In the 1920s and 1930s there were not many big cities in Finland and Estonia. In the pre-war period the most of Finnish and Estonian population lived in the countryside, in individual residential spots and in small towns. In both countries the capitals have a significant place. In Finland only Helsinki had more than 100 000 inhabitants in 1920 (see Table 10). In Estonia Tallinn was the only big city at that time (see Table 11). Other towns were much smaller than the capital cities. The other towns

T a b l e 9. Urban and Rural Population and the Proportion of Urban Population in Finland and Estonia

Years	Urban population (thousands)		Rural population (thousands)		Share of urban population	
	Finland	Estonia	Finland	Estonia	Finland	Estonia
1920*	507.4	301.6	26040.2	789.2	16.1	27.5
1930**	715.0	349.8	2747.7	767.5	20.6	31.0
1940	991.7	354.1	2703.9	700.3	26.8	33.6
1950	1302.4	516.0	2737.4	581.0	32.3	37.0
1960	1707.0	690.7	2739.2	518.4	38.4	57.1
1970	2340.3	881.2	2258.0	474.9	50.9	65.0
1980	2685.1	1033.1	1922.7	440.7	59.8	70.1
1985	2937.9	1092.7	1972.8	436.8	59.8	71.4
1986	3042.9	1104.2	1882.7	437.8	61.8	71.6
1987	3052.4	1116.6	1886.2	439.4	61.8	71.8
1988	3061.0	1117.0	1893.5	438.0	61.8	72.0

\* Data of the Census of 1922

\*\* Data of the Census of 1934

Sources: Yearbook of Population Research in Finland 1989. XXVII. The Population Research Institute, Helsinki, 1989, p.78; Naselenie SSSR 1987. Moskva, 1988, pp. 15, 16; Rahvastikuprobleeme Eestis. II rahvaloenduse tulemusi. Vihk IV. Tallinn, 1937, p. 5.

T a b l e 10. Number of Inhabitants of Big Cities (in thousands) in Finland

Year	Mean population of big urban municipalities						
	Helsinki	Turku	Tampere	Viipuri	Oulu	Espoo	Vantaa
1920	197.8	58.4	47.8	30.1	21.3	...	...
1940	320.3	74.8	80.8	73.9*	28.0	...	...
1950	369.4	101.8	101.1	...	37.9	...	...
1960	452.8	124.4	127.3	...	58.2	...	...
1970	510.4	96.6	155.4	...	85.0	152.2	...
1987	490.0	160.5	170.5	...	98.6	164.6	149.1

\* Year 1937

Source: SYB 1938 and 1989

had much lower population. In Tartu and Turku there were about 58 thousand people. There were four towns in Finland where population number was more than 20 thousand and two towns in Estonia. Before World War II there were 40 such towns in Finland and 33 in Estonia.

T a b l e 11. Number of Inhabitants of Big Cities (in thousands) in Estonia

Year	Mean population of big urban municipalities				
	Tallinn	Tartu	Pärnu	Narva	Kohtla-Järve
1922	122.4	58.9	20.3	23.5	...
1938	146.7	60.6	21.5	24.2	...
1959	281.7	74.3	36.1	27.6	29.2
1970	362.7	90.5	46.3	57.9	68.3
1979	429.7	104.5	51.3	72.8	72.7
1989	482.3	114.0	53.9	81.4	77.1

Sources: Eesti NSV rahvamajandus 1988. aastal. Tallinn, 1989, p.

The industrialization in both countries and collectivization of agriculture in Estonia formed the main reason for the out-migration from rural areas into cities and other urban settlements possible. Due to the immigration from the Soviet Union and migration processes of the Estonian rural population the number of inhabitants of Tallinn rose twofold during the period 1938-1959. Population growth in Helsinki during that period was considerably smaller.

In the 1960s and 1970s the process of urbanization continued in both countries. The urban settlements of Estonia took over four

fifth of the net immigration from other republics of the Soviet Union, and since 1964 have been responsible for the whole natural increase. Besides, urban settlements have grown considerably due to internal rural-urban migration. During this period, besides Tallinn, the population growth has been very intensive in such industrial centres as Narva and Kohtla-Järve. The growth of these towns has been only due to immigration of Russian population from Leningrad and Pskov Oblast.

At the beginning of the 1960s economic growth began in Finland. On the one hand, this was the basis for great changes in industrial structure: the proportion of the manufacturing sector, and to an even greater extent, the public services sector, increased rapidly. New work places in expanding industries have largely been concentrated within centres of population. But, on the other hand, between 1946 and 1950 the "baby-boom" cohorts were born - i.e. the exceptionally large groups of people born in the late 1940s entered the labour market. Mainly due to above-mentioned changes the population of Finland decreased in sparsely populated areas and grew in population centres of different size. In this period, besides Helsinki, also the centres of counties like Turku, Tampere and Oulu grew.

At present there are 84 urban municipalities in Finland and 56 urban settlements in Estonia. There are two categories of urban places in Estonia: 1) a town, and 2) an urban type of settlement (in Estonian "alev"). 33 urban places are towns and 23 urban type settlements. Population of 11 towns and 21 urban type settlements

is less than 5,000. It is only 7.6 percent of the total urban population of Estonia. 66.1 percent of mean population of Estonia live in urban places bigger than 5,000 inhabitants.

During the period 1970-1987 the population of Helsinki decreased due to out-migration and low natural increase by 20 thousand people. At the same time the population of other towns of the Helsinki metropolitan area - Espoo and Vantaa increased. The process of urbanization stabilized in Finland by 1980. In Estonia in the 1980s Tallinn continued to grow. The growth of smaller towns hasn't been so intensive. In spite of increase of the number of inhabitants in Tallinn, a share of urban population in Estonian population didn't grow. Many urban dwellers have moved from towns of North-East Estonia to Tallinn.

Due to the above-mentioned urbanization and migration processes the population density of Finland and also of Estonia rose in between 1920-1987 (see Table 9). In 1920 there were 8.2 inhabitants per square kilometre in Finland and 22.9 in Estonia. Due to the population growth the population density increased to 9.7 people per square kilometre in Finland by the end of the 1930s and to 23.8 in Estonia.

By 1945 the population density had risen to 11.0 inhabitants per square kilometre in Finland. Due to the population losses during the war 18.9 persons per square kilometre lived in Estonia. By the present time, due to contrary migration trends of Finland and Estonia, the population density in Finland has risen only to 14.6 and in Estonia even to 34.9 people per square kilometre.

In both countries the population is not distributed uniformly. Finnish population is concentrated to the coasts of the Gulf of Finland and the Gulf of Bothnia, where the population density in large areas comes up to 50 people per square kilometre in spots (120 people per square kilometre in Uusimaa). On the other hand, the most northern part of Finland is sparsely inhabited - less than 1 person per square kilometre. There are not so large differences in population density in Estonia. The most inhabited areas are the hinterland of Tallinn and South Estonia, the less inhabited territory is in West-Estonia and the islands.

#### **9. Sex and Age structures**

Mortality, fertility and migration processes have influenced the evolution of the sex-age structure in Finland and Estonia. As in most countries, women were in 1920-1930 and still are in numerical superiority in both countries (see Table 12). In Estonia the proportion of women was higher than in Finland already in the 1930s. Differences between numbers of men and women become greater with increasing age. Due to the fact that in Finland differences in life expectancy of men and women are not so great as in Estonia, the numerical superiority of aged Finnish women isn't so great as in Estonia.



T a b l e 12. Sex Ratio in Finland and Estonia

Age	Women per 1000 of mean population			
	1930*		1987**	
	Finland	Estonia	Finland	Estonia
0- 4	491	492	489	492
5- 9	492	495	489	490
10-14	492	493	488	491
15-19	491	500	489	474
20-24	495	494	490	487
25-29	499	502	488	496
30-34	509	525	489	505
35-39	510	550	485	510
40-44	511	556	488	519
45-49	510	555	497	524
50-54	516	553	505	537
55-59	529	563	520	557
60-64	537	575	552	606
65-69	559	595	603	661
70-74	579	615	634	671
75-79	586	627	665	713
80-84	595	634	710	745
85-89	574	675	751	784
90-	688	731	789	838
Total population	507	531	515	533

\* In Estonia by the 1934 census

\*\* In Estonia by the 1989 census

Calculated on the basis of: OSF, VI a, C Population, Population and Housing Census (CSO); SYB 1938; Rahvastikuprobleeme Eestis. II rahvaloenduse tulemusi, pp. 12-13; Eesti Statistika Aastaraamat 1989. Tallinn, 1991, pp. .

There are plenty of children and rather low number of old people in the classic age structure. But, already in the 1930s, the age groups of children were less numerous than the adult people in Finland and in Estonia (see Figures 12 and 13). This was due to the decline of fertility and increase in life expectancy during the pre-war period. Age groups over 65 years were small because life expectancy of that time was less than 60 years in both

countries.

The irregularities of the present age structure of the Finnish population are closely connected with the changes in the annual number of live births in this century (see Figure 14). The variation of sizes of age groups born from 1910-1944 is a result of the rapid decline in fertility until 1933 and the rise in fertility until the end of the decade. The "baby-boom" age groups, born in the late 1940s, were 35-40 years old in 1987 and they can be clearly seen in the current age structure (see Figure 14). The declining fertility after the "baby boom" made the youngest age groups considerably smaller than middle-aged groups. The smallest birth cohort in 1973 can also be seen in the population pyramid.

Both in Estonia and Finland the process of population aging is going on. More than fertility and mortality the migration from several places of the Soviet Union has influenced the Estonian age structure (see Figure 15). On the one hand, in-migrants are young people (15-34 years old), basically in the age of the highest reproductive potentials. On the other hand, the share of elderly people is growing in Estonia. Since 1987 the number of in-migrants has decreased rapidly. It means that the share of elderly people in Estonian age structure grows also due to aging of in-migrants who came to Estonia in their productive age in 1950-1970. At the same time, due to the low fertility rate the number of children has not increase.

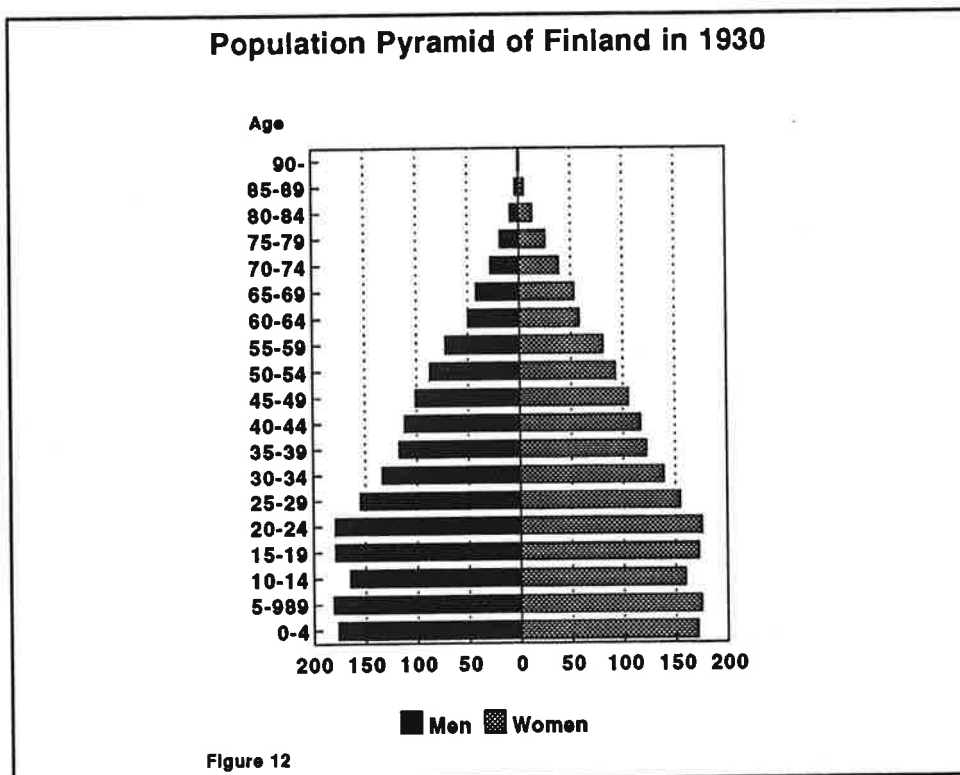
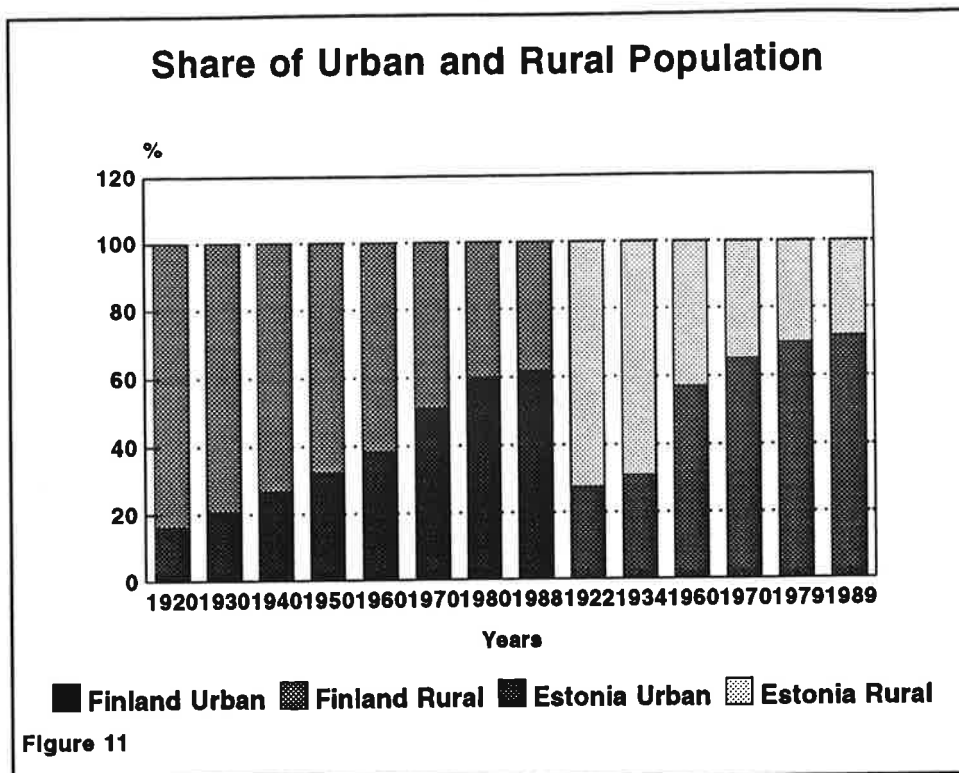
T a b l e 13. Age Structure in Finland and Estonia

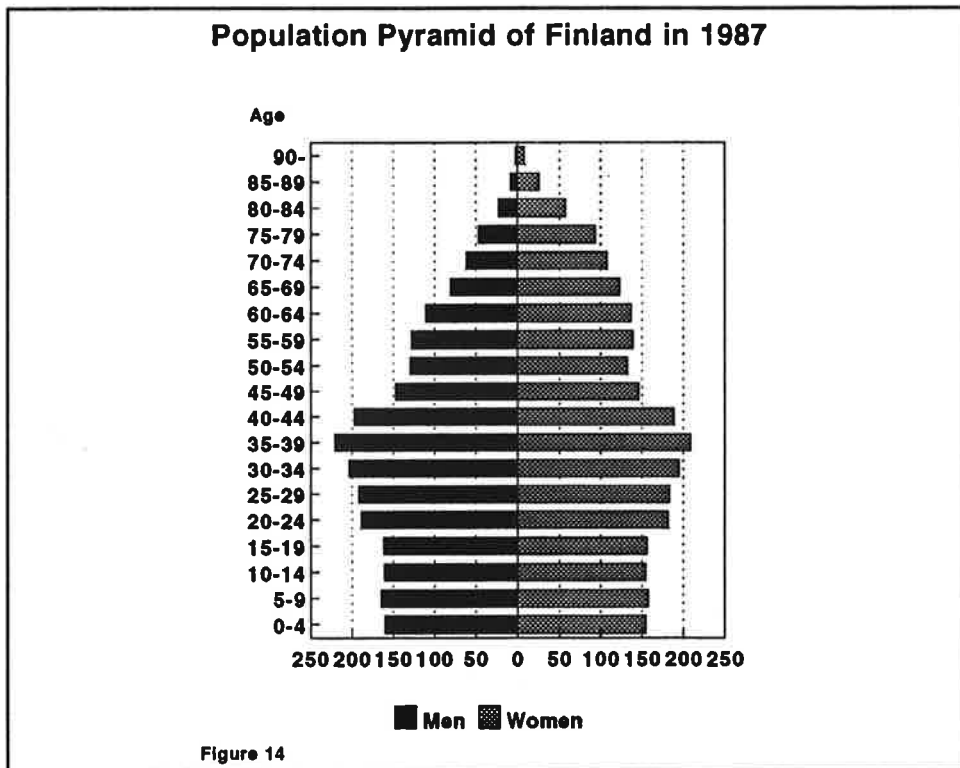
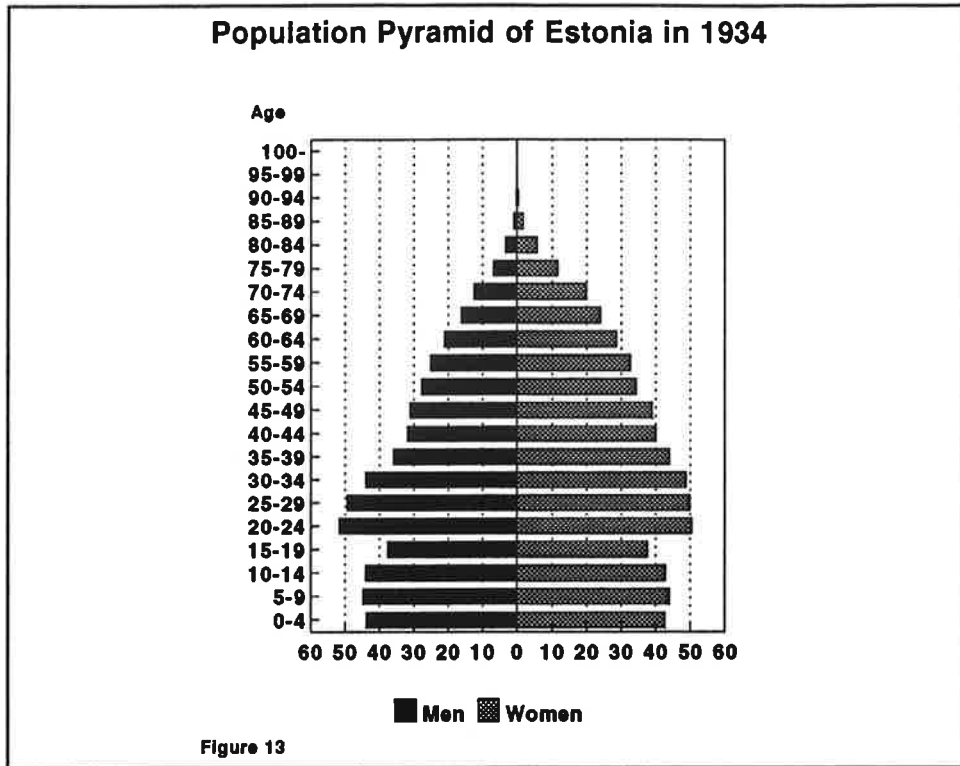
	Finland			Estonia		
	0-14 %	15-64 %	65- %	0-14 %	15-64 %	65- %
Whole population						
1920*	33.4	60.7	5.9	25.5	67.0	7.5
1930**	29.4	64.3	6.3	23.3	67.6	8.3
1940	26.9	66.7	6.4	...	...	...
1950	30.0	63.3	6.7	...	...	...
1960	30.1	62.4	7.4	22.7	66.8	10.5
1970	24.4	66.3	9.3	22.0	66.1	11.9
1980	20.2	67.8	12.0	21.5	65.9	12.6
1985	19.4	68.0	12.6	22.1	66.6	11.3
1986	19.3	67.9	12.8	22.0	66.9	11.1
1987	19.3	67.8	12.9	21.9	66.9	11.2
1988	19.4	67.5	13.1	21.8	66.9	11.3
Men						
1920*	34.8	60.0	5.2	27.4	66.1	6.5
1930**	30.6	64.1	5.3	25.1	67.4	7.5
1940	28.1	66.5	5.3	...	...	...
1950	32.0	62.8	5.2	...	...	...
1960	31.9	62.3	5.7	26.4	66.2	7.4
1970	25.7	67.1	7.2	24.6	67.3	8.1
1980	21.4	69.7	8.9	23.7	67.9	8.4
1985	20.5	70.4	9.1	24.2	68.4	7.4
1986	20.4	70.3	9.3	24.1	68.6	7.3
1987	20.4	70.3	9.4	23.9	68.6	7.3
1988	20.4	70.0	9.5	23.8	69.0	7.2
Women						
1920*	32.0	61.3	6.7	23.9	67.8	8.3
1930**	28.3	64.5	7.2	21.6	67.8	10.6
1940	25.7	66.9	7.4	...	...	...
1950	28.1	63.9	8.0	...	...	...
1960	28.5	62.5	8.9	19.8	67.3	12.9
1970	23.0	65.7	11.3	19.9	65.0	15.1
1980	19.1	66.0	14.9	19.7	64.2	16.1
1985	18.4	65.8	15.8	20.2	65.1	14.7
1986	18.3	65.6	16.1	20.2	65.3	14.6
1987	18.3	65.4	16.3	20.0	65.2	14.8
1988	18.4	65.1	16.5	20.0	65.1	14.9

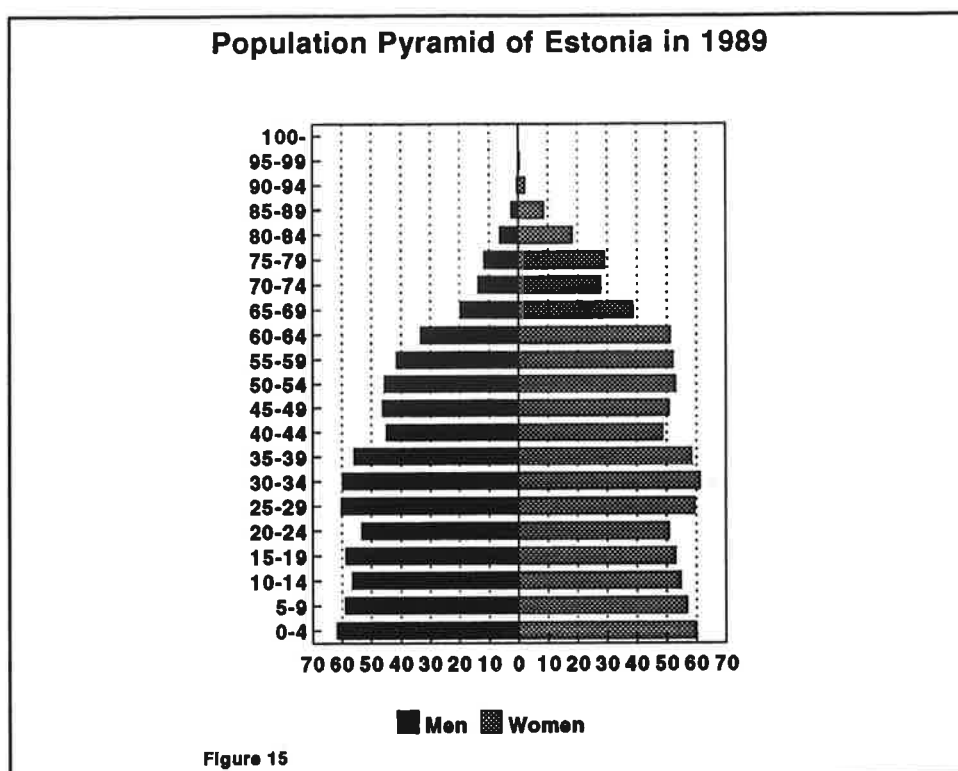
\* In Estonia by the 1922 census

\*\* In Estonia by the 1934 census

Sources: Yearbook of Population Research in Finland 1989. XXVII. p. 78; Rahvastikuprobleeme Eestis. II rahvaloenduse tulemusi. PP. 12-23; Itogi wsesojuznoi perepisi naselenia 1959 goda. Estonskaja SSR. Moskva, 1962, p.22; Estestvennoje dvizhenije i migratsija naselenia Estonskoi SSR v 1981-1985 gg. Tallinn, 1987, pp.29-31.







Since the 1930s the percentage of elderly population and people in productive age has increased in Finland and Estonia (see Table 13). The share of the population in productive age is internationally high in Finland.\* There are 2.1 people in productive age for every person in non-productive age (children and elderly people). In Estonia this number is 2.0. The percentage of children was in the 1920s and 1930s higher in Finland than Estonia. It was due to lower fertility at that time in Estonia. At present the situation is the opposite. It is due to lower fertility

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\* The situation will change very rapidly in the late 1990s and 2000s.

in Finland and the influence of in-migrants on Estonian fertility. The growth of elderly population has been more rapid in Finland than in Estonia since the 1920s. A more important factor is a more rapid growth of life expectancy in Finland as compared with Estonia.

### 10.Nationalities and Language

The ethnic composition of the Finnish population has changed little since 1920. In 1920 the Finnish population consisted of 88.7 percent Finns, 10.98 percent Swedes and less than 1 percent other ethnic groups (see Table 14). By 1987 percentage of Finns had risen to 93.6, percentage of Swedes fallen to 6.0. The share of Russians, Lapps and other small ethnic groups together has not changed, either.

T a b l e 14. Population of Finland by Language

	Percentage of mean population				
	Finnish	Swedish	Russian	Lappish	Other
1920	88.7	11.0	0.15	0.05	0.12
1930	89.4	10.1	0.24	0.06	0.16
1940	90.0	9.6	0.19	0.06	0.13
1950	91.1	8.6	0.12	0.06	0.08
1960	92.4	7.4	0.06	0.03	0.07
1970	93.2	6.6	0.04	0.05	0.08
1980	93.5	6.3	0.03	0.03	0.16
1987	93.6	6.0	0.05	0.03	0.25

Source: Population: Structure of Population and Vital Statistics, SYB 1989.

In Estonia the dynamics of the ethnic composition has not been as simple as it has been in Finland. During the 1920s and 1930s

there were 88 percent Estonians, about 8 percent Russians and about 1.5 percent Germans in Estonia. There were certain territories in Estonia where Russians lived. These places were a western coast of Lake Peipsi and North-East Estonia. Germans lived mostly in small towns. In these years Estonia had also small ethnic groups of Swedes, Jews, Latvians, Lithuanians and Finns (0.1 percent of the Estonian population).

At the very beginning of the occupation of Estonia and other Baltic States the Soviet Union started to populate these ter-

T a b l e 15. Population by Nationalities in Estonia

Nationalities	Percentage of mean population					
	1922	1934	1959	1970	1979	1989
Estonians	87.6	88.2	74.6	68.2	64.7	61.5
Russians	8.6	8.2	20.1	24.7	27.9	30.3
Ukrainians	0.0	0.0	1.3	2.1	2.5	3.1
Byelorussians	0.0	0.0	0.9	1.4	1.6	1.8
Finns	0.1	0.1	1.4	1.4	1.2	1.1
Swedes	0.7	0.7	0.0	0.0	0.0	0.0
Jews	0.4	0.4	0.5	0.4	0.3	0.3
Latvians	0.1	0.5	0.2	0.2	0.3	0.2
Germans	1.7	1.5	0.1	0.6	0.3	0.2
Tatars	...	0.0	0.1	0.1	0.2	0.3
Poles	0.1	0.1	0.2	0.2	0.2	0.2
Lithuanians	0.1	0.1	0.1	0.2	0.2	0.2
Others	0.6	0.2	0.5	0.5	0.6	0.8

Sources: Rahva demograafiline koosseis ja korteriolud Eestis. 1922.a. Üldrahvalugemise andmed. Vihk I ja II. Tallinn, 1924, p. 31; Rahvastikuprobleeme Eestis. II rahvaloenduse tulemusi. P.24; Naselenie Estonskoi SSR (po dannym Vsesojuznoi perepisi naselenia 1979 goda). Tallinn, 1982, p. 107; Esialgseid andmeid 1989.a. rahvaloenduse põhjal. "Rahva Hääl", 19.sept., 1989.

ritories with Russians and other ethnic groups whose native language was Russian. The data of the Population Census of 1959



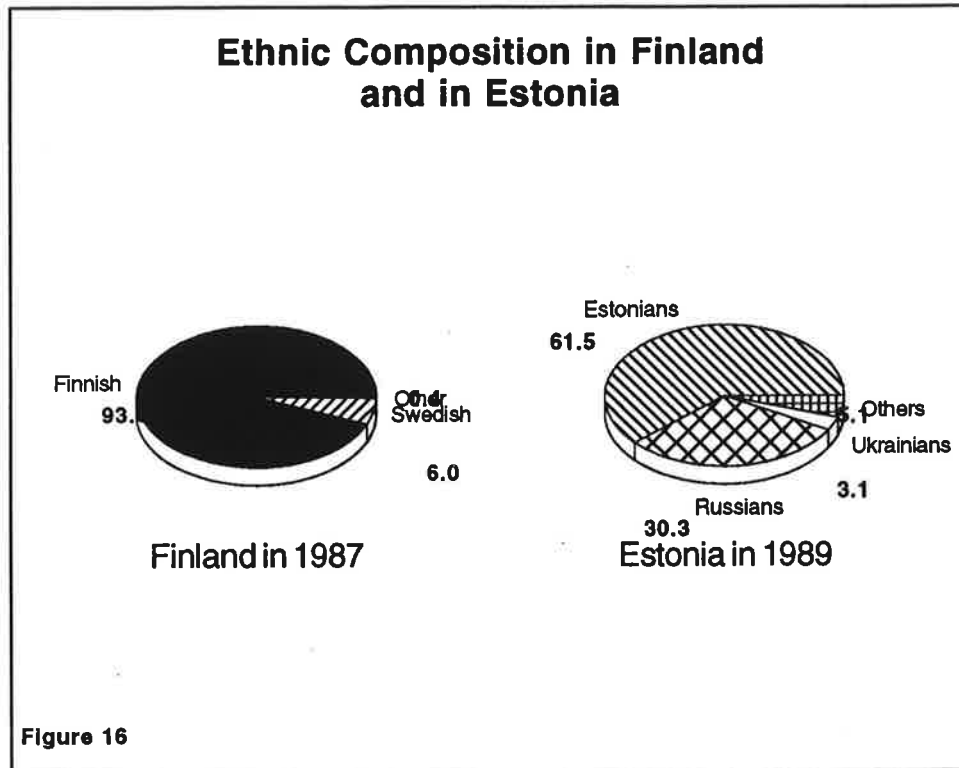
showed already the results of such policies. According to the census four larger ethnic groups in Estonia were: Estonians - 74.6 percent, Russians - 20.1 percent, Finns - 1,4 percent and Ukrainians - 1,3 per cent (see Table 15). The number of Finns had risen due to immigration from Ingeria and Karelia. About 1000 Finns lived in Estonia in the pre-war period. The census of 1959 showed that 16,699 Finns had come to live in Estonia. 60 percent of Finns had the language of their nationality as their native language, 25 percent Estonian and 15 percent Russian. Russian was a native language for these Finns who had come to Estonia from these areas of the Soviet Union where they didn't have the possibility to study in national schools.

There was a net immigration of Russians into all the non-Russian European republics in 1959-1989. In 1970-1979 the rate of Russian immigration was higher to Estonia than to any other non-Russian republic, in 1979-1989 Estonia was the second in this respect. Due to a very intensive immigration there are 61.5 percent Estonians, 30.3 percent Russians, 3.1 percent Ukrainians in Estonia by the Census of 1989 (see Figure 16). Percentage of Finns had decreased to 1.1 due to emigration to Finland.

At the same time Finland has become an even more monoethnic country than before. The percentage of Finns has risen by 5 percent and that of Swedes and Russians decreased (see Figure 16).

By the Census of 1989 the number of Estonians has not risen to the pre-war level. In 1934 the number of Estonians was 992.5 thousand. In 1989 there were 963.3 thousand Estonians in Estonia.

Taking into consideration the similarity of biological development of population in Finland and in Estonia, there should be 1430.0 thousand Estonians in Estonia by now, had there not been the population catastrophe in the 1940s.



### Conclusions

In the 1920s and 1930s population developments were very similar in Finland and Estonia: population growth was due to natural increase, migration processes were not essential. The postwar period has been very divergent for Estonian and Finnish population. The main features of divergent developments could be

summarized shortly in the following way: in Finland the population growth was due to the rise of birth rates at the end of the 1940s and the fall of mortality rates (especially infant mortality); in Estonia the immigration of non-Estonians from the Soviet Union had the great importance.

The future population developments seem to be very different too: in Finland the population will start to decline around 2000-2005 and the immigration is likely to increase quite rapidly. In Estonia, on the other hand, there seems to be the fall of the migration potential and out-migration of non-Estonians may even be possible. The beginning of a population decrease will be at the end of the first decade of the 21st century.

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