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MIGRATION AND SETTLEMENT IN FINLAND

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Preface

To promote international scientific cooperation and to disseminate research results, the Migration and Settlement Task of the Human Settlements and Services Area at IIASA initiated a comparative analysis of patterns of interregional migration and spatial population growth in National Member Organization Countries. To carry out the study, a network of national scholars was established, an integrated methodology for multiregional demographic analysis was developed and a package of computer programs to implement this methodology was written. The contributors were invited to prepare reports on migration and settlement in their respective countries. An outline was provided and computer analysis was done by IIASA. The results of the various case studies will be discussed at a Conference to be held at IIASA in September 1978.

Professor Kalevi Rikkinen of the University of Helsinki prepared this report on multiregional population dynamics and policy in Finland. The analysis shows that some important and policy-relevant changes are happening in both the age-structure of the population and in its regional distribution.

Frans Willekens
Leader
Migration and
Settlement Task

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TABLE OF CONTENTS

Migration and Settlement in Finland

INTRODUCTION

1.1. Purpose

This report is part of the Comparative Migration and Settlement Study included in the Migration and Settlement Task in the Human Settlements and Services Area at IIASA. Its purpose is to give a detailed overview of the internal migration patterns, issues and policies in Finland. As such, the work amounts to a case study among the other corresponding reports made in countries belonging to IIASA and it is aimed at laying a basis for comparative research. However, this work can also be examined purely from the Finnish point of view. In this sense, it is to be hoped that this paper might open up new vistas and thus enlarge our understanding of the dynamics of multiregional population systems in Finland as well as provide policymakers with new tools for utilitzation in the analysis of human settlement systems.

The introductory section deals with general population changes in Finaldn. After this, light is shed on special aspects of population research research in the country.

The second section of the study is concerned with input data: sources and the regional demographic characteristics of the Finnish population in the base year 1974. In this connection, attention is also paid to certain historical and recent trends of fertility, mortality and migration.

The third section applies the findings of multiregional demography. It contains the most important synthetic demographic information, such as the multiregional life table with life expectancy matrix, mobility and fertility analysis, and population projections.

The last section reviews the main features of population distribution policy in Finland. In this connection, the measures

of regional policy taken in Finland at various times are examined. It brings to the fore both the agricultural measures involved in the clearance of new land and the solutions to problems of urban growth and decline. Both direct and indirect population distribution policies are taken up for consideration.

1.2. General Features of the Development of Population and Settlement

Finland, with its 4.6 million inhabitants, ranks after Iceland and Norway as the most sparsely settled country in Europe. In 1975, the mean population density was 15.5 persons per sq. km of land. There are, however, great regional differences in population density. The population is densest in the southwestern and southern parts of the country (in extensive areas over 20 persons per sq. km), whereas in Lapland the average density is only 2 inhabitants per sq. km. Quite in the same way as great regional differences prevail within the country as a whole, there are differences within the provinces and individual communes. The urban centers are to be distinguished clearly from the sparsely settled agricultural and forest areas.

The present distribution of the population is the result of a long evolutionary process. The point of departure of the trend has been the continuous natural growth of the population; and the primary factor guiding the regional distribution has been migratory movements.

The natural development of the population followed the model of demographic transition. The trend of birth and death rates in Finland in the period between 1820 and 1975 is depicted in the accompanying diagram (Figure 1.1.). With the exception of years of epidemics and wars, the birth rate has exceeded the death rate. The postwar baby-boom is clearly apparent also in Finland. Following these so-called big age classes, the birth rate has steadily declined. Only in the year 1974 did the number of births again show a slight rising trend over the preceding year's figure. Since 1952 the mortality rate has remained at about 9%. The natural population growth has in recent years declined to about 4% and given rise to conern.

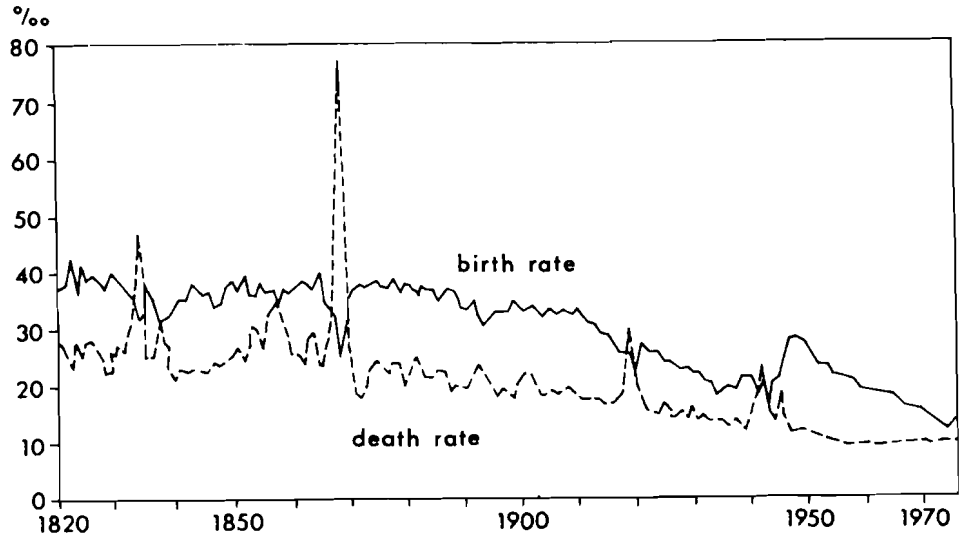


Figure 1.1. Birth and death rates in Finland, 1820-1975.
Source: Strömer, 1969, p. 179.
Statistical Yearbook of Finland, 1975, p. 57.

The settlement of Finland expanded for a very long time only on the basis of agriculture. The general direction of the expansion was from the south toward the north, and from the west toward the east. When the population of Finalnd in 1810 reached its first million mark, agricultural settlement had spread as far as the central parts of Lapland.

The predominantly agricultural structure of the Finnish national economy remained unchanged till about 1870 (Figure 1.2). In 1880, about 75% of the whole Finnish population gained its livelihood from agriculture. After that point, the advance of industry, the improvement of traffic conditions and the gradual realization of freedom of enterprise brought about a situation where the share of the farming population in the nation as a whole began to decline steadily.

Urban trades have grown strongly, a trend that became intensified after 1920. By contrast, the number of inhabitants dependent for their livelihood on agriculture and forestry has decreased even in the absolute sense since the decade of the 1930's. According to the census of 1970 of the occupationally employed Finnish population, 20.3% gained their livelihood from

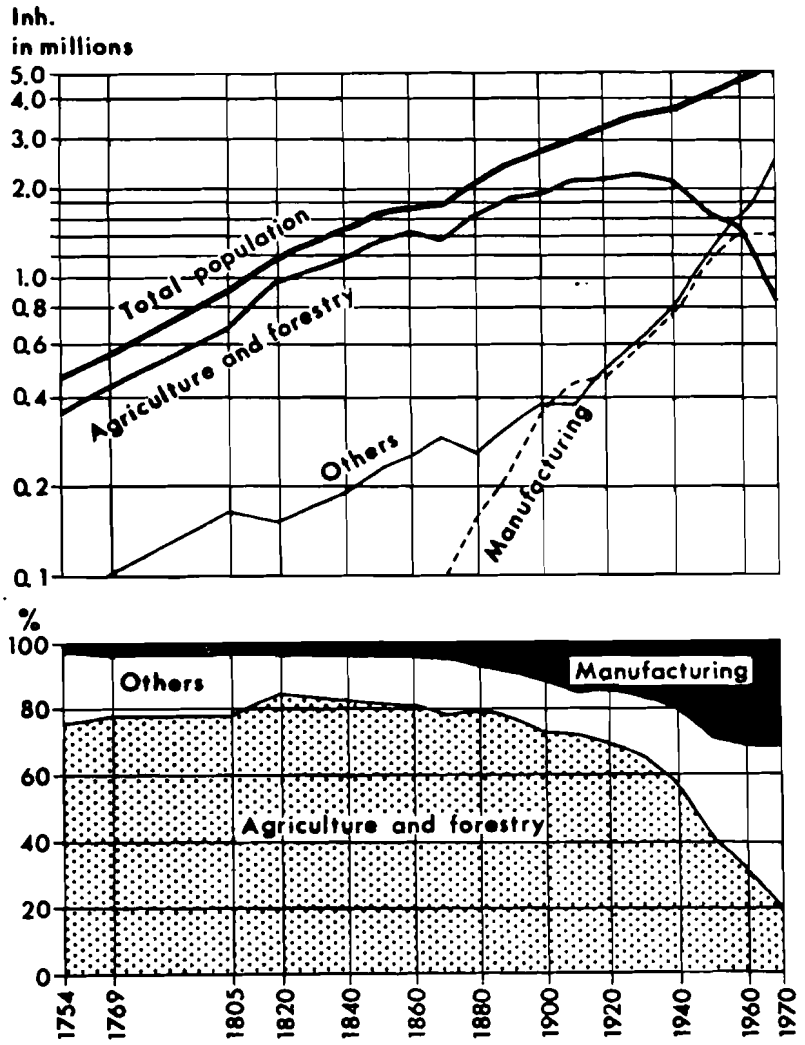


Figure 1.2. Occupational structure of population in Finland, 1754-1970.

Source: Rikkinen, 1977a, p. 10.

agriculture and forestry, 34.2% from the manufacturing and buildindg industries, 26.0% from commerce and communications, 18.1% from the service vector, including trade, and 1.4% from unknown unknown occupations. Associated with these sectoral changes has been a growing urban concentration (Figure 1.3).

A special stage in the evolution of population and settlement in Finland was introduced by the consequences of World War II. Nearly half a million inhabitants were evacuated from the territories ceded to the USSR, totalling 12% of the then cultivated area of Finland, and resettled in other parts of the country. The resettlement of the displaced persons was carried out mainly

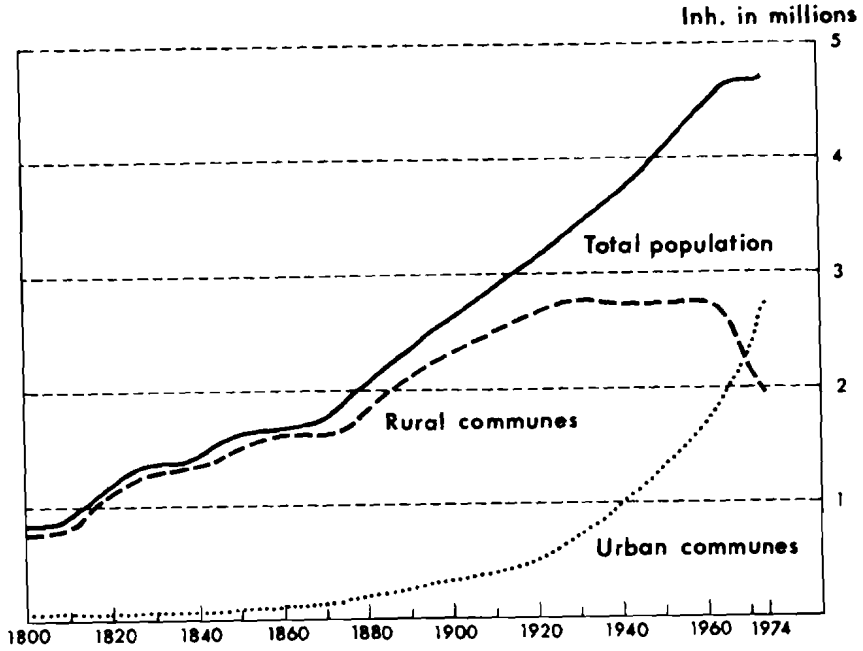


Figure 1.3. Population growth in Finland, 1800-1974.
Source: Rikkinen, 1974b, p. 56.

by creating new farmsteads in rural districts. The resettlement program also led to the clearing of considerable stretches of new arable land. The center of gravity of the cultivated farmlands of Finland shifted during the postwar period farther north, signifying severer natural conditions than those prevailing before the outbreak of hostilities. In recent years, however, the extreme northerly limit of settlement has been pulled back. The migratory movement away from rural districts has meant the heaviest drain on the more remote, sparsely settled areas.

In the past couple of decades, the migratory balance sheet of the majority of Finnish rural communes has been negative. The heaviest migratory losses have been suffered by the predominantly agricultural regions of northern and eastern Finland. The internal migration has been directed primarily toward the industrialized and urbanized south of Finland, notably the region of the national capital. Inside the communes, in turn, the trend observed has been one of the bigger agglomerations increasing in size at the expense of the sparsely settled and peripheral agricultural sections. Recently, however, the growth of the cities and the migratory deficit of the farming districts have been checked.

In this respect, the trend in Finland seems to follow the developmental pattern known to have been established recently in industrialized countries.

The population trend in Finland has also been greatly influenced by emigration. Between 1835 and 1930, it is estimated that in all some 380,000 Finns emigrated to the United States, 230,000 of the emigrants apparently having remained across the Atlantic. The total population developments have been significantly affected also by the emigration that took place in the 1960's and 1970's. This migratory wave was directed mainly toward neighboring Sweden. In the decade of the sixties', Finland lost a total of 142,000 inhabitants through emigration. In the 1970's, the migratory movement levelled out and in certain years the reverse trend was even stronger, with emigrants returning home. However, at the end of 1974, the situation again become more unfavorable to Finland, reflecting changes in the economic picture.

The low rate of natural increase and the considerable emigration are central concerns of Finnish population policy. When the migratory deficit is deducted from the natural population increase, the result is that the Finnish population increased in the 1965-1975 period annually at an average of between 13,000 and 28,000 souls. Exceptions were the years 1969 and 1970, when the total population decreased as a result of the emigration to Sweden (Table 1.1). In the global framework, the rate of increase of the Finnish population (in 1975 it was 3.8% is one of the lowest.

1.3. The Dynamics of Population Trends as a Research Target

Research on the Finnish population has been carried out for a long time. The number of studies made is virtually countless, not least because the national population statistics have been good. A bibliography has recently been published by the Popula- Research Institute (Väestöntutkimuslaitos) and covers the literature on population research published in Finland from 1973-76. Although the bibliography does not cover all the population studies printed in this period, there are still no less than

about 350 publications on the list (Population Research Institute, 1978, pp. 118-140).

The central research targets have been the primary problems involved in the national population trends, as pointed out in the preceding section, such as internal migratory movements, urbanization and the natural population growth trends, along with their consequences. Some of these problems are of an international character, but others are purely domestic. Examples of the latter are the post-World War II resettlement program and migratory movements and their special features. Further, the bilingual structure of the Finnish nation brings with it specific problems. The Swedish-speaking inhabitants, accounting for about 7% of the total population, are located regionally in the southwestern parts of the country as well as the southern and western coastal strips. This reflected in the directions followed by the migatory currents.

Table 1.1. Components of population change, Finland, 1960-1975.

Source: Statistical Yearbook of Finland, 1975, p. 57.

Year	Mean Population (Thousand)	Birth Rate (%)	Death Rate (%)	Natural Increase (%)	Total Increase (%)
1960	4429.6	18.5	9.0	9.6	7.5
1961	4461.0	18.4	9.1	9.3	6.6
1962	4491.4	18.1	9.6	8.6	7.0
1963	4523.3	18.2	9.3	8.9	7.2
1964	4548.5	17.7	9.4	8.3	4.0
1965	4563.7	17.1	9.7	7.3	2.7
1966	4580.9	17.0	9.5	7.5	4.8
1967	4605.7	16.8	9.5	7.3	6.0
1968	4626.5	15.9	9.7	6.2	2.9
1969	4623.8	14.6	9.9	4.6	-4.1
1970	4606.3	14.0	9.6	4.4	-3.5
1971	4612.1	13.2	9.9	3.3	3.4
1972	4639.7	12.7	9.5	3.2	4.4
1973	4666.1	12.2	9.3	2.9	4.2
1974	4690.6	13.3	9.5	3.8	4.1
1975	4711.3	14.1	9.4	4.7	3.8

In general, the specialists in different field of research have examined the population dynamics from the point of view of their own branch of inquiry. In addition, some of the research was basic research while other was more applied in nature and intended to be used by planners. Studies concerned with population dynamics can also be classified according to their research scale. In both the demographic and the spatial sense, studies can be found ranging from the microscopic to the macroscopic level. In other words, studies have been made in which at one extreme the life history of a single person has been followed in space, and at the other extreme the unit of study has been the Finnish population as a whole.

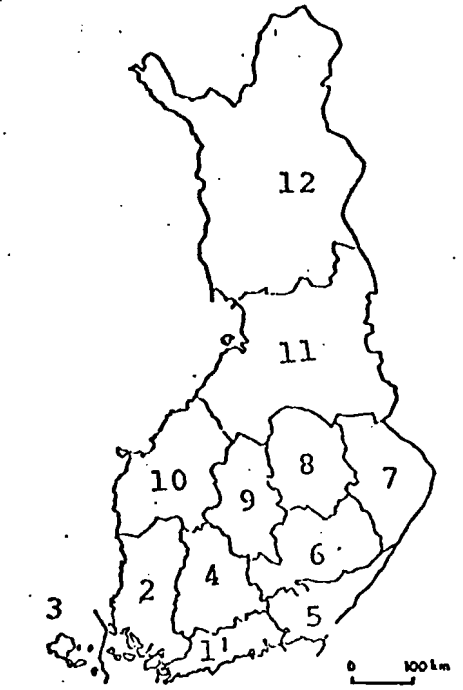
Characteristic of decision-making in the sphere of regional policy has been the fact that in spite of extensive attention given to different sectors of population research, the policy decisions reached have continuously run into generalizations. Among other things, the postwar large age class has in growing older constantly caused mistaken investment. Taken as a whole, it would appear that there is a need to develop analytical methods in the study of population dynamics of the kind striven after in its population research project by the IIASA's human and settlement study area.

2. CURRENT PATTERNS OF SPATIAL POPULATION GROWTH

2.1 Regional Units and Data

The basic regional units used in this paper are the provinces (lääni). Finland has 12 provinces (Figure 2.1). Alternative regional units would be the economic regions, 16 in total. Because of the data availability, the provinces have been selected.

The basic year for the analysis is 1974, the last year for which data were available when this study was started. The observed population characteristics in 1974 are given in the Appendix 1. The first column presents the population by age. It is the mid-year population, computed as the arithmetic mean of the population by age on December 31, 1973 and December 31,



	Province		Lääni
1.	Uusimaa	1.	Uudenmaan Lääni
2.	Turku and Pori	2.	Turun ja Porin lääni
3.	Ahvenanmaa	3.	Ahvenanmaan maakunta
4.	Häme	4.	Hameen lääni
5.	Kymi	5.	Kymen lääni
6.	Mikkeli	6.	Mikkelin lääni
7.	Pohjois-Karjala	7.	Pohjois-Karjalan lääni
8.	Kuopio	8.	Kuopion lääni
9.	Keski-Suomi	9.	Keski-Suomen lääni
10.	Vaasa	10.	Vaasan lääni
11.	Oulu	11.	Oulun lääni
12.	Lappi	12.	Lapin lääni

Figure 2.1. Administrative provinces of Finland.

1974.* The data are given in 5-year age groups. The last age group is open-ended and contains the population of 75 years and older.

The live births are given by age of mother (Central Statistical Office of Finland, 1977, pp. 58-59). Regional age-specific deaths by sex are given in the same source (pp. 72-73).

Total migration flows between provinces are published annually in the Statistical Yearbook of Finland. However, age-specific migration flow data are only available in unpublished form and for the migration between the 404 communes (kunta). The data are based on a registration system. For this study, these data have been aggregated to give the age-specific migration flow matrices for the provinces. These results are given in Appendix 1. The migrations between communes but within provinces are also given in Appendix 1. In 1974, the intra-provincial migrations accounted for 58% of the total intercommunal migration.

Before we start multiregional analysis, it is necessary to study the demographic characteristics of the population in the base year, i.e., 1974, and some historical and recent trends. We will consider fertility, mortality and migration separately. Table 2.1 summarizes the regional differences in demographic parameters.

2.2 Fertility

a. Historical Trends

In Finland, it is possible to analyse the development of population since the year 1722. The crude birth rate reached its peak in 1755 (46.9%). After that it has been declining. During the 1850's, the crude birth rate had already declined to a level of about 35%. There were considerable differences between cities and the countryside. For example, during the period 1871-75, the crude birth rate in urban communes was 28.6%,

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*The data differ slightly from recently published mean population data by province (Central Statistical Office of Finland, 1977, p. 43).

Table 2.1. Components of demographic change by province, Finland, 1961-1970 and 1974.

Source: Statistical Yearbook of Finland, 1976, p. 58-59, 76.

Province	Birth Rate (%)		Death Rate (%)		Natural Increase (%)		Net Internal Migration (%)	Total Change (%)	
	1961-70	1974	1961-70	1974	1961-70	1974	1974	1961-70	1974
Uusimaa	17.0	14.3	9.4	8.8	7.6	5.6	6.2	18.6	12.1
Turku and Pori	15.5	12.7	10.2	9.8	5.3	2.9	3.0	2.2	6.7
Ahvenanmaa	14.9	12.9	11.3	11.6	3.6	1.3	7.9	-1.5	10.6
Häme	15.7	13.0	9.7	9.5	6.0	3.4	3.0	7.2	0.6
Kymi	15.3	11.9	10.1	10.7	5.2	1.2	-1.9	1.8	-1.0
Mikkeli	15.4	11.3	10.9	11.7	4.5	-0.4	-7.0	-6.7	-7.5
Pohjois-Karjala	16.2	11.9	9.8	10.4	6.3	1.6	-7.3	-11.3	-5.8
Kuopio	16.6	12.0	9.8	10.3	6.7	1.8	-4.8	-5.6	-3.4
Keski-Suomi	16.7	12.8	9.4	9.4	7.2	3.3	-3.2	-2.9	-0.2
Vaasa	17.0	13.9	9.5	9.7	7.4	4.3	-5.5	-2.4	-1.3
Oulu	19.8	15.6	8.1	8.5	11.8	7.1	-3.4	-1.4	4.7
Lappi	21.3	13.4	7.3	8.0	14.0	5.4	-8.9	-2.8	-4.7
Urban	18.3	14.5	8.8	8.5	9.4	6.0	4.0	31.0	17.5
Rural	15.5	11.6	10.1	10.9	5.4	0.7	-5.5	-19.1	-14.5
TOTAL	16.8	13.3	9.5	9.5	7.2	3.8		3.3	4.1

but in rural communes 37.7%. The important reason for this was the higher proportion of married women in rural areas (Strömer, 1969, p. 30). The correlation of industrialization and urbanization with the declining birth rate and the regional differences became clearer around the turn of the 19th century. The birth rate in urban centers was low and the growth of the urban population was for the most part a result of in-migration. The rural population began to adopt ideals that had previously been characteristic of urban society, and in the early 20th century the birth rate declined sharply throughout the country (Table 2.2).

Declining birth rates had a remarkable influence on the population development in the 1950's, 1960's and 1970's. The birth rate was lowest in 1973 when only about 57,000 babies were born. After that, the birth rate has increased a little because of social (family) and political efforts.

In 1950, fertility was above the national average in all the provinces outside the industrialized part of Finland (Table 2.3). In the 1950's, fertility increased only in the provinces of Ahvenanmaa and Uusimaa and decreased in all the other, with the sharpest decline in the provinces of northern and eastern Finland. In the 1960's there were great changes in regional fertility trends. The differences in fertility between the various parts of the country, which were still distinct in 1960, *leveled in the 1960's*. The decline in fertility was most important in regions of high fertility, namely, northern and eastern Finland. In 1961/70 the crude birth rate was highest in Lapland (21.3%), but in 1975 the rate was only 14.4% (Table 2.1). The diffusion of declining birth rates has thus affected the whole country.

If fertility is investigated by age group, it can be seen that after World War II, children are being born to younger age groups than earlier (Figure 2.2, Table 2.4). In the youngest age group, 15-19, the fertility rate increased until 1967 (36.2%). This is partially due to the fact that the marriage frequency increased among persons under the age of 20. But in recent years the fertility rate in this youngest age group has decreased again.

Table 2.2. Reproduction rates, 1938-1974.

Source: Statistical Yearbook of Finland, 1975, p. 65.

	Net Reproduction Rates			Gross Reproduction Rates		
	Whole Country	Urban Communes*	Rural Communes*	Whole Country	Urban Communes*	Urban Communes*
1941-1945	1.048	0.812**	1.166***	1.262	0.938**	1.405***
1946-1950	1.469	1.171**	1.605***	1.637	1.279**	1.798***
1951-1955	1.373	1.125	1.538	1.452	1.177	1.637
1956-1960	1.301	1.123	1.436	1.357	1.164	1.502
1961-1965	1.236	1.114	1.357	1.276	1.148	1.403
1966-1970	1.009	0.955	1.061	1.035	0.979	1.091
1938	1.011	0.564	1.209	1.220	0.674	1.462
1950	1.379	1.063	1.525	1.536	1.161	1.707
1962	1.255	1.122	1.366	1.296	1.157	1.412
1963	1.259	1.132	1.380	1.300	1.167	1.426
1964	1.219	1.115	1.324	1.258	1.149	1.368
1965	1.167	1.079	1.262	1.204	1.112	1.304
1966	1.150	0.084	1.225	1.180	1.111	1.260
1967	1.099	1.038	1.181	1.129	1.064	1.214
1968	1.020	0.971	1.184	1.047	0.955	1.217
1969	0.916	0.872	0.979	0.940	0.894	1.007
1970	0.870	0.833	0.924	0.893	0.854	0.950
1971	0.812	0.784	0.854	0.833	0.804	0.877
1972	0.751	0.721	0.806	0.771	0.739	0.829
1973	0.709	0.684	0.758	0.728	0.701	0.779
1974	0.776	0.754	0.821	0.796	0.772	0.843

*Since 1951, the mortality of towns and rural communes has been separately observed at the calculation of the net reproduction rates.

**Excluding 2nd-class towns.

***Including 2nd-class towns.

Table 2.3. General fertility rates by province in 1950, 1960 and 1970.

Source: CICRED, 1974, p. 13.

Province	1950	1960	1970
Uusimaa	74	76	59
Turku and Pori	94	78	62
Ahvenanmaa	73	83	73
Häme	93	78	61
Kymi	98	84	58
Mikkeli	120	94	62
Pohjois-Karjala	–	110	63
Kuopio	134	98	65
Keski-Suomi	–	93	64
Vaasa	114	87	71
Oulu	148	117	78
Lappi	158	128	72
TOTAL	106	89	64

It seems that most recent efforts to increase the birth rate has had its greatest effect in older age groups.

b. Fertility in 1974

The 1974 age-specific fertility rates by province are shown in Table 2.5. The fertility rates are computed by dividing the annual number of births by mid-year total population in each age group. The rate of reproduction is 5 times the sum of the age-specific rates. For Uusimaa, for example, the gross reproduction rate (GRR) is 0.7610. The crude rate is the total number of briths divided by the total mid-year population. It is 14% for Uusimaa. The mean age given in the table is the mean age of the schedule, which is different from the mean age of parents. The mean age of the fertility schedule of Uusimaa, for example, is 26.76.

The regional differences of the general fertility rates have declined during the last decades. Table 2.3 shows remarkably low fertility rates for all provinces (GRR everywhere under unity). However, the main trend remains, i.e., relatively high fertility in the northern provinces of Lappi, Oulu and Vaasa.

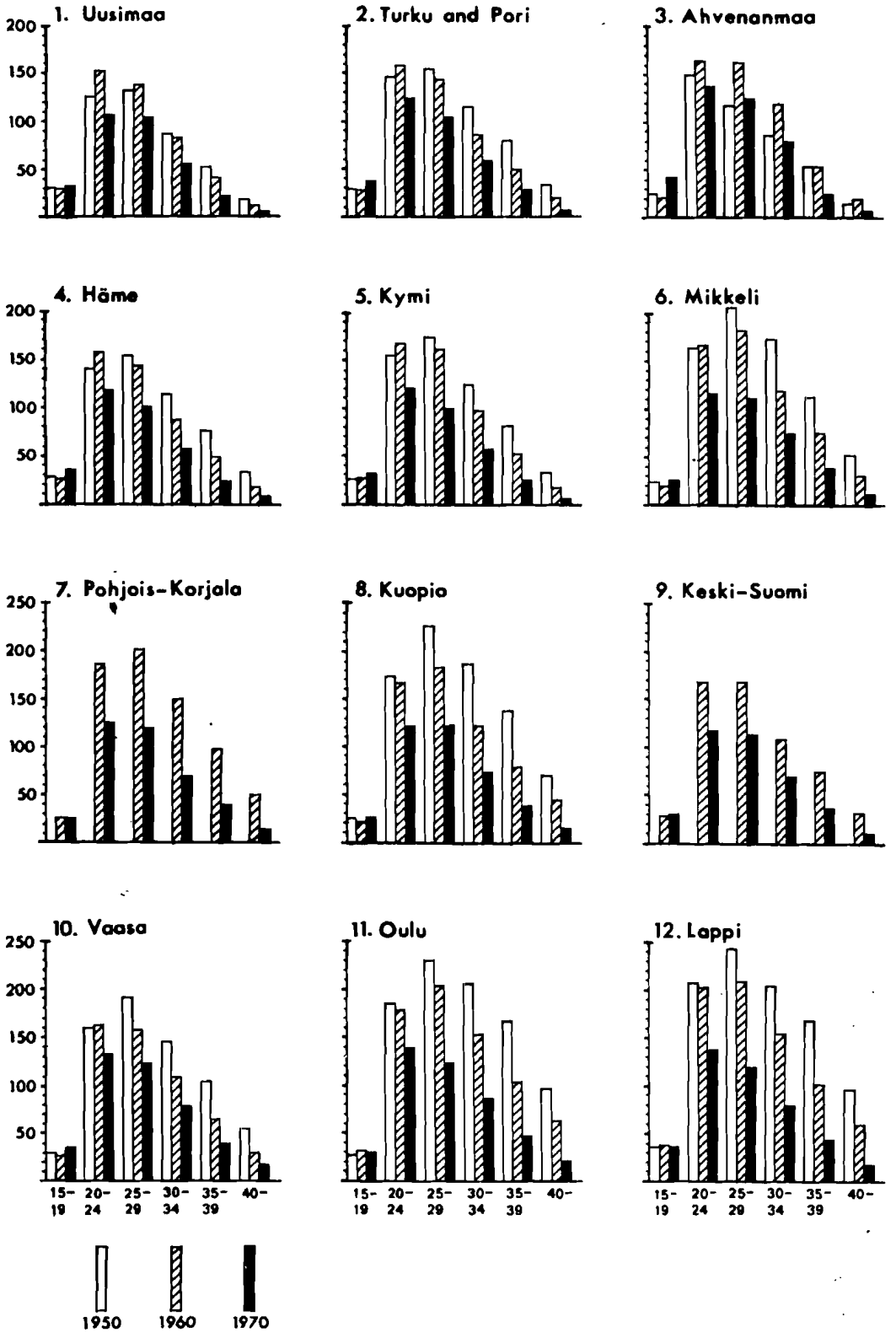


Figure 2.2. Age-specific fertility rates by province in 1950, 1960, and 1970.

Source: CICRED, 1974, p. 14.

Table 2.4. Age-specific fertility rates, 1891-1974. Per 1000 women of the age group indicated.

Source: Statistical Yearbook of Finland, 1975, p. 65.

Years	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1891-1900	17.4	157.8	213.0	236.9	191.0	114.3	18.2
1901-1910	16.8	147.7	226.8	227.4	192.6	109.1	16.2
1911-1920	14.9	122.8	181.4	181.9	155.2	92.9	14.0
1921-1930	14.2	110.0	156.9	143.8	116.8	67.4	10.5
1931-1920	14.4	96.5	126.2	108.9	82.8	43.5	5.9
1941-1945	11.3	105.2	141.9	124.3	88.4	41.8	5.4
1916-1950	25.7	161.9	189.4	147.5	100.5	43.3	5.0
1951-1955	27.2	157.6	165.8	125.0	81.0	35.1	3.9
1956-1960	20.3	161.4	159.6	108.1	67.5	27.5	2.8
1961-1965	30.7	156.7	156.0	98.8	55.7	22.5	2.2
1966-1970	34.7	131.9	125.9	76.5	39.7	13.7	1.4
1966	35.8	141.5	143.2	90.6	47.7	17.1	1.8
1967	36.2	141.4	138.9	83.4	45.6	16.2	1.7
1968	35.7	135.3	125.8	76.6	38.7	14.1	1.5
1969	33.5	122.6	113.8	68.5	34.9	11.7	1.2
1970	32.2	119.4	108.6	64.6	30.5	9.3	0.8
1971	29.7	111.3	107.5	58.1	25.2	7.1	0.6
1972	28.6	104.3	103.9	53.2	21.9	6.1	0.5
1973	26.2	96.5	98.9	51.2	21.7	5.7	0.5
1974	27.2	103.9	107.7	56.7	23.0	5.8	0.5

Table 2.5. Fertility rates, 1974.

Age	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	DULUN	LAPIN
0	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10	0.000026	0.000019	0.000000	0.000000	0.000000	0.000000	0.000059	0.000000	0.000000	0.000000	0.000000	0.000000
15	0.013099	0.014399	0.014417	0.013941	0.012714	0.010000	0.012272	0.010806	0.011572	0.014604	0.014444	0.014464
20	0.048500	0.051922	0.049696	0.051032	0.048165	0.044438	0.044336	0.046919	0.048733	0.054313	0.056725	0.051876
25	0.051974	0.049795	0.053883	0.048288	0.049635	0.053533	0.050265	0.052229	0.053326	0.059949	0.062256	0.051448
30	0.028172	0.024199	0.021739	01024287	0.024420	0.027390	0.033182	0.029198	0.029868	0.031441	0.033404	0.029220
35	0.008877	0.009580	0.011542	0.010601	0.008524	0.010588	0.013257	0.011938	0.012698	0.014683	0.014269	0.014433
40	0.001871	0.002253	0.003484	0.002882	0.002159	0.004223	0.003619	0.002577	0.003063	0.004091	0.005513	0.003774
45	0.000129	0.000366	0.000000	0.000148	0.000136	0.000147	0.000177	0.000185	0.000332	0.000422	0.000420	0.200753
50	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
55	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
65	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
70	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
75	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Gross	0.152648	0.152535	0.154762	0.150579	0.145753	0.150321	0.157168	0.153852	0.159592	0.179531	0.192029	0.165967
Crude	0.014347	0.012692	0.012404	0.012947	0.011920	0.011320	0.011930	0.012048	0.012868	0.013939	0.015572	0.013387
M. Age	26.7558	26.5433	26.7487	26.6371	26.6388	27.4131	27.5802	27.2731	27.3090	27.2539	27.5663	27.2474

The deviation between the gross reproduction rate and the crude birth rate measures the impact of the age composition on the overall fertility. If each age group would have the same number of people, both measures would be the same. Figure 2.3 demonstrates the relationship between gross rates of reproduction and crude birth rates.

The provinces may be grouped in 2 categories. Most are in category I, with nearly a constant gross fertility rate of 0.15 but different crude birth rates. For example, pvoinces 4 (Häme) and 6 (Mikkeli) have the same gross fertility rate, but completely different crude birth rates. The reason for this is the concentration of the population of Häme and 28% for Mikkeli. Both provinces, however, have almost the same mean age (34.6 versus 34.9).

Category II is characterized by higher gross fertility rates and crude birth rates. It consists of the three northern provinces and Uusimaa.

Figure 2.4 contains the regional fertility curves. The curves have all the same shape. The highest fertility rates are

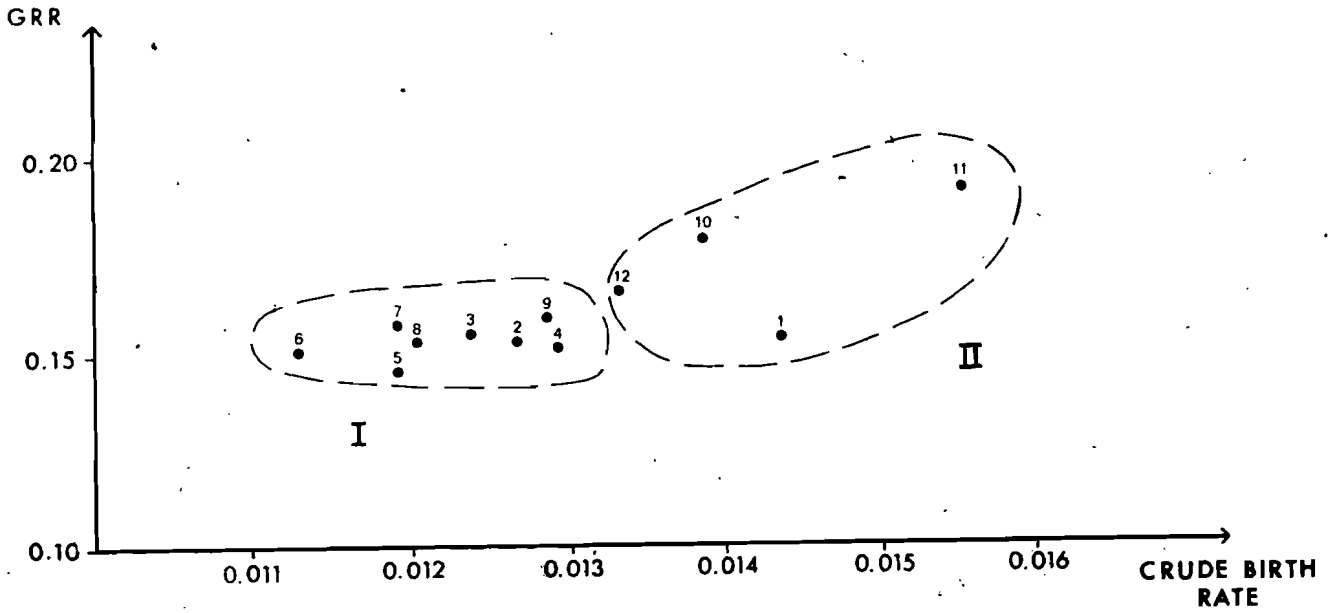


Figure 2.3. GRR and crude birth rates by province, Finland, 1974.

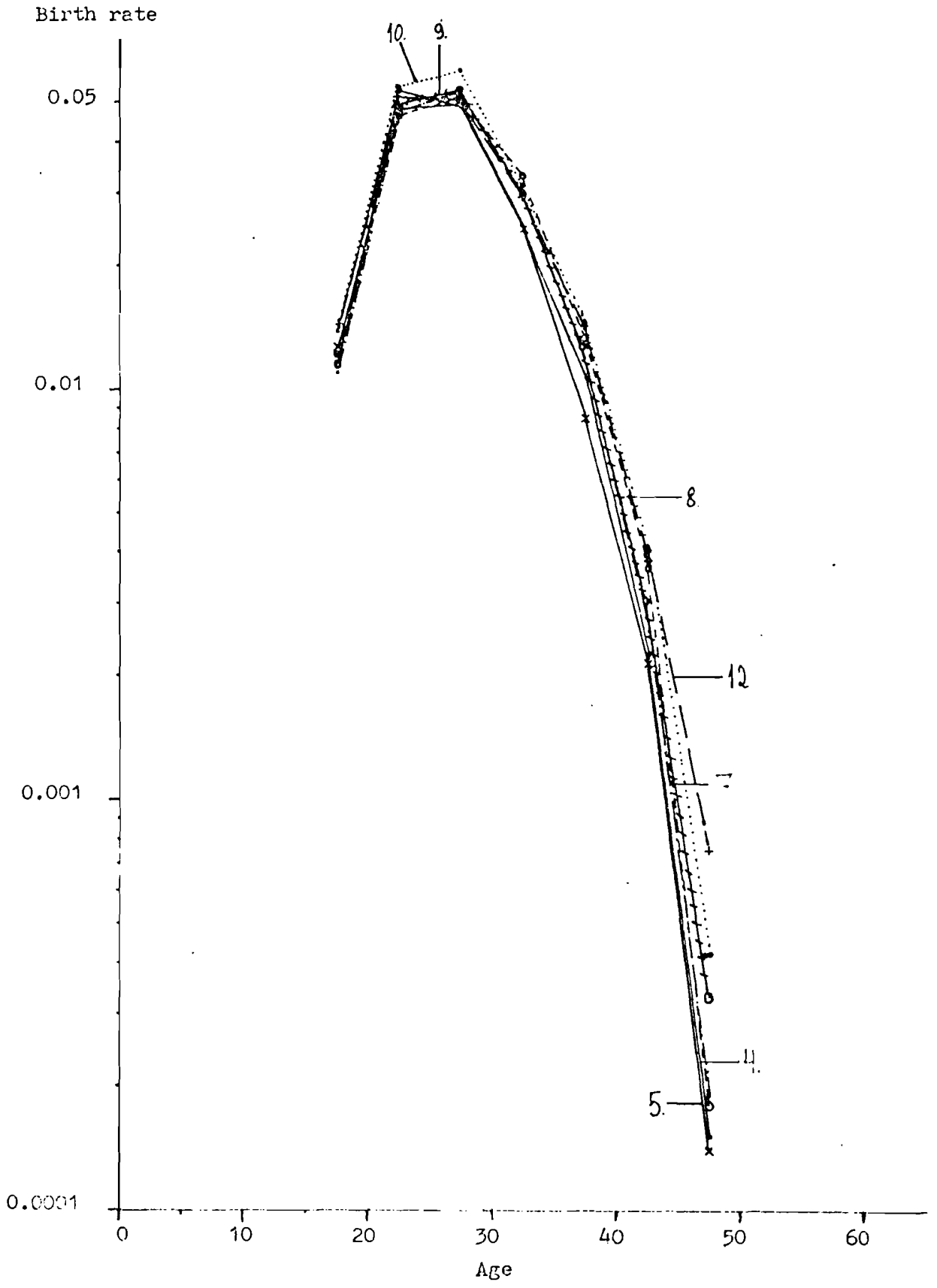


Figure 2.4. The fertility schedules by province, Finland, 1974.

in age groups 20-24 and 25-29. The mean age of the fertility curves is between 26.54 and 27.57, i.e., the difference is not more than 1 year.

2.3 Mortality

a. Historical Trends

The downward trend of the crude death rate began in the 1880's, after the overall fall following the famine years of 1866-68. this trend continued up to the 1950's, when the crude death rate fell to the level of about 9.5‰. Since the end of the 1950's, the crude death rate has remained constant. The mean life expectancy has increased considerably, especially in the age group 0-4. The life expectancy at the age of 0 years was 45.3 years for men and 48.1 years for women in the first half of the 20th century, but rose to 65.9 years for men and 73.6 years for women in 1966-70.

In the decline of the mortality rate there are some features that are characteristic of Finland in comparison with development in other industrialized countries. The drop in women's mortality rate was considerably sharper than in that of men. This led to a continuous increase in the difference between the mean life expectancies of men and women of the same age. As late as the early 20th century, the difference between the mean life expectancies at birth was three years in favor of women, but in 1974 the difference grew to 8.5 years.

Table 2.6 shows the mortality rates of age groups from the years 1960 and 1970. The excess mortality of men is distinct when the mortality rates of the two sexes are compared. The mortality rates are higher among men in all age groups. The difference is particularly distinct in the age groups over 30. Higher male mortality appears in the younger age groups, partly because of accidents. Various heart and circulatory diseases are common among men over 40 years and cause excess mortality in these age groups.

Table 2.6. Age-specific death rates, Finland, 1960, 1970. (Per 1000 population by sex and age).

Source: Statistical Yearbook of Finland, 1975, p. 69.

Age Group	Males	Females	Total	Males	Females	Total
0- 4	5.8	4.3	5.1	3.5	2.6	3.1
5- 9	0.6	0.4	0.5	0.6	0.4	0.5
10-14	0.6	0.3	0.4	0.5	0.2	0.4
15-19	1.2	0.4	0.8	1.2	0.4	0.8
20-24	1.5	0.7	1.1	1.5	0.5	1.0
25-29	2.0	0.8	1.4	1.7	0.5	1.1
30-34	2.6	1.1	1.9	2.3	0.8	1.6
35-39	3.7	1.6	2.6	3.8	1.2	2.5
40-44	5.2	2.4	3.7	5.3	1.9	3.6
45-49	8.4	3.7	5.9	8.7	3.1	5.7
50-54	13.5	5.4	9.2	13.2	5.2	8.8
55-59	20.3	8.6	13.9	20.9	7.4	13.4
60-64	32.1	15.2	22.4	31.9	13.1	21.2
65-69	47.8	26.2	34.9	47.2	22.8	32.7
70-74	73.8	49.6	58.5	74.0	41.5	53.5
75-79	107.3	87.3	94.2	107.0	76.8	87.3
80-	189.3	174.7	179.4	195.1	162.8	172.6
TOTAL	9.7	8.3	9.0	10.7	8.5	9.6

The regional differences in the mean life expectancy can be investigated for the years 1961-1965 on the basis of the existing statistics.

As illustrated in Table 2.7, the mean life expectancies of both men and women were somewhat higher in the southern parts of the country. Life expectancy was lowest for men in northern Karelia, i.e., 63.6 years, whereas the mean life expectancy was highest for women in southwestern inland, i.e., 73.7 years.

In all regions, the mortality rate was distinctly higher among men. It was highest among men in northern Karelia, where the difference between the life expectancies of men and women at the age of 0 years was more than 8 years. The difference was least in central Ostrobothnia, where it was slightly over 6 years.

Table 2.7. Mean life expectancy by region in 1961-1965.

Source: CICRED, 1974, p. 17.

Region	Men		Women	
	Mean life Expectancy	All Finland = 100	Mean life Expectancy	All Finland = 100
Total	65.4	100.0	72.6	100.0
Province of Uusimaa				
Uusimaa	65.7	100.5	73.3	101.0
Ahvenanmaa	—	—	—	—
Province of Turku and Pori				
Varsinais-Suomi	67.1	102.6	73.7	101.5
Satakunta	65.1	101.1	72.9	100.4
Province of Häme				
Tammemnaa	66.7	102.0	73.1	100.7
Southern Häme	66.0	100.9	72.6	100.0
Province of Kymi				
Southeastern Finland	65.4	100.0	73.2	100.8
Province of Mikkeli				
Southern Savo	65.3	99.8	72.2	99.4
Province of Pohjois-Karjala				
Northern Karelia	63.7	97.4	71.8	98.9
Provine of Kuopio				
Northern Savo	65.0	99.4	72.3	99.6
Province of Keski-Suomi				
Central Finland	65.5	100.2	72.0	99.2
Province of Vaasa				
Southern Ostrobothnia	67.0	102.4	73.3	101.0
Central Ostrobothnia	65.8	100.6	72.2	99.4
Province of Oulu				
Kainuu	65.1	99.5	72.0	99.2
Northern Ostrobothnia	64.0	97.9	72.0	99.2
Province of Lappi				
Lappi	64.7	98.9	72.4	99.7

b. Regional Difference: Situation in 1974

The observed age and region-specific death rates for 1974 are presented in Table 2.8. They are obtained in a way similar to the fertility rates.

The death rates in Finland are among the lowest in the world. The relationship between the regional gross and crude death rates

Table 2.8. Observed death rates.

Age	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN
0	0.002637	01002576	0.001985	0.002823	0.003245	0.002480	0.003499	0.002849	0.002830	0.003115
5	0.000324	0.000452	0.000000	0.000328	0.000387	0.000312	0.000594	0.000456	0.000597	0.000266
10	0.000249	0.000342	0.000000	0.000297	0.000321	0.000370	0.000820	0.000260	0.000377	0.000308
15	0.000861	0.000942	0.000655	0.000818	0.001221	0.001089	0.000579	0.000941	0.000856	0.000853
20	0.000961	0.001059	0.000000	0.000796	0.001141	0.001148	0.001065	0.001262	0.001023	0.000805
25	0.001095	0.001016	0.000971	0.001171	0.001480	0.001051	0.001984	0.001549	0.000728	0.000897
30	0.001331	0.001220	0.002717	0.001348	0.001924	0.001660	0.001752	0.001730	0.001709	0.001623
35	0.001714	0.002246	0.001649	0.001817	0.002320	0.002212	0.002176	0.003305	0.002290	0.001933
40	0.003913	0.002713	0.005226	0.003717	0.003474	0.003455	0.003905	0.003833	0.002784	0.002810
45	0.005726	0.004440	0.006504	0.005691	0.006777	0.006340	0.005676	0.005932	0.005382	0.005327
50	0.007606	0.008024	0.004684	0.007745	0.008299	0.010300	0.010355	0.009948	0.008462	0.006780
55	0.012828	0.010730	0.015760	0.011142	0.013039	0.014007	0.014708	0.013021	0.013797	0.011285
60	0.019247	0.016990	0.016055	0.018558	0.020291	0.020496	0.020879	0.022731	0.021280	0.016884
65	0.029384	0.028200	0.028986	0.029016	0.032950	0.033524	0.034710	0.029238	0.030517	0.028294
70	0.044520	0.044526	0.044944	0.045788	0.049456	0.056076	0.050838	0.052617	0.053607	0.046814
75	0.104140	0.109623	0.104882	0.110438	0.121184	0.129225	0.122892	0.117925	0.121554	0.115560
Gross	0.236536	0.235096	0.235019	0.241493	0.267509	0.283746	0.265430	0.267597	0.267793	0.243556
Crude	0.000770	0.009833	0.011586	0.009448	0.010709	0.011697	0.010373	0.010278	0.009723	0.009649
M. Age	68.6854	69.1628	69.0294	68.9966	68.6965	69.2252	68.4918	68.5554	69.1734	69.3433

is given in Figure 2.5. Two groups of provinces may be distinguished. The first contains the northern and eastern provinces and has high gross mortality rates, especially among men. The relatively high mortality in this part of Finland is a well-known fact and has induced a number of regional mortality studies. Several explanations have been proposed, in particular food habits. However, no concensus exists on the reasons.

For a same gross mortality rate, differences in crude death rates are caused by differences in the age composition of the population (Figure 2.5).

The provinces located in the right part of the diagram have mean age of the population above the national average.

The mortality schedules by province are presented in Figure 2.6.

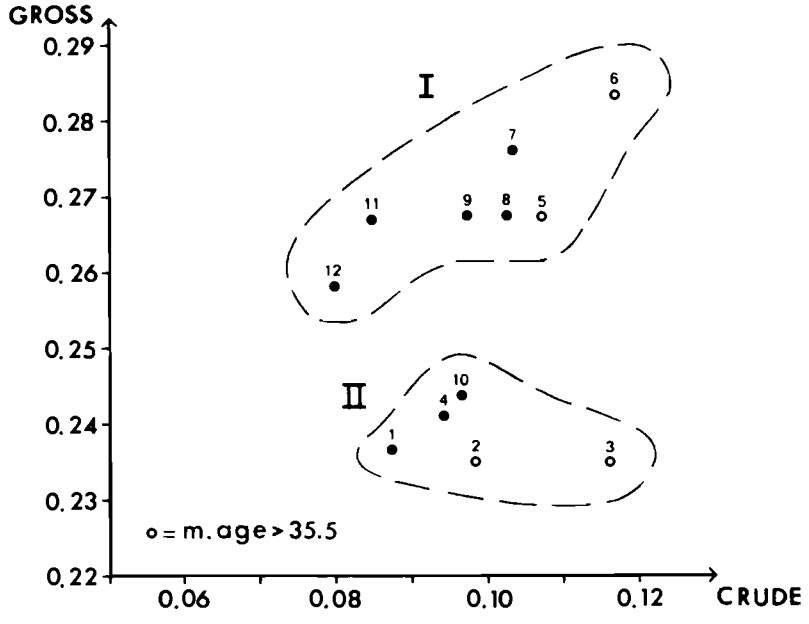


Figure 2.5. Gross and crude death rates by province, Finland, 1974.

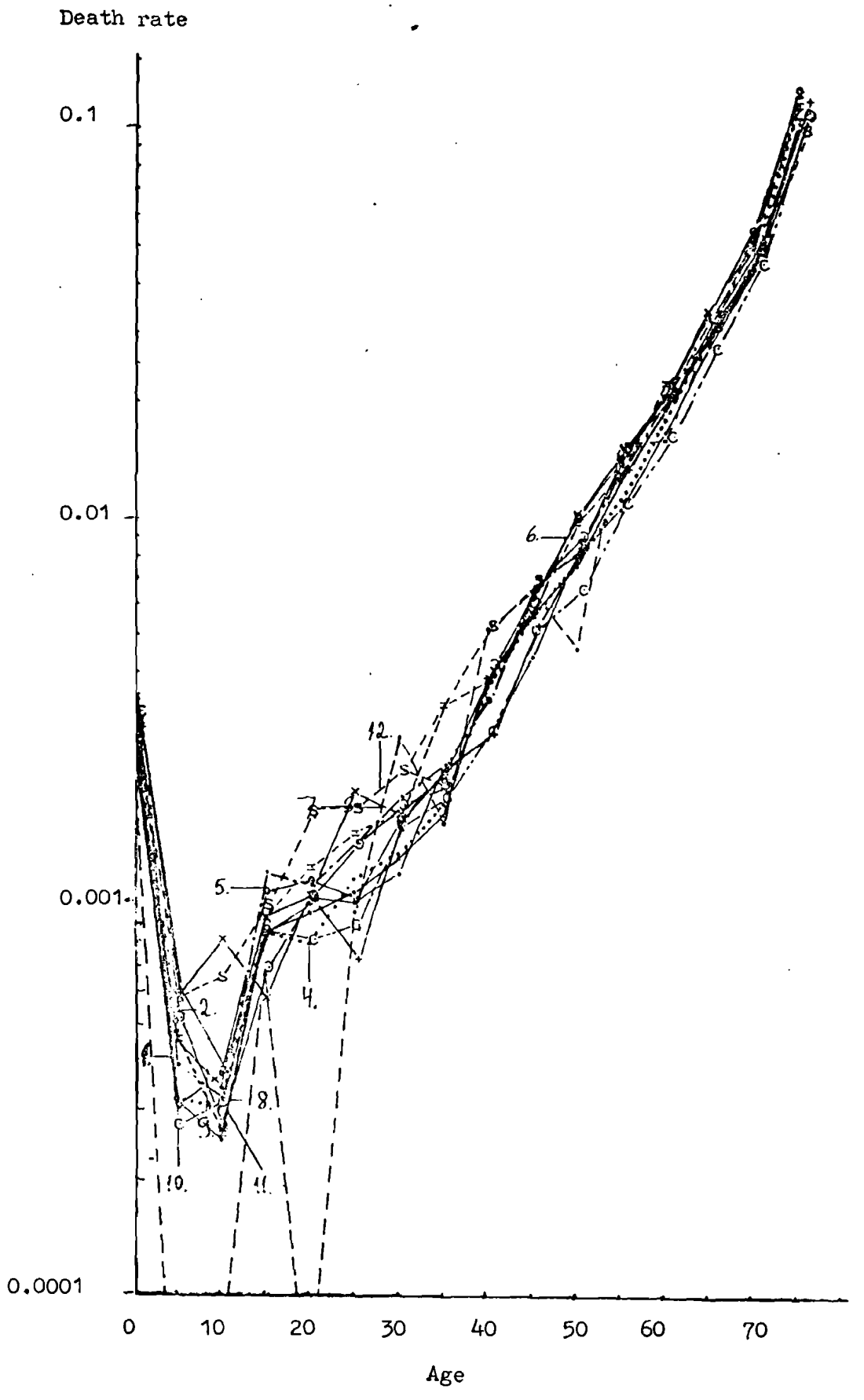


Figure 2.6. The mortality schedules for provinces, Finland, 1974.

2.4. Migration

a. Historical Trends

During the time of the agrarian society, the general distribution of the population corresponded largely to the distribution of fertile land. The rapid industrialization of Finnish society brought about, however, a redistribution of the population. As a consequence of industrialization, people began to gravitate toward urban communities, located mostly in southwestern and southern Finland, where harbors and the urbanization process that had started earlier offered industry the most favorable conditions.

This developmental process in the population structure also involved changes in the structure of the family unit. The average family size and birth rate decreased, one reason being that in industrial communities children could not be put to work nearly so effectively as in agriculture. The high agrarian birth rate and low urban birth rate resulted in a conspicuous difference between the population structure of the two sections of the country.

Figure 2.6. shows the regional distribution of the Finnish population by provinces in 1970 and the growth of the population in the past two decades. It can be seen that the population has grown, on the one hand, in the southernmost provinces and, on the other, in the two northernmost provinces. The relatively vigorous growth experienced by the provinces in southern Finland is due expressly to the migratory movement into urban communities and their near surroundings. The populations of the northern provinces of Lapland and Oulu, again, have grown mainly as a result of high birth rates. It was not until the end of the period that the population figures in these provinces began to show a downward trend.

The strongest migratory magnets in the south have been the cities and other urban centers of Uusimaa province. The exceptional position of this province becomes quite clear upon an

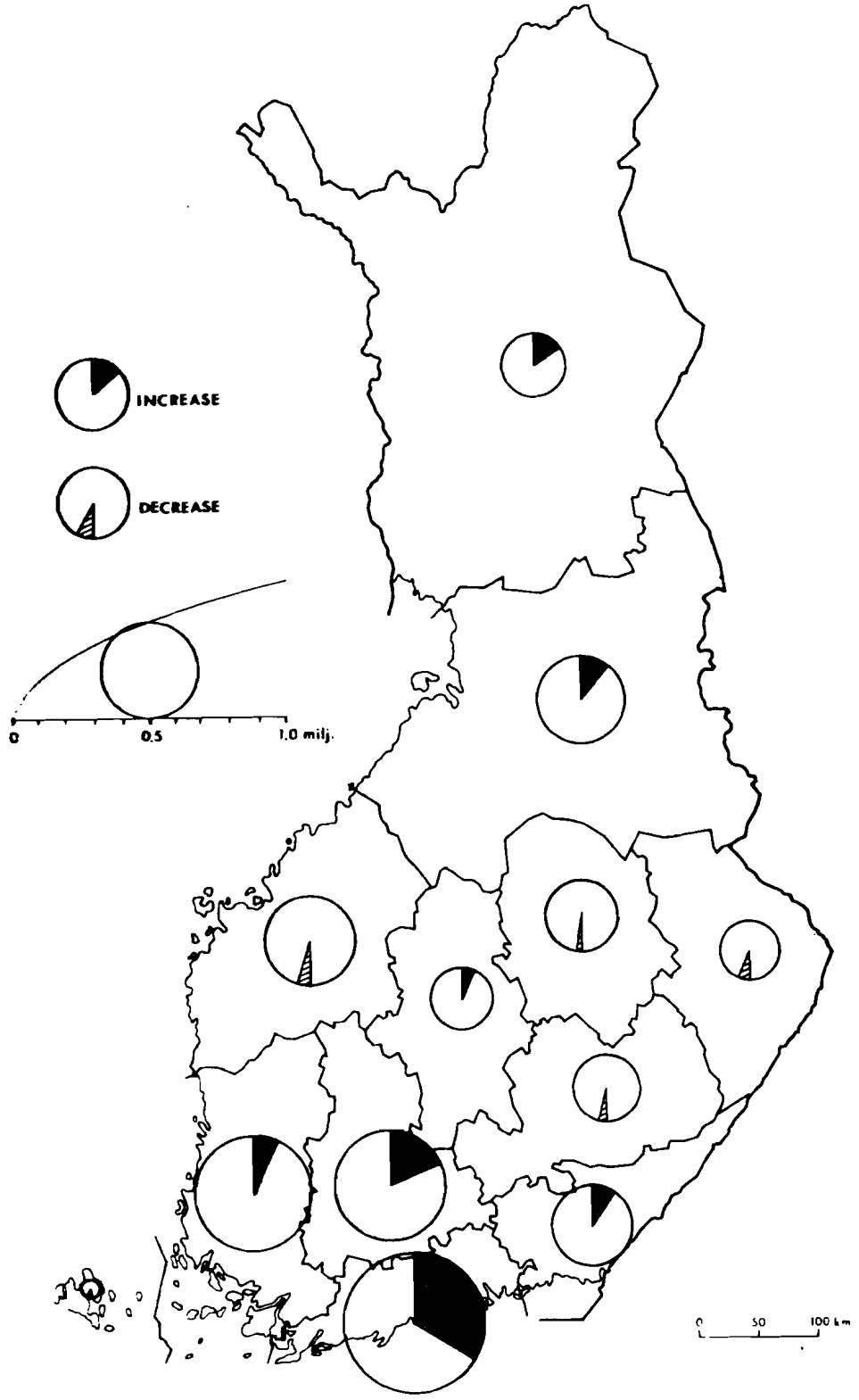


Figure 2.6. Regional distribution of population in 1970 and change of population in 1950-1970 in relation to population size in 1970.

Source: CICRED, 1975, p. 30.

examination of the net outmigration of the province to its 1970 population (Figure 2.7). The diagram reveals that Uusimaa has experienced a migratory gain of the same magnitude in different five-year periods. The province received no less than a quarter of its 1970 population through inmigration taking place during the previous two decades. It was net until the end of the 1960s that the migratory gain began to have any significant effect on the population structure in the other provinces experiencing such a gain.

The heaviest losses through migration have been experienced by the provinces of Pohjois-Karjala, Mikkeli and Kuopio. The province of Lappi is interesting in the respect that, exceptionally, it scored migratory gains in the 1956-60 period but ten years later sustained heavy migratory losses, mostly on account of the massive wave of emigration to Sweden.

A regional study of the migratory flows between the Finnish provinces reveals that Uusimaa registered gains during the entire twenty-year period at the expense of all the other regions. During the 1966-70 period, also the province of Häme started to emerge as a clear population gainer through migration (Figure 2.8).

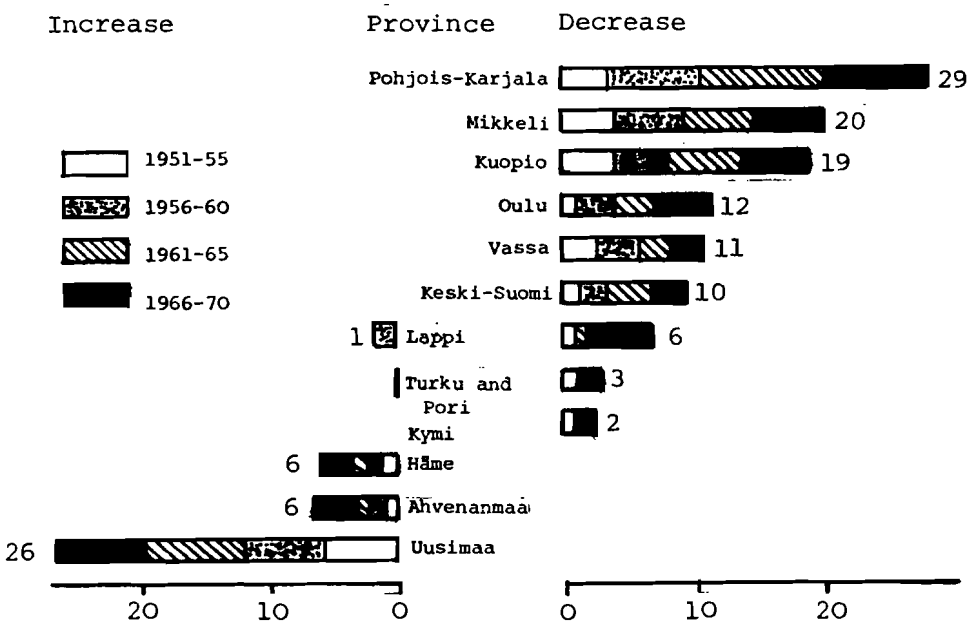


Figure 2.7. Changes in population of 1970 caused by internal migration, given in percentages by province in quinquennial periods 1950-1970.

Source: CIRED, 1975, p. 31.

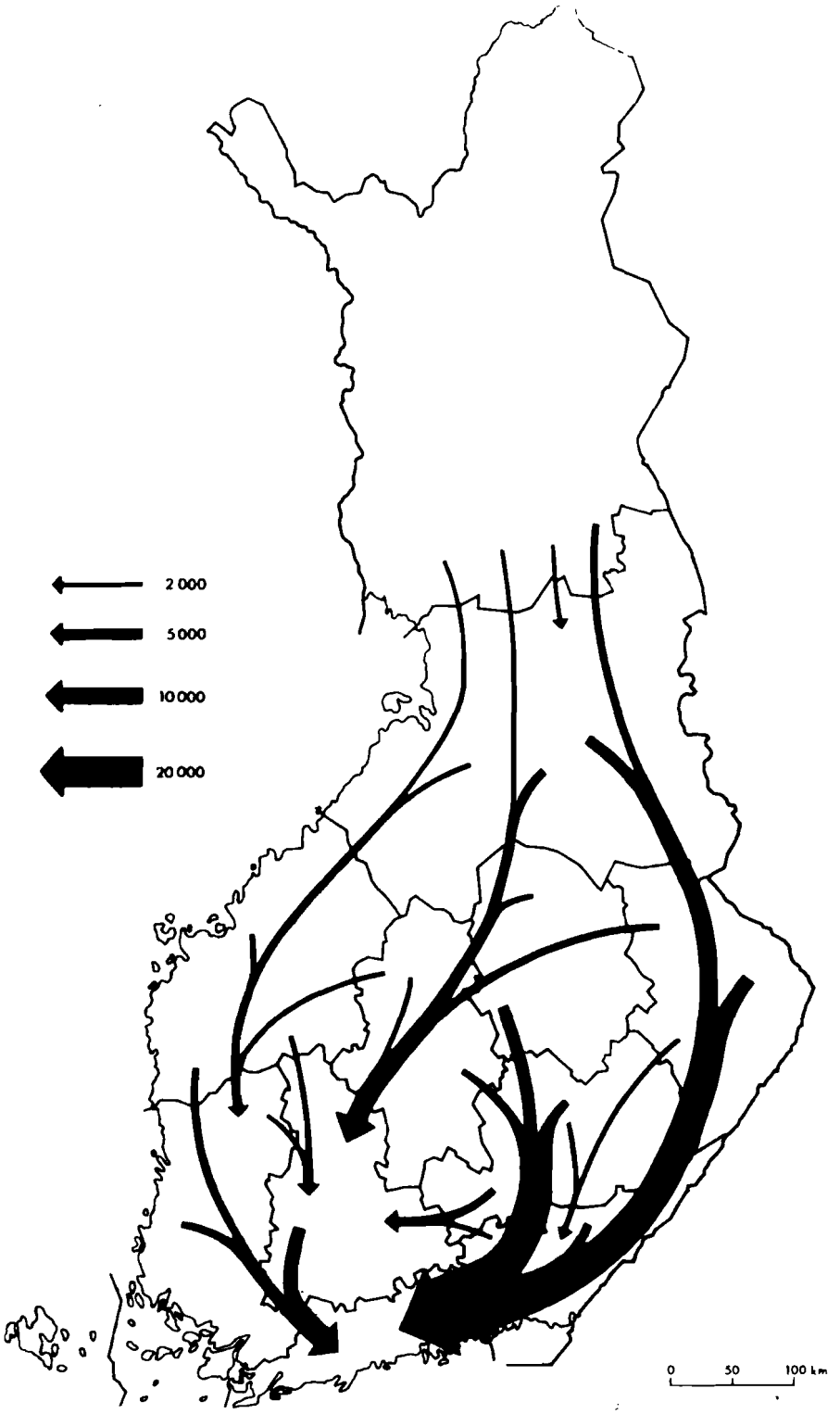


Figure 2.8. Directions of net in-migration flows between provinces in 1966-1970.

Source: CICRED, 1975, p. 32.

Häme was on the losing end of the migratory balance sheet only in comparison with Uusimaa. The persistent flow of migratory streams in the same direction has led to the ever-greater concentration of the Finnish population in southern and southwestern Finland. This trend was at first slowed down by the markedly higher birth rate of the regions sustainaing migratory losses. The levelling off that has taken place in the birth rate meant, however, that the migratory currents now reflect more and more the over-all population trends in the different regions. In other words, the regional differences in the birth rate and the natural population growth are affecting the regional distribution of the population less than are migratory movements.

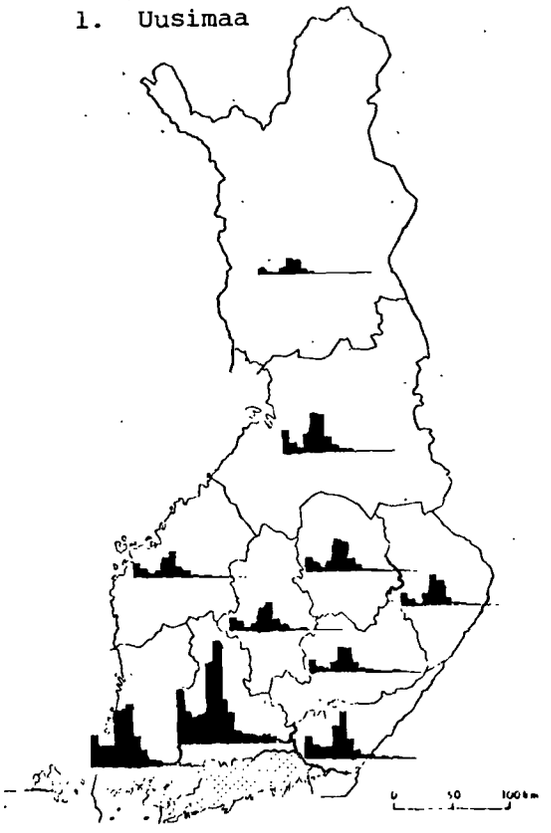
b. Migration in 1974

Figure 2.9 presents, for each region of origin, the number and age structure of the out-migrants by region of destination. A number of observations can be made. First, the province of Uusimaa is a major destination area. On the other hand, however, it is an important source of out-migrants. Second, two other southern provinces are important in- and out-migration provinces: Turku and Pori and Häme. A third observation relates to the migration distance. Distance negatively affects migration. A considerable proportion of out-migrants stay in adjacent provinces. Fourth, the province of Ahvenanmaa exchanges migrants with only three provinces: Uusimaa, Turku and Pori and Vaasa. This is due to the representation of the Swedish language in these three provinces.

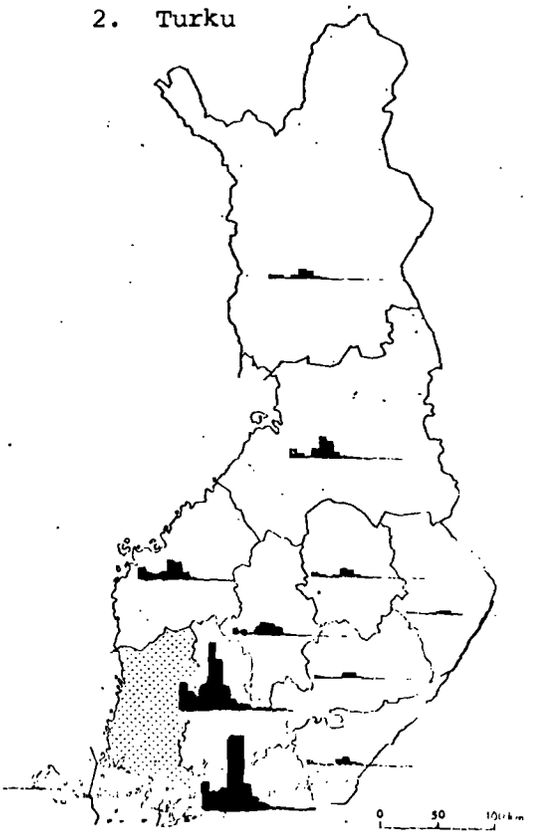
Out-migration rates by provinces are given in the Appendix 2. The total migration rates are the sums of the migration rates outside the province. The schedules of intra-provincial migration and of migration towards other provinces are drawn in Figure 10. One observes high migration rates in age group 20-24 and in age group 0-4.

A comparison between intra-provincial and inter-provincial migration rates desdrves some attention. Figure 2.11 gives the

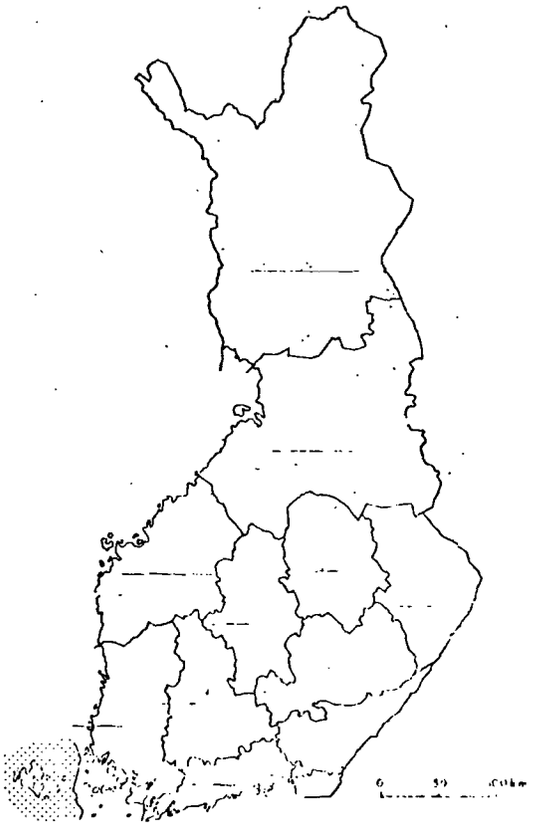
1. Uusimaa



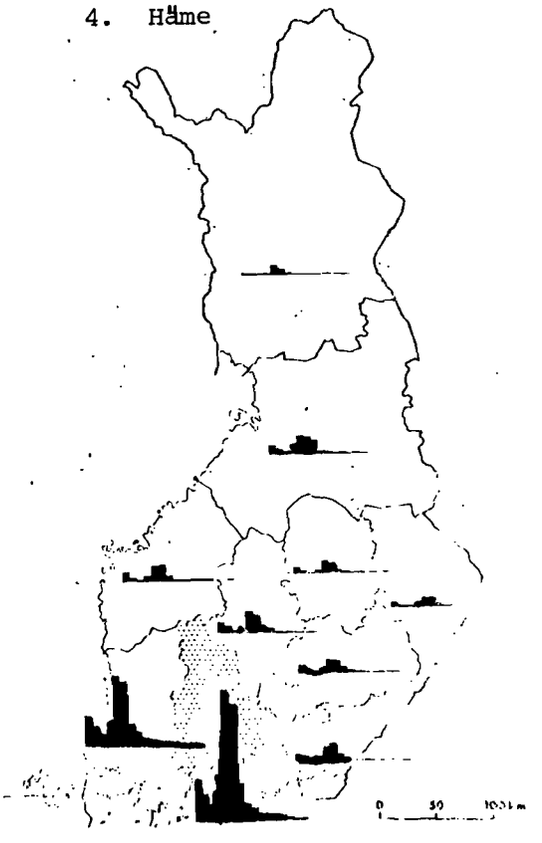
2. Turku



3. Ahvenanmaa



4. Häme



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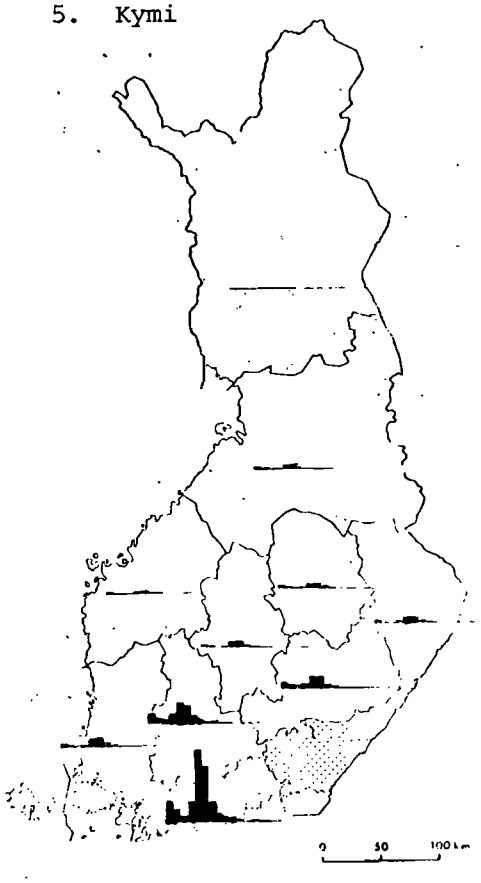
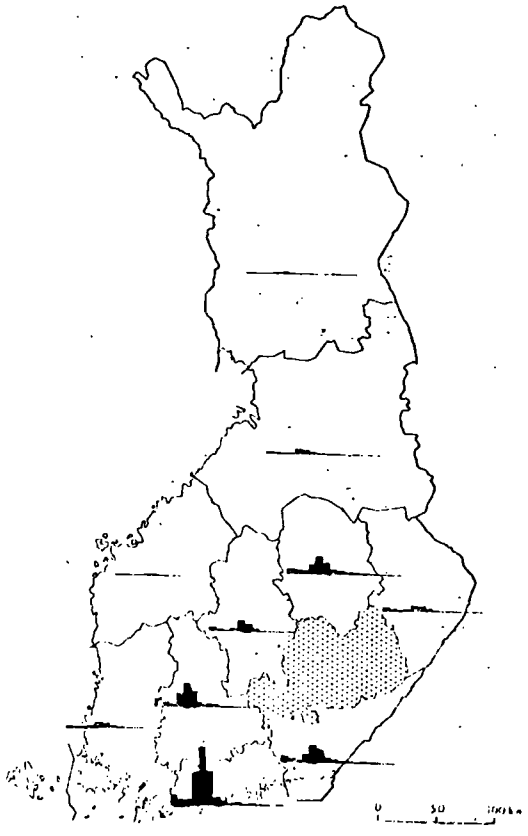
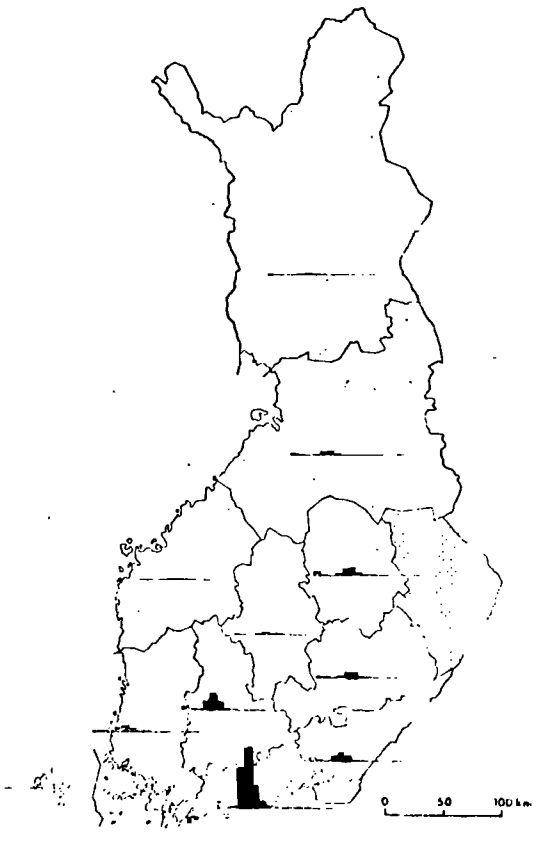
5. Kymi



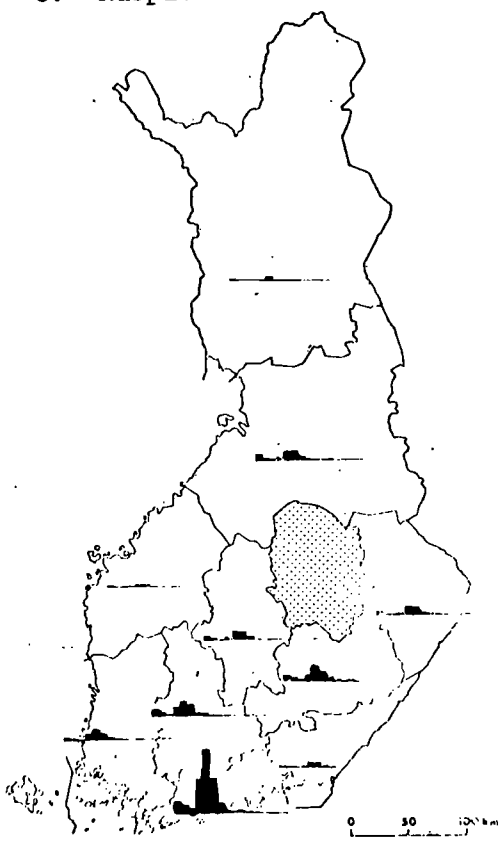
6. Mikkeli



7. Pohjois-Karjala



8. Kuopio



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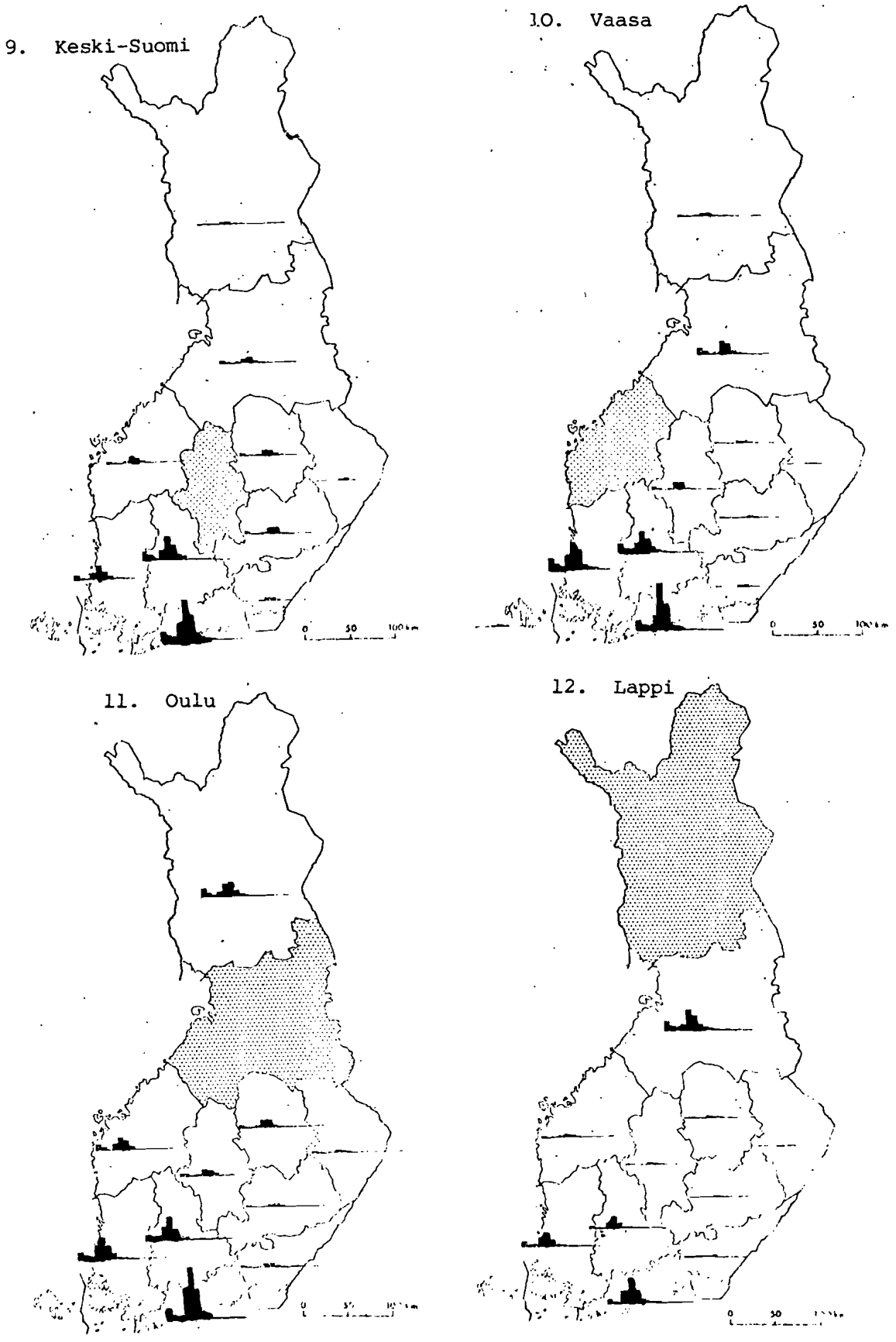

Figure 2.9. The number and age structure of the out-migrants by province of origin, Finland, 1974.

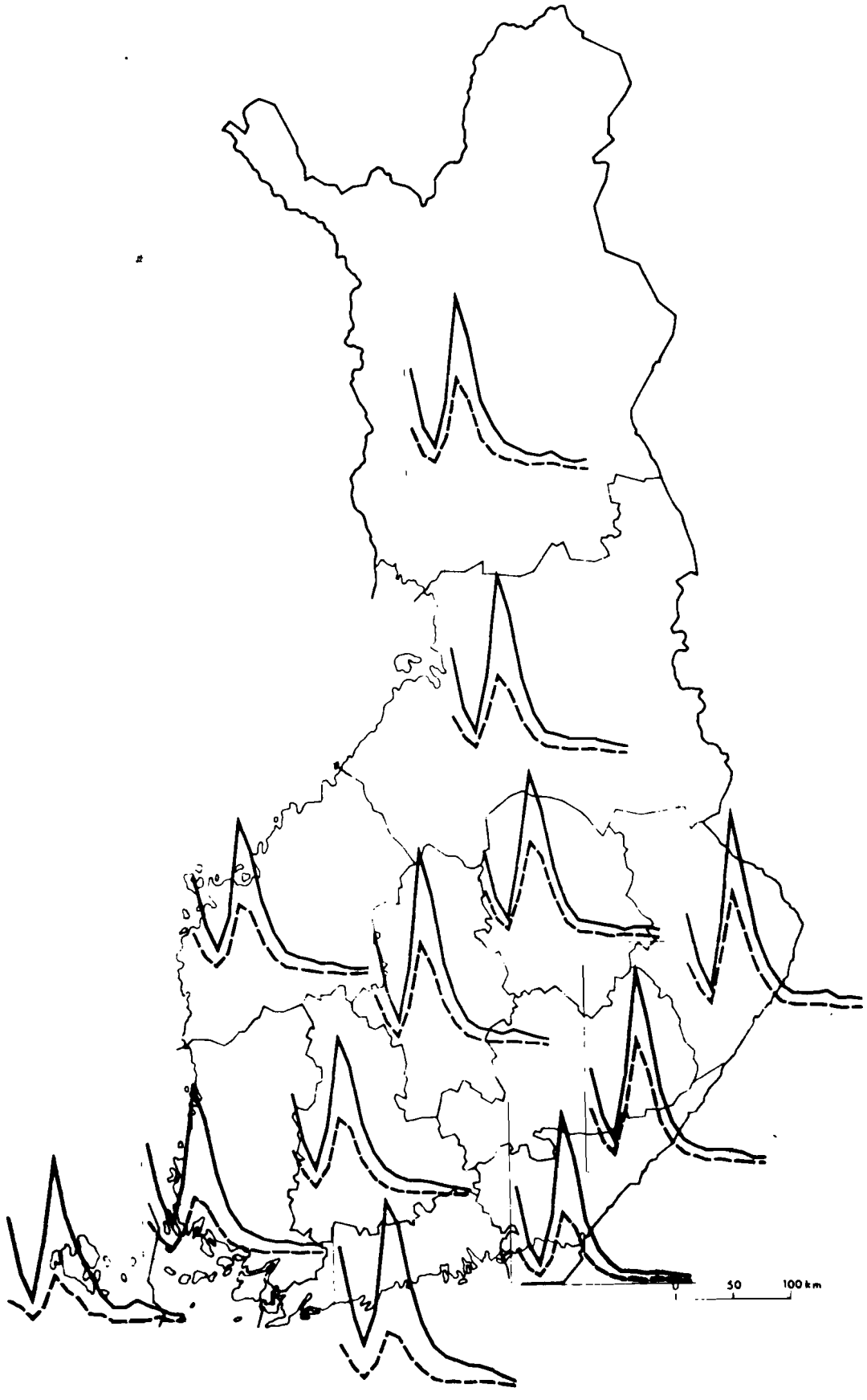

Figure 2.10. The total and intra-provincial out-migration rates by provinces, Finland, 1974.

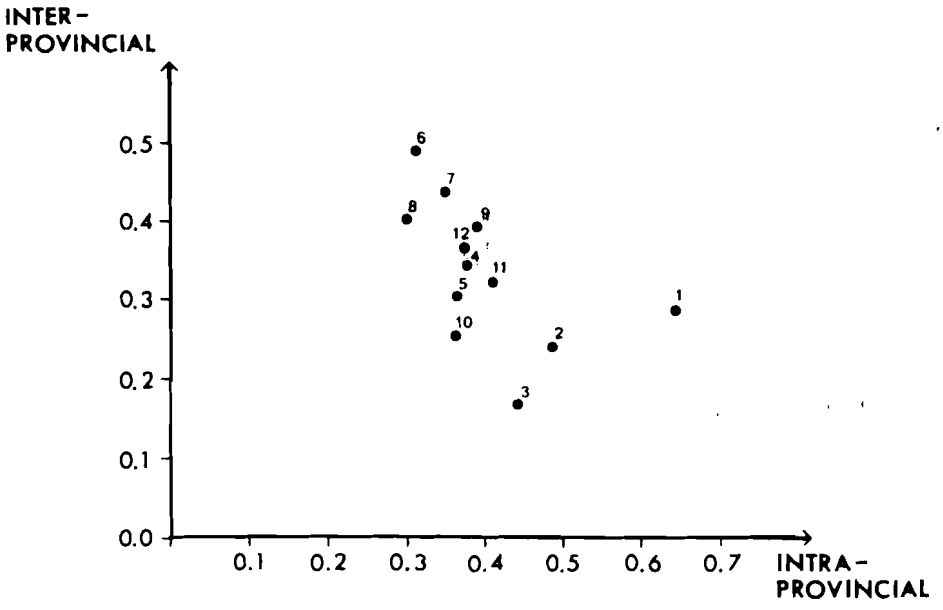

Figure 2.11. Gross out-migration rates.

gross migration rates. Observe the high intra-provincial migration rate of Uusimaa. This may be explained by the suburbanization process around Helsinki. The inter-provincial migration rate is lowest for the isolated Swedish-speaking province of Ahvenanmaa. Interesting is the decline in the gross out-migration rates as the intra-provincial migration rates increase.

The mean age of total inter-provincial migration schedule is between 23.91-26.06 years. The mean age of the intra-provincial migration rate is between 24.44-26.23 years.

2.5. Total Population System in 1974

Table 2.9 summarizes the demographic information on the whole system, i.e., the country. It is an aggregation of the regional data. The migration column contains the number of migrants between the regions in the system (provinces).

Table 2.9. Total population system.

AGE	POPULATION		BIRTHS		DEATHS		MIGRATION		OBSERVED RATES		
	ABSOLUTE	PERCENT	ABSOLUTE	PERCENT	ABSOLUTE	PERCENT	ABSOLUTE	PERCENT	BIRTH	DEATH	MIGRATION
0	301733.	6.4328	0.	0.0000	839.	1.8780	30439.	11.0275	0.000000	0.002781	0.102881
5	361840.	7.7143	0.	0.0000	145.	0.3246	18821.	6.8185	0.000000	0.000401	0.052015
10	387373.	8.2586	5.	0.0080	132.	0.2955	10716.	3.8822	0.000013	0.000341	0.027663
15	405257.	8.6399	5391.	8.6295	358.	0.8013	27344.	9.9063	0.013303	0.000883	0.067473
20	427498.	9.1141	21600.	34.5755	436.	0.9759	66481.	24.0850	0.050527	0.001020	0.155512
25	436247.	9.3006	22810.	36.5124	517.	1.1572	55377.	20.0622	0.052287	0.001185	0.126940
30	306629.	6.5372	8505.	13.6141	468.	1.0475	23176.	8.3963	0.027737	0.001526	0.075583
35	288847.	6.1581	3284.	5.2568	595.	1.3318	12856.	4.6575	0.011369	0.002260	0.044528
40	279945.	5.9683	802.	1.2836	1005.	2.2495	7639.	2.7675	0.002865	0.003590	0.027288
45	287010.	6.1189	75.	0.1201	1649.	3.6910	6035.	2.1864	0.000261	0.005745	0.021027
50	263173.	5.6107	0.	0.0000	2166.	4.8482	4654.	1.6861	0.000000	0.008230	0.017684
55	226674.	4.8326	0.	0.0000	2865.	6.4128	3591.	1.3010	0.000000	0.012639	0.015842
60	235159.	5.0135	0.	0.0000	4537.	10.1553	3704.	1.3419	0.000000	0.019293	0.015751
65	198413.	4.2301	0.	0.0000	5985.	13,3965	2574.	0.9325	0.000000	0.030164	0.012973
70	139736.	2.9791	0.	0.0000	6652.	14.8894	1419.	0.5141	0.000000	0.047604	0.012155
75	144998.	3.0913	0.	0.0000	16327.	36.5453	1201.	0.4351	0.000000	0.112602	0.008283
TOTAL	4690532.	100.0000	62472.	100.0000	44676.	100.0000	276027.	100.0000	0.158362	0.250065	0.779577
CRUDE									0.013319	0.009525	0.058848
M. AGE		34.0376		26.3300		65.0753		24.4435	26.9615	68.8471	26.3224

3. MULTIREGIONAL POPULATION ANALYSIS*

The previous sections gave an overview of recent trends in regional demographic changes in Finland. Regional differences in fertility and mortality, and interregional migration flows cause regionally deviating demographic features. It is the purpose of this section to describe these differences and to analyse their impacts on important demographic characteristics. The methodology used is provided by multiregional demography. The advantage of this new field of study is that it enables one to consider simultaneously several regions and to trace through the effect of changes in one region on each other region.

The basic parameters of our analysis consist of age and region-specific rates of mortality, fertility and migration. These schedules of age-specific rates are computed from the data presented in the previous section and are given in Appendix B. Note that the schedules are independent of the observed age structure and regional distribution of the population. They are pure representations of the age effects of the components of demographic change. A description and analysis of these age effects on demographic characteristics is the objective of this part of the paper. Three sections will be distinguished. In the first, the multiregional life table is discussed and the important summary measure of the life expectancy matrix is computed. The second section confronts the hypothetical life table population with observed fertility and migration schedules, and derives a number of important statistics describing the fertility and migration experience in the multiregional population system. In addition, the long-run impact of current demographic behavior is explained by introducing the concept of multiregional stable population. The final section presents the short, medium and long-run impact of the currently observed schedules of mortality, fertility and migration and of the age and regional composition of the population.

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*This section is written with Frans Willekens.

3.1 The Multiregional Life Table

The multiregional life table is a collection of statistics describing the mortality and migration experiences of a set of regional birth cohorts. A regional birth cohort is a group of people, 100,000 say, born at the same moment in time and in the same region. If these cohorts are subjected to the observed schedules or age-specific rates of mortality and migration as they age, a hypothetical population would evolve with the interesting feature that it is independent of the age and regional structure of the observed population. This hypothetical population will be denoted as the life table population.

The methodology of multiregional life table construction is described in Rogers (1975a, Chapter 5), and the computer program is given in Willekens and Rogers (1976). The first step in constructing a life table is to compute age-specific transition probabilities from the observed rates. By way of illustration, the transition probabilities of 20-year-old persons are repeated in Table 3.1. For example, the probability that a person living in the province of Uusimaa at age 20 will still be alive at age 25 is 99.5%. The probability that he is still in Uusimaa is 78.6%. Hence, there is a 20.9% chance that he moves to other provinces. In other words, of 100 20-year-old persons in Uusimaa, about 21 will be in other provinces 5 years laters. An average of about 3 will be in Turku and Pori, 5 in Häme, 2 in Kymi, etc. The probability of dying is obtained as a residual; namely, unity minus the probability of survival. It not only depends on the death rate in Uusimaa, but also on the death rates in the other provinces to which a person of age 20 might migrate. The remarkably low probability of dying in Ahvenanmaa is largely due to measurement problems. In 1974, no deaths of 20-24-year-olds were counted in this small province. The observed zero death rate, applied to a birth cohort, implies that no one dies in Ahvenanmaa between those ages. Hence, all deaths of Ahvenanmaa-born people between these ages occur in other regions. This can also be seen from the life history of the birth cohort of Ahvenanmaa.

Table 3.1. Transition probabilities of 20-year-old persons, Finland: 12 provinces.

Region of Destination	Region of Origin											
	1	2	3	4	5	6	7	8	9	10	11	12
Uusimaa	0.78579	0.07554	0.06598	0.12325	0.13625	0.17266	0.20189	0.15560	0.13929	0.09778	0.10652	0.10773
Turku and Pori	0.03288	0.76843	0.04722	0.06412	0.02031	0.02540	0.03052	0.03050	0.05053	0.05700	0.04467	0.05841
Ahvenanmaa	0.00199	0.00253	0.81260	0.00052	0.00033	0.00027	0.00052	0.00057	0.00064	0.00483	0.00096	0.00027
Häme	0.04727	0.06092	0.07299	0.69886	0.04206	0.06994	0.06067	0.04151	0.07794	0.04375	0.04675	0.04861
Kymi	0.01991	0.00711	0.00330	0.01430	0.72057	0.04990	0.03461	0.01745	0.01477	0.00633	0.00963	0.00991
Mikkeli	0.01373	0.00587	0.00087	0.01196	0.02033	0.55459	0.02034	0.03360	0.01934	0.00362	0.00614	0.00550
Pohjois-Karjala	0.01653	0.00442	0.00086	0.00857	0.01139	0.01703	0.57875	0.02093	0.00635	0.00278	0.00683	0.00334
Kuopio	0.01845	0.00930	0.00323	0.01258	0.01060	0.04661	0.02543	0.63566	0.01923	0.00672	0.01510	0.01024
Keski-Suomi	0.01355	0.01213	0.00332	0.01934	0.01122	0.02944	0.01238	0.02254	0.62206	0.01535	0.01322	0.00992
Vaasa	0.01229	0.01846	0.03569	0.01505	0.00623	0.00626	0.00605	0.00846	0.02155	0.72557	0.02414	0.01326
Oulu	0.02343	0.02070	0.01260	0.01829	0.01057	0.01682	0.01732	0.02241	0.01691	0.02618	0.69750	0.07491
Lappi	0.00935	0.00935	0.00088	0.00901	0.00457	0.00549	0.00630	0.00471	0.00694	0.00595	0.02332	0.64985
TOTAL PROBABILITY OF SURVIVAL	0.99517	0.99477	0.99955	0.99585	0.99442	0.99443	0.99476	0.99395	0.99494	0.99586	0.99478	0.99195
PROBABILITY OF DYING	0.00483	0.00523	0.00045	0.00415	0.00558	0.00557	0.00524	0.00605	0.00506	0.00414	0.00522	0.00805

The complete life history of all the birth cohorts may be obtained by consecutive application of the age-specific transition probabilities. For instance, from the 100,000 babies born in Uusimaa, a total of

$$100{,}000 \times 0.80798 = 80{,}798$$

will still be there at age 5. Some, namely

$$100{,}000 \times 0.02884 = 2884 \ ,$$

will migrate to the province of Turku and Pori.

$$100{,}000 \times 0.00069 = 69$$

will move to Ahvenanmaa, and so on. The number of deaths is equal to

$$100{,}000 \times 0.01319 = 1319 \ .$$

This procedure distributes the birth cohort of Uusimaa over the various regions and the state of death at age 5. An analogous procedure yields the regional distribution of this cohort at age 10. For instance, of the 80,798 people in Uusimaa at age 5,

$$80{,}798 \times 0.89565 = 72{,}367$$

will still be there at age 10, and

$$80{,}798 \times 0.01801 = 1455$$

will be in the province of Turku and Pori. Similarly, we may follow the life history of those 2884 migrants in Turku and Pori.

The life histories of the people born in the various provinces may be aggregated to give the expected number of survivors at exact age by place of birth and place of residence. Table 3 of the Appendix shows that, of the 100,000 babies born in Uusimaa, 4340 are living in Turku and Pori at age 10. Some (2884 x 0.91520 = 2639) have moved to the province before age 5 and have stayed there. Some (80798 x 0.01801 = 1455) moved directly from Uusimaa, and the rest have first moved to other provinces before coming to Turku and Pori.

These results may also be interpreted as probabilities. If divided by the radix or size of the birth cohort, they denote the probabilties of being in the various regions when born in a specific region. For example, the probability that a person born in Uusimaa will be in Turku and Pori at age 20 is 0.06045. In other words, 6.0% of the babies born in Uusimaa will be in Turku and Pori when they are 20 years old (Table 3.2). Interesting is the distribution of the birth cohort of Uusimaa at age 75. About half (50.6%) will still be alive. Only 18.8% will be in the region of birth. Striking is the result for Lapland. Of the babies born in this region, only 8.2% will live there when they reach age 75, but 41.2% will be in the rest of Finland, with most in Uusimaa (10.7%) and Turku and Pori (7.4%).

Thus far, life table statistics have been presented that may be interpreted as probabilities, conditional probabilties, and unconditional probabilities. Probabilities allow a detailed investigation of inter-provincial transitions at various ages. However, these probabilities may also be used to derive measures of the average duration of stay in each region by persons of various ages.

It is convenient to express the duration of residence per unit cohort, i.e., cohort of a single person. Table 3.3 presents the number of years lived in each region per unit birth cohort. It gives the average length of stay in each region between ages 20-25 per baby born in the various regions. For instance, a baby born in the various regions. For instance, a person born

Table 3.2. Probabilities of survival from birth to exact age 20 by region, Finland, 12 provinces.

region of residence at age 20	region of birth											
	1=	2=	3=	4=	5=	6=	7=	8=	9=	10=	11=	12=
UUSIMAA	0,63071	0,08991	0,06660	0,13295	0,13584	0,15117	0,17238	0,14473	0,13249	0,07951	0,10592	0,09466
TURKU	0,06045	0,67139	0,06085	0,08760	0,03601	0,04186	0,04944	0,04321	0,06135	0,07566	0,06179	0,07428
AHVENAN	0,00218	0,00280	0,75553	0,00096	0,00092	0,00042	0,00041	0,00039	0,00073	0,00434	0,00086	0,00040
HAME	0,08552	0,08132	0,02152	0,58592	0,06667	0,09334	0,07048	0,06857	0,09836	0,05648	0,05618	0,05331
KYMI	0,03633	0,01506	0,00723	0,02620	0,61255	0,06684	0,05376	0,02926	0,01858	0,00993	0,01692	0,01833
MIKKELI	0,02064	0,00958	0,00446	0,02020	0,03445	0,46685	0,03119	0,04028	0,02601	0,00865	0,01209	0,00927
POH,KAR	0,02060	0,00839	0,00350	0,01470	0,01739	0,02909	0,49457	0,02799	0,01143	0,00493	0,01060	0,00662
KUOPIO	0,02429	0,01300	0,00637	0,01716	0,01701	0,05589	0,03908	0,52343	0,02596	0,00884	0,01900	0,01420
KESK,SU	0,02313	0,01681	0,01983	0,02776	0,01438	0,03107	0,01396	0,02887	0,53383	0,01766	0,01953	0,01252
VAASA	0,02592	0,02967	0,03014	0,02577	0,01330	0,01365	0,01123	0,01500	0,02773	0,67025	0,03435	0,02308
OULU	0,03778	0,02658	0,00844	0,03033	0,01969	0,02148	0,02626	0,04304	0,02925	0,03120	0,60582	0,09048
LAPLAND	0,01190	0,01229	0,00153	0,00910	0,00705	0,00741	0,01088	0,01302	0,01162	0,01008	0,03591	0,58040
TOTAL	0,97947	0,97881	0,98598	0,97865	0,97526	0,97908	0,97363	0,97778	0,97733	0,97752	0,97896	0,97757

Table 3.3. Time spent in each region between ages 20 and 25 per unit birth cohort, Finland: 12 provinces.

Region of Residence	Region of Birth											
	1-	2-	3-	4-	5-	6-	7-	8-	9-	10-	11-	12-
UUSIMAA	2,92272	0,59629	0,46564	0,84903	0,88827	0,99421	1,11484	0,94927	0,87053	0,58144	0,71193	0,66265
TURKU	0,35223	3,00338	0,37649	0,50918	0,22403	0,26136	0,29741	0,27254	0,37977	0,45539	0,37513	0,44762
AHVENAN	0,01408	0,01799	3,42488	0,00686	0,00596	0,00381	0,00409	0,00402	0,00583	0,02885	0,00688	0,00379
HAME	0,47332	0,47559	0,14415	2,54073	0,38698	0,53051	0,42576	0,39750	0,56559	0,34678	0,35075	0,34104
KYMI	0,19964	0,08867	0,04505	0,14872	2,65255	0,36434	0,29317	0,16918	0,11682	0,06419	0,10113	0,10651
MIKKELI	0,11236	0,05661	0,02525	0,10757	0,17571	1,83462	0,16246	0,21346	0,13984	0,04828	0,06724	0,05468
POH,KAR	0,11434	0,04858	0,02073	0,08074	0,09658	0,14924	1,96691	0,14973	0,06562	0,03146	0,06128	0,04042
KUOPIO	0,14049	0,08026	0,04007	0,10389	0,10194	0,30019	0,20974	2,16108	0,14858	0,05852	0,11362	0,08710
KESK.SU	0,12822	0,10004	0,09428	0,15394	0,08979	0,17860	0,09022	0,16309	2,18243	0,10794	0,11235	0,07929
VAASA	0,14305	0,16886	0,20507	0,14637	0,07871	0,08221	0,07105	0,09092	0,16260	2,90356	0,19629	0,13416
OULU	0,21337	0,17195	0,07164	0,17555	0,11860	0,13586	0,15704	0,23415	0,16967	0,19154	2,59521	0,50850
LAPLAND	0,07149	0,07331	0,01298	0,05954	0,04413	0,04747	0,06287	0,07036	0,06710	0,05898	0,19023	2,48555
TOTAL	4,88532	4,88156	4,92623	4,88212	4,86325	4,88241	4,85556	4,87528	4,87439	4,87684	4,88206	4,87123

exceeds the remaining lifetime measures. The expectation of life at age 20 is given in Table 3.4. The life expectancy at age is decomposed according to the region where this life is expected to be lived. For instance, of the total of 53.56 years, 23.25 years are expected to be spent in Uusimaa, 6.04 in Turku and Pori, and 24.27 years in the other provinces of Finland. The differences between those values and the equivalent values of Table are due to mortality and migration of ages 0-19.

The most important life table statistic is the life expectancy at birth (Table 3.5). Note that the total life expectancy of a given birth cohort not only depends on the mortality schedule of the province of birth, but also on the mortality schedules of other provinces the members of the birth cohort may migrate to. Therefore, the total life expectancy computed in multiregional demography differs from the life expectancy derived for a closed system. The latter case implies the assumption that a person never leaves his region of birth, and is therefore during his whole lifetime subject to the mortality pattern of that region.

Multiregional life tables are not only useful in their own right, but do also provide the necessary input to multiregional demographic growth models. The proportion of people in a given age group and region surviving to the next age group is derived from the life table. Recall that Table 3.3 may be interpreted as representing the relative number of people in each region and age group in the life table or stationary population. Table 3.6 shows that the total survivorship proportion of 20-24-year-old persons living in Uusimaa is 0.995, i.e., 99.5% will survive to be 25-29 years old 5 years later. About 79.0% will remain in Uusimaa, 3.2% will be in Turku and Pori 5 years later, and 17.3% will survive in the other provinces. The matrices of survivorship proportions constitute the building blocks of the multiregional demographic growth operator, or generalized LESLIE matrix.

Table 3.4. Life expectancies at age 20, by province of birth and province of future residence, Finland.

Province of Future Residence	Province of Birth											
	1-	2-	3-	4-	5-	6-	7-	8-	9-	10-	11-	12-
UUSIMAA	23,23336	10,27800	8,41303	12,89496	13,55202	14,22162	14,97573	13,61839	12,92807	9,97255	11,20285	10,87282
TURKU	6,00265	22,32141	6,12534	7,66880	4,65829	5,10005	5,36742	5,16242	6,35614	7,11457	6,22721	6,82818
AHVENAN	0,22305	0,28386	26,25124	0,13925	0,12019	0,10291	0,11068	0,10605	0,12503	0,43972	0,13906	0,10216
HAME	7,06714	7,13525	3,16311	17,16420	6,32284	7,50067	6,70545	6,32859	7,86420	5,84127	5,82480	5,87787
KYMI	3,03572	1,85744	1,03433	2,54658	16,49322	4,49577	3,85277	2,85089	2,35764	1,59265	2,05238	2,07467
MIKKELI	1,65478	1,11070	0,57479	1,59863	2,22156	8,65647	2,15074	2,55303	1,91532	1,02930	1,27251	1,13046
POH,KAR	1,53410	0,90690	0,49774	1,24569	1,47240	1,88449	9,85863	1,99063	1,18281	0,75794	1,09769	0,91528
KUOPIO	2,07226	1,43511	0,95963	1,72316	1,80499	3,40427	2,77266	11,58064	2,20027	1,24943	1,92544	1,60426
KESK,SU	1,97962	1,71643	1,17666	2,20372	1,70539	2,49449	1,75080	2,40052	11,67996	1,86607	1,88836	1,57746
VAASA	2,35572	2,68171	3,59971	2,43471	1,64753	1,74622	1,69181	1,87612	2,67336	19,55807	3,02327	2,37955
OULU	3,00163	2,65535	1,40347	2,68921	2,13346	2,45731	2,65027	3,28795	2,76212	3,00823	15,84544	6,32201
LAPLAND	1,11334	1,11442	0,39819	1,02884	0,82295	0,92426	1,06670	1,16043	1,11056	1,03489	2,42392	13,14678
TOTAL	53,27337	53,49657	53,59724	53,33776	52,95483	52,98854	52,95367	52,91565	53,15547	53,46467	52,92294	52,83151

Table 3.5. Expectations of life at birth, by province of birth and province of future residence.

	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH,KAR	KUOPIO	KESK,SU	VAASA	OULU	LAPLAND
UUSIMAA	37,9706	11,1198	9,1060	14,2016	14,8458	15,3814	16,0535	14,6668	14,0279	10,5681	11,9423	11,5368
TURKU	6,6462	37,8072	6,7577	8,6272	4,9704	5,4649	5,7494	5,4995	6,9317	7,8696	6,7462	7,4703
AHVENAN	0,2401	0,3054	43,0064	0,1437	0,1267	0,1035	0,1103	0,1062	0,1259	0,4663	0,1460	0,1025
HAME	8,0381	7,9794	3,4383	31,5641	6,9524	8,4351	7,2872	6,9843	8,8904	6,3440	6,2634	6,3072
KYMI	3,4574	2,0163	1,1084	2,8179	31,2388	5,2654	4,4486	3,1389	2,5250	1,6815	2,2244	2,2459
MIKKELI	1,8878	1,2066	0,5917	1,8556	2,6396	22,1824	2,5246	3,0719	2,2504	1,1286	1,4157	1,2301
POH,KAR	1,7656	0,9878	0,5332	1,4082	1,6776	2,2972	23,8981	2,3761	1,3204	0,8004	1,2279	0,9824
KUOPIO	2,3531	1,5769	1,0141	1,9170	1,9906	4,0344	3,3108	25,6746	2,5370	1,3404	2,1430	1,7642
KESK,SU	2,2508	1,8917	1,3107	2,5372	1,8655	2,8875	1,8814	2,7492	25,7442	2,0741	2,1200	1,7119
VAASA	2,6453	3,0122	3,9170	2,7247	1,7841	1,8625	1,7832	2,0233	2,9614	35,1588	3,3869	2,5962
OULU	3,4195	2,9422	1,4678	2,9968	2,3302	2,6787	2,9507	3,8237	3,0896	3,3892	31,0022	7,5076
LAPLAND	1,2320	1,2416	0,4053	1,1174	0,8962	1,0005	1,1960	1,3292	1,2442	1,1340	2,9053	27,9091
TOTAL	71,9066	72,0871	72,6564	71,9113	71,3178	71,6135	71,1938	71,4437	71,6481	71,9551	71,5234	71,3642

MIGRATION LEVELS

	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH,KAR	KUOPIO	KESK,SU	VAASA	OULU	LAPLAND
UUSIMAA	0,528055	0,154256	0,125330	0,197487	0,208164	0,214783	0,225490	0,205292	0,195789	0,146871	0,166970	0,161661
TURKU	0,092428	0,524465	0,093009	0,119970	0,069693	0,076311	0,080757	0,076976	0,096747	0,109369	0,094321	0,104678
AHVENAN	0,003339	0,004236	0,591915	0,001998	0,001776	0,001445	0,001550	0,001486	0,001757	0,006480	0,002042	0,001436
HAME	0,111786	0,110691	0,047322	0,438931	0,097485	0,117797	0,102357	0,097760	0,124085	0,088166	0,087572	0,088380
KYMI	0,048082	0,027970	0,015255	0,039186	0,438022	0,073525	0,062486	0,043935	0,035241	0,023369	0,031101	0,031471
MIKKELI	0,026254	0,016739	0,008144	0,025804	0,037012	0,309752	0,035461	0,042998	0,031409	0,015684	0,019794	0,017237
POH,KAR	0,024555	0,013703	0,007339	0,019583	0,023523	0,032077	0,335676	0,033258	0,018429	0,011124	0,017168	0,013766
KUOPIO	0,032724	0,021875	0,013957	0,026658	0,027911	0,056336	0,046504	0,359369	0,035409	0,018629	0,029962	0,024721
KESK,SU	0,031301	0,026242	0,018039	0,035282	0,026158	0,040320	0,026427	0,038481	0,359314	0,028825	0,029641	0,023989
VAASA	0,036789	0,041785	0,053911	0,037890	0,025016	0,026288	0,025048	0,028320	0,041332	0,488621	0,047354	0,036380
OULU	0,047555	0,040815	0,020202	0,041673	0,032673	0,037405	0,041446	0,053521	0,043122	0,047102	0,433455	0,105201
LAPLAND	0,017133	0,017224	0,005579	0,015538	0,012567	0,013971	0,016800	0,018604	0,017366	0,015760	0,040621	0,391080
TOTAL	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000

Table 3.6. Matrix of survivorship preprarations of 20.24 years old persons, Finland, 12 provinces.

Region of Destination	Region of Origin											
	1-	2-	3-	4-	5-	6-	7-	8-	9-	10-	11-	12-
UUSIMAA	0.78984	0.07257	0.05754	0.11558	0.12391	0.15233	0.16620	0.13428	0.12127	0.08300	0.09250	0.09263
TURKU	0.03212	0.77956	0.04154	0.05943	0.02072	0.02356	0.02742	0.02703	0.04357	0.05294	0.04019	0.04907
AHVENAN	0.00157	0.00229	0.83481	0.00044	0.00036	0.00023	0.00040	0.00042	0.00039	0.00422	0.00067	0.00015
HAME	0.04747	0.05497	0.01076	0.71089	0.04004	0.06481	0.05350	0.03941	0.06933	0.03919	0.03931	0.04171
KYMI	0.02124	0.00819	0.00329	0.01575	0.73108	0.04835	0.03349	0.01822	0.01467	0.00717	0.01051	0.01135
MIKKELI	0.01326	0.00623	0.00081	0.01221	0.02113	0.58495	0.02236	0.03257	0.02104	0.00458	0.00730	0.00580
POH.KAR	0.01517	0.00447	0.00152	0.00881	0.01163	0.01829	0.61770	0.02286	0.00780	0.00312	0.00685	0.00421
KUOPIO	0.01683	0.00871	0.00460	0.01158	0.01074	0.04336	0.02810	0.65321	0.01932	0.00666	0.01619	0.01011
KESK.SU	0.01389	0.01194	0.00487	0.01883	0.01215	0.02878	0.01175	0.02345	0.65001	0.01644	0.01381	0.00995
VAASA	0.01286	0.01790	0.02867	0.01549	0.00672	0.00682	0.00679	0.00929	0.02089	0.74600	0.02331	0.01328
OULU	0.02186	0.01906	0.00842	0.01785	0.01100	0.01688	0.01832	0.02503	0.01884	0.02558	0.71612	0.07379
LAPLAND	0.00867	0.00884	0.00071	0.00824	0.00421	0.00597	0.00715	0.00755	0.00811	0.00669	0.02717	0.67963
TOTAL	0.99478	0.99473	0.99753	0.99511	0.99368	0.99433	0.99317	0.99331	0.99524	0.99559	0.99395	0.99178

person born in Uusimaa may expect to live an average of 4.89 years between ages 20 and 25. Of this, 2.92 is spent in Uusimaa, 0.35 in Turku and Pori, and so on.

In addition to the duration of residence interpretation of Table 3.2, it may be given a number-of-people interpretation. Table 3.2, for example, shows that if the birth cohort is unity, there are 4.89 people in age group 20-24 who were born in Uusimaa. The column elements give the regions of residence of these Uusimaa-born people. Hence, Table 3.2 gives the age and regional distribution of the life table population. The distribution is expressed in terms of unit born (birth cohort of a single person). It may be converted to the more conventional expression in terms of percentage distribution by introducing the ratios of birth cohorts. However, Willekens and Rogers (1977) have shown that the expression in terms of unit born provides a better measure, since it gives the relative composition of any stationary population.

The duration-of-residence interpretation of Table 3.3 leads to the question of how long a person, born in a certain region, is expected to live in the various regions beyond a given age, x say. The length of stay beyond age x is obtained by adding the number of years lived in each age group above age x. For example, a person born in Uusimaa may, at time of birth, expect to live 52.46 years beyond age 20. Of this, an average of 22.78 years will be spent in Uusimaa, 5.91 years in Turku and Pori, and 23.77 years in the other provinces. Note that this expected remaining lifetime is expressed at time of birth. It is the lifetime beyond a given age x which a newly-born baby can expect, and accounts for the babies that will die before reaching age x.

A measure which is independent of the mortality and migration pattern of ages below age x is the life expectancy. It represents the average length of stay in the various regions beyond age x, given that the person reaches age x. Since the life expectancy is expressed per unit survivor of age x, it generally

3.2 Mobility and Fertility Analysis

The multiregional life table provides a framework to study internal migration in combination with regional differences in mortality. The matrices of life expectancies contain for each regional cohort the expected duration of residence in each province. Another measure of migration intensity is the net migraproduction rate (NMR) matrix (Rogers, 1975b), given in Table 3.7. The NMR matrix represents the number of crossings of provincial boundaries a person is expected to make during his lifetime. The columns denote the province of birth and the rows represent the provinces of out-migration. For example, a person born in Uusimaa will change his residence at the average of 4.09 times during his life (includes intra-provincial migration). He will depart in Uusimaa an average of 2.70 times, Turku and Pori 0.26 times, and so on.

The relative importance of each province as a region of origin is given by the matrix of net allocations. Of the total number of inter-provincial migrations by a Uusimaa-born person, 56% will be out of Uusimaa, 6% out of Turku and Pori, 11% out of Häme, and so on.

The multiregional life table and the NMR matrix summarize in different ways the migration and mortality behavior of a multiregional population system. The life table yields duration measures whereas the NMR matrix is a frequency measure which gives the number of events, i.e., inter-provincial migrations. A convenient way to summarize the age schedules of the 3 components of demographic change (mortality, migration and fertility) is the net rate of reproduction (NRR) matrix. It is the multiregional analogue of the net rate of reproduction. The NRR matrix for Finland is given in Table 3.7. The elements denote the number of children a person is expected to have during his lifetime by place of birth of the parent and place of birth of the children. For example, a person born in Uusimaa will have at the average 0.76 children of this total. 0.40 are born in Uusimaa, 0.06 in Turku and Pori, and 0.30 in other provinces. The number of children born in the various regions to a Uusimaa-born person depends not only on the migration pattern of the

Table 3.7. Net migraproduction rate matrix, Finland, 12 provinces.

	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
UUSIMAA	2,696547	0,585470	0,470662	0,777759	0,815497	0,859373	0,912480	0,817784	0,774081	0,559833	0,644652	0,616211
TURKU	0,261320	2,155440	0,273501	0,357399	0,182470	0,204806	0,220309	0,207991	0,276256	0,323614	0,268598	0,307060
AHVENAN	0,008775	0,011343	2,194300	0,004800	0,004237	0,003152	0,003381	0,003274	0,004113	0,017633	0,004989	0,003119
HAME	0,329026	0,327614	0,125051	1,805928	0,276279	0,353110	0,294093	0,280022	0,375155	0,250374	0,246869	0,245853
KYMI	0,133312	0,069776	0,037187	0,104177	1,728878	0,219838	0,181508	0,116969	0,088891	0,055531	0,077681	0,079074
MIKKELI	0,068539	0,051580	0,023254	0,086931	0,130894	1,509437	0,123649	0,156280	0,109764	0,046931	0,061110	0,051533
POH.KAR	0,084727	0,042034	0,021034	0,064217	0,077216	0,112322	1,570946	0,114954	0,057677	0,031692	0,053170	0,039623
KUOPIO	0,096943	0,060892	0,036059	0,075999	0,077060	0,182470	0,142748	1,504328	0,105011	0,049063	0,084568	0,067471
KESK.SU	0,100918	0,081995	0,062346	0,117312	0,079116	0,136173	0,078896	0,126984	1,731420	0,091062	0,092627	0,070856
VAASA	0,088636	0,103427	0,128199	0,091786	0,054858	0,057561	0,052468	0,062765	0,100459	1,755689	0,117545	0,084886
OULU	0,150663	0,126186	0,058623	0,128291	0,094613	0,108944	0,123098	0,168883	0,129998	0,145683	1,856518	0,347727
LAPLAND	0,054006	0,054909	0,014667	0,047596	0,037105	0,041157	0,051096	0,057331	0,053469	0,047791	0,135773	1,708831
TOTAL	4,093413	3,670666	3,444885	3,662194	3,558222	3,788341	3,754672	3,617564	3,806294	3,374896	3,644101	3,622243
EIGENVALUE	3,822133											
EIGENVECTOR												
- RIGHT	1,000000	0,361436	0,011915	0,345904	0,131672	0,091349	0,078106	0,095119	0,116552	0,106404	0,174867	0,067969
- LEFT	1,000000	0,798154	0,668113	0,815353	0,784396	0,867312	0,860660	0,807985	0,868844	0,685876	0,793183	0,783023

NET MIGRAPRODUCTION ALLOCATIONS

	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
UUSIMAA	0,658753	0,159500	0,136626	0,212375	0,229187	0,226847	0,243025	0,226059	0,203369	0,165882	0,176903	0,170119
TURKU	0,063839	0,587207	0,079393	0,097591	0,051281	0,054062	0,058676	0,057495	0,072579	0,095889	0,073708	0,084771
AHVENAN	0,002144	0,003090	0,636973	0,001311	0,001191	0,000832	0,000900	0,000905	0,001081	0,005225	0,001369	0,000861
HAME	0,080379	0,089252	0,036300	0,493128	0,077645	0,093210	0,078327	0,077406	0,098562	0,074187	0,067745	0,067873
KYMI	0,032567	0,019009	0,010795	0,028447	0,485883	0,058030	0,048342	0,032334	0,023354	0,016454	0,021317	0,021830
MIKKELI	0,021630	0,014052	0,006750	0,023738	0,036786	0,398443	0,032932	0,043200	0,028838	0,013906	0,016770	0,014227
POH.KAR	0,020698	0,011451	0,006106	0,017535	0,021701	0,029649	0,418398	0,031777	0,015153	0,009390	0,014591	0,010939
KUOPIO	0,023683	0,016589	0,010468	0,020752	0,021657	0,048166	0,038019	0,415840	0,027589	0,014538	0,023207	0,018627
KESK.SU	0,024654	0,022338	0,018099	0,032033	0,022235	0,035945	0,021013	0,035102	0,454883	0,026982	0,025418	0,019561
VAASA	0,021653	0,028177	0,037214	0,025063	0,015417	0,015194	0,013974	0,017350	0,026393	0,520220	0,032256	0,023435
OULU	0,036806	0,034377	0,017017	0,035031	0,026590	0,028758	0,032785	0,046684	0,034153	0,043167	0,509458	0,095998
LAPLAND	0,013193	0,014959	0,004258	0,012997	0,010428	0,010864	0,013609	0,015848	0,014048	0,014161	0,037258	0,471760
TOTAL	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000

birth cohort of Uusimaa but also on regionally different fertility levels.

3.3 Population Projection

The multiregional life table describes the migration and mortality experience of members of a regional birth cohort as they age. The life table statistics are independent of the observed age composition and regional distribution of the population but only depend on the prevailing schedule of mortality and migration. Analogously, the NMR- and NRR-matrices are not affected by the age and regional population structure. The short- and medium-run impact of the population structure is best studied by projecting the multiregional population with constant demographic schedules.

The projection is performed using the discrete model of multiregional demographic growth (Rogers, 1975, Chapter 4). If the regional age schedules of mortality, fertility and internal migration remain at the 1974 level, then the total population of Finland will continue growing slightly until it reaches a maximum of 4.89 million in 1989 and it will decline thereafter as the big age groups (baby boom) leave the reproductive period. The changing age structure of the population, caused by low fertility, results in a drop of the crude birth rate from 13.3% in 1974 to 10.3% in 2004 and a rise in the death rate from 9.5% to 13.6%. The regional population growth will become more uneven as the southern provinces increase their share of the national population (Table 3.9). As the population ages, the migration intensity will level off but the basic tendency of negative net outmigration in the North and Central provinces will prevail. This phenomenon, combined with negative natural increase in most provinces, shape the future distribution.

The stable growth rate of Finland's population is negative, as we could expect from the net reproduction rate matrix (Table 3.8). The share of Uunimaa in the national population goes up to a significant 28% at stability (23% in 1974). Another important observation is the increase in mean age. The overall

mean age changes from 34 years in 1977 to 43 years at stability. No great regional differences occur, although the aging is less in provinces with relatively higher fertility.

Table 3.8. Net reproduction rate matrix, Finland, 12 provinces.

	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
UUSIMAA	0.482127	0.114211	0.091235	0.153859	0.161752	0.176298	0.190679	0.168132	0.156351	0.112258	0.130717	0.124372
TURKU	0.062279	0.400887	0.067082	0.086627	0.043040	0.049019	0.053501	0.050389	0.067298	0.079368	0.066126	0.076230
AHVENAN	0.002595	0.003388	0.488407	0.001423	0.001211	0.000908	0.000984	0.000957	0.001233	0.005374	0.001443	0.000898
HAME	0.078532	0.079809	0.028514	0.323852	0.066513	0.086672	0.072575	0.067871	0.092083	0.060860	0.061047	0.060259
KYMI	0.032921	0.016662	0.008944	0.025761	0.322086	0.055839	0.045692	0.029214	0.021937	0.013226	0.018775	0.019329
MIKKELI	0.019035	0.011110	0.005104	0.018276	0.027806	0.201711	0.026462	0.033481	0.023413	0.009764	0.012835	0.010886
POH.KAR	0.019681	0.009788	0.004935	0.014875	0.017800	0.025199	0.230905	0.026193	0.013334	0.007393	0.012123	0.009093
KUOPIO	0.024674	0.015477	0.009246	0.019314	0.019433	0.046898	0.035162	0.255968	0.026322	0.012440	0.021503	0.017034
KESK.SU	0.023817	0.019664	0.015631	0.027717	0.018885	0.032325	0.018994	0.030103	0.267647	0.021759	0.021890	0.016895
VAASA	0.029939	0.035270	0.044872	0.031109	0.018481	0.019578	0.017934	0.021438	0.034551	0.430721	0.040340	0.029220
OULU	0.046556	0.039598	0.019058	0.040010	0.029294	0.014051	0.037667	0.051160	0.039998	0.045083	0.402462	0.106177
LAPLAND	0.014337	0.014579	0.003792	0.012680	0.009593	0.010740	0.013105	0.014534	0.013920	0.012473	0.034994	0.316433
TOTAL	0.756692	0.760443	0.786821	0.755502	0.735894	0.739236	0.743661	0.749441	0.758088	0.810720	0.824256	0.786827

EIGENVALUE 0.767968

EIGENVECTOR

- RIGHT	1.000000	0.559774	0.029714	0.513938	0.197016	0.107524	0.099515	0.145425	0.160483	0.304323	0.392965	0.122630
- LEFT	1.000000	1.011950	1.104317	0.997215	0.944509	0.959517	0.967705	0.984021	1.002690	1.153072	1.175526	1.090296

NET REPRODUCTION ALLOCATIONS

	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
UUSIMAA	0.531428	0.150191	0.115954	0.203651	0.219804	0.238487	0.256406	0.224344	0.206244	0.138467	0.158588	0.158067
TURKU	0.082304	0.527176	0.085257	0.114662	0.058487	0.066310	0.071942	0.067236	0.088774	0.097898	0.080225	0.096882
AHVENAN	0.003430	0.004455	0.620735	0.001884	0.001645	0.001228	0.001323	0.001277	0.001627	0.006628	0.001751	0.001141
HAME	0.103784	0.104950	0.036240	0.428658	0.090384	0.117245	0.097592	0.090563	0.121467	0.075070	0.074063	0.076585
KYMI	0.043506	0.021911	0.011367	0.034098	0.437680	0.075536	0.061442	0.038981	0.028937	0.016314	0.022778	0.024566
MIKKELI	0.025155	0.014610	0.006486	0.024190	0.037786	0.272864	0.035584	0.044675	0.030885	0.012044	0.015571	0.013836
POH.KAR	0.026273	0.012871	0.006272	0.019690	0.024189	0.034088	0.310498	0.034950	0.017589	0.009120	0.014708	0.011557
KUOPIO	0.032607	0.020352	0.011752	0.025564	0.026408	0.063441	0.047283	0.341545	0.034721	0.015345	0.026088	0.021649
KESK.SU	0.031475	0.025859	0.019867	0.036687	0.025662	0.043728	0.025542	0.040168	0.353055	0.026839	0.026557	0.021472
VAASA	0.039565	0.046581	0.057029	0.041177	0.025114	0.026484	0.024116	0.028605	0.045577	0.531281	0.048941	0.037137
OULU	0.061526	0.052072	0.024222	0.052958	0.039807	0.046062	0.050651	0.068265	0.052762	0.055609	0.488273	0.134944
LAPLAND	0.018948	0.019172	0.004819	0.016783	0.013035	0.014529	0.017622	0.019393	0.018363	0.015386	0.042455	0.402164
TOTAL	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Table 3.9. Multiregional population projection.

YEAR 1974

POPULATION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
0	301733.	70913.	43095.	1511.	41448.	20644.	12099.	10289.	15446.	14843.	28890.	29206.	13349.
5	361843.	80222.	51061.	1708.	48765.	25847.	16031.	13467.	19740.	18419.	33898.	35129.	17553.
10	387373.	76355.	52685.	1530.	50527.	28059.	18905.	17075.	23034.	21230.	35720.	40665.	21588.
15	405257.	77792.	55214.	1526.	53797.	29496.	20199.	18986.	24432.	22209.	37525.	42233.	21848.
20	427498.	98805.	62305.	1811.	61530.	30686.	18295.	15969.	22976.	21505.	37210.	38093.	18313.
25	436247.	123312.	64002.	2060.	63183.	30402.	16177.	13608.	20008.	20609.	34563.	33026.	15297.
30	306629.	85652.	43431.	1472.	43028.	21826.	12048.	9704.	14453.	14631.	24649.	24099.	11636.
35	288847.	71742.	41856.	1213.	40186.	21118.	12656.	10108.	14826.	14412.	24314.	23925.	12471.
40	279945.	64661.	41282.	1148.	39007.	21302.	13023.	10499.	15133.	14366.	24198.	23401.	11925.
45	287010.	61825.	43470.	1230.	40413.	22133.	13565.	11276.	16184.	15050.	26094.	23810.	11960.
50	263173.	56140.	40380.	1281.	37444.	19882.	12524.	10237.	14375.	13945.	25662.	21054.	10249.
55	226674.	48954.	34855.	1269.	32489.	17563.	10780.	9043.	12211.	11814.	22330.	17337.	8029.
60	235159.	51021.	37081.	1308.	34271.	18629.	11417.	9627.	12626.	12124.	22210.	17209.	7636.
65	198413.	43391.	32624.	1035.	29467.	16085.	9963.	7750.	10637.	10060.	18237.	13178.	5986.
70	139736.	30166.	23537.	801.	20704.	11404.	7151.	5252.	7412.	6958.	13308.	8903.	4140.
75	144998.	32514.	24794.	1106.	20790.	10909.	7367.	4980.	7827.	6639.	14235.	9585.	4252.
TOTAL	4690532.	1073485.	691672.	22009.	657049.	345985.	212200.	177870.	251320.	238814.	423043.	400853.	196232.

PERCENTAGE DISTRIBUTION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
0	6.43	6.61	6.23	6.87	6.31	5.97	5.70	5.78	6.15	6.22	6.83	7.29	6.80
5	7.71	7.47	7.38	7.76	7.42	7.47	7.55	7.57	7.85	7.71	8.01	8.76	8.95
10	8.26	7.11	7.62	6.95	7.69	8.11	8.91	9.60	9.17	8.89	8.44	10.14	11.00
15	8.64	7.25	7.98	6.93	8.19	8.53	9.52	10.67	9.72	9.30	8.87	10.54	11.13
20	9.11	9.20	9.01	8.23	9.36	8.87	8.62	8.98	9.14	9.00	8.80	9.50	9.33
25	9.30	11.49	9.25	9.36	9.62	8.79	7.62	7.65	7.96	8.63	8.17	8.24	7.80
30	6.54	7.98	6.28	6.69	6.55	6.31	5.68	5.46	5.75	6.13	5.83	6.01	5.93
35	6.16	6.68	6.05	5.51	6.12	6.10	5.96	5.68	5.90	6.03	5.75	5.97	6.36
40	5.97	6.02	5.97	5.22	5.94	6.16	6.14	5.90	6.02	6.02	5.72	5.84	6.08
45	6.12	5.76	6.28	5.59	6.15	6.40	6.39	6.34	6.44	6.30	6.17	5.94	6.09
50	5.61	5.23	5.84	5.82	5.70	5.75	5.90	5.76	5.72	5.84	6.07	5.25	5.22
55	4.83	4.56	5.04	5.77	4.94	5.08	5.08	5.08	4.86	4.95	5.28	4.33	4.09
60	5.01	4.75	5.36	5.94	5.22	5.38	5.38	5.41	5.02	5.08	5.25	4.29	3.89
65	4.23	4.04	4.72	4.70	4.48	4.65	4.70	4.36	4.23	4.21	4.31	3.29	3.05
70	2.98	2.81	3.40	3.64	3.15	3.30	3.37	2.95	2.95	2.91	3.15	2.22	2.11
75	3.09	3.03	3.58	5.03	3.16	3.15	3.47	2.80	3.11	2.78	3.36	2.39	2.17
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
M.AG	34.0376	33.9597	35.2040	36.1660	34.5854	34.8939	34.9367	33.9075	33.8804	33.8694	34.3145	31.4597	30.9908
SHA	100.0000	22.8862	14.7461	0.4692	14.0080	7.3762	4.5240	3.7921	5.3580	5.0914	9.0191	8.5460	4.1836

(continued)

YEAR 1979

POPULATION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
0	314219.	76154.	44738.	1459.	43123.	20548.	12146.	10873.	15360.	15483.	28923.	32142.	13268.
5	299337.	68729.	43724.	1509.	41852.	20562.	12172.	10355.	15304.	14932.	28126.	29101.	12969.
10	361177.	79459.	51753.	1727.	49294.	25862.	15930.	13415.	19640.	18462.	33515.	34975.	17145.
15	386190.	80883.	53869.	1641.	52077.	27732.	17770.	15875.	21813.	20325.	34807.	39109.	20288.
20	403329.	93690.	57084.	1778.	55937.	28063.	17094.	15702.	21855.	20222.	34265.	38699.	18941.
25	425140.	113022.	62938.	2062.	61261.	29047.	15914.	14026.	20972.	20208.	33383.	35963.	16345.
30	433311.	123644.	64055.	2098.	62719.	29906.	15956.	13556.	19676.	20611.	33117.	32920.	15051.
35	305906.	83409.	43839.	1429.	43385.	21627.	12045.	9648.	14490.	14606.	24176.	23854.	11398.
40	284799.	70394.	42010.	1195.	40162.	20839.	12408.	9886.	14648.	14133.	23752.	23439.	11931.
45	273504.	63354.	40944.	1134.	38525.	20730.	12572.	10245.	14709.	13969.	23546.	22598.	11178.
50	277177.	59965.	42464.	1237.	39549.	21266.	12882.	10783.	15401.	14565.	25268.	22660.	11137.
55	249862.	53320.	38753.	1256.	36126.	18935.	11708.	9496.	13503.	13240.	24520.	19616.	9389.
60	209415.	45031.	32667.	1186.	30595.	16286.	9906.	8198.	11177.	10791.	20807.	15657.	7114.
65	208113.	44840.	33371.	1170.	30893.	16418.	10044.	8397.	11103.	10634.	19810.	14899.	6533.
70	163948.	35893.	27385.	863.	24816.	13184.	7996.	6305.	8741.	8199.	15099.	10654.	4814.
75	219292.	51793.	37746.	1388.	33569.	16481.	9473.	7370.	10868.	10041.	20230.	13445.	6887.
TOTAL	4812718.	1143582.	717339.	23133.	683883.	347486.	206016.	174132.	249259.	240421.	423345.	409733.	194390.

PERCENTAGE DISTRIBUTION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
0	6.53	6.66	6.24	6.31	6.31	5.91	5.90	6.24	6.16	6.44	6.83	7.84	6.83
5	6.22	6.01	6.10	6.52	6.12	5.92	5.91	5.95	6.14	6.21	6.64	7.10	6.67
10	7.50	6.95	7.21	7.47	7.21	7.44	7.73	7.70	7.88	7.68	7.92	8.54	8.82
15	8.02	7.07	7.51	7.10	7.61	7.98	8.63	9.12	8.75	8.45	8.22	9.55	10.44
20	8.38	8.19	7.96	7.69	8.18	8.08	8.30	9.02	8.77	8.41	8.09	9.44	9.74
25	8.83	9.88	8.77	8.91	8.96	8.36	7.72	8.05	8.41	8.41	7.89	8.78	8.41
30	9.00	10.81	8.93	9.07	9.17	8.61	7.75	7.79	7.89	8.57	7.82	8.03	7.74
35	6.31	7.29	6.11	6.18	6.34	6.22	5.85	5.54	5.81	6.08	5.71	5.82	5.86
40	5.92	6.16	5.86	5.17	5.87	6.00	6.02	5.68	5.88	5.88	5.61	5.72	6.14
45	5.68	5.54	5.71	4.90	5.63	5.97	6.10	5.88	5.90	5.81	5.56	5.52	5.75
50	5.76	5.24	5.92	5.35	5.78	6.12	6.25	6.19	6.18	6.06	5.97	5.53	5.73
55	5.19	4.66	5.40	5.43	5.28	5.45	5.68	5.45	5.42	5.51	5.79	4.79	4.83
60	4.35	3.94	4.55	5.13	4.47	4.69	4.81	4.71	4.48	4.49	4.91	3.82	3.66
65	4.32	3.92	4.65	5.06	4.52	4.72	4.88	4.82	4.45	4.42	4.68	3.64	3.36
70	3.41	3.14	3.82	3.73	3.63	3.79	3.88	3.62	3.51	3.41	3.57	2.60	2.48
75	4.56	4.53	5.26	6.00	4.91	4.74	4.60	4.23	4.36	4.18	4.78	3.28	3.54
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
M.AG	35.4437	35.1085	36.4725	36.6935	36.0389	36.4392	36.4498	35.7093	35.5531	35.4397	35.7811	32.7779	33.0418
SHA	100.0000	23.7617	14.9051	0.4807	14.2099	7.2202	4.2806	3.6182	5.1792	4.9955	8.7964	8.5135	4.0391
LAM	1.026049	1.065299	1.037108	1.051052	1.040840	1.004340	0.970856	0.978985	0.991800	1.006730	1.000713	1.022152	0.990612
R	0.005143	0.012651	0.007287	0.009958	0.008006	0.000866	-0.005916	-0.004248	-0.001647	0.001342	0.000143	0.004382	-0.001887

(continued)

YEAR 1984

POPULATION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH,KAR	KUOPIO	KESK,SU	VAASA	OULU	LAPLAND
0	314744.	76753.	44745.	1525.	42940.	20108.	11881.	10850.	15381.	15414.	28411.	33215.	13521.
5	311726.	73426.	45423.	1468.	43574.	20629.	12307.	10913.	15357.	15574.	28297.	31761.	12998.
10	298793.	67865.	44218.	1522.	42160.	20634.	12192.	10378.	15299.	15005.	27820.	28945.	12755.
15	360000.	82511.	52604.	1824.	50485.	25560.	15130.	12693.	18720.	17794.	32657.	33842.	16260.
20	384355.	94082.	55385.	1864.	53857.	26398.	15282.	13495.	19737.	18649.	31904.	36040.	17663.
25	401096.	106966.	58093.	1997.	56358.	26776.	14912.	13620.	19927.	19005.	30897.	35951.	16593.
30	422263.	115025.	62860.	2088.	60781.	28645.	15664.	13761.	20258.	20188.	32055.	35070.	15868.
35	429477.	120116.	64349.	2037.	62981.	29757.	16129.	13489.	19826.	20584.	32644.	32680.	14884.
40	299658.	81211.	44045.	1405.	43288.	21388.	11928.	9514.	14390.	14377.	23698.	23427.	10988.
45	278245.	68699.	41679.	1180.	39652.	20316.	12025.	9686.	14264.	13763.	23139.	22654.	11188.
50	264142.	61236.	40022.	1142.	37721.	19935.	11953.	9817.	14024.	13537.	22831.	21511.	10412.
55	263142.	56929.	40758.	1217.	38158.	20246.	12059.	10005.	14459.	13832.	24175.	21105.	10199.
60	230834.	49070.	36313.	1177.	34006.	17569.	10764.	8620.	12357.	12088.	22851.	17709.	8312.
65	185339.	39584.	29405.	1061.	27574.	14358.	8722.	7159.	9829.	9467.	18546.	13552.	6082.
70	171946.	37104.	28025.	975.	26010.	13463.	8070.	6824.	9126.	8666.	16397.	12033.	5252.
75	257437.	61584.	43934.	1500.	40183.	19069.	10626.	8840.	12814.	11829.	22968.	16078.	8012.
TOTAL	4873276.	1192162.	731860.	23981.	699728.	344850.	199643.	169665.	245767.	239772.	419289.	415573.	190985.

PERCENTAGE DISTRIBUTION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH,KAR	KUOPIO	KESK,SU	VAASA	OULU	LAPLAND
0	6.46	6.44	6.11	6.36	6.14	5.83	5.95	6.39	6.26	6.43	6.78	7.99	7.08
5	6.40	6.16	6.21	6.12	6.23	5.98	6.16	6.43	6.25	6.50	6.75	7.64	6.81
10	6.13	5.69	6.04	6.35	6.03	5.98	6.11	6.12	6.23	6.26	6.64	6.97	6.68
15	7.39	6.92	7.19	7.61	7.21	7.41	7.58	7.48	7.62	7.42	7.79	8.14	8.51
20	7.89	7.89	7.57	7.77	7.70	7.65	7.65	7.95	8.03	7.78	7.61	8.67	9.25
25	8.23	8.97	7.94	8.33	8.05	7.76	7.47	8.03	8.11	7.93	7.37	8.65	8.69
30	8.66	9.65	8.59	8.71	8.69	8.31	7.85	8.11	8.24	8.42	7.64	8.44	8.31
35	8.81	10.08	8.79	8.50	9.00	8.63	8.08	7.95	8.07	8.58	7.79	7.86	7.79
40	6.15	6.81	6.02	5.86	6.19	6.20	5.97	5.61	5.86	6.00	5.65	5.64	5.75
45	5.71	5.76	5.69	4.92	5.67	5.89	6.02	5.71	5.80	5.74	5.52	5.45	5.86
50	5.42	5.14	5.47	4.76	5.39	5.78	5.99	5.79	5.71	5.65	5.45	5.18	5.45
55	5.40	4.78	5.57	5.07	5.45	5.87	6.04	5.90	5.88	5.77	5.77	5.08	5.34
60	4.74	4.12	4.96	4.91	4.86	5.09	5.39	5.08	5.03	5.04	5.45	4.26	4.35
65	3.80	3.32	4.02	4.42	3.94	4.16	4.37	4.22	4.00	3.95	4.42	3.26	3.18
70	3.53	3.11	3.83	4.06	3.72	3.90	4.04	4.02	3.71	3.61	3.91	2.90	2.75
75	5.28	5.17	6.00	6.25	5.74	5.53	5.32	5.21	5.21	4.93	5.48	3.87	4.19
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
M,AG	36.3151	35.8513	37.1836	36.8879	36.9110	37.3880	37.4473	36.8318	36.6754	36.4298	36.6803	33.6757	34.3797
SHA	100.0000	24.4633	15.0178	0.4921	14.3585	7.0764	4.0967	3.4815	5.0432	4.9201	8.6039	8.5276	3.9190
LAM	1.012583	1.042480	1.020203	1.036658	1.023169	0.992413	0.969069	0.974347	0.985990	0.997299	0.990421	1.014253	0.982487
R	0.002501	0.008321	0.004008	0.007200	0.004581	-0.001523	-0.006284	-0.005197	-0.002822	-0.000541	-0.001925	0.002831	-0.003534

(continued)

YEAR 1989

POPULATION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH,KAR	KUOPIO	KESK,SU	VAASA	OULU	LAPLAND
0	302488.	74967.	43305.	1568.	41384.	18979.	11084.	10099.	14494.	14596.	27014.	32183.	12815.
5	312248.	73911.	45439.	1528.	43433.	20262.	12095.	10895.	15378.	15522.	27865.	32692.	13230.
10	311159.	72331.	45952.	1487.	43911.	20774.	12362.	10926.	15408.	15653.	28047.	31483.	12824.
15	297890.	70060.	44807.	1600.	42986.	20435.	11674.	9889.	14647.	14491.	27114.	28000.	12185.
20	358376.	92736.	53519.	2006.	51609.	24333.	13270.	11192.	17202.	16548.	29917.	31570.	14476.
25	382233.	105032.	56103.	2050.	54061.	25237.	13597.	12093.	18251.	17693.	28911.	33659.	15546.
30	398373.	108728.	58253.	2013.	56240.	26540.	14706.	13266.	19237.	18999.	29768.	34704.	15919.
35	418512.	112364.	63069.	2023.	61026.	28541.	15818.	13610.	20235.	20149.	31619.	34471.	15587.
40	423485.	116804.	64487.	2002.	62697.	29482.	16062.	13312.	19733.	20272.	32078.	32141.	14415.
45	292771.	78867.	43722.	1383.	42697.	20876.	11631.	9370.	14051.	14025.	23123.	22681.	10344.
50	268740.	66208.	40753.	1188.	38816.	19564.	11463.	9309.	13622.	13360.	22457.	21576.	10424.
55	250775.	57983.	38434.	1126.	36412.	18996.	11203.	9123.	13187.	12870.	21871.	20035.	9537.
60	243078.	52371.	38198.	1142.	35920.	18779.	11101.	9083.	13226.	12629.	22555.	19049.	9025.
65	204294.	43150.	32681.	1053.	30637.	15497.	9481.	7539.	10863.	10600.	20370.	15323.	7099.
70	153136.	32761.	24700.	884.	23211.	11777.	7012.	5824.	8077.	7715.	15344.	10943.	4887.
75	269925.	63690.	44987.	1688.	42098.	19488.	10750.	9559.	13380.	12498.	24926.	18125.	8736.
TOTAL	4887482.	1221961.	738411.	24740.	707137.	339561.	193310.	165090.	240993.	237619.	412977.	418634.	187050.

PERCENTAGE DISTRIBUTION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH,KAR	KUOPIO	KESK,SU	VAASA	OULU	LAPLAND
0	6,19	6,13	5,86	6,34	5,85	5,59	5,73	6,12	6,01	6,14	6,54	7,69	6,85
5	6,39	6,05	6,15	6,17	6,14	5,97	6,26	6,60	6,38	6,53	6,75	7,81	7,07
10	6,37	5,92	6,22	6,01	6,21	6,12	6,40	6,62	6,39	6,59	6,79	7,52	6,86
15	6,09	5,73	6,07	6,47	6,08	6,02	6,04	5,99	6,08	6,10	6,57	6,69	6,51
20	7,33	7,59	7,25	8,11	7,30	7,17	6,86	6,78	7,14	6,96	7,24	7,54	7,74
25	7,82	8,60	7,60	8,28	7,65	7,43	7,03	7,32	7,57	7,45	7,00	8,04	8,31
30	8,15	8,90	7,89	8,13	7,95	7,82	7,61	8,04	7,98	8,00	7,21	8,29	8,51
35	8,56	9,20	8,54	8,18	8,63	8,41	8,18	8,24	8,40	8,48	7,66	8,23	8,33
40	8,66	9,56	8,73	8,09	8,87	8,68	8,31	8,06	8,19	8,53	7,77	7,68	7,71
45	5,99	6,45	5,92	5,59	6,04	6,15	6,02	5,68	5,83	5,90	5,60	5,42	5,53
50	5,50	5,42	5,52	4,80	5,49	5,76	5,93	5,64	5,65	5,62	5,44	5,15	5,57
55	5,13	4,74	5,21	4,55	5,15	5,59	5,80	5,53	5,47	5,42	5,30	4,79	5,10
60	4,97	4,29	5,17	4,62	5,08	5,53	5,74	5,50	5,49	5,31	5,46	4,55	4,82
65	4,18	3,53	4,43	4,26	4,33	4,56	4,90	4,57	4,51	4,46	4,93	3,66	3,80
70	3,13	2,68	3,35	3,57	3,28	3,47	3,63	3,53	3,35	3,25	3,72	2,61	2,61
75	5,52	5,21	6,09	6,82	5,95	5,74	5,56	5,79	5,55	5,26	6,04	4,33	4,67
TOTAL	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00
M,AG	37,0035	36,5080	37,7169	37,1881	37,5841	38,1050	38,1631	37,5933	37,4925	37,1855	37,4111	34,4374	35,4673
SHA	100,0000	25,0019	15,1082	0,5062	14,4683	6,9476	3,9552	3,3778	4,9308	4,8618	8,4497	8,5654	3,8271
LAM	1,002915	1,024996	1,008950	1,031688	1,010588	0,984662	0,968278	0,973034	0,980573	0,991019	0,984946	1,007366	0,979393
R	0,000582	0,004938	0,001782	0,006239	0,002106	-0,003091	-0,006447	-0,005467	-0,003924	-0,001804	-0,003034	0,001468	-0,004164

(continued)

YEAR 1994

POPULATION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
0	281073.	71136.	40754.	1558.	38743.	17345.	9973.	9027.	13071.	13335.	24979.	29719.	11432.
5	300091.	71997.	43940.	1562.	41846.	19179.	11348.	10200.	14537.	14740.	26536.	31637.	12567.
10	311680.	72766.	45973.	1544.	43790.	20439.	12173.	10910.	15429.	15610.	27647.	32353.	13045.
15	310220.	74433.	46578.	1572.	44776.	20632.	11873.	10403.	14801.	15116.	27393.	30354.	12291.
20	296485.	77925.	45329.	1744.	43601.	19533.	10397.	8847.	13605.	13522.	24847.	26098.	11037.
25	356411.	101168.	53723.	2145.	51329.	23300.	12081.	10436.	16198.	15949.	27090.	29867.	13125.
30	379645.	105931.	56131.	2047.	53887.	25070.	13562.	11985.	17768.	17786.	27946.	32586.	14946.
35	394831.	106141.	58568.	1948.	56618.	26507.	14862.	13079.	19206.	18971.	29411.	33951.	15550.
40	412661.	109582.	63161.	1986.	60748.	28303.	15739.	13391.	20063.	19631.	31076.	33741.	15039.
45	413772.	113334.	63914.	1971.	61756.	28806.	15713.	13117.	19289.	19780.	31341.	31148.	13603.
50	282803.	75729.	42771.	1388.	41770.	20123.	11132.	9039.	13452.	13638.	22471.	21628.	9661.
55	255163.	62545.	39145.	1172.	37466.	18669.	10769.	8671.	12826.	12718.	21532.	20100.	9551.
60	231656.	53212.	36043.	1058.	34293.	17636.	10329.	8295.	12078.	11758.	20425.	18084.	8442.
65	215108.	46038.	34382.	1023.	32360.	16560.	9792.	7946.	11621.	11075.	20126.	16478.	7706.
70	168797.	35723.	27447.	878.	25781.	12716.	7627.	6140.	8924.	8636.	16854.	12371.	5700.
75	240435.	56247.	39658.	1529.	37552.	17056.	9351.	8173.	11840.	11126.	23306.	16477.	8120.
TOTAL	4850831.	1233928.	737516.	25124.	706320.	331876.	186720.	159661.	234709.	233591.	402980.	416591.	181815.

PERCENTAGE DISTRIBUTION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
0	5.79	5.76	5.53	6.20	5.49	5.23	5.34	5.65	5.57	5.71	6.20	7.13	6.29
5	6.19	5.83	5.96	6.22	5.92	5.78	6.08	6.39	6.19	6.31	6.58	7.59	6.91
10	6.43	5.90	6.23	6.14	6.20	6.16	6.52	6.83	6.57	6.68	6.86	7.77	7.18
15	6.40	6.03	6.32	6.26	6.34	6.22	6.36	6.52	6.31	6.47	6.80	7.29	6.76
20	6.11	6.32	6.15	6.94	6.17	5.89	5.57	5.54	5.80	5.79	6.17	6.26	6.07
25	7.35	8.20	7.28	8.54	7.27	7.02	6.47	6.54	6.90	6.83	6.72	7.17	7.22
30	7.83	8.58	7.61	8.15	7.63	7.55	7.26	7.51	7.57	7.61	6.93	7.82	8.22
35	8.14	8.60	7.94	7.75	8.02	7.99	7.96	8.19	8.18	8.12	7.30	8.15	8.55
40	8.51	8.88	8.56	7.90	8.60	8.53	8.43	8.39	8.55	8.49	7.71	8.10	8.27
45	8.53	9.18	8.67	7.84	8.74	8.68	8.42	8.22	8.22	8.47	7.78	7.48	7.48
50	5.83	6.14	5.80	5.52	5.91	6.06	5.96	5.66	5.73	5.84	5.58	5.19	5.31
55	5.26	5.07	5.31	4.66	5.30	5.63	5.77	5.43	5.46	5.44	5.34	4.82	5.25
60	4.78	4.31	4.89	4.21	4.86	5.31	5.53	5.20	5.15	5.03	5.07	4.34	4.64
65	4.43	3.73	4.66	4.07	4.58	4.99	5.24	4.98	4.95	4.74	4.99	3.96	4.24
70	3.48	2.90	3.72	3.50	3.65	3.83	4.08	3.85	3.80	3.70	4.18	2.97	3.14
75	4.96	4.56	5.38	6.09	5.32	5.14	5.01	5.12	5.04	4.76	5.78	3.96	4.47
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
M.AG	37.6175	37.1855	38.2262	37.2501	38.1956	38.7425	38.7601	38.0948	38.1724	37.8281	37.9475	35.0681	36.3618
SHA	100.0000	25.4375	15.2039	0.5179	14.5608	6.8416	3.8492	3.2914	4.8385	4.8155	8.3075	8.5880	3.7481
LAM	0.992501	1.009793	0.998789	1.015484	0.998845	0.977367	0.965909	0.967113	0.973926	0.983049	0.975793	0.995120	0.972014
R	-0.001505	0.001949	-0.000242	0.003073	-0.000231	-0.004579	-0.006937	-0.006688	-0.005284	-0.003419	-0.004901	-0.000978	-0.005677

(continued)

YEAR 1999

POPULATION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
0	259479.	66597.	38114.	1495.	36100.	15734.	8932.	8098.	11720.	12164.	22963.	27415.	10146.
5	278848.	68093.	41287.	1545.	39139.	17577.	10277.	9183.	13176.	13513.	24561.	29225.	11271.
10	299546.	70796.	44439.	1573.	42185.	19373.	11448.	10238.	14605.	14844.	26348.	31293.	12402.
15	310740.	74835.	46609.	1626.	44676.	20328.	11712.	10391.	14819.	15080.	27031.	31139.	12494.
20	308759.	82269.	47134.	1733.	45417.	19827.	10633.	9290.	13850.	14097.	25211.	28084.	11213.
25	294865.	84418.	45258.	1849.	43068.	18822.	9638.	8374.	12977.	13080.	22501.	24648.	10232.
30	354010.	101207.	53503.	2117.	50979.	23193.	12204.	10550.	15935.	16171.	26170.	29140.	12842.
35	376277.	103138.	56374.	1975.	54223.	25068.	13776.	11905.	17813.	17807.	27658.	31924.	14614.
40	389301.	103513.	58716.	1910.	56442.	26319.	14793.	12850.	19038.	18672.	28929.	33159.	14960.
45	403183.	106530.	62580.	1952.	59834.	27668.	15388.	13170.	19572.	19347.	30370.	32606.	14166.
50	399709.	108751.	62457.	1977.	60352.	27790.	15070.	12657.	18484.	19237.	30488.	29722.	12724.
55	268559.	71333.	41101.	1365.	40300.	19222.	10497.	8445.	12691.	13003.	21575.	20160.	8867.
60	235728.	57287.	36723.	1102.	35286.	17356.	9958.	7901.	11760.	11628.	20124.	18148.	8456.
65	205008.	46687.	32462.	949.	30912.	15562.	9134.	7268.	10628.	10318.	18243.	15646.	7210.
70	177724.	38103.	28877.	854.	27230.	13586.	7884.	6473.	9543.	9024.	16664.	13302.	6184.
75	265073.	61364.	44056.	1525.	41686.	18431.	10176.	8634.	13076.	12445.	25603.	18620.	9456.
TOTAL	4826808.	1244921.	739692.	25547.	707830.	325857.	181510.	155428.	229687.	230431.	394438.	414229.	177240.

PERCENTAGE DISTRIBUTION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
0	5.38	5.35	5.15	5.85	5.10	4.83	4.92	5.21	5.10	5.28	5.82	6.62	5.72
5	5.78	5.47	5.58	6.05	5.53	5.39	5.66	5.91	5.74	5.86	6.23	7.06	6.36
10	6.21	5.69	6.01	6.16	5.96	5.95	6.31	6.59	6.36	6.44	6.68	7.55	7.00
15	6.44	6.01	6.30	6.36	6.31	6.24	6.45	6.69	6.45	6.54	6.85	7.52	7.05
20	6.40	6.61	6.37	6.78	6.42	6.08	5.86	5.98	6.03	6.12	6.39	6.78	6.33
25	6.11	6.78	6.12	7.24	6.08	5.78	5.31	5.39	5.65	5.68	5.70	5.95	5.77
30	7.33	8.13	7.23	8.29	7.20	7.12	6.72	6.79	6.94	7.02	6.63	7.03	7.25
35	7.80	8.28	7.62	7.73	7.66	7.69	7.59	7.66	7.76	7.73	7.01	7.71	8.25
40	8.07	8.31	7.94	7.48	7.97	8.08	8.15	8.27	8.29	8.10	7.33	8.01	8.44
45	8.35	8.56	8.46	7.64	8.45	8.49	8.48	8.47	8.52	8.40	7.70	7.87	7.99
50	8.28	8.74	8.44	7.74	8.53	8.53	8.30	8.14	8.05	8.35	7.73	7.18	7.18
55	5.56	5.73	5.56	5.34	5.69	5.90	5.78	5.43	5.53	5.64	5.47	4.87	5.00
60	4.88	4.60	4.96	4.31	4.99	5.33	5.49	5.08	5.12	5.05	5.10	4.38	4.77
65	4.25	3.75	4.39	3.72	4.37	4.78	5.03	4.68	4.63	4.48	4.63	3.78	4.07
70	3.68	3.06	3.90	3.34	3.85	4.17	4.34	4.16	4.15	3.92	4.22	3.21	3.49
75	5.49	4.93	5.96	5.97	5.89	5.66	5.61	5.55	5.69	5.40	6.49	4.49	5.34
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
M.AG	38.6832	38.3331	39.2578	37.7882	39.2931	39.8097	39.7656	39.0675	39.2748	38.8989	38.8208	36.0986	37.6081
SHA	100.0000	25.7918	15.3247	0.5293	14.6646	6.7510	3.7605	3.2201	4.7586	4.7740	8.1718	8.5818	3.6720
LAM	0.995048	1.008929	1.002950	1.016838	1.002138	0.981864	0.972097	0.973489	0.978602	0.986474	0.978801	0.994330	0.974836
R	-0.000993	0.001774	0.000589	0.003340	0.000427	-0.003660	-0.005660	-0.005374	-0.004326	-0.002724	-0.004285	-0.001137	-0.005097

(continued)

YEAR 2004

POPULATION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH,KAR	KUOPIO	KESK,SU	VAASA	OULU	LAPLAND
0	246676.	63774.	36591.	1453.	34574.	14739.	8308.	7544.	10911.	11470.	21670.	26235.	9406.
5	257426.	63610.	38550.	1479.	36415.	15990.	9261.	8282.	11875.	12357.	22599.	26949.	10060.
10	278343.	66857.	41726.	1552.	39438.	17778.	10394.	9245.	13266.	13630.	24397.	28911.	11149.
15	298644.	72663.	45030.	1648.	43023.	19286.	11042.	9777.	14046.	14356.	25777.	30107.	11890.
20	309277.	82609.	47181.	1779.	45357.	19585.	10527.	9286.	13868.	14074.	24935.	28698.	11378.
25	307073.	88668.	47076.	1855.	44865.	19237.	9920.	8771.	13320.	13627.	22958.	26287.	10490.
30	292883.	84255.	44938.	1818.	42635.	18827.	9834.	8527.	12860.	13289.	21732.	24029.	10140.
35	350879.	98249.	53612.	2034.	51211.	23217.	12468.	10567.	16060.	16253.	25895.	28654.	12659.
40	371011.	100421.	56484.	1934.	54039.	24902.	13749.	11740.	17691.	17551.	27230.	31201.	14068.
45	380343.	100621.	58215.	1876.	55643.	25750.	14466.	12626.	18570.	18218.	28287.	32002.	14070.
50	389455.	102369.	61137.	1956.	58473.	26705.	14754.	12690.	18721.	18811.	29551.	31050.	13236.
55	379610.	102386.	59972.	1944.	58176.	26567.	14237.	11828.	17451.	18343.	29301.	27714.	11692.
60	248143.	65169.	38582.	1281.	37941.	17889.	9752.	7715.	11653.	11897.	20185.	18213.	7866.
65	208639.	50180.	33085.	989.	31809.	15332.	8821.	6938.	10360.	10212.	17985.	15706.	7223.
70	169411.	38582.	27276.	793.	26020.	12775.	7354.	5930.	8740.	8411.	15113.	12630.	5788.
75	279280.	65412.	46358.	1487.	44028.	19686.	10536.	9104.	13976.	13009.	25342.	20012.	10250.
TOTAL	4767013.	1245824.	735813.	25879.	703645.	318266.	175421.	150569.	223367.	225508.	382957.	408398.	171366.

PERCENTAGE DISTRIBUTION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH,KAR	KUOPIO	KESK,SU	VAASA	OULU	LAPLAND
0	5,17	5,12	4,97	5,61	4,91	4,63	4,74	5,01	4,89	5,09	5,66	6,42	5,49
5	5,40	5,11	5,24	5,72	5,18	5,02	5,28	5,50	5,32	5,48	5,90	6,60	5,87
10	5,84	5,37	5,67	6,00	5,60	5,59	5,93	6,14	5,94	6,04	6,37	7,08	6,51
15	6,26	5,83	6,12	6,37	6,11	6,06	6,29	6,49	6,29	6,37	6,73	7,37	6,94
20	6,49	6,63	6,41	6,88	6,45	6,15	6,00	6,17	6,21	6,24	6,51	7,03	6,64
25	6,44	7,12	6,40	7,17	6,38	6,04	5,65	5,83	5,96	6,04	5,99	6,44	6,12
30	6,14	6,76	6,11	7,02	6,06	5,92	5,61	5,66	5,76	5,89	5,67	5,88	5,92
35	7,36	7,89	7,29	7,86	7,28	7,29	7,11	7,02	7,19	7,21	6,76	7,02	7,39
40	7,78	8,06	7,68	7,47	7,68	7,82	7,84	7,80	7,92	7,78	7,11	7,64	8,21
45	7,98	8,08	7,91	7,25	7,91	8,09	8,25	8,39	8,31	8,08	7,39	7,84	8,21
50	8,17	8,22	8,31	7,56	8,31	8,39	8,41	8,43	8,38	8,34	7,72	7,60	7,72
55	7,96	8,22	8,15	7,51	8,27	8,35	8,12	7,86	7,81	8,13	7,65	6,79	6,82
60	5,21	5,23	5,24	4,95	5,39	5,62	5,56	5,12	5,22	5,28	5,27	4,46	4,59
65	4,38	4,03	4,50	3,82	4,52	4,82	5,03	4,61	4,64	4,53	4,70	3,85	4,21
70	3,55	3,10	3,71	3,06	3,70	4,01	4,19	3,94	3,91	3,73	3,95	3,09	3,38
75	5,86	5,25	6,30	5,75	6,26	6,19	6,01	6,05	6,26	5,77	6,62	4,90	5,98
TOTAL	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00
M,AG	39,6377	39,4111	40,1679	38,4395	40,2723	40,7980	40,6418	39,9957	40,2524	39,8221	39,4869	37,0103	38,6412
SHA	100,0000	26,1343	15,4355	0,5429	14,7607	6,6764	3,6799	3,1586	4,6857	4,7306	8,0335	8,5672	3,5948
LAM	0,987612	1,000726	0,994756	1,013009	0,994088	0,976705	0,966454	0,968738	0,972484	0,978635	0,970894	0,985924	0,966858
R	-0,002493	0,000145	-0,001052	0,002585	-0,001186	-0,004714	-0,006824	-0,006352	-0,005580	-0,004319	-0,005908	-0,002835	-0,006741

(continued)

STABLE EQUIVALENT TO ORIGINAL POPULATION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
0	337704.	90295.	52109.	2693.	48043.	18713.	10582.	9678.	13928.	15218.	28328.	36511.	11607.
5	351783.	89980.	54479.	2740.	50713.	20286.	11742.	10561.	15070.	16365.	29502.	37508.	12338.
10	368698.	92402.	58116.	2850.	53542.	21724.	12593.	11263.	16073.	17419.	30885.	38879.	12951.
15	385964.	98624.	61479.	3047.	57098.	22871.	12918.	11446.	16397.	17781.	31844.	39243.	13216.
20	403353.	111839.	64577.	3267.	60372.	23489.	12534.	11085.	16533.	17623.	31120.	37851.	13062.
25	421207.	124422.	66954.	3429.	62246.	24511.	12710.	11339.	17176.	18122.	30170.	36819.	13307.
30	439292.	129317.	69384.	3449.	64539.	26288.	13919.	12278.	18229.	19473.	30972.	37257.	14183.
35	457182.	131315.	72673.	3445.	67897.	27978.	15137.	13024.	19529.	20646.	32365.	38267.	14906.
40	473333.	133788.	76166.	3510.	70864.	29363.	16019.	13602.	20520.	21463.	33558.	39246.	15234.
45	485591.	136097.	79081.	3584.	73228.	30278.	16571.	14141.	21122.	22049.	34520.	39783.	15137.
50	492568.	136958.	81009.	3726.	75096.	30797.	16762.	14376.	21297.	22571.	35331.	39750.	14893.
55	491207.	135275.	81566.	3794.	75971.	31033.	16697.	14141.	21151.	22636.	35725.	38828.	14389.
60	476652.	129608.	80248.	3711.	75024.	30459.	16404.	13599.	20439.	21770.	35186.	36763.	13441.
65	443199.	118835.	75826.	3478.	70943.	28377.	15423.	12605.	18986.	20116.	33124.	33374.	12114.
70	385046.	102731.	66845.	3039.	62659.	24574.	13180.	10878.	16491.	17255.	28873.	28272.	10250.
75	641144.	183153.	112665.	5493.	106241.	37805.	18792.	16268.	25621.	26237.	46327.	44547.	17993.
TOTAL	7053920.	1944641.	1153680.	55256.	1074476.	428547.	231983.	200285.	298561.	316743.	527831.	602899.	219020.

PERCENTAGE DISTRIBUTION

AGE	TOTAL	UUSIMAA	TURKU	AHVENAN	HAME	KYMI	MIKKELI	POH.KAR	KUOPIO	KESK.SU	VAASA	OULU	LAPLAND
0	4.79	4.64	4.52	4.87	4.47	4.37	4.56	4.83	4.66	4.80	5.37	6.06	5.30
5	4.99	4.63	4.77	4.96	4.72	4.73	5.06	5.27	5.05	5.17	5.59	6.22	5.63
10	5.23	4.75	5.04	5.16	4.98	5.07	5.43	5.62	5.38	5.50	5.85	6.45	5.91
15	5.47	5.07	5.33	5.51	5.31	5.34	5.57	5.72	5.49	5.61	6.03	6.51	6.03
20	5.72	5.75	5.60	5.91	5.62	5.48	5.40	5.53	5.54	5.56	5.90	6.28	5.96
25	5.97	6.40	5.80	6.21	5.79	5.72	5.48	5.66	5.75	5.72	5.72	6.11	6.08
30	6.23	6.65	6.01	6.24	6.01	6.13	6.00	6.13	6.11	6.15	5.87	6.18	6.48
35	6.48	6.75	6.30	6.24	6.32	6.53	6.53	6.50	6.54	6.52	6.13	6.35	6.81
40	6.71	6.88	6.60	6.35	6.60	6.85	6.91	6.79	6.87	6.78	6.36	6.51	6.96
45	6.88	7.00	6.85	6.49	6.82	7.07	7.14	7.06	7.07	6.96	6.54	6.60	6.91
50	6.98	7.04	7.02	6.74	6.99	7.19	7.23	7.18	7.13	7.13	6.69	6.59	6.80
55	6.96	6.96	7.07	6.87	7.07	7.24	7.20	7.06	7.08	7.15	6.77	6.44	6.57
60	6.76	6.66	6.96	6.72	6.98	7.11	7.07	6.79	6.85	6.87	6.67	6.10	6.14
65	6.28	6.11	6.57	6.29	6.60	6.62	6.65	6.29	6.36	6.35	6.28	5.54	5.53
70	5.46	5.28	5.79	5.50	5.83	5.73	5.68	5.43	5.52	5.45	5.47	4.69	4.68
75	9.09	9.42	9.77	9.94	9.89	8.82	8.10	8.12	8.58	8.28	8.78	7.39	8.22
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
M.AG	42.7455	43.0569	43.5714	42.9143	43.6843	43.3905	42.8297	42.2451	42.7206	42.4334	41.8301	39.7829	40.9346
SHA	100.0000	27.5682	16.3552	0.7833	15.2323	6.0753	3.2887	2.8393	4.2326	4.4903	7.4828	8.5470	3.1049
LAM	0.952411	0.952411	0.952411	0.952430	0.952411	0.952411	0.952411	0.952411	0.952411	0.952411	0.952411	0.952411	0.952411
R	-0.009752	-0.009752	-0.009752	-0.009748	-0.009752	-0.009752	-0.009752	-0.009752	-0.009752	-0.009752	-0.009752	-0.009752	-0.009752

(table concluded)

4. POPULATION DISTRIBUTION POLICY

The first stage in the development of the Finnish population was settlement based on agriculture. Among the last major events of this stage was the resettlement of displaced Karelians. Along with the advance of industrialization, the population began to shift to urban centers. Especially in southern Finland, the large agglomerations have been on the receiving end of a substantial migratory movement. This last stage is thus characterized by a concentration of the population.

Efforts have been made to guide the settlement and population trends by various measures of regional policy. The aim has been to secure the opportunities for permanent employment, a rising level of income and the availability of important services as well as otherwise to promote the balanced development of the industrial and social structure of different regions. In the work to achieve such goals, both direct and indirect methods have been used in guiding settlement and population. The measures of regional policy bearing upon the agricultural population have been in the main direct. The measures of regional guidance of the population related to industrialization and urbanization, again, have been mainly indirect.

4.1 Population Distribution Policy Based on Agriculture

The year 1918 saw the enactment of the tenant farmers' liberation law, which enabled the small tenant farmers to gain title to their leaseholds. Between 1919 and 1934, no less than 64,000 small tenant farms and leaseholds were redeemed and became independent, in addition 53,000 cottages were purchased by their tenants. The emancipation of the tenant farmers solved only a part of the problems of the rural area. The landless population was still numerous. The settlement laws of 1922 were passed to facilitate the acquisition of land by the landless. The most important of these laws was Lex Kallio, which was quite radical because it departed from earlier practice by providing for the expropriation of privately-held land.

During World War II, Finnish settlement policy was driven into altogether new channels. This came about when, at the end of the Winter War, some 40,000 farming families displaced from territory ceded to the USSR had to be resettled. For this purpose a so-called rapid resettlement act was passed first (1940), followed by land procurement acts (1945). These laws constituted a large-scale reform, for not only was land procured for displaced farmers but also for other population groups, such as war veterans. On the basis of the land procurement laws, about 135,000 farmsteads were established in the years between 1954 and 1969. The implementation of the provisions of the land procurement laws was systematic, following clear-cut guidelines. Thus the displaced population from the province of Karelia was resettled in southern and central Finland. The refugees from northern regions, again, were resettled in corresponding areas of northern Finland. In the north, state-owned forests were set aside for the most part to carve out new homesteads, whereas in southern and central Finland, land was expropriated for the most part from privately-owned estates.

In 1958 a land procurement act was passed based mainly on the need to improve the basic conditions in the management of farms. On the other hand, the act was also framed to promote land settlement: it was used to encourage settlers to move into, for instance, the backwoods of the far north. The implementation of this law terminated at the end of the 1960's. Its enactment led to the formation of some 16,500 farmsteads or other holdings, of which nearly 11,000 cases involved the addition of land to enlarge existing farms.

As early as the 1950's, Finland had reached the stage where agricultural production exceeded domestic consumption. This situation, in turn, generated demands for the curtailment of production, which meant withdrawing some of the fields from cultivation. When the field withdrawal plan began to be carried out in 1969, as many as 13,400 farms made the agreement the very first year and ceased agricultural production in return for

compensation from the state. The number kept growing and by the end of 1973 amounted to 39,800 farms, which meant the withdrawal from cultivation of 9% of the total acreage under plow.

The "packaging" of fields has been commonest in areas where the natural conditions are least favorable, for example, in the north Bothnian region (Pohjois-Pohjanmaa), about 20% of the arable land has been withdrawn, whereas in southwestern Finland the figure is only 1.5%, and in the province of Uusimaa, on the south coast, 3.5%. Thus the law has been of some, though slight, significance in combating overproduction. It has given elderly farmers, for instance, a chance to retire from agriculture.

4.2. The First Development Area Laws, 1966-1969

The effects of legislation governing regional policy on the population trend have been mainly indirect. Regional policy has been closely bound up with numerous segments of social policy. The measures of regional policy taken have had especially close points of contact with employment and manpower policy.

It might be said that Finnish regional policy at first concerned itself only with areas lagging behind in progress. Even before the enactment of the first development area laws in 1966, a number of separate, uncoordinated measures favoring the development areas had been taken. Among these were the extra emoluments paid to civil servants, extra grants-in-aid distributed to communities in distress, subsidies to help cover the costs of introducing electricity, loans to small industry, assumption of surety by the state and the investment of public funds to maintain employment in development areas.

The first laws relating to the development areas were enacted in 1966 and remained in effect until 1969. The laws aspired "to raise production and the standard of living as well as to secure employment opportunities in those parts of the country where economic development has lagged substantially

behind that of the rest of the country." For the first time, the laws stated precisely what sections of the country were lagging essentially behind the rest: Development Area Zones I and II were formed. The first zone, defined as the most underdeveloped, contained northern and eastern Finland, and the second zone central Finland, in the main. The most important features of the laws were tax relief and investment credit to industrial enterprises. A total of 3404 new jobs were created between 1966 and 1969 in the projects receiving investment credit, 2567 of them in Development Zone I and 836 in Development Zone II. During the same period, 8028 new jobs were created in the projects receiving tax relief, 6478 of them in Development Zone I and 1550 in Development Zone II.

4.3 Measures of Regional Policy Taken in 1970-1974

The first development area laws were not, however, sufficient. They were unable to compensate for the advantages from the concentration of production. It was endeavored to take this into account in the enactment of new development area laws in 1970-1974. In principle, it was aspired to "raise production and the standard of living as well as to secure employment and income" by using largely the same methods as earlier. The procedures were selective and involved the giving of direct support to the promotion of the sources of livelihood and vocational training. The boundaries of the development areas were changed to some extent by diminishing Zone I and correspondingly expanding Zone II.

In 1971, the Development Area Fund was established to participate in supporting the development areas in various ways. The most important of its functions was the granting of credit to enterprises operating in the development areas. In all, 36000 new jobs have been created by the measures taken by the Fund. For the most part, the beneficiaries have been small and medium-sized enterprises dependent on the employment of manpower.

After the enactment of the second group of development area laws, lively public discussion arose on the subject of so-called growth-center policy. A clear measure of growth-center policy was the appropriation of funds in 1973 for the building of the first industrial villages. By 1976, 9 industrial villages had been established.

4.4 Regional Laws Enacted for the Years 1975-1979

During the time of the second development area laws, people began to talk more about "regional policy" instead of development area policy. This is also reflected by the regional laws currently in force, which were enacted for the years 1975-1979. The law governing the promotion of regional development defines the means and ends of regional policy as follows: "Efforts should be made by supporting productive activity as well as by guiding the location of enterprises and public services to secure for the population of the country as a whole opportunities for employment, a rising income level and the availability of important services."

As a change from the earlier system, it is now possible to set aside for containment in the development area zones, as areas qualifying for extra support, such communes as "where the securing of places of permanent employment is particularly difficult." Such areas are eligible for relatively the most generous aid (Figure 4.1.). Olavi Änkö, from the office of the Council of State, has described the main features of the measures of regional policy now being applied in Finland as follows (Änkö 1978, pp. 37-38):

> In order to apply regional policy measures, two zones have been established: a strongly supported development zone I and a moderately supported development zone II. In addition the most problematic communities of zone I and the archipelago can be designated as additional-support areas, and on the other hand problem communities outside the developing regions can be decreed areas where certain supportive measures can be applied.

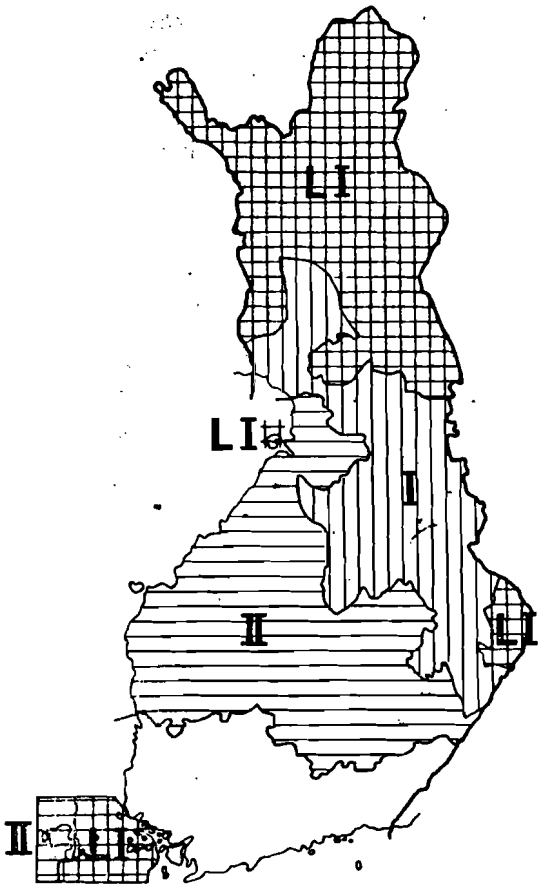

Figure 4.1. The development zones of Finland in 1976:

I = strongly supported development zone
II = moderately supported development zone
III = additional-support areas of zone I

Aid can be granted for investments that either create new jobs or boost the production of processing or tourist industries. Investment aid covers part of the capital expenditure investments, aid for starting new operations covers part of the wage expenses for the first 2 or 3 years and training aid covers part of the cost of special training for the workers. Certain upper and lower limits have been placed on this aid depending on the zone, and within these limits the size of the aid will be determined on the basis of developmental needs and other investment factors of the locality in question. This aid is granted by the Ministry of Commerce and Industry. The Regional Development Fund Ltd. also shares in the financing. This Fund grants loans for investments either with or without warranties and also supports marketing etc. to some extent. In addition the Government Investment Fund, which finances large enterprises in the whole country, takes regional aspects into account when making its decisions. Certain minor tax policy measures are also applied to investments. In order to place investments in the best way from a regional policy standpoint, the government and the commercial and industrial organizations have agreed on special information and negotiation procedure.

To help industry already in operation there is a transport aid for developing regions. Aid is granted for the transport of products processed in these regions according to a graduated scale based on the length and method of transportation. On the basis of labor and market conditions the Ministry of Labor may in special cases grant support to enterprises in order to maintain jobs during a recession.

A regional gradation of price supports, among others, is used in agriculture. During the past year a graduated scale has also been introduced for interest and repayment terms on loans used to improve farms, depending on which development zone they are situated in.

4.5 The Problems of Sparsely Settled Areas

The biggest population drain has been suffered by sparsely inhabited rural areas located beyond the commuting range of urban agglomerations. The age structure of sparsely settled areas has become distorted as younger people have moved away. The erosion of the population base lowers the previously depressed service level. The overall picture displayed by many sparsely settled areas is dismal.

In the view of many researchers, the population drain on sparsely settled areas has been influenced by many government measures and the cultivation of negative popular opinion about the settlement of areas off the beaten track. This is understandable in the light of the fact that the guiding principle has been centralization.

Further, certain measures of agricultural policy have also encouraged the abandonment of sparsely settled areas. The aforementioned field withdrawal system, which took effect in 1969, has influenced this trend. There are many deserted farmhouses, outbuildings and schoolhouses in rural parts of the country. The "packaging" of fields is believed to have given a strong boost to the migratory movement from sparsely settled areas to Sweden in 1969-1971.

In recent years, sparsely settled areas have begun to be viewed more and more as special cases, to be given particular attention in regional policy. The archipelago of Finland belongs to the category of sparsely settled areas, and plans are underway to establish a national park there. In order to secure the means of livelihood of the islanders while taking into account the considerations of environmental protection, the archipelago must, it is emphasized, begin to be dealt with as an area apart.

4.6 The Helsinki Area

At the same time as the problem of sparsely settled backwoods areas has been the scantiness and continuous shrinkage of the population. By contrast the Helsinki area, in particular, has been characterized by, in the opinion of many, excessive concentration of production and population. The detrimental effects of such concentration have been, among other things, rising real estate prices, a shortage of housing and congested traffic.

Although the rapid growth of Helsinki has had its obvious harmful effects, no steps were taken to check its expansion

during the vigorous period of growth in the 1960's. It has been endeavored to promote the planning of the entire area, mostly through the joint efforts of Helsinki and its communes. This cooperative action has not, however, been sufficient from the standpoint of the overall planning of the region.

The KASTE Commission (Komiteanmietintö 1976: 3), appointed to investigate the Helsinki district, submitted its estimate of the effects of alternative measures till 1985. Among other things, the commision made an estimation of the effects on the number of available jobs of regional-policy supporting measures, guidance in the planning of locations and decentralization. Since 1976, however, there has not been much talk about checking the growth of the Helsinki region, except for the fact that certain state offices have been decentralized and certain other decentralization projects are underway. There is a natural reason for this. Population statistics from recent years have shown that the population growth of the cities has ceased. In 1976 the migratory gain of the cities was only 14 persons, whereas as recently as 1967-71 it averaged 22,000 souls. Helsinki has been experiencing a migratory deficit since 1969, but of recent years the population growth of its administratively independent suburbs has slowed down. Correspondingly, the population drain on many rural communities has halted. This most recent trend, which is a familiar phenomenon in many industrial countries, has made measures of regional policy less urgent in Finland toward checking the growth of the region of the national capital.

5. CONCLUSION

This report is one of the national case-studies in the comparative migration and settlement study organized by the Human Settlements and Services Area at IIASA. The first objective was to present an overview of spatial dynamics of population and policies in Finland. Another objective was to apply the new techniques of multiregional population analysis to data of 12 provinces.

Multiregional population analysis enables one to consider simultaneously several regions and a large number of population characteristics. It has many advantages over purely demographic and geographical analysis because it brings together the points of view of demographic and geographic research.

The multiregional life tables and the mobility and fertility analysis offer an useful basis for the analysis of the regional population dynamics in Finland in an internationally comparable form. The multiregional population projection can be a very important tool in population distribution policy. In this first proof to apply the multiregional population analysis for Finnish data all possibilities of this kind of analysis was not discussed. The emphasis was more on the introduction of the new procedure in generally understable form. Also the relationship between multiregional population analysis and population distribution policy needs in the future research more attention.

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APPENDIX A

Observed Number of Population, Births, Deaths and Migrants by Age and Region

OBSERVED RATES
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DEATH RATES
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AGE	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	0.002637	0.002576	0.001985	0.002823	0.003245	0.002480	0.003499	0.002849	0.002830	0.003115	0.002705	0.002472
5	0.000324	0.000450	0.000000	0.000328	0.000387	0.000312	0.000594	0.000456	0.000597	0.000266	0.000512	0.000570
10	0.000249	0.000342	0.000000	0.000297	0.000321	0.000370	0.000820	0.000260	0.000377	0.000308	0.000271	0.000649
15	0.000861	0.000942	0.000655	0.000818	0.001221	0.001089	0.000579	0.000941	0.000856	0.000853	0.000687	0.001007
20	0.000961	0.001059	0.000000	0.000796	0.001141	0.001148	0.001065	0.001262	0.001023	0.000806	0.001050	0.001747
25	0.001095	0.001016	0.000971	0.001171	0.001480	0.001051	0.001984	0.001549	0.000728	0.000897	0.001453	0.001765
30	0.001331	0.001220	0.002717	0.001348	0.001924	0.001660	0.001752	0.001730	0.001709	0.001623	0.001826	0.002234
35	0.001714	0.002246	0.001649	0.001817	0.002320	0.002212	0.002176	0.003305	0.002290	0.001933	0.002048	0.002085
40	0.003913	0.002713	0.005226	0.003717	0.003474	0.003455	0.003905	0.003833	0.002784	0.002810	0.004231	0.005367
45	0.005726	0.004440	0.006504	0.005691	0.006777	0.006340	0.005676	0.005932	0.005382	0.005327	0.006888	0.007023
50	0.007606	0.008024	0.004684	0.007745	0.008299	0.010300	0.010355	0.009948	0.008462	0.006780	0.009214	0.008781
55	0.012828	0.010730	0.015760	0.011142	0.013039	0.014007	0.014708	0.013021	0.013797	0.011285	0.015631	0.015319
60	0.019247	0.016990	0.016055	0.018558	0.020291	0.020496	0.020879	0.022731	0.021280	0.016884	0.021210	0.022263
65	0.029384	0.028200	0.028986	0.029016	0.032950	0.033524	0.034710	0.029238	0.030517	0.028294	0.033693	0.032409
70	0.044520	0.044526	0.044944	0.045788	0.049456	0.056076	0.050838	0.052617	0.053607	0.046814	0.050320	0.050966
75	0.104140	0.109623	0.104882	0.110438	0.121184	0.129225	0.122892	0.117925	0.121554	0.115560	0.115806	0.103481
GROSS	1.182682	1.175482	1.175097	1.207464	1.337547	1.418729	1.382150	1.337985	1.338964	1.217779	1.337722	1.290695
CRUDE	0.008770	0.009833	0.011586	0.009448	0.010709	0.011697	0.010373	0.010278	0.009723	0.009649	0.008514	0.007980
M,AGE	68.6854	69.1628	69.0294	68.9966	68.6965	69.2252	68.4918	68.5554	69.1734	69.3433	68.5430	67.6855

FERTILITY RATES
****

AGE	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10	0.000026	0.000019	0.000000	0.000000	0.000000	0.000000	0.000059	0.000000	0.000000	0.000028	0.000000	0.000000
15	0.013099	0.014399	0.014417	0.013941	0.012714	0.010000	0.012272	0.010806	0.011572	0.014604	0.014444	0.014464
20	0.048500	0.051922	0.055218	0.051032	0.048165	0.044438	0.044336	0.046919	0.048733	0.054313	0.058725	0.051876
25	0.051974	0.049795	0.053883	0.048288	0.049635	0.053533	0.050265	0.052229	0.053326	0.059949	0.060256	0.051448
30	0.028172	0.024199	0.021739	0.024287	0.024420	0.027390	0.033182	0.029198	0.029868	0.031441	0.033404	0.029220
35	0.008877	0.009584	0.011542	0.010601	0.008524	0.010588	0.013257	0.011938	0.012698	0.014683	0.019269	0.014433
40	0.001871	0.002253	0.003484	0.002282	0.002159	0.004223	0.003619	0.002577	0.003063	0.004091	0.005513	0.003774
45	0.000129	0.000368	0.000000	0.000148	0.000136	0.000147	0.000177	0.000185	0.000332	0.000422	0.000420	0.000753
50	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
55	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
65	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
70	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
75	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
GROSS	0.763240	0.762677	0.801417	0.752895	0.728763	0.751604	0.785835	0.769261	0.797959	0.897653	0.960145	0.829833
CRUDE	0.014347	0.012692	0.012858	0.012947	0.011920	0.011320	0.011930	0.012048	0.012868	0.013909	0.015572	0.013387
M,AGE	26.7558	26.5433	26.6023	26.6371	26.6388	27.4131	27.5702	27.2731	27.3090	27.2539	27.5663	27.2474

OUTMIGRATION RATES
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MIGRATION FROM UUDENMA TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	0.125464	0.004484	0.006402	0.000155	0.010619	0.004414	0.002482	0.002510	0.002975	0.002708	0.002905	0.004583	0.001227
5	0.070943	0.004877	0.003814	0.000137	0.005622	0.002580	0.001122	0.001271	0.001633	0.001795	0.001633	0.001895	0.000524
10	0.040059	0.002354	0.002109	0.000026	0.003143	0.001270	0.000864	0.000576	0.000838	0.000786	0.000851	0.000930	0.000301
15	0.070856	0.004498	0.002777	0.000244	0.005142	0.001992	0.001813	0.002327	0.001864	0.001401	0.001337	0.003342	0.001118
20	0.165336	0.114701	0.007307	0.000466	0.011315	0.004777	0.003573	0.004463	0.004646	0.003299	0.002824	0.005668	0.002297
25	0.145841	0.100096	0.007128	0.000219	0.011661	0.005377	0.002814	0.002911	0.003406	0.003228	0.003001	0.004412	0.001589
30	0.095538	0.067249	0.005009	0.000093	0.007239	0.003327	0.001623	0.001448	0.002277	0.002067	0.001821	0.002569	0.000817
35	0.059293	0.041972	0.003358	0.000070	0.004473	0.001825	0.001003	0.000739	0.001310	0.001254	0.001393	0.001380	0.000516
40	0.037488	0.027745	0.001639	0.000093	0.002799	0.000959	0.000804	0.000634	0.000510	0.000541	0.000650	0.000835	0.000278
45	0.029114	0.021272	0.001553	0.000032	0.002200	0.001035	0.000518	0.000340	0.000566	0.000372	0.000323	0.000793	0.000113
50	0.025347	0.018080	0.000998	0.000089	0.002405	0.000534	0.000428	0.000445	0.000534	0.000819	0.000588	0.000321	0.000107
55	0.021837	0.015300	0.001103	0.000102	0.002043	0.001042	0.000511	0.000306	0.000388	0.000266	0.000347	0.000368	0.000061
60	0.020599	0.013445	0.001411	0.000020	0.002568	0.000608	0.000745	0.000294	0.000274	0.000333	0.000372	0.000470	0.000059
65	0.017607	0.011039	0.001198	0.000092	0.002189	0.000737	0.000507	0.000277	0.000599	0.000254	0.000346	0.000277	0.000092
70	0.011536	0.007061	0.000762	0.000000	0.001558	0.000431	0.000331	0.000331	0.000398	0.000265	0.000166	0.000166	0.000066
75	0.007935	0.004890	0.000492	0.000031	0.001169	0.000492	0.000185	0.000123	0.000154	0.000092	0.000123	0.000092	0.000092
GROSS	4.723724	3.260305	0.235306	0.009346	0.380721	0.157010	0.096607	0.094980	0.111864	0.097398	0.093401	0.140492	0.046295
CRUDE	0.073639	0.050890	0.003617	0.000143	0.005779	0.002443	0.001484	0.001514	0.001763	0.001539	0.001459	0.002249	0.000759
M,AGE	26.6051	26.6097	27.4207	28.9022	28.3044	27.0075	27.6875	24.9344	25.9865	25.4132	25.3212	23.4243	23.7419

MIGRATION FROM TURUN TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	0.100244	0.009003	0.067757	0.000186	0.008934	0.001694	0.000951	0.000673	0.001462	0.001717	0.003574	0.002993	0.001299
5	0.053054	0.005092	0.035624	0.000176	0.005053	0.000666	0.000411	0.000509	0.000783	0.001038	0.001606	0.001351	0.000744
10	0.028148	0.002581	0.019949	0.000057	0.002524	0.000380	0.000247	0.000247	0.000285	0.000456	0.000740	0.000493	0.000190
15	0.063172	0.005506	0.042236	0.000290	0.006303	0.000489	0.000580	0.000543	0.000743	0.001141	0.001829	0.002463	0.001050
20	0.149731	0.016708	0.097023	0.000594	0.015183	0.001396	0.001300	0.000915	0.002103	0.002905	0.004446	0.004879	0.002279
25	0.118809	0.016093	0.073295	0.000453	0.011187	0.001891	0.001406	0.000891	0.001750	0.002547	0.003828	0.003719	0.001750
30	0.071907	0.008813	0.045175	0.000161	0.007875	0.001382	0.000806	0.000622	0.001082	0.001358	0.002533	0.002049	0.000852
35	0.041380	0.004205	0.028144	0.000048	0.003440	0.000908	0.000382	0.000454	0.000526	0.000884	0.000980	0.000956	0.000454
40	0.024926	0.002592	0.017223	0.000000	0.002301	0.000242	0.000218	0.000170	0.000388	0.000460	0.000533	0.000581	0.000218
45	0.020267	0.001817	0.014424	0.000046	0.002047	0.000368	0.000115	0.000138	0.000115	0.000368	0.000322	0.000391	0.000115
50	0.014859	0.001436	0.011243	0.000050	0.001015	0.000198	0.000025	0.000050	0.000050	0.000223	0.000322	0.000198	0.000050
55	0.012997	0.001262	0.008980	0.000057	0.001578	0.000172	0.000057	0.000029	0.000115	0.000201	0.000287	0.000086	0.000172
60	0.013106	0.001133	0.009223	0.000000	0.001591	0.000135	0.000027	0.000135	0.000081	0.000243	0.000324	0.000108	0.000108
65	0.010544	0.000582	0.007959	0.000000	0.001195	0.000184	0.000123	0.000061	0.000031	0.000123	0.000153	0.000123	0.000031
70	0.009729	0.000977	0.006670	0.000000	0.001614	0.000127	0.000042	0.000042	0.000127	0.000000	0.000042	0.000085	0.000000
75	0.007865	0.001452	0.005001	0.000081	0.000686	0.000081	0.000040	0.000000	0.000121	0.000161	0.000121	0.000081	0.000040
GROSS	3.703696	0.392269	2.449529	0.010991	0.362639	0.051561	0.033655	0.027389	0.048799	0.069123	0.108196	0.102784	0.046762
CRUDE	0.054947	0.005915	0.036123	0.000172	0.005357	0.000746	0.000510	0.000408	0.000734	0.001044	0.001632	0.001583	0.000723
M,AGE	25.6852	26.3068	25.8305	24.9112	26.5513	26.1144	24.1621	24.4728	23.9017	25.0771	23.1508	22.7388	22.7603

MIGRATION FROM AHVENAN TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	0.091972	0.005295	0.005956	0.072138	0.003309	0.000662	0.000000	0.000000	0.000662	0.000662	0.002647	0.000662	0.000000
5	0.043911	0.006440	0.004098	0.029274	0.000585	0.000000	0.000000	0.000585	0.000000	0.001171	0.001756	0.000000	0.000000
10	0.020261	0.001307	0.000000	0.016340	0.000000	0.000654	0.000000	0.000000	0.000000	0.000000	0.001961	0.000000	0.000000
15	0.070773	0.003277	0.005242	0.055701	0.000000	0.000000	0.000655	0.000000	0.000655	0.003277	0.001311	0.000655	0.000000
20	0.141911	0.014909	0.011044	0.100497	0.002209	0.000552	0.000000	0.000000	0.000552	0.000552	0.008835	0.002761	0.000000
25	0.092233	0.010680	0.007767	0.063592	0.001456	0.000485	0.000000	0.000485	0.001456	0.001456	0.004369	0.000485	0.000000
30	0.063179	0.008832	0.006114	0.041440	0.001359	0.000000	0.000000	0.000000	0.001359	0.000000	0.003397	0.000679	0.000000
35	0.042869	0.003298	0.001649	0.035449	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.002473	0.000000	0.000000
40	0.023519	0.003484	0.000871	0.016551	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.002613	0.000000	0.000000
45	0.013008	0.000000	0.000813	0.012195	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
50	0.013271	0.000781	0.000000	0.011710	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000781	0.000000	0.000000
55	0.018913	0.000788	0.000000	0.017336	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000788	0.000000	0.000000
60	0.013761	0.000000	0.000000	0.012232	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.001529	0.000000	0.000000
65	0.010628	0.001932	0.000966	0.006763	0.000966	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
70	0.006242	0.000000	0.000000	0.006242	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
75	0.005425	0.000000	0.000904	0.004521	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
GROSS	3.359485	0.305108	0.227126	2.509909	0.049422	0.011765	0.003277	0.005355	0.023422	0.035589	0.162299	0.026214	0.000000
CRUDE	0.048571	0.004544	0.003408	0.035894	0.000727	0.000182	0.000045	0.000091	0.000363	0.000545	0.002363	0.000409	0.000000
M.AGE	25.7384	25.2346	23.5754	26.2625	21.4259	15.1286	17.5000	16.5658	23.4298	16.8941	27.1791	21.1091	0.0000

MIGRATION FROM HAMEEN TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	0.094769	0.014428	0.010350	0.000000	0.049749	0.002533	0.003040	0.001785	0.002147	0.003619	0.003281	0.003040	0.000796
5	0.050590	0.008182	0.005783	0.000062	0.026474	0.001764	0.001333	0.000677	0.000882	0.002092	0.001251	0.001538	0.000554
10	0.027253	0.004572	0.002573	0.000040	0.015239	0.000950	0.000455	0.000495	0.000336	0.000831	0.000475	0.001009	0.000277
15	0.062606	0.010261	0.006134	0.000037	0.034444	0.001468	0.001468	0.001301	0.001078	0.001970	0.001543	0.002398	0.000502
20	0.141882	0.029969	0.015992	0.000065	0.069511	0.003267	0.003088	0.002064	0.002942	0.005054	0.003559	0.004177	0.002194
25	0.116519	0.025798	0.012630	0.000079	0.053654	0.003973	0.002896	0.002058	0.002295	0.004163	0.003624	0.003878	0.001472
30	0.066817	0.012480	0.007135	0.000023	0.032467	0.002417	0.002324	0.001255	0.001301	0.002673	0.001882	0.002161	0.000697
35	0.041507	0.006196	0.004579	0.000000	0.022744	0.001369	0.001194	0.000672	0.000747	0.001717	0.000821	0.001095	0.000373
40	0.027252	0.004717	0.002666	0.000000	0.015638	0.000590	0.000456	0.000667	0.000333	0.000769	0.000615	0.000590	0.000231
45	0.020389	0.002796	0.002103	0.000000	0.012471	0.000322	0.000470	0.000371	0.000322	0.000470	0.000396	0.000421	0.000247
50	0.016718	0.003045	0.001602	0.000000	0.009641	0.000481	0.000267	0.000187	0.000107	0.000427	0.000401	0.000481	0.000280
55	0.016529	0.002278	0.001631	0.000000	0.010527	0.000492	0.000462	0.000092	0.000123	0.000369	0.000339	0.000154	0.000062
60	0.014706	0.002393	0.001546	0.000000	0.008462	0.000496	0.000438	0.000175	0.000175	0.000292	0.000292	0.000233	0.000204
65	0.012047	0.001663	0.000950	0.000000	0.007127	0.000441	0.000407	0.000204	0.000204	0.000441	0.000170	0.000238	0.000204
70	0.009998	0.001449	0.001111	0.000000	0.006134	0.000241	0.000193	0.000241	0.000145	0.000290	0.000048	0.000000	0.000145
75	0.008129	0.001635	0.000529	0.000000	0.004137	0.000529	0.000289	0.000096	0.000144	0.000289	0.000385	0.000096	0.000000
GROSS	3.638554	0.659307	0.386579	0.001528	1.892095	0.106663	0.094958	0.060546	0.066405	0.127331	0.095411	0.107540	0.040189
CRUDE	0.054882	0.010228	0.005876	0.000026	0.028132	0.001590	0.001402	0.000915	0.001021	0.001933	0.001455	0.001674	0.000630
M.AGE	26.4106	26.3424	25.7771	19.6327	26.9739	27.3266	26.3740	25.4706	24.3318	25.0974	24.6680	23.3792	26.2769

MIGRATION FROM KYMEN TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	0.089857	0.015307	0.003052	0.000048	0.006879	0.049797	0.004505	0.002470	0.001938	0.001695	0.001550	0.001841	0.000775
5	0.047201	0.007738	0.001780	0.000039	0.003289	0.026966	0.002515	0.000851	0.001045	0.001006	0.000426	0.001161	0.000387
10	0.026337	0.004170	0.001034	0.000071	0.001960	0.014826	0.002067	0.000463	0.000463	0.000249	0.000356	0.000535	0.000143
15	0.054041	0.010239	0.001492	0.000000	0.005119	0.030750	0.002678	0.001322	0.000678	0.000441	0.000339	0.000746	0.000237
20	0.137783	0.033175	0.004008	0.000033	0.009842	0.073193	0.005573	0.002835	0.002281	0.002607	0.001206	0.002086	0.000945
25	0.111999	0.025985	0.004605	0.000099	0.008552	0.054437	0.005460	0.002730	0.002533	0.003026	0.001414	0.002467	0.000691
30	0.066755	0.013333	0.003207	0.000000	0.005406	0.033996	0.002932	0.001924	0.001787	0.001420	0.000871	0.001375	0.000504
35	0.039587	0.006014	0.001657	0.000000	0.002983	0.022351	0.002084	0.000852	0.000994	0.000663	0.000616	0.000710	0.000663
40	0.023049	0.004131	0.000845	0.000000	0.001925	0.013285	0.001408	0.000422	0.000282	0.000376	0.000094	0.000235	0.000047
45	0.018615	0.003524	0.000678	0.000045	0.002124	0.010256	0.001039	0.000316	0.000316	0.000136	0.000045	0.000136	0.000000
50	0.016095	0.002666	0.000604	0.000050	0.001207	0.009707	0.000704	0.000302	0.000352	0.000050	0.000101	0.000251	0.000101
55	0.012356	0.001367	0.000512	0.000000	0.001139	0.007687	0.000968	0.000171	0.000114	0.000057	0.000228	0.000114	0.000000
60	0.012937	0.002201	0.000268	0.000000	0.000644	0.007998	0.000752	0.000376	0.000376	0.000107	0.000107	0.000054	0.000054
65	0.009377	0.001119	0.000249	0.000000	0.000622	0.005657	0.000560	0.000560	0.000062	0.000062	0.000062	0.000124	0.000000
70	0.007717	0.001578	0.000263	0.000000	0.000351	0.004297	0.000438	0.000438	0.000088	0.000263	0.000000	0.000000	0.000000
75	0.006342	0.001558	0.000367	0.000000	0.000550	0.004767	0.000367	0.000000	0.000275	0.000183	0.000183	0.000092	0.000000
GROSS	3.408735	0.670520	0.123100	0.001926	0.262953	1.849850	0.170247	0.080171	0.067916	0.061711	0.037988	0.059623	0.022729
CRUDE	0.050118	0.010110	0.001792	0.000029	0.003873	0.027001	0.002474	0.001159	0.000986	0.000922	0.000546	0.000890	0.000335
M.AGE	26.0128	25.7803	26.5440	24.7586	25.8972	26.2269	26.3905	26.6024	26.0654	24.9560	24.2819	22.9890	22.6375

MIGRATION FROM MIKKELI TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	0.090503	0.012646	0.003471	0.000000	0.010331	0.008678	0.035210	0.004794	0.006529	0.004794	0.001405	0.001901	0.000744
5	0.048531	0.005739	0.001559	0.000000	0.004928	0.004304	0.021022	0.002433	0.004179	0.001934	0.000499	0.001622	0.000312
10	0.027718	0.003491	0.001481	0.000000	0.002645	0.002486	0.011796	0.001164	0.002962	0.000899	0.000264	0.000212	0.000317
15	0.083618	0.021387	0.002376	0.000000	0.009951	0.006040	0.031685	0.001733	0.006683	0.002228	0.000495	0.000842	0.000198
20	0.174365	0.044602	0.005029	0.000000	0.018420	0.013938	0.059688	0.004646	0.013720	0.008363	0.001039	0.003772	0.001148
25	0.132657	0.029857	0.004451	0.000062	0.013785	0.011374	0.045188	0.005007	0.009767	0.006614	0.001422	0.003709	0.001422
30	0.071132	0.010292	0.003237	0.000000	0.007221	0.006059	0.027888	0.003901	0.005810	0.003901	0.000415	0.001992	0.000415
35	0.043300	0.005689	0.001659	0.000000	0.004820	0.004267	0.017857	0.001580	0.004425	0.001343	0.000316	0.000869	0.000474
40	0.027567	0.003609	0.000845	0.000000	0.003532	0.002227	0.011979	0.000768	0.002995	0.000691	0.000384	0.000230	0.000307
45	0.021673	0.003612	0.000295	0.000000	0.001401	0.002285	0.009141	0.001032	0.002580	0.000737	0.000074	0.000442	0.000074
50	0.017566	0.002156	0.000559	0.000000	0.001437	0.001118	0.008863	0.000639	0.001757	0.000719	0.000080	0.000240	0.000000
55	0.018367	0.002597	0.000186	0.000000	0.001299	0.001670	0.008813	0.000649	0.001670	0.001299	0.000000	0.000186	0.000000
60	0.016905	0.001839	0.000438	0.000000	0.001226	0.000876	0.009372	0.000876	0.001314	0.000438	0.000000	0.000263	0.000263
65	0.014955	0.001506	0.000401	0.000000	0.001104	0.000903	0.008030	0.000502	0.001506	0.000602	0.000201	0.000100	0.000100
70	0.010768	0.000839	0.000280	0.000000	0.001818	0.000699	0.004894	0.000140	0.001119	0.000699	0.000000	0.000140	0.000140
75	0.010859	0.001086	0.000271	0.000000	0.001765	0.000543	0.005158	0.000271	0.000950	0.000407	0.000136	0.000271	0.000000
GROSS	4.052421	0.754740	0.132693	0.000309	0.428416	0.337340	1.582916	0.150673	0.339828	0.178342	0.033645	0.083950	0.029569
CRUDE	0.058421	0.011494	0.001904	0.000005	0.006178	0.004849	0.022418	0.002092	0.004859	0.002526	0.000476	0.001202	0.000419
M.AGE	26.8661	25.2677	25.2141	27.5000	26.4401	25.7968	28.1347	25.7413	28.1062	26.6622	23.0512	25.4260	26.6693

MIGRATION FROM KESK,SU TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	0.103079	0.012194	0.006353	0.000000	0.011251	0.001550	0.004312	0.001415	0.003975	0.054167	0.005166	0.003503	0.001213
5	0.052337	0.006298	0.002660	0.000000	0.006244	0.000923	0.001194	0.000869	0.001846	0.028232	0.001412	0.001683	0.000977
10	0.025530	0.003486	0.001507	0.000000	0.003156	0.000471	0.001130	0.000141	0.000707	0.012859	0.000754	0.000707	0.000612
15	0.071728	0.014769	0.004953	0.000090	0.008690	0.000901	0.002026	0.000405	0.001306	0.034761	0.002026	0.001531	0.000270
20	0.171960	0.034643	0.012163	0.000093	0.020507	0.003162	0.005441	0.001302	0.004929	0.078865	0.005487	0.003767	0.001581
25	0.134359	0.022466	0.007375	0.000000	0.013489	0.003202	0.005968	0.002378	0.004901	0.062545	0.004513	0.005192	0.002329
30	0.075456	0.010369	0.005194	0.000000	0.007723	0.001982	0.002119	0.001299	0.003554	0.035883	0.003007	0.003007	0.001299
35	0.043783	0.006037	0.002290	0.000000	0.005828	0.001110	0.001804	0.000208	0.001665	0.021510	0.001318	0.001318	0.000694
40	0.024920	0.002993	0.002019	0.000000	0.002645	0.000905	0.000696	0.000139	0.000487	0.013226	0.000626	0.000835	0.000348
45	0.018272	0.002658	0.001130	0.000000	0.001794	0.000399	0.000332	0.000332	0.000664	0.009967	0.000465	0.000399	0.000133
50	0.015991	0.001362	0.000645	0.000000	0.002008	0.000215	0.000359	0.000143	0.000287	0.009753	0.000502	0.000502	0.000215
55	0.013289	0.001693	0.000508	0.000000	0.001608	0.000423	0.000846	0.000000	0.000169	0.007449	0.000085	0.000423	0.000085
60	0.015671	0.001567	0.000412	0.000000	0.002392	0.000165	0.000577	0.000082	0.000495	0.009073	0.000577	0.000247	0.000082
65	0.013022	0.001093	0.000795	0.000000	0.001392	0.000199	0.000596	0.000099	0.000199	0.007853	0.000398	0.000298	0.000099
70	0.010204	0.001581	0.000144	0.000000	0.001437	0.000000	0.000575	0.000144	0.000287	0.005749	0.000144	0.000144	0.000000
75	0.007531	0.000452	0.000301	0.000000	0.000452	0.000301	0.000603	0.000000	0.000000	0.004971	0.000151	0.000301	0.000000
GROSS	3.985667	0.618405	0.242252	0.000915	0.453083	0.079539	0.142895	0.044784	0.127357	1.984305	0.123154	0.119289	0.049688
CRUDE	0.059821	0.009681	0.003706	0.000017	0.006809	0.001181	0.002106	0.000670	0.001897	0.029374	0.001863	0.001767	0.000750
M.AGE	25.8368	24.9413	24.5341	20.0403	25.8958	27.5216	26.9413	24.0164	24.3940	26.3529	25.2964	25.4086	24.1226

MIGRATION FROM VAASAN TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	0.086085	0.006542	0.008100	0.000312	0.005746	0.000969	0.001038	0.000346	0.000935	0.002458	0.054344	0.004292	0.001004
5	0.036551	0.003481	0.004189	0.000059	0.001977	0.000325	0.000561	0.000295	0.000443	0.001862	0.021712	0.001977	0.000472
10	0.018113	0.001764	0.001932	0.000140	0.001512	0.000224	0.000224	0.000028	0.000280	0.000336	0.010610	0.000756	0.000308
15	0.055989	0.007302	0.005756	0.000640	0.004930	0.000293	0.000293	0.000187	0.000240	0.000959	0.033364	0.001332	0.000693
20	0.148267	0.023005	0.013760	0.001182	0.010320	0.001182	0.000618	0.000403	0.001344	0.003870	0.084870	0.006423	0.001290
25	0.112085	0.014322	0.011110	0.000781	0.007580	0.001562	0.001244	0.000723	0.001418	0.004195	0.061684	0.005787	0.001678
30	0.056757	0.006167	0.004382	0.000203	0.004584	0.000893	0.001177	0.000649	0.001014	0.001461	0.032212	0.003083	0.000933
35	0.030846	0.003619	0.002838	0.000082	0.002427	0.000370	0.000535	0.000082	0.000329	0.000905	0.017480	0.001645	0.000535
40	0.018721	0.001860	0.002356	0.000124	0.001694	0.000248	0.000207	0.000083	0.000041	0.000455	0.010662	0.000661	0.000331
45	0.011305	0.001035	0.001035	0.000077	0.000843	0.000230	0.000077	0.000077	0.000038	0.000115	0.007205	0.000307	0.000268
50	0.010638	0.001130	0.000818	0.000117	0.001052	0.000078	0.000117	0.000000	0.000117	0.000507	0.006352	0.000273	0.000078
55	0.008822	0.000582	0.000358	0.000045	0.000761	0.000179	0.000000	0.000000	0.000045	0.000358	0.006270	0.000224	0.000000
60	0.010176	0.000991	0.000450	0.000045	0.000946	0.000090	0.000045	0.000135	0.000135	0.000360	0.006619	0.000270	0.000090
65	0.008719	0.000713	0.000548	0.000000	0.000932	0.000165	0.000000	0.000000	0.000274	0.000548	0.005374	0.000110	0.000055
70	0.006913	0.000676	0.000301	0.000000	0.000376	0.000000	0.000075	0.000000	0.000000	0.000301	0.004809	0.000150	0.000225
75	0.005901	0.000632	0.000140	0.000000	0.000492	0.000000	0.000000	0.000140	0.000000	0.000140	0.004074	0.000140	0.000140
GROSS	3.129441	0.369096	0.290362	0.019031	0.230857	0.034039	0.031049	0.015742	0.033261	0.090147	1.838205	0.137150	0.040500
CRUDE	0.046787	0.005678	0.004427	0.000303	0.003420	0.000496	0.000444	0.000225	0.000489	0.001326	0.027331	0.002059	0.000589
M.AGE	25.0790	25.3175	23.2666	24.2672	26.2812	26.1212	23.8267	27.4171	25.1214	26.7961	25.1703	23.3247	26.5452

MIGRATION FROM POH.KAR TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	0.089513	0.011955	0.003304	0.000000	0.006317	0.006901	0.003790	0.042473	0.007095	0.001555	0.001069	0.003596	0.001458
5	0.046410	0.006015	0.003119	0.000000	0.003342	0.003342	0.002970	0.022054	0.002673	0.000520	0.000297	0.001337	0.000743
10	0.022489	0.003455	0.001523	0.000000	0.001698	0.001523	0.001171	0.011654	0.000586	0.000117	0.000117	0.000351	0.000293
15	0.084957	0.030443	0.004266	0.000000	0.007585	0.004424	0.002476	0.030496	0.002476	0.000948	0.000474	0.001053	0.000316
20	0.175340	0.053604	0.006638	0.000063	0.015467	0.009143	0.005699	0.068758	0.006826	0.002881	0.001002	0.003883	0.001378
25	0.123530	0.025573	0.004850	0.000073	0.009553	0.007422	0.006540	0.050485	0.008671	0.002131	0.001543	0.004703	0.001984
30	0.069971	0.011851	0.002782	0.000000	0.004637	0.003813	0.003813	0.030503	0.005049	0.002164	0.001340	0.002370	0.001649
35	0.041650	0.006529	0.002869	0.000000	0.002968	0.002572	0.002473	0.018698	0.002176	0.000495	0.000396	0.001583	0.000890
40	0.026764	0.004286	0.001048	0.000000	0.000952	0.001429	0.001333	0.015240	0.001333	0.000286	0.000095	0.000571	0.000190
45	0.018624	0.002483	0.000709	0.000000	0.001862	0.001774	0.000089	0.010110	0.000621	0.000266	0.000266	0.000355	0.000089
50	0.017583	0.001954	0.000977	0.000000	0.001758	0.000684	0.000977	0.009671	0.000781	0.000000	0.000098	0.000391	0.000293
55	0.017583	0.002543	0.000663	0.000000	0.001438	0.000553	0.000663	0.009842	0.000774	0.000221	0.000111	0.000663	0.000111
60	0.019425	0.002181	0.000519	0.000000	0.000935	0.001350	0.000415	0.012049	0.001246	0.000208	0.000104	0.000415	0.000000
65	0.016387	0.001161	0.000645	0.000000	0.000645	0.000645	0.000129	0.011484	0.001161	0.000129	0.000129	0.000258	0.000000
70	0.013709	0.001142	0.000762	0.000000	0.000571	0.000190	0.000190	0.008949	0.001714	0.000000	0.000190	0.000000	0.000000
75	0.012048	0.002008	0.000000	0.000000	0.000602	0.000201	0.001004	0.006827	0.000402	0.000201	0.000000	0.000803	0.000000
GROSS	3.979917	0.835924	0.175376	0.000681	0.301661	0.229824	0.168669	1.796465	0.217926	0.060605	0.036153	0.111667	0.046965
CRUDE	0.058470	0.013426	0.002586	0.000011	0.004593	0.003390	0.002417	0.025468	0.002991	0.000877	0.000500	0.001552	0.000658
M.AGE	27.2894	25.0764	26.0987	25.1996	25.8825	24.7786	26.4147	29.1867	27.7514	25.8144	26.9959	26.8818	23.9531

MIGRATION FROM KUOPION TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	0.082351	0.011265	0.003237	0.000000	0.006863	0.002784	0.006021	0.004597	0.033536	0.004143	0.001619	0.006280	0.002007
5	0.040172	0.005978	0.001824	0.000000	0.003698	0.001418	0.003293	0.002026	0.016819	0.001824	0.000405	0.002229	0.000659
10	0.021143	0.002692	0.000564	0.000000	0.001693	0.001433	0.001433	0.001216	0.008943	0.000738	0.000478	0.001563	0.000391
15	0.078708	0.020465	0.003929	0.000000	0.005566	0.001637	0.003766	0.001760	0.035936	0.002169	0.000573	0.002497	0.000409
20	0.150244	0.038910	0.006703	0.000087	0.009445	0.003917	0.009923	0.005832	0.061325	0.006006	0.001741	0.005440	0.000914
25	0.117653	0.025090	0.004648	0.000050	0.008497	0.004298	0.007647	0.006447	0.042733	0.006048	0.002199	0.007097	0.002899
30	0.066491	0.010517	0.003390	0.000000	0.003944	0.002698	0.005120	0.003183	0.026361	0.004290	0.001176	0.004290	0.001522
35	0.034939	0.004182	0.001619	0.000000	0.002900	0.001282	0.002631	0.002226	0.016053	0.001079	0.000607	0.001686	0.000674
40	0.020221	0.002511	0.000925	0.000000	0.001388	0.000727	0.001388	0.001256	0.009648	0.000595	0.000132	0.001256	0.000396
45	0.018104	0.003089	0.000371	0.000000	0.000989	0.000680	0.002163	0.000680	0.008465	0.000741	0.000185	0.000556	0.000185
50	0.016557	0.002504	0.000974	0.000000	0.000904	0.000626	0.000904	0.000626	0.008070	0.000765	0.000209	0.000974	0.000000
55	0.014577	0.001638	0.000409	0.000000	0.000819	0.000655	0.000655	0.000164	0.009254	0.000573	0.000082	0.000328	0.000000
60	0.014652	0.001267	0.000554	0.000000	0.000713	0.000238	0.001426	0.000871	0.007841	0.000475	0.000158	0.000871	0.000238
65	0.013162	0.001222	0.000752	0.000000	0.001034	0.000564	0.001034	0.000470	0.007239	0.000188	0.000188	0.000376	0.000094
70	0.012547	0.001619	0.000405	0.000000	0.000675	0.000405	0.000675	0.000540	0.007285	0.000270	0.000135	0.000405	0.000135
75	0.010093	0.001022	0.000128	0.000000	0.000767	0.000128	0.000767	0.000383	0.005749	0.000511	0.000128	0.000256	0.000256
GROSS	3.558071	0.669857	0.152163	0.000685	0.249467	0.117448	0.244218	0.161380	1.526289	0.152080	0.050075	0.180514	0.053895
CRUDE	0.052809	0.010572	0.002280	0.000012	0.003708	0.001711	0.003557	0.002340	0.022298	0.002228	0.000728	0.002618	0.000756
M.AGE	26.9230	25.1267	26.3985	24.3237	25.4491	26.9116	27.3575	26.3682	28.4503	25.8993	25.5702	24.7793	25.3722

MIGRATION FROM OULUN TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	0.094261	0.008046	0.005341	0.000103	0.004109	0.001780	0.001541	0.001404	0.002294	0.002260	0.003972	0.057694	0.005718
5	0.043241	0.003359	0.002334	0.000000	0.002420	0.000882	0.000769	0.000712	0.001338	0.001736	0.001850	0.025421	0.002420
10	0.022132	0.002361	0.001721	0.000000	0.001475	0.000393	0.000320	0.000320	0.000566	0.000566	0.000664	0.012689	0.001057
15	0.069282	0.013591	0.006227	0.000024	0.005872	0.000758	0.000568	0.000450	0.001208	0.000923	0.002865	0.034570	0.002226
20	0.159557	0.025201	0.010422	0.000184	0.011183	0.002021	0.001313	0.001575	0.003754	0.003229	0.006090	0.088231	0.006353
25	0.126325	0.017168	0.007812	0.000061	0.006389	0.002392	0.002029	0.001453	0.004421	0.003331	0.005087	0.068037	0.008145
30	0.069422	0.006805	0.005821	0.000041	0.003652	0.001411	0.001369	0.001203	0.002282	0.002614	0.002739	0.037387	0.004896
35	0.037785	0.004472	0.002090	0.000000	0.002382	0.001129	0.000711	0.000752	0.001379	0.001045	0.001212	0.020564	0.002048
40	0.021922	0.002649	0.001667	0.000000	0.000897	0.000427	0.000470	0.000299	0.000684	0.000513	0.001068	0.012222	0.001026
45	0.019446	0.002310	0.001344	0.000000	0.000924	0.000336	0.000252	0.000420	0.000504	0.000714	0.000714	0.011172	0.000756
50	0.016671	0.001710	0.000760	0.000000	0.001187	0.000617	0.000190	0.000095	0.000332	0.000285	0.000807	0.010212	0.000475
55	0.015862	0.002019	0.000577	0.000000	0.000692	0.000461	0.000288	0.000288	0.000692	0.000000	0.000750	0.009575	0.000519
60	0.015980	0.001453	0.000523	0.000000	0.001395	0.000349	0.000349	0.000349	0.000523	0.000349	0.000814	0.009239	0.000639
65	0.013128	0.001298	0.000607	0.000000	0.000607	0.000304	0.000304	0.000304	0.000379	0.000228	0.000683	0.008120	0.000304
70	0.010671	0.000562	0.000337	0.000000	0.000562	0.000112	0.000449	0.000225	0.000562	0.000337	0.000112	0.007301	0.000112
75	0.008346	0.000104	0.000313	0.000000	0.000313	0.000104	0.000209	0.000417	0.000417	0.000209	0.000000	0.005738	0.000522
GROSS	3.720154	0.465508	0.235482	0.002061	0.220297	0.067390	0.055646	0.051330	0.106676	0.091689	0.147138	2.090860	0.186079
CRUDE	0.057752	0.007626	0.003784	0.000035	0.003530	0.000995	0.000793	0.000731	0.001584	0.001395	0.002295	0.032117	0.002866
M,AGE	26.5233	25.7306	25.1041	18.9702	26.3790	28.2136	29.6123	30.0594	28.9435	26.1059	25.9465	26.7289	25.0102

MIGRATION FROM LAPIN TO

AGE	TOTAL	UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	0.093041	0.007416	0.007042	0.000000	0.004495	0.001648	0.001124	0.000749	0.001573	0.001274	0.002247	0.013934	0.051539
5	0.042386	0.003418	0.002621	0.000000	0.002108	0.000912	0.000399	0.000228	0.001025	0.000968	0.000912	0.005754	0.024041
10	0.025199	0.001992	0.002314	0.000000	0.001436	0.000834	0.000185	0.000093	0.000556	0.000185	0.000649	0.004030	0.012924
15	0.065406	0.010710	0.007873	0.000000	0.004897	0.001053	0.000458	0.000275	0.000503	0.000458	0.001694	0.005218	0.032268
20	0.156501	0.025774	0.014361	0.000000	0.011740	0.002130	0.001147	0.000491	0.002293	0.002239	0.002949	0.020641	0.072735
25	0.120024	0.016539	0.007975	0.000000	0.007322	0.002876	0.001242	0.001242	0.002223	0.002092	0.002876	0.018043	0.057593
30	0.066346	0.006703	0.004039	0.000000	0.003008	0.000945	0.000945	0.000688	0.001719	0.001375	0.002234	0.010227	0.034462
35	0.043381	0.003448	0.002967	0.000000	0.002967	0.000722	0.000401	0.000401	0.000481	0.000882	0.000641	0.005934	0.024537
40	0.028092	0.003187	0.001929	0.000000	0.002348	0.000922	0.000084	0.000252	0.000587	0.000168	0.000252	0.003690	0.014675
45	0.022742	0.003010	0.001923	0.000084	0.002090	0.000753	0.000334	0.000167	0.000502	0.000084	0.000669	0.002341	0.010786
50	0.017855	0.001659	0.000781	0.000000	0.001756	0.000585	0.000585	0.000195	0.000000	0.000195	0.000585	0.001854	0.009659
55	0.015818	0.001993	0.000996	0.000000	0.001619	0.000623	0.000125	0.000125	0.000000	0.000249	0.000865	0.002865	0.007099
60	0.019382	0.001833	0.001048	0.000000	0.001702	0.000917	0.000131	0.000393	0.000655	0.000262	0.000393	0.002226	0.009822
65	0.012529	0.001336	0.000668	0.000000	0.001002	0.000501	0.000000	0.000000	0.000167	0.000167	0.000334	0.002172	0.006181
70	0.010145	0.000966	0.000483	0.000000	0.000483	0.000483	0.000242	0.000242	0.000000	0.000483	0.000242	0.001208	0.005314
75	0.011524	0.000706	0.000000	0.000000	0.000706	0.000235	0.000000	0.000000	0.000000	0.000000	0.000235	0.001646	0.007996
GROSS	3.751855	0.453455	0.285108	0.000418	0.248400	0.080692	0.037007	0.027696	0.062045	0.054157	0.085803	0.508907	1.908167
CRUDE	0.057101	0.007226	0.004622	0.000005	0.003781	0.001152	0.000540	0.000382	0.000938	0.000805	0.001299	0.007598	0.028752
M,AGE	27.2157	26.9929	24.6602	47.5000	29.2546	31.6307	27.6824	30.7354	25.9610	26.8161	26.9621	27.1770	27.2076

APPENDIX B

Age-Specific Mortality, Fertility and Migration Rates

OBSERVED POPULATION CHARACTERISTICS

REGION UUDENMA

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM UUDENMA TO UUDENMA	TURUN AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	70913.	0.	187.	5991.	454.	11.	753.	313.	176.	178.	211.	192.	206.	325.	87.
5	80222.	0.	26.	3921.	306.	11.	451.	207.	90.	102.	131.	144.	131.	152.	42.
10	76355.	2.	19.	2165.	161.	2.	240.	97.	66.	44.	64.	60.	65.	71.	23.
15	77792.	1019.	67.	3695.	216.	19.	400.	155.	141.	181.	145.	109.	104.	260.	87.
20	98805.	4792.	95.	11333.	722.	46.	1118.	472.	353.	441.	459.	326.	279.	560.	227.
25	123312.	6409.	135.	12343.	879.	27.	1438.	663.	347.	359.	420.	398.	370.	544.	196.
30	85652.	2413.	114.	5760.	429.	8.	620.	285.	139.	124.	195.	177.	156.	220.	70.
35	71762.	637.	123.	3012.	241.	5.	321.	131.	72.	53.	94.	90.	100.	99.	37.
40	64661.	121.	253.	1794.	106.	6.	181.	62.	52.	41.	33.	35.	42.	54.	18.
45	61825.	8.	354.	1315.	96.	2.	136.	64.	32.	21.	35.	23.	20.	49.	7.
50	56140.	0.	427.	1015.	56.	5.	135.	30.	24.	25.	30.	46.	33.	18.	6.
55	48954.	0.	628.	749.	54.	5.	100.	51.	25.	15.	19.	13.	17.	18.	3.
60	51021.	0.	982.	686.	72.	1.	131.	31.	38.	15.	14.	17.	19.	24.	3.
65	43391.	0.	1275.	479.	52.	4.	95.	32.	22.	12.	26.	11.	15.	12.	4.
70	30166.	0.	1343.	213.	23.	0.	47.	13.	10.	10.	12.	8.	5.	5.	2.
75	32514.	0.	3386.	159.	16.	1.	38.	16.	6.	4.	5.	3.	4.	3.	3.
TOTAL	1073485.	15401.	9414.	54630.	3883.	153.	6204.	2622.	1593.	1625.	1893.	1652.	1566.	2414.	815.

REGION TURUN

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM UUDENMA	TURUN TO TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	43095.	0.	111.	388.	2920.	8.	385.	73.	41.	29.	63.	74.	154.	129.	56.
5	51061.	0.	23.	260.	1819.	9.	258.	34.	21.	26.	40.	53.	82.	69.	38.
10	52685.	1.	18.	136.	1051.	3.	133.	20.	13.	13.	15.	24.	39.	26.	10.
15	55214.	795.	52.	304.	2332.	16.	348.	27.	32.	30.	41.	63.	101.	136.	58.
20	62305.	3235.	66.	1041.	6045.	37.	946.	87.	81.	57.	131.	181.	277.	304.	142.
25	64002.	3187.	65.	1030.	4691.	29.	716.	121.	90.	57.	112.	163.	245.	238.	112.
30	43431.	1051.	53.	348.	1962.	7.	342.	60.	35.	27.	47.	59.	110.	89.	37.
35	41856.	401.	94.	176.	1178.	2.	144.	38.	16.	19.	22.	37.	41.	40.	19.
40	41282.	93.	112.	107.	711.	0.	95.	10.	9.	7.	16.	19.	22.	24.	9.
45	43470.	16.	193.	79.	627.	2.	89.	16.	5.	6.	5.	16.	14.	17.	5.
50	40390.	0.	324.	58.	454.	2.	41.	8.	1.	2.	2.	9.	13.	8.	2.
55	34855.	0.	374.	44.	313.	2.	55.	6.	2.	1.	4.	7.	10.	3.	6.
60	37081.	0.	630.	42.	342.	0.	59.	5.	1.	5.	3.	9.	12.	4.	4.
65	32624.	0.	920.	19.	259.	0.	39.	6.	4.	2.	1.	4.	5.	4.	1.
70	23537.	0.	1048.	23.	157.	0.	38.	3.	1.	1.	3.	0.	1.	2.	0.
75	24794.	0.	2718.	36.	124.	2.	17.	2.	1.	0.	3.	4.	3.	2.	1.
TOTAL	691672.	8779.	6801.	4091.	24985.	119.	3705.	516.	353.	282.	508.	722.	1129.	1095.	500.

REGION AHVENAN

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM AHVENAN TO UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	1511.	0.	3.	8.	9.	109.	5.	1.	0.	0.	1.	1.	4.	1.	0.
5	1708.	0.	0.	11.	7.	50.	1.	0.	0.	1.	0.	2.	3.	0.	0.
10	1530.	0.	0.	2.	0.	25.	0.	1.	0.	0.	0.	0.	3.	0.	0.
15	1526.	22.	1.	5.	8.	85.	0.	0.	1.	0.	1.	5.	2.	1.	0.
20	1811.	100.	0.	27.	20.	182.	4.	1.	0.	0.	1.	1.	16.	5.	0.
25	2060.	111.	2.	22.	16.	131.	3.	1.	0.	1.	3.	3.	9.	1.	0.
30	1472.	32.	4.	13.	9.	61.	2.	0.	0.	0.	2.	0.	5.	1.	0.
35	1213.	14.	2.	4.	2.	43.	0.	0.	0.	0.	0.	0.	3.	0.	0.
40	1148.	4.	6.	4.	1.	19.	0.	0.	0.	0.	0.	0.	3.	0.	0.
45	1230.	0.	8.	0.	1.	15.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	1281.	0.	6.	1.	0.	15.	0.	0.	0.	0.	0.	0.	1.	0.	0.
55	1269.	0.	20.	1.	0.	22.	0.	0.	0.	0.	0.	0.	1.	0.	0.
60	1308.	0.	21.	0.	0.	16.	0.	0.	0.	0.	0.	0.	2.	0.	0.
65	1035.	0.	30.	2.	1.	7.	1.	0.	0.	0.	0.	0.	0.	0.	0.
70	801.	0.	36.	0.	0.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75	1106.	0.	116.	0.	1.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL	22009.	283.	255.	100.	75.	790.	16.	4.	1.	2.	8.	12.	52.	9.	0.

REGION HAMEEN

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM HAMEEN TO UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	41448.	0.	117.	598.	429.	0.	2062.	105.	126.	74.	89.	150.	136.	126.	33.
5	48765.	0.	16.	399.	282.	3.	1291.	86.	65.	33.	43.	102.	61.	75.	27.
10	50527.	0.	15.	231.	130.	2.	770.	48.	23.	25.	17.	42.	24.	51.	14.
15	53797.	750.	44.	552.	330.	2.	1853.	79.	79.	70.	58.	106.	83.	129.	27.
20	61530.	3140.	49.	1844.	984.	4.	4277.	201.	190.	127.	181.	311.	219.	257.	135.
25	63183.	3051.	74.	1630.	798.	5.	3390.	251.	183.	130.	145.	263.	229.	245.	93.
30	43028.	1045.	58.	537.	307.	1.	1397.	104.	100.	54.	56.	115.	81.	93.	30.
35	40186.	426.	73.	249.	184.	0.	914.	55.	48.	27.	30.	69.	33.	44.	15.
40	39007.	89.	145.	184.	104.	0.	610.	23.	26.	17.	13.	30.	24.	23.	9.
45	40413.	6.	230.	113.	85.	0.	504.	13.	19.	15.	13.	19.	16.	17.	10.
50	37444.	0.	290.	114.	60.	0.	361.	18.	10.	7.	4.	16.	15.	18.	3.
55	32489.	0.	362.	74.	53.	0.	342.	16.	15.	3.	4.	12.	11.	5.	2.
60	34271.	0.	636.	82.	53.	0.	290.	17.	15.	6.	6.	10.	10.	8.	7.
65	29467.	0.	855.	49.	28.	0.	210.	13.	12.	6.	6.	13.	5.	7.	6.
70	20704.	0.	948.	30.	23.	0.	127.	5.	4.	5.	3.	6.	1.	0.	3.
75	20790.	0.	2296.	34.	11.	0.	86.	11.	6.	2.	3.	6.	8.	2.	0.
TOTAL	657049.	8507.	6208.	6720.	3861.	17.	18484.	1045.	921.	601.	671.	1270.	956.	1100.	414.

REGION KYMEN

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM KYMEN TO UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	20644.	0.	67.	316.	63.	1.	142.	1028.	93.	51.	40.	35.	32.	38.	16.
5	25847.	0.	10.	200.	46.	1.	85.	697.	65.	22.	27.	26.	11.	30.	10.
10	28059.	0.	9.	117.	29.	2.	55.	416.	58.	13.	13.	7.	10.	15.	4.
15	29496.	375.	36.	302.	44.	0.	151.	907.	79.	39.	20.	13.	10.	22.	7.
20	30686.	1478.	35.	1018.	123.	1.	302.	2246.	171.	87.	70.	80.	37.	64.	29.
25	30402.	1509.	45.	790.	140.	3.	260.	1655.	166.	83.	77.	92.	43.	75.	21.
30	21826.	533.	42.	291.	70.	0.	118.	742.	64.	42.	39.	31.	19.	30.	11.
35	21118.	180.	49.	127.	35.	0.	63.	472.	44.	18.	21.	14.	13.	15.	14.
40	21302.	46.	74.	88.	18.	0.	41.	283.	30.	9.	6.	8.	2.	5.	1.
45	22133.	3.	150.	78.	15.	1.	47.	227.	23.	7.	7.	3.	1.	3.	0.
50	19882.	0.	165.	53.	12.	1.	24.	193.	14.	6.	7.	1.	2.	5.	2.
55	17563.	0.	229.	24.	9.	0.	20.	135.	17.	3.	2.	1.	4.	2.	0.
60	18629.	0.	378.	41.	5.	0.	12.	149.	14.	7.	7.	2.	2.	1.	1.
65	16085.	0.	530.	18.	4.	0.	10.	91.	9.	9.	1.	1.	1.	2.	0.
70	11404.	0.	564.	18.	3.	0.	4.	49.	5.	5.	1.	3.	0.	0.	0.
75	10909.	0.	1322.	17.	4.	0.	6.	52.	4.	0.	3.	2.	2.	1.	0.
TOTAL	345985.	4124.	3705.	3498.	620.	10.	1340.	9342.	856.	401.	341.	319.	189.	308.	116.

REGION MIKKELI

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM MIKKELI TO UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	12099.	0.	30.	153.	42.	0.	125.	105.	426.	58.	79.	58.	17.	23.	9.
5	16031.	0.	5.	92.	25.	0.	79.	69.	337.	39.	67.	31.	8.	26.	5.
10	18905.	0.	7.	66.	28.	0.	50.	47.	223.	22.	56.	17.	5.	4.	6.
15	20199.	202.	22.	432.	48.	0.	201.	122.	640.	35.	135.	45.	10.	17.	4.
20	18295.	813.	21.	816.	92.	0.	337.	255.	1092.	85.	251.	153.	19.	69.	21.
25	16177.	866.	17.	483.	72.	1.	223.	184.	731.	81.	158.	107.	23.	60.	23.
30	12048.	330.	20.	124.	39.	0.	87.	73.	336.	47.	70.	47.	5.	24.	5.
35	12656.	134.	28.	72.	21.	0.	61.	54.	226.	20.	56.	17.	4.	11.	6.
40	13023.	55.	45.	47.	11.	0.	46.	29.	156.	10.	39.	9.	5.	3.	4.
45	13565.	2.	86.	49.	4.	0.	19.	31.	124.	14.	35.	10.	1.	6.	1.
50	12524.	0.	129.	27.	7.	0.	18.	14.	111.	8.	22.	9.	1.	3.	0.
55	10780.	0.	151.	28.	2.	0.	14.	18.	95.	7.	18.	14.	0.	2.	0.
60	11417.	0.	234.	21.	5.	0.	14.	10.	107.	10.	15.	5.	0.	3.	3.
65	9963.	0.	334.	15.	4.	0.	11.	9.	80.	5.	15.	6.	2.	1.	1.
70	7151.	0.	401.	6.	2.	0.	13.	5.	35.	1.	8.	5.	0.	1.	1.
75	7367.	0.	952.	8.	2.	0.	13.	4.	38.	2.	7.	3.	1.	2.	0.
TOTAL	212200.	2402.	2482.	2439.	404.	1.	1311.	1029.	4757.	444.	1831.	536.	101.	255.	89.

REGION POH.KAR

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM POH.KAR TO UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	10289.	0.	36.	123.	34.	0.	65.	71.	39.	437.	73.	16.	11.	37.	15.
5	13467.	0.	8.	81.	42.	0.	45.	45.	40.	297.	36.	7.	4.	18.	10.
10	17075.	1.	14.	59.	26.	0.	29.	26.	20.	199.	10.	2.	2.	6.	5.
15	18986.	233.	11.	578.	81.	0.	144.	84.	47.	579.	47.	18.	9.	20.	6.
20	15969.	708.	17.	856.	106.	1.	247.	146.	91.	1098.	109.	46.	16.	62.	22.
25	13608.	684.	27.	348.	66.	1.	130.	101.	89.	687.	118.	29.	21.	64.	27.
30	9704.	322.	17.	115.	27.	0.	45.	37.	37.	296.	49.	21.	13.	23.	16.
35	10108.	134.	22.	66.	29.	0.	30.	26.	25.	189.	22.	5.	4.	16.	9.
40	10499.	38.	41.	45.	11.	0.	10.	15.	14.	160.	14.	3.	1.	6.	2.
45	11276.	2.	64.	28.	8.	0.	21.	20.	1.	114.	7.	3.	3.	4.	1.
50	10237.	0.	106.	20.	10.	0.	18.	7.	10.	99.	8.	0.	1.	4.	3.
55	9043.	0.	133.	23.	6.	0.	13.	5.	6.	89.	7.	2.	1.	6.	1.
60	9627.	0.	201.	21.	5.	0.	9.	13.	4.	116.	12.	2.	1.	4.	0.
65	7750.	0.	269.	9.	5.	0.	5.	5.	1.	89.	9.	1.	1.	2.	0.
70	5252.	0.	267.	6.	4.	0.	3.	1.	1.	47.	9.	0.	1.	0.	0.
75	4980.	0.	612.	10.	0.	0.	3.	1.	5.	34.	2.	1.	0.	4.	0.
TOTAL	177870.	2122.	1845.	2388.	460.	2.	817.	603.	430.	4530.	532.	156.	89.	276.	117.

REGION KUOPION

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM KUOPION TO UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	15446.	0.	44.	174.	50.	0.	106.	43.	93.	71.	518.	64.	25.	97.	31.
5	19740.	0.	9.	118.	36.	0.	73.	28.	65.	40.	332.	36.	8.	44.	13.
10	23034.	0.	6.	62.	13.	0.	39.	33.	33.	28.	206.	17.	11.	36.	9.
15	24432.	264.	23.	500.	96.	0.	136.	40.	92.	43.	878.	53.	14.	61.	10.
20	22976.	1078.	29.	894.	154.	2.	217.	90.	228.	134.	1409.	138.	40.	125.	21.
25	20008.	1045.	31.	502.	93.	1.	170.	86.	153.	129.	855.	121.	44.	142.	58.
30	14453.	422.	25.	152.	49.	0.	57.	39.	74.	46.	381.	62.	17.	62.	22.
35	14826.	177.	49.	62.	24.	0.	43.	19.	39.	33.	238.	16.	9.	25.	10.
40	15133.	39.	58.	38.	14.	0.	21.	11.	21.	19.	146.	9.	2.	19.	6.
45	16184.	3.	96.	50.	6.	0.	16.	11.	35.	11.	137.	12.	3.	9.	3.
50	14375.	0.	143.	36.	14.	0.	13.	9.	13.	9.	116.	11.	3.	14.	0.
55	12211.	0.	159.	20.	5.	0.	10.	8.	8.	2.	113.	7.	1.	4.	0.
60	12626.	0.	287.	16.	7.	0.	9.	3.	18.	11.	99.	6.	2.	11.	3.
65	10637.	0.	311.	13.	8.	0.	11.	6.	11.	5.	77.	2.	2.	4.	1.
70	7412.	0.	390.	12.	3.	0.	5.	3.	5.	4.	54.	2.	1.	3.	1.
75	7827.	0.	923.	8.	1.	0.	6.	1.	6.	3.	45.	4.	1.	2.	2.
TOTAL	251320.	3028.	2583.	2657.	573.	3.	932.	430.	894.	588.	5604.	560.	183.	658.	198.

REGION KESK,SU

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM KESK,SU TO UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	14843.	0.	42.	181.	94.	0.	167.	23.	64.	21.	59.	804.	47.	52.	18.
5	18419.	0.	11.	116.	49.	0.	115.	17.	22.	16.	34.	520.	26.	31.	18.
10	21230.	0.	8.	74.	32.	0.	67.	10.	24.	3.	15.	273.	16.	15.	13.
15	22209.	257.	19.	328.	110.	2.	193.	20.	45.	9.	29.	772.	45.	34.	6.
20	21505.	1048.	22.	745.	262.	2.	441.	68.	117.	28.	106.	1696.	118.	81.	34.
25	20609.	1099.	15.	463.	152.	0.	278.	66.	123.	49.	101.	1289.	93.	107.	48.
30	14631.	437.	25.	152.	76.	0.	113.	29.	31.	19.	52.	525.	44.	44.	19.
35	14412.	183.	33.	87.	33.	0.	84.	16.	26.	3.	24.	310.	19.	19.	10.
40	14366.	44.	40.	43.	29.	0.	38.	13.	10.	2.	7.	190.	9.	12.	5.
45	15050.	5.	81.	40.	17.	0.	27.	6.	5.	5.	10.	150.	7.	6.	2.
50	13945.	0.	118.	19.	9.	0.	28.	3.	5.	2.	4.	136.	7.	7.	3.
55	11814.	0.	163.	20.	6.	0.	19.	5.	10.	0.	2.	88.	1.	5.	1.
60	12124.	0.	258.	19.	5.	0.	29.	2.	7.	1.	6.	110.	7.	3.	1.
65	10060.	0.	307.	11.	8.	0.	14.	2.	6.	1.	2.	79.	4.	3.	1.
70	6958.	0.	373.	11.	1.	0.	10.	0.	4.	1.	2.	40.	1.	1.	0.
75	6639.	0.	807.	3.	2.	0.	3.	2.	4.	0.	0.	33.	1.	2.	0.
TOTAL	238814.	3073.	2322.	2312.	885.	4.	1626.	282.	503.	160.	453.	7015.	445.	422.	179.

REGION VAASAN

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM VAASAN TO UUDENMA	TURUN	AHVENAN	HAMEEN	KYMEN	MIKKELI	POH,KAR	KUOPION	KESK,SU	VAASAN	OULUN	LAPIN
0	28890.	0.	90.	189.	234.	9.	166.	28.	30.	10.	27.	71.	1570.	124.	29.
5	33898.	0.	9.	118.	142.	2.	67.	11.	19.	10.	15.	36.	736.	67.	16.
10	35720.	1.	11.	63.	69.	5.	54.	8.	8.	1.	10.	12.	379.	27.	11.
15	37525.	548.	32.	274.	216.	24.	185.	11.	11.	7.	9.	36.	1252.	50.	26.
20	37210.	2021.	30.	856.	512.	44.	384.	44.	23.	15.	50.	144.	3158.	239.	48.
25	34563.	2072.	31.	495.	384.	27.	262.	54.	43.	25.	49.	145.	2132.	200.	58.
30	24649.	775.	40.	152.	108.	5.	113.	22.	29.	16.	25.	36.	794.	76.	23.
35	24314.	357.	47.	88.	69.	2.	59.	9.	13.	2.	8.	22.	425.	40.	13.
40	24198.	99.	68.	45.	57.	3.	41.	6.	5.	2.	1.	11.	258.	16.	8.
45	26094.	11.	139.	27.	27.	2.	22.	6.	2.	2.	1.	3.	188.	8.	7.
50	25662.	0.	174.	29.	21.	3.	27.	2.	3.	0.	3.	13.	163.	7.	2.
55	22330.	0.	252.	13.	8.	1.	17.	4.	0.	0.	1.	8.	140.	5.	0.
60	22210.	0.	375.	22.	10.	1.	21.	2.	1.	3.	3.	8.	147.	6.	2.
65	18237.	0.	516.	13.	10.	0.	17.	3.	0.	0.	5.	10.	98.	2.	1.
70	13308.	0.	623.	9.	4.	0.	5.	0.	1.	0.	0.	4.	64.	2.	3.
75	14235.	0.	1645.	9.	2.	0.	7.	0.	0.	2.	0.	2.	58.	2.	2.
TOTAL	423043.	5884.	4082.	2402.	1873.	128.	1447.	210.	188.	95.	207.	561.	11562.	871.	249.

REGION OULUN

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM UUDENMA	TURUN	AHVENAN	OULUN TO HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	29206.	0.	79.	235.	156.	3.	120.	52.	45.	41.	67.	66.	116.	1685.	167.
5	35129.	0.	18.	118.	82.	0.	85.	31.	27.	25.	47.	61.	65.	893.	85.
10	40665.	0.	11.	96.	70.	0.	60.	16.	13.	13.	23.	23.	27.	516.	43.
15	42233.	610.	29.	574.	263.	1.	248.	32.	24.	19.	51.	39.	121.	1460.	94.
20	38093.	2237.	40.	960.	397.	7.	426.	77.	50.	60.	143.	123.	232.	3361.	242.
25	33026.	1990.	48.	567.	258.	2.	211.	79.	67.	48.	146.	110.	168.	2247.	269.
30	24099.	805.	44.	164.	121.	1.	88.	34.	33.	29.	55.	63.	66.	901.	118.
35	23925.	461.	49.	107.	50.	0.	57.	27.	17.	18.	33.	25.	29.	492.	49.
40	23401.	129.	99.	62.	39.	0.	21.	10.	11.	7.	16.	12.	25.	286.	24.
45	23810.	10.	164.	55.	32.	0.	22.	8.	6.	10.	12.	17.	17.	266.	18.
50	21054.	0.	194.	36.	16.	0.	25.	13.	4.	2.	7.	6.	17.	215.	10.
55	17337.	0.	271.	35.	10.	0.	12.	8.	5.	5.	12.	0.	13.	166.	9.
60	17209.	0.	365.	25.	9.	0.	24.	6.	6.	6.	9.	6.	14.	159.	11.
65	13178.	0.	444.	17.	8.	0.	8.	4.	4.	4.	5.	3.	9.	107.	4.
70	8903.	0.	448.	5.	3.	0.	5.	1.	4.	2.	5.	3.	1.	65.	1.
75	9585.	0.	1110.	1.	3.	0.	3.	1.	2.	4.	4.	2.	0.	55.	5.
TOTAL	400853.	6242.	3413.	3057.	1517.	14.	1415.	399.	318.	293.	635.	559.	920.	12874.	1149.

REGION LAPIN

AGE	POPULATION	BIRTHS	DEATHS	MIGRATION FROM UUDENMA	TURUN	AHVENAN	LAPIN TO HAMEEN	KYMEN	MIKKELI	POH.KAR	KUOPION	KESK.SU	VAASAN	OULUN	LAPIN
0	13349.	0.	33.	99.	94.	0.	60.	22.	15.	10.	21.	17.	30.	186.	688.
5	17553.	0.	10.	60.	46.	0.	37.	16.	7.	4.	18.	17.	16.	101.	422.
10	21588.	0.	14.	45.	50.	0.	31.	18.	4.	2.	12.	4.	14.	87.	279.
15	21848.	316.	22.	234.	172.	0.	107.	23.	10.	6.	11.	10.	37.	114.	705.
20	18313.	950.	32.	472.	263.	0.	215.	39.	21.	9.	42.	41.	54.	378.	1332.
25	15297.	787.	27.	253.	122.	0.	112.	44.	19.	19.	34.	32.	44.	276.	881.
30	11636.	340.	26.	78.	47.	0.	35.	11.	11.	8.	20.	16.	26.	119.	401.
35	12471.	180.	26.	43.	37.	0.	37.	9.	5.	5.	6.	11.	8.	74.	306.
40	11925.	45.	64.	38.	23.	0.	28.	11.	1.	3.	7.	2.	3.	44.	175.
45	11960.	9.	84.	36.	23.	1.	25.	9.	4.	2.	6.	1.	8.	28.	129.
50	10249.	0.	90.	17.	8.	0.	18.	6.	6.	2.	0.	2.	6.	19.	99.
55	8029.	0.	123.	16.	8.	0.	13.	5.	1.	1.	1.	0.	2.	23.	57.
60	7636.	0.	170.	14.	8.	0.	13.	7.	1.	3.	5.	2.	3.	17.	75.
65	5986.	0.	194.	8.	4.	0.	6.	3.	0.	0.	1.	1.	2.	13.	37.
70	4140.	0.	211.	4.	2.	0.	2.	2.	1.	1.	0.	2.	1.	5.	22.
75	4252.	0.	440.	3.	0.	0.	3.	1.	0.	0.	0.	0.	1.	7.	34.
TOTAL	196232.	2627.	1566.	1418.	907.	1.	742.	226.	106.	75.	184.	158.	255.	1491.	5642.