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The demographic characteristics of national minorities in certain European States
The demographic characteristics of national minorities in Estonia

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INTRODUCTION

The ancestors of the present Estonian population have inhabited the existing territory for more than 5,000 years, and together with other Nordic nations, participated in the emergence of Viking civilisation. In the annals of the Roman Empire, the nation was known as *Aestii.* In the 13th century, after 20 years of fighting, Estonia lost its independence and the territory was partitioned between Roman Church, German, Danish and Russian satellite states. For the next five centuries Estonian soil recurrently served as a battlefield, which resulted in more frequent population crises than was the norm in Europe. The Northern War led to the surrender of the local Baltic-German nobility to Peter the Great in 1710. In return Russia endorsed the continuity of rights and privileges of the nobility. Lutheran Estonia was incorporated into the Russian Empire under a special Baltic order, but retained a degree autonomy over its courts, justice system, education, land-use and local government. Thereafter, the Baltic provinces remained a largely autonomous region until the russification programme begun by Alexander III in the 1880s.

Estonia was declared a Republic on February 24, 1918, and successfully defended itself in the Independence War of 1918-1920 against the Russian Federation as well as German military forces. Its modern boundaries were defined at the Tartu Peace Treaty (1920) with the Russian Federation and by international agreements with Latvia, and were built on the principle of ethnic territory as opposed to the previous gubernia division of the Russian Empire. This principle was not easy to follow due to an extensive territory of ethnically mixed population that had come about as a result of the immigration of Russians towards the north from the 15th century onwards supported militarily by the emerging centralised Muscovite state. The Tartu Peace Treaty divided the ethnically mixed areas in such a way as to leave around 60,000 ethnic Russians in Estonia and up to 200,000 Estonians in the Russian Federation. The boundary passed through Lake Peipsi and its eastern shore, including historical 'Small Estonia', remained in the Russian Federation. By comparison, the new boundary with Latvia was relatively straight forward to define because there had never been any large-scale inter-penetration of Latvian and Estonian migrations. In addition to people from neighbouring Russia and Latvia, Germans, Jews and Swedes also constituted national minorities.

The geopolitical changes that came about as a consequence of the Second World War had a substantial impact on the number and composition of the Estonian population as well as the national minorities. Four of the national minorities largely disappeared, leaving only the Russians reduced to about a quarter of their previous size and the Ingerians. There are, thus, six national minorities that can legitimately be dealt with in the framework of the current Project. However, the post-war incorporation of Estonia into the Soviet Union initiated a process of immigration, which gained a decisive influence in the recent formation of the population of the country. A characteristic feature of this immigration has been the high rate of turnover, with approximately four out of five immigrants leaving the country at some time or other. Nevertheless, this immigration has resulted in Estonia having one of the highest proportions of population of foreign origin in Europe, amounting to 35 per cent of the total. The socio-demographic heterogeneity of the immigrant population is very high, comprising 120 different ethnic groups, among whom are many Russians. The ethnic Russian population of Estonia is therefore comprised of two different groups: the Russian national minority and the Russian immigrant population. It is important to distinguish between these two because they differ from each other across a range of demographic and social features [Katus, Sakkeus 1993; Vikat 1994; Puur 1997; UN ECE 1999a].

The current Project addresses the demographic development of the national minorities of the country during the years 1910-1995. The time frame covers two important discontinuities that are of particular relevance to the Project: the one is the disappearance of certain national minorities that accompanied the country's loss of independence, and the second is the disruption of the national statistical system. Accordingly, the report consists of two main parts: the first part covers the development of national minorities in the years leading up to the geopolitical rearrangement that resulted from the Second World War, while the second part deals with the post-war period. After regaining its independence in 1991, Estonia restored the concept of national minorities and the first steps towards the reconstruction of a time series of data on national minorities was begun. A special survey of the national minorities was carried out in 1997, applying internationally comparable definitions for the first time after a lapse of over a half-century. This work is based on event-history data and in bridging the gap should place the development of the national minorities in a broader context than is possible from census and vital statistics information alone.

1. HISTORICAL CONTEXT AND DATA SOURCES

1.1. Data sources

1.1.1. Discontinuity in the statistical system

After the establishment of the Republic of Estonia in 1918, conscious efforts resulted in the creation of a national statistical system. In addition to the usual tasks of producing regular censuses and vital statistics, a special recalculation programme was initiated to create a consistent population time series covering the preceding decades. The Central Bureau of Statistics pursued a policy of introducing internationally comparable definitions and participated in relevant cooperation with other organisations. The recalculated data were made available systematically through a series of comprehensive yearbooks and specialised statistical publications, and are still readily accessible [RSKB 1922-1940]. The geopolitical changes that followed the Second World War and the incorporation of Estonia into the Soviet Union brought these developments to an end. The national statistical system was dismantled and replaced by a subordinate branch charged with the implementation of instructions from Moscow. Soviet definitions and classifications, inconsistent with international recommendations, were introduced, thereby disrupting the constructed time series of population data. Moreover, the focus of the new system was limited primarily to the short-term and the trend-keeping task was neglected. Severe restrictions were also imposed on the use and, particularly, publication of data, which made the identification of relevant information, if it existed at all, difficult and time-consuming.

This discontinuity is particularly disruptive when it comes to the statistics on national minorities. Before the Second World War, the concept of ethnic self-definition, language (mother tongue), religious affiliation, place of birth and citizenship were developed and systematically applied in the population statistics of Estonia. Hence, from the viewpoint of the current Project, sufficient information on the development of the country's national minorities could be secured from the relevant census and vital statistics publications for that period. However, under the governing Soviet ideology, the quality of statistical information on national minorities suffered particularly badly. This anticipated the fusion of nations and ethnicities into one unified Soviet nation and the entire concept as well as specific characteristics defining a national minority appeared irrelevant and were discarded as an integrated set from this perspective [Konstitutsija; 1977; Stepanjan 1981; Carrére d'Encausse 1982].

Consistent with this ideology, an individual's place of birth or origin was not recorded and was replaced with the *propiska*, i.e. the officially recognised place of residence [Matthews 1993]. Also the notion of citizenship lost its meaning in what was essentially a closed society, where virtually everyone was a Soviet citizen. At the same time, from the viewpoint of Estonia, all Soviet citizens were automatically regarded as citizens of Estonia, if in possession of an Estonian-related propiska. In other words, both place of birth and citizenship as personal characteristics were replaced by propiska, which being a temporary and open to manipulation category, carried no value in the context of national minority statistics. Further, although individual ethnic identification was registered, this was a legal categorisation recorded in an individual's passport by the authorities. For the purpose of vital statistics this legally determined ethnicity was used, whereas census statistics recorded ethnicity on the basis of the self-declaration. Information derived from these two different concepts did not necessarily coincide and the discrepancy could be particularly large for the national minorities. The population censuses also recorded language information, but since the primary interest here was in demonstrating the spread of Russian [Hanazarov 1977], it too is of limited value for the study of national minorities. As for religious affiliation, Soviet ideology regarded this as a remnant of bourgeois society, and it was accordingly omitted from official statistics.

Reflecting the emerging changes in society, the 1989 census programme differed in a positive way from earlier enumerations by incorporating several concepts and items which had never before been included in the Soviet statistical system [Goyer, Draaijer 1992]. Of particular relevance to national minorities was the inclusion of a question on place of birth which made it possible to distinguish between the Estonian born population, including national minorities and foreign born population for the first time since the disruption of the statistical system. The information went beyond the previous Soviet perspective on ethnicities and also provided the sample frame for the National Minority Survey (EPU). The application of the 1989 census as a sample frame draws on the previous effort to bring the microdata into order [Katus, Puur 1993]. The named data set as well as the others used used in the current Project are derived from the Estonian Population Databank (ERA), developed by the Estonian Interuniversity Population Research Centre (EKDK).

1.1.2. A special linkage survey

The restoration of Estonian independence implied the rebuilding of the national statistical system. Among other things, this has involved the task of reconstructing data for the whole of the Soviet period to link up with the corresponding pre-war statistics. Initiated by the scientific community, the Recalculation Programme of Population Data aims to construct consistent time series, reintroduce international definitions and classifications, secure consistency at the regional level and integrate information from vital, census and survey statistics. The accomplishment of these tasks involves the harmonisation of aggregate data, if obtainable, the recoding and reprocessing of microdata, if endured, and the computerisation of archived vital statistics and census records at the individual level, if consistent aggregate and/or microdata are not available.

Regarding information about national minorities, the restoration of a consistent time series was not possible even from computerised archival records because the characteristics relevant for the identification of national minorities had simply not been recorded for almost fifty years. Inquiries into relevant administrative registers that might have been maintained by the various branches of government proved negative. Given these circumstances, it appeared that the participation of Estonia in the Project might be in doubt. The alternatives were, firstly, to substitute the data pn national minorities with the information on the propiska-holding population, or secondly, conducting a special survey to reconstruct the missing data using retrospective methods. Considering the importance of the issue for Estonia, both in terms of foreign and internal policies, the Foreign Ministry convened two high-level meetings to reach a decision. In the event, outruling the first alternative, the participating institutions inclined towards a second one that has involved the collection of primary data, not included in the framework of CDPO projects.

The preparation of the National Minority Survey was facilitated by the implementation of the Estonian Family and Fertility Survey (EFFS) in the same time frame, and the fact that both surveys were to be conducted by the same working group [EKDK 1995a; 1999a; 1999b]. The preparation, fieldwork and related stages of the EPU were combined with Estonian male FFS which significantly reduced the time and costs involved. In fact, it was only by combining the work in this way that Estonia was able to keep to the time scale set by the CDPO. In addition, by combining the two surveys it was possible to integrate the EPU into the system of national surveys, which was essential if the national minorities were to be compared with the rest of population. Readers are referred to the Methodological Report for detailed information on EPU design and procedures [1].

[1] The target population constituted of females born in 1924-1973. The sampling frame of the survey was the individual-level data of the 1989 population census. Altogether 1,310 respondents of Russian national minority and 1,481 Ingerian national minority were interviewed, the response rate of the survey was 85.6 [see details EKDK 1999b].

The EPU survey programme consists of two major parts which cover the principal aspects of the development of national minorities. Firstly, the programme collected comprehensive information on characteristics relevant to the definition of minority populations (individual ethnic identification, place of origin/birth, usual language, religious affiliation and citizenship). Wherever possible, these characteristics were traced through three consecutive generations, starting with the grandparents of respondents along both parental lines; the same information was gathered for respondents' children and partners. Secondly, the programme covered all major processes relevant to the demographic reproduction of the national minorities: family formation, fertility, sexual behaviour and family planning, as well as education, economic activity, residential mobility and other social careers. By combining both parts, it was aimed to obtain a comprehensive understanding of the development of the national minorities. Moreover, data on minority-specific characteristics would provide a basis for the further elaboration of the concept of minority as applied to vital and census statistics.

Methodologically, the survey builds on the life course approach [Blossfeld, Hamerle, Mayer 1989]. Two advantages of event-oriented survey design should be stressed. Firstly, it provides a basis for the retrospective reconstruction of time-series of the main demographic indicators. Secondly, the specific methodology applied enabled one to combine both cohort and period perspectives and to calculate the respective indicators. Such a survey cannot, of course, totally replace the lack of census and vital statistics on national minorities over fifty years. For example, it cannot supply the precise number and age composition of the national minorities or the number of annually registered vital events; indeed, only very crude indirect measures of mortality can be derived. However, the survey does provide information on processes that are usually not covered by traditional sources: mixed marriages, induced abortion, fertility regulation, cohabitation and new family forms, education, labour force and housing history, and socialisation in the parental home. Of particular relevance to national minorities, it allows one to follow inter-generational and intra-generational changes in language, religious affiliation and citizenship and to accomplish in-depth analysis.

1.2. The historical development of the national minorities

The history of the formation of national minorities in Estonia is varied. Some date back to the 13th century while others have emerged during the 19th or even 20th centuries. Hence, an historical perspective is needed if one is to understand the position and development of the national minorities during the Project period.

Russian became a neighbouring nation of Estonia during the 10th century, while Russian settlement on the modern territory of Estonia dates back to the Livonic War of the 16th century. The concentration of Russians was highest in Southeast Estonia (Petserimaa). During the early 18th century, new fishing settlements were established at Lake Peipsi, mostly by Russian old-believers escaping religious oppression at home [Grass 1914; Moora 1964]. Although the Baltic provinces became part of the Russian Empire in the 18th century, there was no appreciable Russian immigration into the territory for a considerable time after that and the provinces remained under special Baltic order. The Orthodox religion was not widespread and Russian, although the official language, was not spoken as ususal language by any social strata, except the military. Immigration did, however, start after the introduction of the russification programme by Alexander III during the 1880s. The in-flow was comprised of Russian-speaking administrators and servicemen as well as workers for the newly-established imperial enterprises. Hence, at the turn of the century, the Russian national minority was divided into two parts: an upper social strata made up of local Russian administrators together with new immigrant workers concentrated in the cities, and a peasantry with a longer history of settlement in the border regions.

The first wave of Germans entered Estonia in the early 13th century as invaders and after the conquest of Estonian, Livonian and Latvian lands, established themselves as the ruling class [Wittram 1973]. In the Baltic provinces, being German was synonymous with being a member of the upper class and did not imply a specific ethnic connotation. In other words, if members of the local population were to be upwardly mobile they had to become German. However, as the modern concept of ethnicity gained ground, the Baltic-Germans began to evolve into a national minority, and by the 19th century social mobility as the main source of their increase had dried up. The other source of accretion to the group was immigration, but even at the outset this was relatively unimportant, and involved only a limited influx of merchants and craftsmen to the cities, especially those of the Hanseatic League. There was never any significant immigration by German peasantry. None the less, despite their relatively small size and declining proportion of the population during the 19th century, the Germans maintained their ruling position up to 1918.

The Swedish minority dates back to the 13-14th centuries, that is somewhat later than in Finland [Blumfeldt 1961]. Swedish fishermen formed an area of compact settlement on the small islands off the north west coast, particularly those which had previously been uninhabited. The major immigration wave is thought to have occurred after the conquest of Estonia and, particularly, after the sharp depopulation of Northern Estonia following the 1343 uprising, when several coastal areas were emptied. From the social viewpoint, Swedish settlers belonged mainly to the peasant class, and even during the period of Swedish rule between 1561 and 1710, a Swedish upper class did not emerge. In addition, a small Swedish minority developed in the urban settlements of Northern Estonia [Veispak 1986].

Jewish settlers were among the last groups to enter Estonia. They were mainly absent from the principal urban settlements during the Middle Ages, and a Jewish community only began to form during the 19th century [Gurin 1936]. It was a special law promulgated by Alexander II in 1865, which allowed certain groups of Jews to settle in the northern part of the Russian Empire (soldiers, merchants, craftsmen and people with higher education) that initiated the change. The process intensified during the reign of Alexander III when anti-Jewish pogroms were introduced in the Ukraine and Belorussia. On one hand, Estonia came to be regarded as a safe haven among the Jews of the Empire (no pogroms have taken place in Estonia, also during the Second World War). On the other hand, the immigration was limited because of the absence of an established community network.

Latvians have for long been a neighbouring nation to Estonians. The persistent westerly move of Latvians as far as the Baltic coastline intensified after the Livonic War, when parts of Livs territory suffered devastating population losses. Step by step, Latvians became the neighbouring nation along the entire southern border of Estonia. However, there was no such process in the north and extensive areas of mixed population did not develop between the two countries [Palli 1996]. The modern Latvian minority in Estonia as well as Estonians in Latvia were formalised when the state boundaries were defined in the 1920s. Given the principle to follow ethnic boundaries, only a small and dispersed Latvian national minority was left in Estonia.

Ingerians have been another historical neighbour of the Estonians. Ingeria is a territory that lies between the Baltic Sea and Lakes Peipsi and Ladoga, and forms a landbridge between Estonia and Finland. Historically Ingeria was the contact area for three Finno-Ugric nations: Isurs, Votians and Estonians [Kurs 1994]. In the 12th century, Ingeria fell under the rule of Novgorod as the 'Votian Fifth' and was converted to the Orthodox faith. After the conquest of Novgorod by the Muscovites in 1478, Ingeria was included in Muscovite Russia and devastated by repeated deportations followed by colonisation and repopulation. When Ingeria fell under Swedish rule at the beginning of the 17th century, immigration was encouraged into the severely depopulated country. The new settlers came mainly from Lutheran Finland (neighbouring Estonia had also been depopulated). For the next three centuries, the Lutheran-Orthodox distinction became the main dividing line between "old" and "new" Ingerians, on the background of the diminishing differences in language and ethnic identification. The turning point in the history of the country came with the Nordic War, which led to the reincorporation of Ingeria into Russia. The new imperial capital was founded on Ingerian territory and the whole country renamed St.Petersburg gubernia. The gradual repopulation of Ingeria culminated during the 20th century, and was accompanied by the repression of the Ingerians. Before the First World War, the number of Ingerians amounted to more than 200,000, but had dropped to 176,000 by the 1926 census and to 16,800 by the 1989 enumeration [TsSK 1905; TsSK 1928; Goskomstat 1990].

1.3. Organisation of national minorities

With the coming into existence of the modern nation state during the 19th century, ideas promoting ethnic communities as bearers of specific interests and rights began to spread, culminating in the early 20th century. Having themselves at one time constituted a minority in the Russian Empire, Estonians were particularly aware of the needs of national minorities at the time of their independence. The Manifesto of Independence in 1918 proclaimed the equality of all ethnic groups and asserted the right to cultural autonomy for national minorities living within the boundaries of Estonia. These provisions also became part of the Constitution of the country [Põhiseadus 1920].

The specific law governing the organisation of national minorities (the Cultural Autonomy Law) was passed in 1925 [Riigi Teataja 1925]. The Law set out the rights of the national minorities and regulated state support for minority institutions. The ideas underlying the Cultural Autonomy Law were based on initiatives coming from the minorities themselves, and in this way it was possible to design the various organisational structures so that they would meet the specific needs of each group. The Law made provision for the allocation of resources from central and local government for the support of primary and secondary educational establishments as well as for cultural activities. The administration of these funds was vested in a Council elected directly by the minorities. In addition to governmental support, this Council had the right to collect voluntary donations and to apply for other sources of financial support.

Under the Cultural Autonomy Law, 3,000 individuals was set as the minimum size for an ethnic group to be considered a national minority. Since there were no stipulations about spatial distribution or other characteristics, the Law was particularly important for those national minorities that were dispersed geographically and whose interests could not therefore be fully represented through the system of local government. It should be noted that education, health and many other social issues in Estonia were largely dealt with at a local government level. Therefore, while geographically compact minorities could effectively exercise their rights through the existing community institutions, the Law added another dimension to the possibilities they already had.

The advantages of the Cultural Autonomy Law were first taken up by the German minority in 1925, followed by the Jews in 1926. The Russians, Swedes and Latvians were not in a haste to use its provisions. In the case of the first two mentioned, this was mainly because of their compact pattern of settlement which, through the institutions of local government, had secured their needs as national minorities. As for the Latvians, the special Convention on Schools ratified in 1922 had already made the two education systems available in border regions and this, together with a tendency towards assimilation, explains why they did not use the cultural autonomy provisions. Estonian legislation also allowed the political organisation of national minorities and the Russians, Germans and Swedes accordingly established their national parties and were represented in Parliament. The principles and procedures of cultural autonomy also came to be useful in rather unforeseen circumstances. For instance, the Swedish minority, by referring to its national minority status, received the consent of the German authorities to cross the German Ostland border and leave for Sweden before the second Soviet occupation in 1944. The Soviet authorities abolished the cultural autonomy of national minorities.

The practice of the Estonian Republic regarding national minorities attracted considerable attention at the time [Hasselblatt 1928; Schiemann 1937]. Estonia was the first country in Europe to adopt the principles and policies of cultural autonomy and the specific Estonian legislation was discussed in and recognised by the League of Nations. These policies were also appreciated by the minorities themselves. For example, in 1926 after granting rights to the Jewish minority, Estonia became the first government to be recognised in the Golden Book of the Jewish National Fund for its honourable treatment of the Jews [Loov-Gurin 1990]. With the restoration of independence in 1991, the Cultural Autonomy Law was re-enacted.

2. NATIONAL MINORITY TRENDS UP TO THE SECOND WORLD WAR

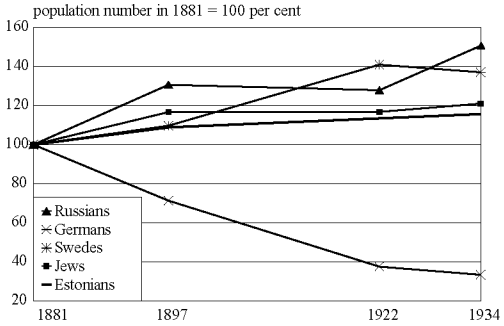
2.1. Population number

By comparison with the neighbouring countries of Finland, Latvia and the Russian Federation, the population of the Estonian Republic was ethnically comparatively homogeneous before the Second World War. According to the last pre-war population census held in 1934, Estonians comprised 88.1 per cent of the total population, with the remaining 120,000 consisting mainly of members of the five national minorities. The most numerous were the Russians, amounting to 92,600, followed by the Germans with 16,300, the Swedes with 7,600, the Latvians with 5,400 and the Jews with 4,400. Other ethnicities combined accounted for 7,300 individuals [RSKB 1935]. Also, the long-term dynamics of population number of national minorities has been noticeably different.

The growth of the Russian minority at the turn of the century was relatively rapid. Between the 1881 and 1897 censuses their number increased by approximately 30 per cent. The growth continued and accelerated during the preceding years before the outbreak of the First World War. The military defeat of the Russian Empire, however, led to the evacuation of Russian administrators and personnel associated with the imperial enterprises and the number of Russian population sharply decreased during the German occupation when the size of the minority fell significantly below the figure given in the 1922 census. The number of Russian minority once more turned to an increase, which then came about largely as a result of refugees from Red Russia, accounted as the lowest estimate of 18,000 [RSKB 1924]. These rapid fluctuations in number are not reflected in Figure 1, which is a summary of the outcome for the intercensal period 1897-1922 as a whole. Nevertheless, between 1881 and 1922, the growth of the Russian population was close to 30 per cent and was higher than for the Estonians over the same period. During the years of Estonian independence, the growth rate of the Russians exceeded that of all other ethnic groups. This is particularly noteworthy given the negative net migration due to the emigration of noticeable proportion of Russians who had come as refugees.

The number of Germans remained rather small over centuries, never exceeding 5-6 per cent of the total population. In the second half of the 19th century the conitnuous declining trend of the number of Germans began and on the eve of the 20th century they comprised around 2.5 per cent of the total. The primary reason for this decrease was the cessation of the assimilation process that accompanied upward social mobility already described as the most important source of German-speaking population. An additional reason was the emergence of emigration among the Germans, which accelerated in the last decades of the 19th century. This outflow was directed mainly towards St. Petersburg but also to other urban centres in the Russian Empire as well as to Germany. Between the 1881 and 1897 censuses, the number of Germans fell by around 30 per cent, followed by a further 30 per cent decline between 1897 and 1922. In addition to these factors, the Bolshevik repressions in 1917, inspired by the practices of the French Revolution, and activities associated with the war in the region should also be underlined. In the Republic of Estonia, the number of Germans continued to decline at a noticeably slower pace. The source of the decline, however, had changed from emigration to natural decrease. The cessation of the increase due to upward social mobility as well as previous emigration had disbalanced age and sex structure to a substantial degree. Under the normal course of development, the natural decrease of the German minority would surely have continued.

Figure 1. TRENDS IN POPULATION NUMBER, 1881-1934



Source: RSKB 1924; RSKB 1935

During the 19th century the increase in the Swedish minority was comparable to that of Estonians. In the intercensal period 1897-1922, however, the number of Swedish minority increased by almost 30 per cent, being more extensive relative to all other national minorities as well as Estonians. One possible explanation for this might be that the Swedish minority maintained a higher fertility rate as happened among other island communities in Estonia (e.g. Saaremaa [Katus 1994]). Another factor might well have been the time-lag in the accumulation of migration potential, postponing the emigration wave. In the 1920s-1930s, the number of Swedes had stabilised and showed later a small

decrease. This new feature was mostly due to progressing urbanisation: the cities of destination of the Swedes seemed to include not only Estonian settlements, but also closer Swedish and Finnish cities like Stockholm and Turku. In addition, assimilation also appears to have played a role in the process. Nevertheless, over the period as a whole, the Swedish minority was second only to the Russians in its recorded population growth.

The 19th century had witnessed the growth of the Jewish minority, after which it stabilised and closely followed the same trend as the Estonians. The explanation for this unexpected similarity can be found in the substantially reduced number of Jewish males in the early 20th century. It should be noted that the Jewish minority had been characterised by significant male-dominance in the 19th century (sex ratio over 130 males per 100 females). The phenomenon, at least partly, could be explained by presence of distinct community of lone-living males, mostly students and civil servants [Berendsen, Maiste 1999]. This imbalance had practically disappeared by 1922. On the background of the decreasing number of male population, the growth of Jewish female population continued, and some overall increase in the size of Jewish minority was maintained.

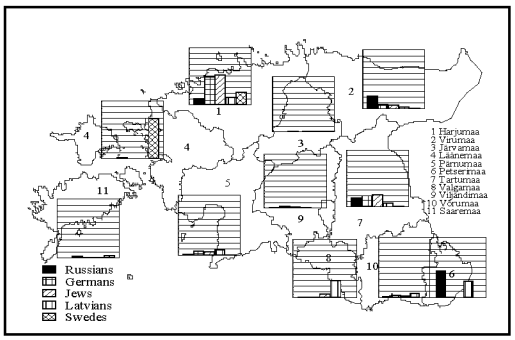
The number of Latvians in Estonia is difficult to trace before delimitation of the state boundary between the two neighbouring countries. As already mentioned, the border was drawn by the principle of ethnic territory, the careful implementation of which left six thousand Latvians in the borders of Estonia [Kübarsepp 1926]. Even from such a small number only half can be found in the bordering regions, with the remainder dispersed throughout the rest of the country. Due to the non-availability of comparable data from earlier censuses, Latvians are not represented in Figure 1. Between 1922-1934 the number of Latvians had fallen to 5,400 persons. The Latvian minority was characterised by natural decrease. Additionally, as will be discussed later, the number of children registered as Latvians was extremely low which is suggestive of assimilation operating through mixed marriages.

Throughout the fifty year period examined here, the relative growth in numbers of all the national minorities, with the exception of the Germans and Latvians, exceeded that of the Estonians. It is also clear that over the same time scale, the dynamics of population number had differentiated to a great extent. Differentiation is even more explicit in terms of the spatial distribution and demographic development, which reflect the historical formation and variations in the timing of demographic transition of national minorities.

2.2. Spatial distribution

The spatial distribution of national minorities is discussed in two dimensions, following the county-community and urban-rural division. Urban-rural division complements the social structure of national minorities. The county-community division is particularly important when national minority forms a majority on the level of administrative unit. Its significance lies in the fact, that in Estonia local communities were the principle bodies responsible for implementing policies with regard to education, health and social care, i.e. even to a broader extent than foreseen by the Cultural Autonomy Law. Figure 2 presents the spatial distribution of national minorities on county level, the data are derived from the last pre-war census [RSKB 1934].

Figure 2. SPATIAL DISTRIBUTION, 1934



Source: RSKB 1934

The Russian minority had concentrated, on the one hand, in bordering to Russia counties (Petserimaa 44.7 and Virumaa 22.3 per cent) as well as on Western shore of Peipsi Lake, and on the other hand, in the capital region (Harjumaa 10.5 per cent). The former comprised the historical Russian peasant community, while the latter was derived partly or even mostly from the former Russian administrative classes as well as from refugees. Petseri county was part of the ethnically mixed population area, where Russians formed a majority in six out of eleven communities. The Russians also comprised the majority in three trans-Narva communities in Viru county, and in the towns of Mustvee and Kallaste, located at Peipsi Lake. Reflecting the above-mentioned division of Russian minority into two socially distinct parts, Russians in Petseri county consisted of 95.7 per cent of rural population, while on the other extreme, Russians in Harju county were 92.4 per cent urban. On the average, the urbanisation degree was only 28.8 per cent, the figure being lower than for the Estonians.

The Germans, by contrast, were characterised by a very high level of urbanisation with 83.3 per cent living in cities and towns. They were well represented in all the historical towns, and to a lesser extent in urban settlements which developed in the 19th century. From the viewpoint of distribution of German minority, the larger the city, the greater the absolute number of Germans. However, when in examined in realtive terms, the proportion of Germans in city population was lower in bigger cities (3-4 per cent) with upward gradient towards smaller towns, peaking in Kuressaare (7 per cent). At the county level, the distribution of Germans in Estonia was clearly determined by the location of urban settlements with the largest concentrations being found in Harju (48 per cent) and Tartu (20 per cent) counties, surrounding the two larger cities. In total county population this translated into 3.3 and 1.8 per cent respectively.

The Swedish national minority was characterised by the concentration in insular communities and spatial compactness. In a few small islands they formed virtually the entire population. On the mainland, such compact settlement only emerged along the seaboard of Lääne county. In total, there were four communities with Swedish majority in Estonia. Despite the small population size, Swedes were the only minority, who besides Russians formed a majority on a community level. Reflecting their island character, the Swedish minority population displayed the lowest level of urbanisation (14.5 per cent). The similar pattern was reflected at the county level, with 70 per cent of Swedes living in Lääne and an additional 22 in Harju county. This concentration in Lääne county amounted to 7.0 per cent of the total county population, leaving Swedish minority below one per cent in all other counties.

The spatial distribution of the Jewish population was different from that of all other minorities. Because of their relatively late formation, they had been an exclusively urban population with 98.1 per cent. Generally, the proportion of Jews in local population was higher in the towns of southern Estonia which had been part of Livland gubernia during the Russian Empire (highest in Valga with 2.4 per cent). From the point of view of absolute numbers, however, more than a half of the Jewish population was concentrated in the capital Tallinn. In case of Estonia, the urban-rural distribution of Jewish minority should not be related to the typical urban-rural difference in social characteristics, for example, their highest urbanisation degree among national minorities was accompanied by the lowest literacy rate [Körber 1902]. At the county level, the proportion of Jews was everywhere low and nowhere exceeded one per cent of the total.

As a neighbouring nation, one might have expected the Latvians to form a high proportion or even constitute a majority in some border communities, but this is not a case. The 21.1 per cent Latvian component in Kaagjärve community was the highest recorded proportion and the 10 per cent mark was exceeded in two communities. From the perspective of spatial distribution, Latvians fell into into two parts - those inhabiting bordering areas and those who were dispersed throughout the rest of the country, mainly in the towns. Many of the latter appear to have lived in mixed marriages or to have been otherwise closely integrated into Estonian society and, as shown below, displayed the signs of assimilation. At the county level, Latvians were concentrated in Valga (contained 29.3 per cent of the minority population), Petseri (27.3) and Harju (13 per cent) counties. However, due to their small size they formed only 4.0, 2.3 and 0.3 per cent of the respective populations of those counties. In terms of urbanisation, the Latvian figure exceeded that of Estonians by more than 50 per cent.

In summary, of the five national minorities only Russians and Swedes were characterised by compact settlement, constituing in some communities a majority. In their organisational structures, not only the Cultural Autonomy Law, but also the Community Law and related legislation played a major role. By contrast, the Germans, Jews and Latvians were characterised by a more dispersed pattern of settlement. This distinction came to be of significance in the subsequent development of national minorities in Estonia.

2.3. Demographic development and population structure

In any discussion of demographic development among Estonia's national minorities, the timing of demographic transition and the spread of European marriage pattern are key factors when it comes to understanding the trends that emerged during the first half of the 20th century. Compared with the European average, timing aspects acquired a greater significance in Estonia because of its location in an area where the demographic contrasts between neighbouring nations were particularly marked. The Estonians themselves belonged to the pioneering countries of demographic transition. Some minorities in Estonia, however, seemed to follow other patterns, in line with developments in their titular countries. The timing difference has been reflected in the course of demographic processes and, in turn, has been expressed in the age structure variablity of the minority populations.

Estonia formed an eastern boundary for the European marriage pattern, which had been established by the 18th century [Palli 1988; 1996]. The onset of demographic transition in the country, which involved the almost simultaneous decline of fertility and mortality, can be traced back to the middle of the 19th century. Because of this early transition, life expectancy in Estonia was one of the highest in Eastern Europe and was close to the levels associated with those countries that were pioneers in the mortality transition [Katus, Puur 1992]. The country's fertility transition stands out for even earlier completion compared to several West European countries, with the birth rate dropping below the replacement level already in the 1920s [Katus 1994]. The concomitant changes in age structure began in 1860s-1870s, and the ageing process was quite advanced by the time of the Second World War. By comparison, the nations bordering Estonia displayed considerable variability in the timing and patterns of demographic transition. The closest similarity was with Sweden and Northern Latvia [Hofsten, Lundström 1976; Zvidrinsh 1986]. Finland, on the other hand, lagged behind Estonia by around 20 years [Strömmer 1969]. Russia and Estonia were demonstrating one of the largest, if not the most largest difference in timing of demographic development among the neighbouring nations in Europe, accounting for almost half a century [Vishnevski, Volkov 1983].

2.3.1. Demographic processes

The following discussion of the demographic processes is based on data from the 1922 and 1934 censuses [RSKB 1924; 1935] as well as vital statistics [RSKB 1922-1940]. The comparative dynamics of demographic processes for all national minorities can be traced from their crude and age-standardised rates, presented in Table 1. Compared with the Estonians, the crude death rate of the German minority was generally the highest, and that of the Jews the lowest throughout the period in question. The Swedish rate was also lower, as was that of the Russian minority during the 1920s, which thereafter fluctuated close to the Estonian level. The crude death rate of the Latvian minority displayed the greatest fluctuations consistent with their small numbers. However, further analysis shows that these differences were mainly a function of age structure variability. Hence, the age-standardised rates show that Russian mortality was actually around 25 per cent higher than for Estonians, while the mortality of other minorities was either similar to or lower than the Estonian figure. Latvians displayed the lowest level with the rate 16 per cent lower than in the Estonian population. This is explained in terms of very low Latvian fertility, and the small contribution made by infant deaths to their overall mortality level (Figure 3). Given their age structure, the same might have been expected for the Germans, however, the standardised mortality rate close or even higher than for Estonians suggest somewhat higher mortality among German minority.

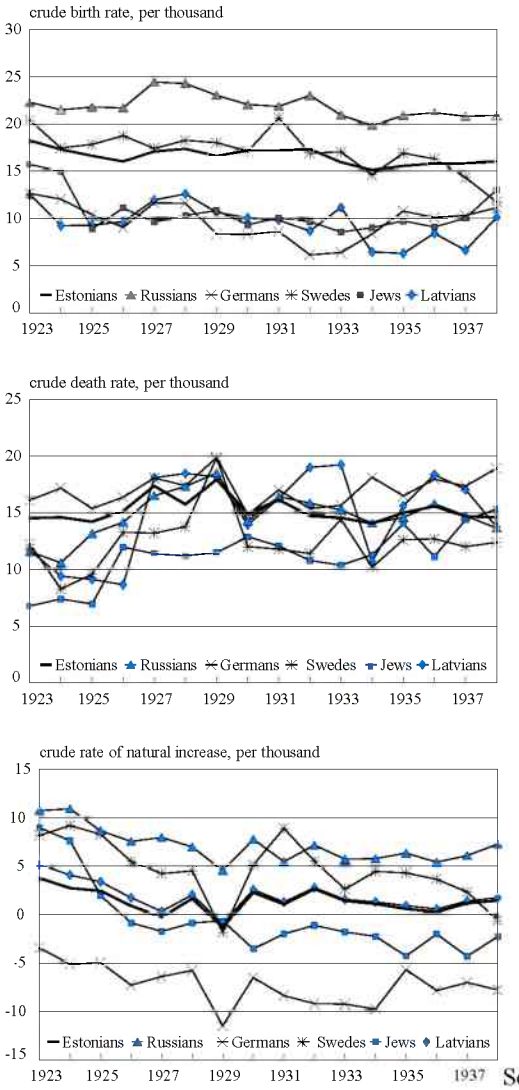
Table 1. STANDARDISED DEMOGRAPHIC RATES, 1930s

	Esto-nians	Rus-sians	Ger-mans	Swe-des	Jews	Lat-vians
Mortality, male	16.0	20.4	15.9	15.3	12.7	22.7
Mortality, female	12.9	15.8	17.6	6.9	7.4	7.3
Fertility	15.8	25.9	3.6	18.6	4.4	4.9
Marriage	7.9	9.2	4.8	4.4	6.5	4.3
Natural increase	1.4	7.8	-12.5	8.1	-5.5	-7.6

Source: RSKB 1922-1940; RSKB 1935

The differences in fertility of national minorities clearly exceeded those in mortality. Exceeding the level of Estonians persistently, Russians were characterised by the highest level. The birth rate for Swedes was higher than in the Estonian population during the 1920s, thereafter fluctuating very closely around the level of majority population. The birth rates of the three other national minorities were each around 10 per thousand and were below the Estonian level. During the 1930s, they fell even further with the Latvian rate declining to 5 per thousand, and that of the German minority also falling to a similar level for a short period of time. The age-standardised picture is again somewhat different. The impact of age structure was greatest on the Swedish rates which again, when standardised, along with those for the Russians, were higher than in the Estonian population. According to the child-woman ratio, the Swedes displayed the fertility level almost identical to that of the Russians. The explanation lies in the lower infant and child mortality rates for Swedes, compared to Russians and in general, a delayed onset of fertility transition.

Figure 3. BIRTH, DEATH AND NATURAL INCREASE RATE 1923-1938



Source: RSKB 1922-1940

The variations in birth and death rates tended to accumulate in natural increase. In this regard, it is noticeable that growth in the Estonian population was close to zero during the 1920s and 1930s, as a consequence of the early adoption of modern fertility behaviour. In this respect, all the national minorities, with the exception of the Russians, exhibited very low rates of population increase when compared with the European average for the period. Indeed, the Russians were the only minority with consistently positive rates of natural growth, and these would have been even higher if it had not been for emigration. The explanation lies in the minority's higher fertility combined with a relatively young age structure. This pattern is similar to that seen in Russia at the time where the onset of demographic transition was considerably delayed. Aside the Russians, natural increase in the Swedish minority was higher as well and relates to the fact that in their case demographic transition mirrored the English model, whereas the Estonian one followed the French model.

Evidence based on marriage rates showed that only Russians among all other national minorities had a higher propensity to marry than the Estonians. Indirectly, this is also confirmed by the above-average marriage rates for Petseri county, inhabited mainly by the Russians. Lower average ages at first marriage - 3 years lower for males and 2 years lower for females - were also recorded in that county and suggest a significant divergence from the European marriage pattern prevalent in the majority population. All other national minorities, although to a lesser extent among the Jews, were characterised by somewhat lower marriage rates than in the majority population. According to data for the early 1930s, the prevalence of ethnically mixed marriages was the lowest among Jews (6.8), followed by the Russians (18.7), Swedes (23.6), Germans (33.9) and Latvians (66 per cent) [RSKB 1937].

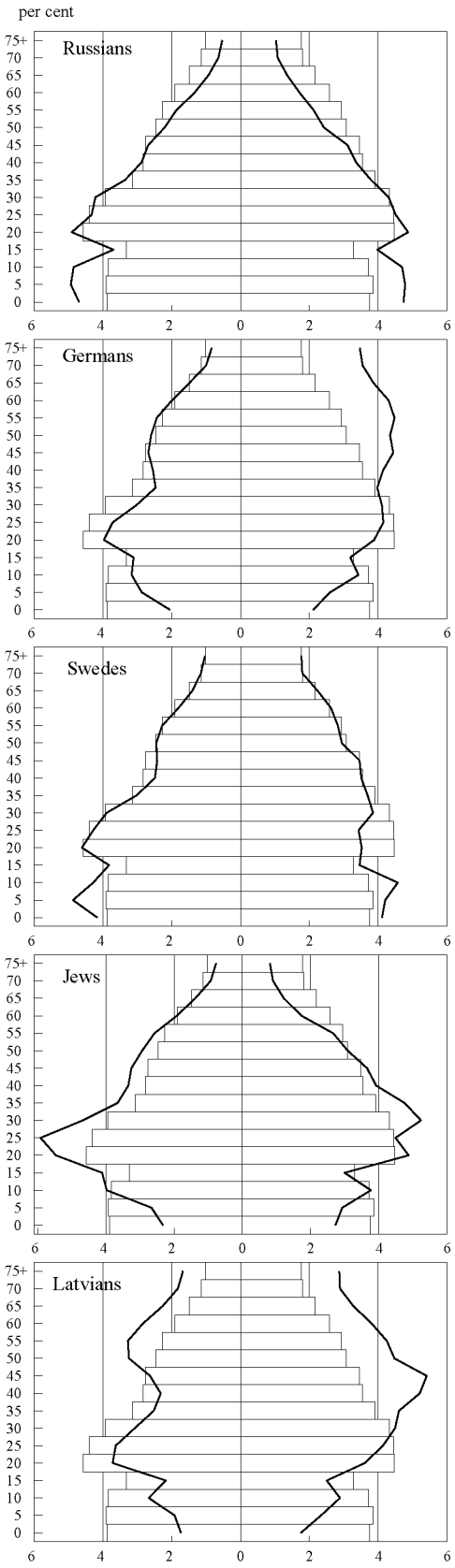
2.3.2. Age structure

Any discussion of demographic processes underlines the key importance of age structure, which exceeded the impact of demographic intensities in the first half of this century. Due to its ability to reflect and accumulate the demographic experience of successive generations shaped by the timing of demographic transition and formation of national minorities in Estonia, age structure provides a means of summarising the various patterns of the population development exhibited in the national minority populations.

The age structure of each minority is presented in a separate graph in figure 4, compared with the Estonian population. The Russian minority stood out as having the youngest population. The proportion of children between the ages of 0 and 14 accounting for nearly 30 per cent while the elderly constituted less than 10 per cent of the total. In terms of dependency ratios, this implied steep increase in child dependency combined with low level old-age dependency. Among national minorities concerned, the Russians were the only minority in which the median age did not exceed 30 years. Leaving aside war-time recession and the very youngest cohorts, their age-pyramid came closest to the classical triangular shape among national minorities. Judging by the indicators of population ageing, in terms of demographic transition Russian population lagged behind Estonians by at least a generation.

Differently from Russians, the Germans displayed a clearly distinctive pattern. While the proportion of working age population was similar to the majority, children made up only 16.2 per cent of the total. In addition, the proportion of the elderly exceeded 20 per cent and the minority's median age was close to 40 years. The lower than average fertility level for the German minority was a relatively new phenomenon at the time and the age structure suggests that at an earlier time it had not been lower compared to Estonians. The effect of gender-selective emigration during the second half of the 19th century had heavily distorted the sex ratio above age 35. From the perspective of population development, the sharp narrowing of the base of the age pyramid would have implied continuous population decrease in future years.

Figure 4. POPULATION AGE STRUCTURE
(Estonians as background) 1934



Source: RSKB 1935

The Swedes appeared to be the second minority, together with Russians, having younger age structure, although the deviation from the Estonians was much smaller. The breakdown by major age group as well as the dependency ratios revealed that this difference was related to a higher share of children among the Swedes, suggesting for a higher fertility having been sustainable in their population. Concerning the elderly, the upper end of the age pyramid was practically similar to that for Estonians.

A characteristic feature of the Jewish population in Estonia was the highest share of working age population, and consequently, the lowest dependency ratio, revealing the immigrant origin of the population. Although the proportion of elderly was close to that of Russians, it was not accompanied by a similarly high proportion of children. The low share of children may well have been caused by the selective immigration of single persons together with the relatively limited marriage market (Jewish minority was characterised by the lowest proportion of mixed marriages, as already mentioned).

The age composition of the Latvians was the closest to that of the German minority. However, the proportion of the elderly and, particularly, the distortion of sex ratio was even higher, the highest among all national minorities. Among Latvians, children constituted only 13.3 per cent, while the elderly made up 21.4 per cent of the total. Moreover, their median age exceeded 40 years which is extremely high even relative to modern populations with sustained below replacement fertility. Given the close timing of demographic transition in Latvia and Estonia, the observed gap between the ages 0 and 19 may be ascribed to assimilation. The same assimilation process may also be observed among the Estonians living in Latvia.

In general, the population processes during the 1930s and long-term trends that may be inferred from the various age structures may be summarised as follows. The Jewish minority displayed demographic development of a typical immigrant population. Largest difference in timing of demographic processes were observed among Russian population with the delayed demographic transition. The age structures of the Germans and Latvians, for rather different reasons, were suggestive of assimilation. Moreover, both groups were undergoing population decline and their age structures suggested that this trend was set to continue. The Swedes displayed in their demographic development a pattern closest to the Estonians with a somewhat different type of demographic transition common to Sweden.

2.4. The implications of the geopolitical rearrangement

The Second World War deprived Estonia of its sovereignity and left the country in the arbitrary of opposing great powers which condition, as it turned out later, lasted for more than fifty years. Due to the war and related social discontinuity, the population of Estonia suffered heavy losses. Even today, it has not recovered in numbers, forming about 90 per cent of its pre-war size. In the long-term impact it is drastic even against the background of countries like Poland and Belorussia which suffered the biggest casualties in the war. In the case of Estonia, however, excessive losses occurred to its national minorities, suffering from each of the successive three occupations in its own way. In the same way that their historical formation and demographic development was distinctive, so was their fate different in these years. Regardless of the way, the final result, however, was similar: the extinction of a national minority. Understanding the post-war trends in Estonian minority development is hardly possible without tackling this breakdown.

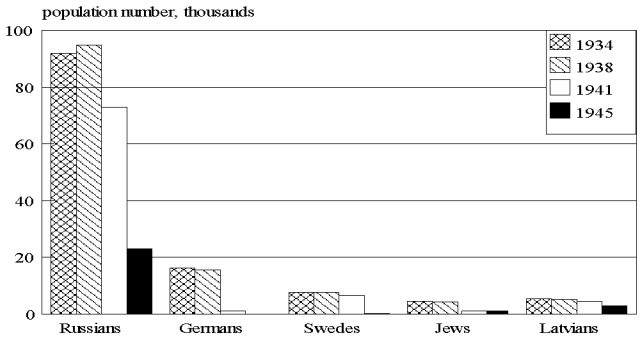
2.4.1. Disappearing national minorities

Molotov-Ribbentrop Pact (August 23, 1939) divided Eastern Europe between two expansionistic powers, leaving Estonia to the Soviet Union. By the same Pact it was agreed that the German minority could leave the countries expected to go under the Soviet rule. For the German minority in Estonia, Hitler's speech calling for Germans to return (6 October 1939), came quite unexpectedly. Further steps proceeded quite rapidly in Estonia, taking advantage of the German Cultural Autonomy register. Contemporary impressions convey a general reluctance on the part of the German minority to leave Estonia and despite the looming threat of Soviet occupation, approximately 20 per cent of those registered refused to go, the other repatriated by May, 1940 [Hehn 1982]. However, after the occupation of the country by the Soviet Union, the attitude towards repatriation changed decisively as it was the only legal way of escaping from the Soviet Union. Despite the fact that the country of destination was a belligerent, many Estonians also joined the outflow by managing to acquire the necessary permits. In the second wave of repatriation more than half were of non-German origin [Angelus 1995]. As a result, the German minority had left Estonia. However, during the German occupation, repatriants massively applied for return. The return to home was not allowed by the authorities, and the only exceptions occurred by subterfuge.

After the turn in the war, when the Soviet Union began to regain territory, one of the first steps was to find any remaining Germans to be arrested and deported. Also in Estonia, shortly after the establishment of the second Soviet occupation, about 300 persons of German origin were expelled from Estonia as a result (Directive No 1/2144, February 7, 1945). As has recently become evident from NKVD documents, even those with only one eighth German ancestry as well as those with German spouses found themselves liable for deportation. As a result of these events, no German presence was left in Estonia for the first time in 700 years.

Losses by the Jewish minority, like the Estonian population in general, started during the first Soviet occupation. The mass deportation in June 1941 accounted for nearly 10 per cent of their number, and was a significantly higher proportion than for the total population [Salo 1993]. At the beginning of German-Soviet war, Jews were given a possibility to evacuate to the other regions of the Soviet Union. Most of them left and it is estimated that only around one thousand remained in Estonia. German Nazi authorities closed Jews in Estonia into concentration camps and by 1 July 1942, Estonia was declared to be *Judenfrei* [Loov-Gurin 1994]. After the war, some Jews returned; but the available data suggest that this amounted to no more than 15-20 per cent of pre-war number, i.e. about one thousand. Due to their small size, the remaining Jewish population could not maintain its status as a minority on previous terms.

Figure 5. DYNAMICS OF POPULATION NUMBER, 1934-1945



Source: RSKB 1934-1935; RSKB 1942; Kaufmann 1967

At the beginning of the first Soviet occupation, Sweden took steps to get the permission for the Swedish minority in Estonia to leave. According to the documentary evidence, Moscow even agreed. However, in practice it was not implemented. In reality, many Swedes lost their homes, because their home islands were regarded strategically important location for the Soviet army. Like Estonians and the other minorities, Swedes were also deported although in relatively smaller numbers. The evacuation of Swedish minority came on to the agenda in 1944 when the threat of a second Soviet occupation emerged. This time Sweden negotiated with the German authorities, and despite the opposition of the German Foreign Ministry, an agreement was reached with the local German military command [Kommitten... 1950]. The Swedish minority lists were prepared according to the principles of the Cultural Autonomy Law. In the given situation, this channel was the only legal way of leaving the country granted by German authorities, and many Estonians again managed to be included on the lists [Aman 1961]. As a result of this organised evacuation, very few Swedes remained in Estonia. Together with a part of returnees of those mobilised and deported by the Soviet authorities in 1940-1941, the number of Swedes in Estonia hardly exceeded a couple of hundred. Such a small number was insufficient to maintain the continuity of the minority.

Latvian minority had already been in the 1920-1930s one of the smallest and the most integrated in the country largely as a result of mixed marriage and this trend towards assimilation was maintained over time. In addition, their numbers were further sharply decreased by the transfer of Petseri county to the Russian Federation, which contained nearly one third of the total Latvian population. As all others, Latvian minority too suffered losses from deportations, repressions and war operations. Altogether, these processes seem to have at least halved the number of Latvian minority, leaving the remainder widely dispersed throughout the country. Given these circumstances, Latvians have progressed towards the loss of their status as a national minority (Figure 5).

2.4.2. Surviving national minorities

Regarding the Russian minority, the first Soviet occupation hit most heavily on those who had earlier entered Estonia as refugees. The deportations and other acts of repression are estimated to have accounted for one third of the them. By comparison, Russian minority who were largely peasants were somewhat less affected, also when compared to the total population. The next, much sharper decrease of the Russian minority occurred in a different way, at the commencement of the second Soviet occupation. Without waiting for the war to end or the implementation of relevant international treaties, the Supreme Council of the Soviet Union was in a hurry unilaterally to establish new boundaries in 1944, transferring most of the Petseri county (23 August) and trans-Narva areas (24 November) from Estonia to the Russian Federation. The puppet authorities of Estonia were later forced to adapt these new boundaries. From a population perspective, the transfer of Petseri county and trans-Narva areas to Russian Federation involved the reduction of population by 66,500 according to 1934 census (according to the population estimates for 1944 by 56,200 [Kaufmann 1967]). As a result, Estonia lost nearly all its mixed population areas and the remaining Russian minority was now to be found mainly in the towns and on the western fringe of Lake Peipsi. It has been estimated that after the new boundaries, the Russian minority in Estonia amounted to about 23,000 [Katus 1990]. Although reduced by more than by three fourths from its pre-war size, the Russians have maintained their existence as a national minority in Estonia (Figure 5).

The Ingerians constitute a special case of a newly emergent national minority. Under the Soviet rule from 1917 on, Ingerians suffered heavily from the liquidation of farm-based agriculture, closing the national schools, other organisations and the Lutheran church. These measures were accompanied by mass repression and deportations which started in 1928 and reached a climax in 1937. During the Second World War, Ingeria became a theatre of war for three years and a number of Ingerians were evacuated to Estonia. In 1944, this was followed by the organised evacuation of more than 60,000 Ingerians to Finland via Estonia in 1944 [Kurs 1994]. According to the terms of the Finnish-Soviet peace treaty, as Soviet citizens, the Ingerians were then returned to the Soviet Union but rather than being allowed to return to their old homeland they were relocated in other areas. It was only after 1956 that they were permitted to leave the areas of deportation, but since there were still restrictions on their return to Ingeria, many came to Estonia. In summary, the Ingerian national minority in Estonia emerged as a result of the geopolitical rearrangement and reflects the extremely harsh conditions in their homeland.

In conclusion, it is clear that the geopolitical rearrangements relating to the Second World War impacted particularly hard on the national minorities and four out of the five minorities present before the War practically disappeared. Ironically, in some cases it was only the survivors of those deported to Siberia or conscripted into the Soviet Army who later returned to Estonia. The Russian minority, although reduced to a quarter of their former number, has maintained its continuity as a national minority and the inflow of Ingerians has increased their number in Estonia to be designated as a national minority.

3. DEVELOPMENT OF NATIONAL MINORITIES AFTER THE SECOND WORLD WAR

3.1. Population number

Regarding the post-war period, neither the number nor any demographic processes/characteristics of minority population in Estonia can be derived from official statistics, because of the discussed discontinuity of the statistical system. Moreover, since the regaining of independence, regular statistics on the national minorities have also not been compiled [ESA 1992-1998]. Nevertheless, the special National Minority Survey (EPU) provides a basis for the reconstruction of the missing information and thus to establish linkages with the pre-war trends described in the previous section.

The reconstruction of population size is dervied from event history data on the fertility of the national minorities collected as part of the EPU. The survey provided information on children born to each female birth cohort between 1924 and 1973. By taking into account the timing of individual births, these data can be regrouped to give annual birth estimates covering the period 1945 to 1989. To determine population numbers in any given year, the annual birth estimates must be corrected for mortality. Since only indirect estimates of mortality are available from the EPU, survivorship ratios are assumed to be the same as in the total population for the years in question [Katus, Puur 1992]. Since fertility is the principal variable here, approximating the mortality level has no substantial effect on the accuracy of the reconstruction. Additionally, figures on the precise size of the older minority cohorts and younger cohorts of all non-Estonians are available from census information and were used to control the reconstruction from both ends.

Applying this methodology to the Russian national minority suggests that it amounted to some 37,500 persons at the time of the last census. Since the corresponding figure in 1945 was 23,000, it would appear that the number of Russians has undergone substantial increase during the post-war period. The postwar fertility levels among Russians, discussed below, only partly explain the increase. Evidently, the increase in the population number stems mainly from the post-war repatriation of Russians to Estonia from Petserimaa and Trans-Narva. In addition, the population momentum derived from the comparatively young age structure of the Russians has also favoured growth. Taking into account these factors, the increase of the Russians has been the highest in the immediate post-war decade. In summary, in the period up to 1989 as a whole, the Russian minority grew by 63.1 per cent and exceeded the 15.9 per cent growth in the number of ethnic Estonians by a factor of four (Table 2). None the less, despite these trends the Russian national minority is still less than half its pre-war size.

Table 2. RELATIVE DYNAMICS OF POPULATION NUMBER, 1945-1989

Years	Estonians	Russians	Ingerians
1945	100.0	100.0	100.0
1959	107.4	...	701.8
1970	111.3	...	779.1
1979	114.1	...	746.1
1989	115.9	163.1	703.1

Source: Authors' calculation, ERA and EPU

The reconstructed number of Ingerian national minority gives an estimate of 28,900 for 1989. The reconstructed population number should be regarded as the demographic estimate of the national minority population. The number does not take account of the marked tendency towards assimilation. This trend is clearly present in the younger generation as evidenced in the minority's age structure based on the individual ethnic identification statistics from the 1989 census when a total of 16,965 persons were enumerated. The referred census data displays a very sharp reduction in the size of younger cohorts, which cannot be explained by any demographic process. Because of the extensive inconsistency in individual ethnic identification, the census estimate is of limited use for the analysis of demographic development among Ingerian national minority.

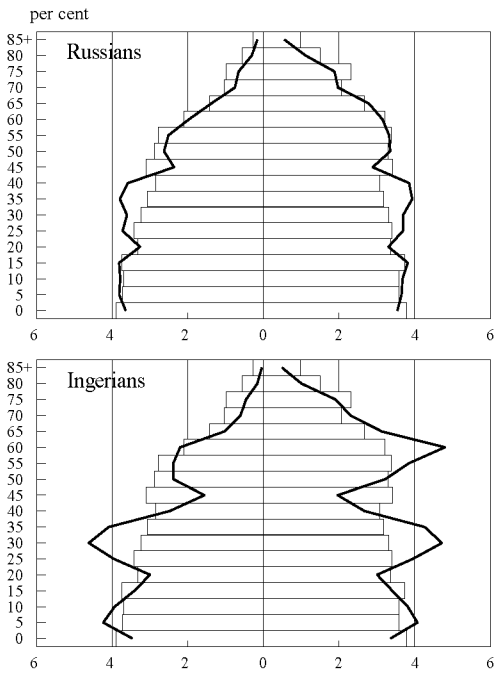
None the less, such information is available from the four post-war censuses and, despite the inconsistencies, does shed some general light on the dynamics of the minority (Table 2). According to this statistics, the number of Ingerians increased particularly rapidly during the second half of the 1950s and continued growth into the 1970s. Thereafter, a slow decline set in. Most recently, there has been a significant emigration of Ingerians to Finland during the 1990s, which peaked after President Koivisto's statement granting them the status of return migrants. Data from the EPU suggest that about 15 per cent, in absolute terms more than 4,000 Ingerians have left Estonia since 1989. This is somewhat higher than the figure given in official Estonian migration statistics but is lower than indicated by Finnish sources [Kyntäjä 1997]. It may be noted, however, that Finnish data do not always treat the country of departure in a consistent fashion and transit countries may well have been wrongly identified as primary points of departure. For instance, it is known that Estonia served as a transit country for Ingerian emigration from the Russian Federation during the early 1990s. In the recent years, the primary flow to Finland has substantially declined and a return migration has emerged.

3.2. Age structure

The major transformation of age structure of Estonians towards the modern population reproduction occurred already before the Second World War. The development of age structure can be summarised in population momentum, reflecting the contribution of age structure as a separate factor of population growth. Between 1881-1941, the population momentum declined from 1.570 to 1.109, i.e. age structure approaching rather close to the stable pattern. Correspondingly, the child-woman ratio had dropped below 1.0, the proportion of elderly in total population had reached 16 per cent and the median age of population had risen to 34.1 years in 1941 [Katus 1995]. The same general ageing trends continued through to the 1970s by which time the largest ever birth cohorts of Estonians were reaching old age. Since then, given the stagnation of mortality and the existence of at-replacement level fertility, the age structure has changed only minimally, with a slight tendency towards rejuvenation [UN ECE 1999b]. In spite of the high population losses during the Second World War and its aftermath (accounting for about 17.5 per cent of total population), the impact of political repressions, which also hit women, children and the elderly, smoothed the gaps in the age structure resulting from war casualties. Hence, whereas the effect of the First World War paradoxically can be clearly distinguished in the age pyramid, the Second World War appears to have introduced no discontinuities in the age structure. Subsequently, the absence of a baby-boom, fertility at replacement level during the 1970s and 1980s, and stagnating mortality since the late 1950s, have created an essentially stationary age structure (Figure 6).

The development of the age structure of Russian national minority, although displaying a certain time-lag, is relatively similar to the described pattern of Estonians. As discussed earlier, the time-lag was pronounced before the Second World War, but the gap has gradually narrowed during post-war decades. Still, three features of the Russian age structure compared to Estonians should be mentioned. First, the relative number of middle-aged population is somewhat larger because of higher fertility of the Russians until the late 1960s, i.e. relatively larger cohorts were born between 1950 and 1969. Secondly, unlike the Estonians, the Russian minority was characterised by fertility decline during the Second World War. Thirdly, because of differences in the timing of demographic transition and somewhat higher mortality, particularly among males, the proportion of elderly in the Russian population is slightly lower. Regarding the future, the Russian minority is expected to experience a somewhat more rapid ageing.

Figure 6. POPULATION AGE STRUCTURE (Estonians as background), 1989



Source: Authors' calculation, ERA and EPU

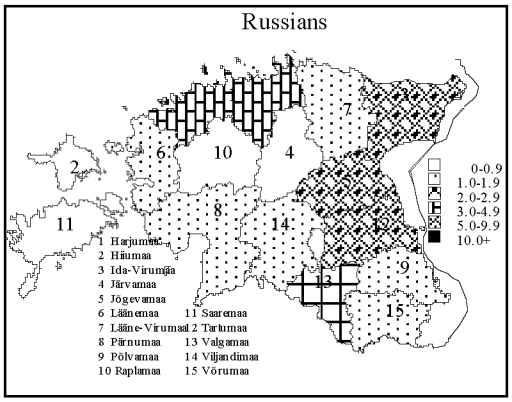
The age structure of the Ingerians reveals substantial dissimilarity from the pattern of Estonians as well as Russians. The age structure of Ingerians embeds an extensive fertility decline during the Second World War, typical to the population of the Soviet Union. However, because of targeted political repression and expulsion from their homeland, the gap in the age structure is more pronounced. Another characteristic feature is the highly distorted sex ratio in the population aged 45 and over. Up to that age the sex ratio is similar to that of the Estonians but thereafter the disparity widens rapidly and by the age of 70, there are twice as many females as males. For the same reason a comparison of older and younger cohorts yields rather different results for males and females: for example, whereas there are more than twice as many males aged 25-34 as are aged 50-59, the numbers are approximately equal in the female population. Moreover, low war-time fertility is reflected in a relative deficit 25 years later. The recent emigration of Ingerians to Finland, however, is likely to have smoothed out these irregularities. Contrary to Estonians and Russians, a comparison of the current and pre-war age structures of the Ingerians is of limited value because of the almost complete lack of continuity in the minority population between the two periods.

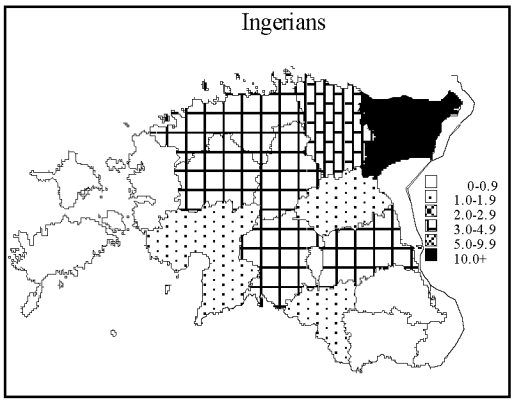
3.3. Spatial distribution

The distribution of population dealt with here mainly at the county level. Estonian counties are of similar size territorially but vary widely in population number mainly as a function of the location of the major cities. Hence, Harjumaa - the county that contains the capital city - accounts for about a third of the total population of the country. When the immigrant population is also taken into account, the unequal distribution of population at the county level becomes even more pronounced. In the following, spatial distribution is treated from two complementary viewpoints, namely, in terms of the patterns of minority population distribution across the various counties and as the proportions in the population of individual counties.

On the background of the distribution of Estonians, both national minorities are representing specific concentration. The Russian population is concentrated in four counties: Harjumaa (43.4 per cent) and Ida-Virumaa (13.4 per cent) on one hand, and Tartumaa (19.1 per cent) and Jõgevamaa (9.6 per cent) on the other hand (Figure 7). This pattern is reflecting the two parts of Russian minority and mirroring the main features of the pre-war distribution. In the post-war period the urbanisation process of the Russians has clearly been directed towards the two largest cities, Tallinn and Tartu which contain about half the total minority. From another perspective, two counties, Ida-Virumaa (9.7 per cent) and Jõgevamaa (8.7 per cent) are prominent in having comparatively high proportions of Russians in their respective local populations. At the community level, the Russian minority forms the majority in three communities located at Lake Peipsi. During the post-war period the Russian national minority has rapidly urbanised, and in contrast to the pre-war situation, the proportion of urban dwellers now exceeds the Estonian level.

Figure 7. SPATIAL DISTRIBUTION, 1989





Source: Authors' calculation, ERA and EPU

About three quarters of the Ingerian minority are concentrated in four counties: Harjumaa (33.3 per cent), Ida-Virumaa (20.8 per cent), Lääne-Virumaa (10.9 per cent) and Tartumaa (11.9 per cent). Although the county of their main concentration - Virumaa - has remained the same (31.7 per cent in 1989 compared to 67.6 per cent in 1934), the capital city has increased its share. Compared with the Russian minority, the Ingerians are more evenly distributed throughout the country and also have a presence in the island counties where the Russian population is virtually non-existent. In relative terms, the Ingerians are most prominent in the local populations of Ida-Virumaa (11.6 per cent) and Lääne-Virumaa (4.9 per cent). In all other counties their proportion is below 3 per cent. Compared with the Russians, Ingerians are less urbanised with 31.5 per cent in rural areas.

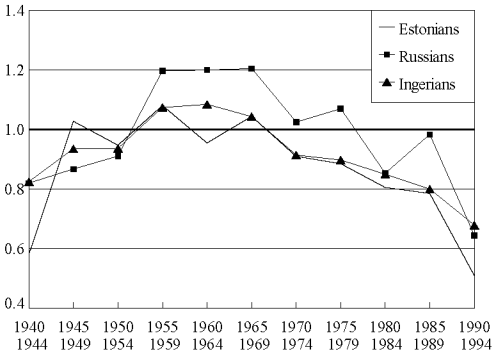
3.4. Marriage

Historically, Estonia belonged to the area where the European marriage pattern was prevalent [Hajnal 1965]. This pattern of relatively late marriage and a high proportion of population never marrying had become established in Estonia by the 18th century, distinguishing the country from its eastern neighbour [Palli 1997; Vishnevski, Volkov 1983]. However, after the Second World War, the situation changed radically as the European marriage pattern disappeared and the population moved towards earlier family formation and higher marriage rates. During the 1960s, the total first marriage rate approached a value of 1.0, and exposing sharp juvenation of marriage, even exceeded that level in the second half of the decade. By the 1980s the rate had more or less stabilised and the decline in the mean age at first marriage came to a halt, bottoming out at around 24-25 years of age for males and at 22-23 years for females [Vikat 1994]. The 1990s have witnessed a sharp decline in annually registered marriages. Total first marriage rate, taking into account only legal marriages, had fallen to 0.35 by 1996, when it was among the lowest in Europe alongside Iceland, Latvia, Norway and Sweden [Council of Europe 1998]. A sharp drop of marriage rate to such low levels has been associated with the postponement of marriage as well as an increase in cohabitation.

3.4.1. Trend and timing of marriage

The reconstructed time series of period indicators reveals three distinct periods of marriage development. Typical of European countries in general, marriage increased rapidly up to the late 1950s, reflecting changes in behaviour as well as the normalisation of societal conditions. The marriage rate remained remarkably high for the next 10-15 years with the total first marriage rate exceeding 1.0 (Figure 8). Such a level reflected a period effect of rapid juvenation of marriage, which in long run could not have been sustained. By the end of 1960s a continuous and substantial decline in marriage had set in. During the late 1980s and particularly in the 1990s, the decline accelerated reflecting a new alteration of marriage behaviour.

Figure 8. TOTAL FIRST MARRIAGE RATE, 1940-1994



Source: Authors' calculation, EPU

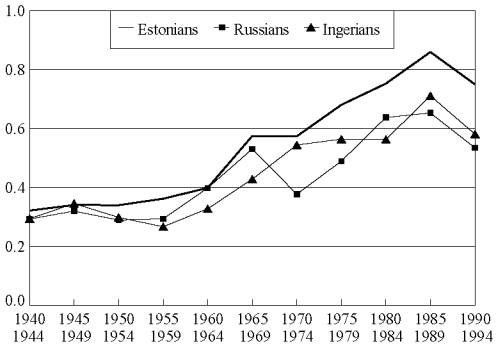
Against this general background, significant differences in marriage intensity may be observed. The total first marriage rate has been consistently higher in the Russian minority than in the other two population groups, and harks back to the more traditional matrimonial behaviour of earlier periods. Although the Ingerian rate is also higher than in the Estonian population, the disparity is smaller. Moreover, the 1990s downturn in marriage rates seems to have been less sharp among both Russians and Ingerians. Since the decline in first marriage rate is more to do with the postponement of marriage rather than in cohabitation, this suggests that consensual unions are less prevalent in both national minorities. This is discussed more fully below. The distinctive behaviour of the two minorities is more explicit in the timing of family formation.

3.4.2. New family forms

The development of marriage and family in recent decades has undergone a gradual transformation in these social institutions and the modification of existing forms of families, particularly concerning the first union. The most widespread new type of family is consensual union but there are also other emerging forms like living apart together etc. Although practiced already in earlier decades, there has been a steady rise in the number of consensual unions among Estonians whose marital behaviour has traditionally followed the Baltoscandian pattern. For example, young people now enter consensual unions at a rate comparable with Sweden and Denmark, countries usually considered to be at the forefront of new matrimonial behaviour. Marriage follows later, and is usually related to the childbirth.

Cohabitation has also increased among the Russians and Ingerians, although the proportion of consensual unions has been persistently lower in both minorities. The data also reveal that the difference is greatest between Estonians and Russians whereas Ingerians are located between the two. Combining the various post-war marriage cohorts,shows that the average number of life-time unions, at between 1.16 and 1.18, is similar in all three populations, of these unions, among Estonians close to two thirds have started out (but, of course, much less frequently remained) as consensual unions. That consensual unions have become a mainstream behaviour of family formation can be seen from the trend in the total first consensual union rate since the 1960s (Figure 9). Both Russians and Ingerians display a pattern similar to that of Estonians, although the pace of the process in the two minorities has somewhat slowed down since the 1970s, especially among the Russians.

Figure 9. TOTAL FIRST CONSENSUAL UNION RATE, 1940-1994



Source: Authors' calculation, EPU

The diversity of family forms has been promoted by the growing frequency of divorce. The divorce rates in Estonia have been rather high over the recent decades and about half of all the marriages contracted end in divorce [Vikat 1997]. During the 1990s, the sharp decline in marriage rate together with the increase of divorce has created a unique situation whereby the number of divorces has exceeded the number of marriages. Against this general background, while the two minorities have exhibited similar divorce rates, they have generally been rather higher than among Estonians. In the light of the evidence suggesting that marital behaviour on the part of the two minorities tends to be more traditional, this is an unexpected finding. It may be that lower stability exhibited by these unions is related to their greater heterogeneity. Needless to say, the prevalence of new family forms is closely related to the spread of extra-marital fertility and greater diversity of household structure.

3.4.3. Mixed marriages

Family formation plays an essential role in transferring the minority identity from one generation to another, particularly when populations are small and/or lack compact settlement areas. The maintenance of minority identity is secured when both the mother and father belong to the same ethnic group, but may well involve a change of identity in mixed marriages when one parent comes from a different background.

In this respect, the development of Russian and Ingerian national minorities appears rather different. Owing to their more compact and continuous pattern of settlement, the Russians, as would be expected, display a much higher level of intra-group marriages. Close to two thirds of unions were contracted between ethnic Russians, one fifth were with an Estonian partner and the remaining 14 per cent with partners of other ethnic backgrounds (mostly Slavic: Ukrainian and Belorussian). Across cohorts, a slow increase in the proportion of mixed marriages can be observed. The proportion of mixed marriages among Ingerians is much higher. On average, only around 8 per cent of unions are contracted inside national minority population. The Ingerians are most likely to marry Estonians (51 per cent), while 32 per cent involve Russian partners and 9 per cent partners from another ethnic background. Across cohorts, the proportion of intra-group unions drops from one fifth in the case of those born in the 1920s and early 1930s to almost nil in the youngest generation. This development can be explained by the combination of relatively small numbers, a dispersed settlement pattern and a long tradition of mixed marriages in the parental generation.

These patterns clearly imply very different prospects for the future development of the Russian and Ingerian national minorities. Judging from the ethnic self-identification of children reported by their mothers, only about one third of children born to Ingerian women explicitly identify with the minority population whereas the corrresponding figure for the Russians is nearly four fifths. In both national minorities, the proportion of children who identify themselves as Estonian is very close to the proportion of mixed marriages involving an Estonian partner.

3.5. Fertility

The early beginning as well as relative regional homogeneity of the fertility transition in Estonia provides the general context within which the individual trends for the two national minorities, but especially the Russians, should be assessed. Despite originating in a neighbouring region, the somewhat later timing of the fertility transition among Ingerians has a traceable impact to this day. Also, the unusual phenomenon to pioneering European nations in fertility transition - the absence of a post-war baby boom in Estonia - is an additional factor that should be taken into account. For the majority population, period fertility remained below replacement level throughout the forty year period 1928 to 1968, but the level was never more than 10-15 per cent lower, even during the war and the period of repressions. However, the pattern changed at the end of the 1960s when Estonian fertility climbed to replacement level where it remained with slight fluctuations to the end of the 1980s.

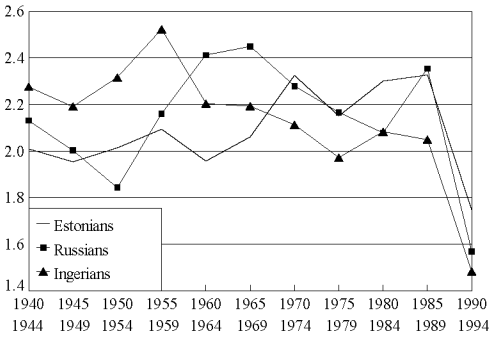
3.5.1. Fertility trend and level

Generally speaking, the fertility level of both national minority populations has been relatively close to that of Estonians, however, for certain periods some differences are displayed (Figure 10). As has already been stated, the fertility transition in the Russian minority lagged behind that of the Estonians, but exposed large timing difference with neighbouring regions of the Russian Federation. Accordingly, the fertility decline in the Russian minority associated with the final stages of transition during the 1940s and 1950s was not mirrored in the Estonian population which had completed the process earlier. For a short period Russian fertility actually dropped below that of the Estonians but then recovered. Like the Estonians, Russian fertility remained at or slightly above replacement level for a long period up to the 1990s. It is interesting to note that the fertility of the post-war immigrants of Russian origin experienced rather different trend: continuously declining and dropping below replacement level in the 1960s [UN ECE 1999a]. In this regard, the Russian minority is very clearly characterised by the fertility development closer to the Estonians than the post-war Russian immigrants.

In terms of fertility, the Russian minority is heterogeneous itself. The old-believers have exhibited a somewhat higher fertility throughout the period, particularly those living concentrated in the region of Lake Peipsi. The urban-rural differentials in this region are unimportant, however, when the people leave the region of compact settlement and move to other regions of Estonia the systematically higher fertility levels tend to disappear. Despite the old-believers' somewhat higher fertility, its trend is matching with the general dynamics of the minority group as a whole.

Ingerians are characterised by another fertility trend which appears unsimilar to majority population and Russian minority, but resembles that prevailing among the immigrant population. Beginning in the mid-1950s, the Ingerian fertility underwent continuous decline up to the early 1980s only to be followed by a decade of marked growth. More or less the same trend characterised the immigrant population, particularly the fertility increase of the 1980s. One clear difference is the relatively low level of Ingerian fertility between 1940 and 1954, although it was still noticeably higher than in the Estonian and Russian populations. Given the experiences of Ingerians during the 20th century this difference is not surprising. Moreover, their fertility in the 1940s-1950s is evidently overstated because of selectivity: smaller families were less likely to be represented in the next generation and therefore of being selected for inclusion in the survey. In addition, that part of the population which did not survive probably also experienced lower fertility levels. It should be remembered that the number of Ingerians in Ingeria in the 1920s was estimated about 170 thousand, and underwent sharp decline during the Soviet period [Kurs 1994].

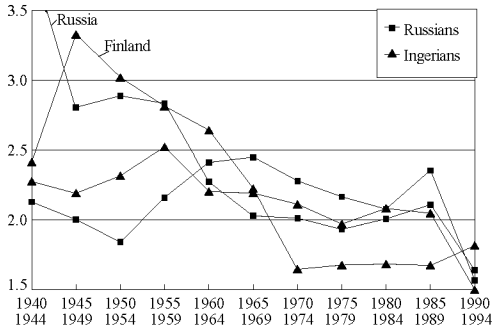
Figure 10. TOTAL PERIOD FERTILITY RATE, 1940-1994



Source: Authors' calculation, EPU

It is also useful to compare the respective fertility trend of the two national minorities in Estonia with that in the corresponding titular country, i.e. the Russian Federation in case of the Russian minority and Finland in case of the Ingerian minority [Andreev, Darskii, Harkova 1998; Goskomstat 1998; Notkola 1989; Council of Europe 1998]. In fact, the fertility transition in the Russian minority was significantly more advanced than in Russia proper (Figure 11). Although their fertility transition was somewhat later than that of Estonian as referred to earlier, it was still several decades ahead of the Russian Federation. It is particularly noteworthy taking into account that even the bordering oblasts of Pskov and Novgorod exhibited the same fertility trends as for Russia as a whole and lagged behind the Estonians by about half a century [Katus 1997; Barkalov, Dörbritz, Kirmeyer 1998]. These disparities between the trends of the Russian minority compared with those of the Russian Federation (as well as of the immigrant population originating from that country) were still apparent through the 1960s and into the 1980s. During those decades the fertility of the Russian minority was consistently higher. Only the sharp fertility decline of the 1990s has typified both groups.

Figure 11. TOTAL PERIOD FERTILITY RATE, (titular countries as background), 1940-1994



Source: Authors' calculation, EPU

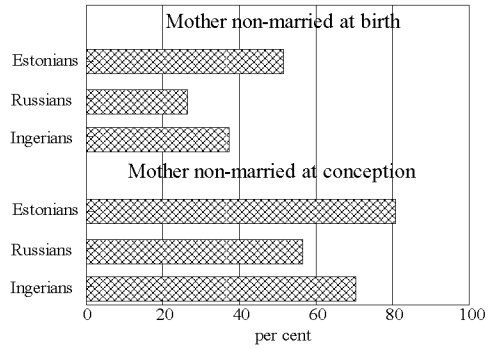
The fertility trend of Ingerians has also been noticeably different to that of Finland. In the late 1930s the fertility levels seemed to be close to each other (longer period should be studied to get a substantial evidence) but subsequently diverged. Like most of the European nations with low fertility before the Second World War, Finland experienced a marked post-war baby-boom [Festy 1984; Sardon, Calot 1997]. No such trend emerged among the Ingerians if the small rise in fertility during the mid-1950s at the end of their forced displacement is discounted. Subsequently, Ingerian fertility has followed a declining trend but this was even sharper in Finland during the 1950s-1960s, with the result that Ingerian fertility exceeded the level in Finland during the next twenty years. Following the sharp decrease in fertility during the 1990s the pattern reversed. Notwithstanding these differences, however, Ingerian fertility trends have been much closer to those exhibited by the Finnish population than have those of the Russian minority been to the trends exhibited by the Russian Federation.

3.5.2. The timing of childbearing

The change in the timing of fertility has been significant characteristics of the Estonian fertility trend since the Second World War. There has been a tendency towards continuous juvenation of fertility, as shown by the downward movement in the median age at first birth. It is evident that both national minority populations as well as the Estonians have experienced this trend at more or less the same speed. The difference in median age at first birth for women born between 1924 and 1928 of both national minorities compared to the majority population was about a year, and this difference has been maintained throughout the period under examination. Evidently the shift towards younger agesjuvenation took place because of the disappearance of the European marriage pattern, which had been characteristic to all three populations. The immigrant population of the country was rather different in so far as it originated from the eastern side of the Hajnal line, as referred above.

3.5.3. Non-marital fertility

Figure 12. NON-MARITAL FERTILITY 1990-1994



Source: Authors' calculation, EPU

The Second World War and societal rearrangements dissolved many families and implied a high proportion of children were born outside marriage in all those European countries that were incorporated into the Soviet Union. In other words, the very high proportion of children born outside marriage among older cohorts is more a reflection of a disordered society than the emergence of new matrimonial behaviour. As conditions in society were normalised, the proportion of extra marital births declined only to rise again later. The Estonian population has been at the forefront of this process followed by the Ingerians (Figure 12). Although the proportion has been somewhat lower and the subsequent increase started later among the Russian minority, these features are still more pronounced than in many other non-Baltoscandian nations.

The growing trend towards births outside marriage does not, however, imply an increase in one-parent families. In all three populations the proportion of children born outside a stable union has been virtually constant at 8-9 per cent for the whole period examined, with a slight decrease. In other words, the difference in proportion of births outside marriage is an indicator of popularity of consensual unions and other new forms of family rather than of single parenthood.

3.6. Family planning and abortion

Live births are not the only possible outcome of pregnancy, the next most frequent outcome is usually induced abortion. Given its implications for reproductive health and the experience of good reporting in survey statistics in Estonia [Anderson et al 1994], the relevant data were also collected for the national minorities.

The fertility transition in Estonia was accomplished by the use of traditional methods of fertility control. Among the Estonians born during the 1920s, characterised by below replacement fertility, the total abortion rate was relatively low but this increased rapidly with each successive generation and peaked in the birth cohorts of the 1940s and early 1950s when it reached a level of 1.3-1.5 lifetime abortions per woman. The increase in the number of abortions, however, had no effect on the fertility level, which suggests that abortions did not replace live births but rather reflected limited access to and deteriorating knowledge of contraceptives during the Soviet period [UN ECE 1999a]. The shortage of modern contraceptives continued up to the end of the 1980s. Nevertheless, starting with the cohorts born during the 1950s, the total abortion rate is now declining.

Despite the abortion rate untypically high to European nations, it happens to be rather similar to all three populations in Estonia. On the background of the referred trend, Russian national minority has featured persistently higher abortion rate on the average, exceeding the Estonian level by nearly a quarter. In absolute terms, Russian women born before the 1950s had up to 0.5 abortions more than Estonians. Notably, the disparity seems to be the largest when the levels of abortion are the highest and is narrower in younger cohorts, although amongst the youngest women of all it is again wider. Regarding the internal heterogeneity of Russian minority, women from an Orthodox background have tended to use abortion more frequently. The abortion rate for the Ingerians has nearly been coinciding with the level of the Estonians, i.e. being lower compared to the Russians. However, starting from female cohorts of the 1950s Ingerian abortion rate also consistently exceeds that of Estonians.

Some explanation for the higher abortion rates among the Russian minority can be found in their contraception usage, particularly combined with an earlier onset of sexual activity. The use of modern contraceptives has been the lowest among Russian minority, amounting to about 80 per cent of the Estonian level. Usage by the Ingerian minority is somewhat higher but also lags behind that of the Estonians. While the use of traditional methods is quite similar across populations, the largest difference is to be found in the proportion of women who reportedly had never used contraception. For both the Russian and Ingerian minorities, the decline in the proportion of non-users has proceeded more slowly and has not dropped to the low levels seen among Estonians.

3.7. Mortality

Although the EPU provides relatively little information about mortality, it is possible to estimate the relative level of infant/child and adult mortality using indirect methods. Infant and child mortality, measured here as the proportion dying under the age of 1 and under 15, has been compared across three birth cohorts, for those born between 1920 and 1939, 1940 and 1959, and 1960 and 1979. Mortality in the two minority populations appears to be consistently higher, with the exception of infant mortality among Russians born between 1940 and 1959. In the generations born before 1959, Ingerians infant and child mortality is particularly high, exceeding the Estonian level by 40-50 per cent. Evidently, such a high mortality of Ingerians reflects the impact of repressions and war casualties. Child and infant mortality of the Russian minority has been somewhat closer to the Estonians with the mortality level 15-30 per cent higher (Table 5).

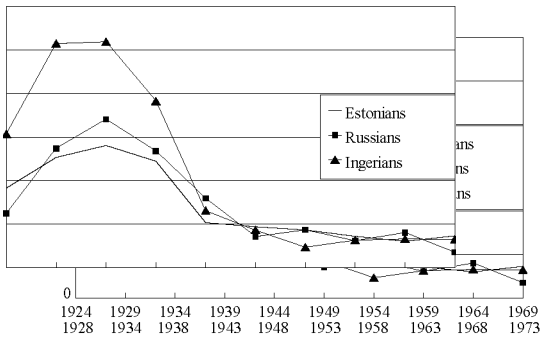
Table 5. INFANT AND CHILD MORTALITY, birth cohorts 1920-1979

	Esto-nians	Rus-sians	Inge-rians
Probability of death until age 1			
1920-1939	0.0523	0.0574	0.0816
1940-1959	0.0509	0.0452	0.0708
1960-1979	0.0167	0.0307	0.0265
Probability of death until age 15			
1920-1939	0.1093	0.1340	0.1799
1940-1959	0.0708	0.0904	0.1234
1960-1979	0.0259	0.0368	0.0371

Source: Authors' calculation, EPU

Differences in adult mortality have been estimated from joint survival of generations, using the information on the survival of parents until the 14th birthday of their children (Figure 13). This approximates the adult survivorship in the ages up to 50, conditionally for the age range 15-49. The data reveal very high adult male mortality among the Ingerian national minority during the first half of the 20th century, with nearly one third of those born in the 1920s losing their father before their 15th birthday. Parental mortality was even higher for those born during the 1930s with more than half experiencing the death of father during their childhood. In life table terms such levels of mortality translate into 50 per cent of the male cohort dying within the age range of just fourteen years, and imply extremely low life expectancy. There is no evidence that other age groups have fared any better. Although less pronounced than in the male population, significant excess mortality also prevailed among Ingerian women.

Figure 13. ADULT MALE MORTALITY, birth cohorts 1924-1973



Source: Authors' calculation, EPU

The sharply raised level of parental mortality among Ingerians born during the 1930s discounts the hypothesis of a delayed mortality transition. Nor can it be explained by population losses caused by military activities. This is clearly evident from the survey data and is also consistent with the evidence from the Polish FFS, which suggests far less family disintegration in Poland, despite sustaining some of the highest war losses in Europe [Holzer, Kowalska 1997]. As already discussed, the main cause would appear to have been political repressions over almost two decades, resulting in manifold reduction of the Ingerian population.

Adult mortality in the Russian national minority and among Estonians was about half the Ingerian level during the period in question, although both exhibited a rising trend in parental mortality. Moreover, the difference between the Russians and the Estonians was small with overlapping male mortality rates but somewhat lower female mortality among the Russians. Although the levels of parental mortality of those born during the 1950s and later seem to have converged in all three populations, this has occurred against a background of prolonged mortality stagnation for more than 35 years in the population as a whole [Katus, Puur 1992; 1997].

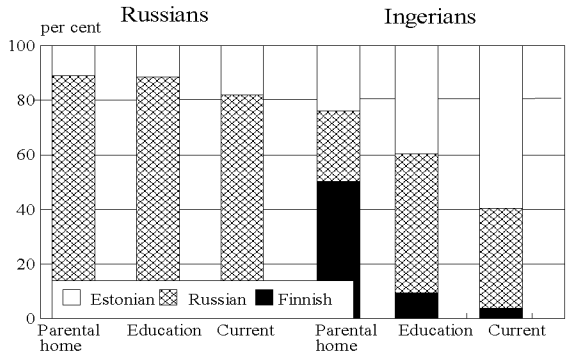
3.8. Ethnic-specific population characteristics

The present section focuses on language, religious affiliation and citizenship which yield information on trends in the identity development of minority populations over time. In the context of Estonia, particularly the importance of language, which has historically been the most important component of national identity for majority population, should be underlined. Moreover, it is these characteristics that pick out any heterogeneity that might be present in the two minority populations.

3.8.1. Usual language

Usual language reveals significant differences between the Russian and Ingerian national minorities (Figure 14). Among Russians, 82 per cent normally use their native language, with 18 per cent using Estonian. The prevalence of other languages was virtually non-existent. A comparison of successive cohorts of Russians reveals a slow but continuous tendency to switch to the Estonian language. Hence, whereas about 15 per cent of those born during the 1920s referred to the Estonian as their usual language this had risen to more than 20 per cent among those born in the 1950s and 1960s. This is a rather surprising trend considering the promotion of Russian as the official language of the former Soviet Union as well as the massive Russian-speaking immigration into post-war Estonia, and clearly distinguishes the Russian national minority from immigrants of the same ethnic background [Katus, Sakkeus 1993]. Combining this information with corresponding data for the parental generation extends the time-series back to the first decades of the 20th century when native language was spoken at least 93-94 per cent of Russian minority population. Since the language spoken in the parental home and the language of education closely coincide, the switch to Estonian on the part of some Russians is likely to have occurred later in life, particularly as a result of ethnic intermarriage.

Figure 14. USUAL LANGUAGE
birth cohorts 1924-1973



Source: Authors' calculation, EPU

The language development of Ingerian minority appears principally different. Among the Ingerians, Finnish is only of marginal importance as the minority's usual language with less than four per cent now speaking it regularly. The erosion of the use of Finnish is particularly evident from a cohort perspective. Hence, Finnish was spoken by as many as 90 per cent of those born at the beginning of the century, when it held a similar position to the Russian language among the Russian minority. The almost total shift away from Finnish in just two generations is hardly the result of the normal processes of development and relates directly to the Ingerian's loss of their homeland referred to earlier. The lack of any concentrated area of settlement within Estonia also clearly contributed to this process.

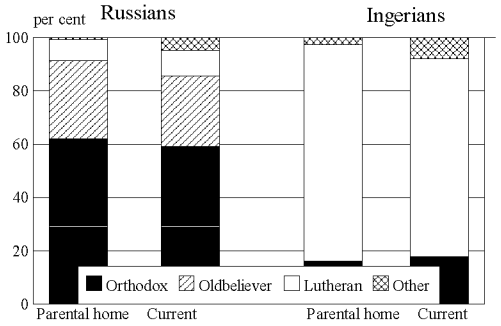
At the present time, about 60 per cent of Ingerians have adopted Estonian as their usual language, *inter alia* supported by linguistic closeness. On the other hand, significant proportion (about 40 per cent) of Ingerians have switched to Russian as usual language. A cohort analysis reveals a steady increase in the use of Russian over time, rising from about a quarter among those born during the 1920s to nearly half in the 1960s and 1970s generation. This switch to Russian was rooted in the campaign against national minorities in Soviet Russia, which began in the 1930s and involved closing all national schools, cultural and religious organisations etc [Kurs 1994]. The dispersion of Ingerians to remote regions of Russia changed radically their socialisation environment. The effect of such policies is clearly visible in language of education: over a half of Ingerian minority has received primary education in Russian-language schools. That compulsion was involved in this process is suggested by the fact that the language of schooling was not only different from the language spoken in the parental home but also from the language used in later life. In addition to this, the growth in the use of Russian may well also be related to the selective migration of Ingerians from Estonia to Finland in the 1990s [de Geer 1992]. Understandably, in the longer run, these different language trends are likely to lead to a divergence in the perspectives of the two national minorities.

The information on usual language can be supplemented by data about knowledge and usage of other languages. Slightly more than a quarter of both the Russian and Ingerian minorities use more than one language in their household. Among Russian minority, this only involves the parallel use of Russian and Estonian, but in the case of Ingerians three language combinations are common: Estonian and Finnish (6 per cent), Russian and Finnish (5 per cent), Estonian and Russian (20 per cent). In addition, over 90 per cent of Ingerians and Russians reprted a widespread knowledge of Estonian, which distinguishes them clearly from post-war immigrants. Unlike European immigration countries, at the last population census only about 15 per cent of foreign-borns had a knowledge of Estonian [Katus, Sakkeus 1993].

3.8.2. Religious affiliation

Despite the general trend towards secularisation and a half-century of atheism under a Communist regime, both the Russian and Ingerian national minorities have maintained their distinct religious affiliations. About three fifths of the Russian minority identify with the Orthodox tradition and around 30 per cent (up to 40 per cent in the older generation) are comprised of old-believers (Figure 15). In addition, a small, but somewhat increasing proportion of Russian minority are Lutheran (10 per cent), while the remaining 5 per cent belong to other denominations - Roman Catholic, Baptist and so on. The slow shift from the use of Russian to the Estonian language discussed above is also paralleled by a slight increase in the number of Russians identifying themselves as Lutheran as one moves from older to younger cohorts. Yet, the role of the parental home in determining religious affiliation is stronger than with language and conversions seldom occur.

Figure 15. RELIGIOUS AFFILIATION
birth cohorts 1924-1973



Source: Authors' calculation, EPU

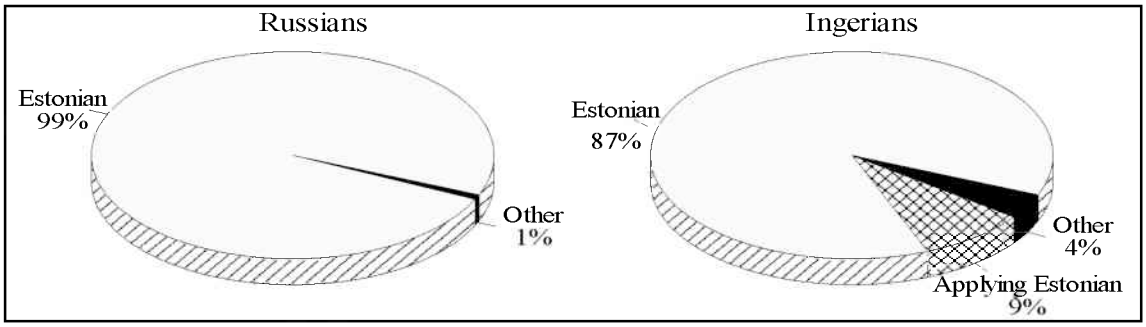
The most important distinction within the Russian minority is between the adherents of Orthodoxy as opposed to the old-believers, which dates back to a Church reform in Russia during the 17th century In 1685, the supporters of old religious tradition were outlawed and forced to flee the country. In contrast to the Lutheran Reformation, the Russian Orthodox Church became more centralised and authoritarian in the process. Old-believers first settled in Estonia in the 1720s and 1730s along the western fringes of Lake Peipsi and subsequent immigration proceeded in several waves up to the mid-19th century [Richter 1976]. A tradition of tolerance on the part of Estonians and local administration has allowed the old-believers to maintain their beliefs and cultural traditions in Estonia for more than two centuries. As has already been discussed in other sections of this report, Russian Orthodox and old-believers still distinctive over a whole range of demographic and social behaviour. The recent case-study of the population of Jõgevamaa county shows that the same differences are also maintained at the level of small administrative units [EKDK 1998].

In terms of religious affiliation Ingerian minority is more homogeneous than Russian and almost three quarters are Lutheran, with less than 20 per cent Orthodox and 8 per cent belonging to other traditions. A cohort analysis suggests a significant shift towards the Orthodox faith. Among those born around the turn of the century, for example, more than 90 per cent were Lutheran but by the 1960s and 1970s generation this had dropped to under two thirds and nearly one third were Orthodox. Although slightly less extensive, this shift in religious affiliation closely mirrors similar trends in the language spoken: being Lutheran is virtually synonymous with speaking Estonian as the usual language, whereas being Orthodox implies at least an 85 per cent chance of a switch to Russian. Similarly to the Russian minority, the distinction according to religion/language characteristics refers to the heterogeneity of the Ingerian population.

3.8.3. Citizenship

Citizenship characterises the legal ties with the country of residence. Regarding the Russian minority, more than 99 per cent have Estonian citizenship. Because of the discontinuity of the Estonian statehood, all of the Russian minority had an opportunity to apply for Russian citizenship and one per cent has taken advantage of that (Figure 16).

Figure 16. CITIZENSHIP
birth cohorts 1924-1973



Source: Authors' calculation, EPU

Since Ingeria is part of Russia, the overwhelming majority of Ingerians really had to make their own choice about their citizenship. 96 per cent of Ingerians had applied for Estonian citizenship and 87 per cent of requests have by now been granted. According to the Ingerian Cultural Society the remaining 9 per cent are mostly late applicants, whose documents are currently being processed. In addition, 4 per cent of Ingerians have opted for Russian citizenship owing to location of their homeland. From a legal viewpoint the situation of Ingerian minority is similar to that of the immigrant population, but in contrast to the latter, most have already settled their legal status.

3.9. Other population characteristics

This section focuses mainly on educational attainment, economic activity and housing conditions (Table 6). Like most other European countries, Estonia has seen a remarkable rise in educational attainment during the time-span of the project. Although this also holds generally true for the two minority populations, the proportions of Russians and Ingerians with secondary and higher education qualifications are somewhat lower than among Estonians. Among Russians, the difference is most obvious in the case of old-believers with, relatively speaking, over 50 per cent fewer university graduates than among those of the Orthodox faith. Evidently, the lower level of education of the old-believers stems from their concentration in the areas of compact settlement with a more traditional economic structure and limited work opportunities for people with higher education. Therefore, young people with the orientation towards prolonged schooling have been more prone to leave these areas to take up residence in big cities. To the extent that this process has also been associated with a weakening of their cultural and religious identity, it can provide a further explanation for the lower educational attainment of old-believers.

Comparing the two national minorities with each other, lower educational attainment is characteristic to Ingerians. The difference is particularly marked in the cohorts born in the 1930s and earlier. Evidently, this is a pattern that not only relates to the less developed school system in Ingeria before the Second World War but also reflects political repression perpetrated against the national minority. It is clear from the post-war experience of Estonians that repression impacts disproportionately on the better educated groups [EKDK 1995b]. Although the educational disadvantage at the secondary level has disappeared in the younger generations, the disparity in tertiary education has been preserved and is indicative of the long-term effects of the earlier adverse circumstances.

Table 6. EDUCATIONAL, OCCUPATIONAL AND HOUSING CHARACTERISTICS
birth cohorts 1924-1973

	Estonians	Russians	Ingerians
Education,%			
Higher	17.5	11.9	10.5
Secondary	56.1	46.5	51.6
Lower	26.4	41.6	37.9
Main activity,%			
Employed	74.3	40.5	53.1
Unemployed	6.7	6.8	6.8
Student	0.1	0.5	0.8
Pensioner	18.4	46.3	32.9
Housewife	0.6	5.9	6.4
Dwelling type,%			
House	36.4	35.0	19.9
Apartment	63.6	64.9	80.2

Source: Authors' calculation, EPU

Regarding economic characteristics, generalisations over longer time are more difficult to make because of the economic transition. Judging from the level of unemployment rate, the minority populations have been somewhat less successful in adapting to the rapidly changing conditions. Hence, the unemployment rate of the Russian minority was 14 per cent and that of Ingerians 11 per cent compared with 7 per cent in the Estonian population, although the figures are not directly comparable given the variations in settlement pattern and economic structure. For example, unemployment is the highest among Russian old-believers but the same rate is observed in the Estonian population in areas of similar economic structure. By contrast, the rate among Ingerians of Lutheran faith is 9 per cent, and is not significantly different to the Estonian figure [Puur 1997]. The hypothesis that the underlying sectoral distribution is an important explanatory factor is supported by the generally lower unemployment rate of Ingerians whose occupational structure is much closer to that of Estonians than to the Russian minority.

An insight into the daily environment of the national minorities is provided by their housing characteristics. Housing forms an important constituent of household wealth, particularly under the conditions of the transitional economy where rapid inflation has eroded the value of savings and other types of financial asset are non-existent. Apart from labour market characteristics, since housing conditions cannot be changed rapidly, they also capture many persistent minority characteristics. In Estonia, the essential differential in housing is between that part of the population that lives in family homes and those residing in apartments. In this regard, data indicate that more than one third of the Russian minority resides in family houses, rising to over 40 per cent in older generations. Given the somewhat higher degree of urbanisation of the Russian minority, these figures are quite similar to those for Estonians. However, there is considerable heterogeneity across religious dimension: close on two thirds of old-believers live in family houses. This pattern is not accounted for by structural factors like a concentration of old-believers in rural areas, but reflects their way of life [EKDK 1998].

Compared with the Russian minority and Estonian population, a considerably lower proportion of Ingerians live in family housing. This is a disparity that stems from their specific pattern of development and is actually greater, given the high proportion of rural dwellers among Ingerians. Similarly to Russians, they also display considerable heterogeneity in their housing by religious affiliation and language; hence, less than 7 per cent of those that identify with the Orthodox tradition live in family houses, compared with three times as many Ingerians who are Lutheran.

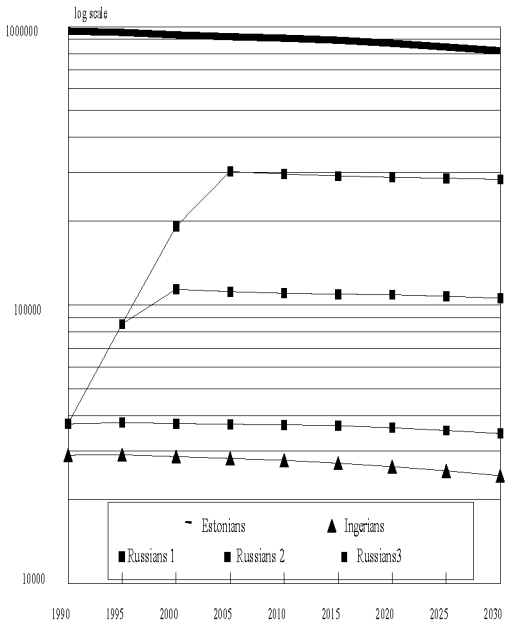
3.10 Population projection

As yet, no official projections exist for the Estonian population and the prognoses for the future development of the national minorities presented in this report have been prepared by the Estonian Interuniversity Population Research Centre. The medium-term projection, covering the period 1990-2030 adopts 1989 census age structures as the most recent reliable ones as the starting point. Whenever possible, the projection has been calibrated to post-censal data that might be available. The projection included baseline demographic scenarios for both the Russian and Ingerian national minorities as well as the Estonians. In the case of Russians, two additional scenarios have been included designed to assess the possible impact of granting of citizenship to the immigrant population of Russian origin.

The baseline scenario presupposes a continuation of recent demographic trends in all three populations. Regarding fertility, the projection took into account the fertility levels in the 1980s and the decline in the 1990s. It is assumed that fertility reached its low point in 1998 after which it is projected to rise and stabilise at a level somewhat higher than now. In other words, the recent decline in fertility is partly attributed to postponement of births. The fertility of the Estonian population can be derived directly from vital statistics, where necessary supported by survey statistics. The fertility of the national minorities is estimated solely from survey statistics. On this basis, the fertility of the Russian minority is taken to be 8-9 per cent higher and for Ingerians the same amount lower than for Estonians. These differences are held constant throughout the projection period and the present small differences in the speed of fertility decline are disregarded. The lowest level of TFR is taken 1.3 for the Estonians, 1.2 for the Ingerians and 1.4 for the Russians, while the respective values at stabilisation have been fixed at 1.64, 1.48 and 1.80. Regarding mortality, the current small differences between minority populations and Estonians are not considered. The projection follows the increase of mortality in 1989-1994 and decline in a couple of recent years, but it is assumed that life expectancy will rise to the level of the 1980s, reflecting a more than three-decade long mortality stagnation, and remain there for the rest of the projection period [Katus, Puur 1997]. The increase in life expectancy during the projection period is not considered, even if a continuation of the mortality stagnation is not the most likely to occur. International migration balance is assumed to be zero in all scenarios.

Turning to the results, the baseline demographic scenario indicates population decline for all three populations. According to calculations, the number of Russians is expected to fall by 8 per cent by the year 2030 with even steeper declines of 15 per cent suggested for both the Ingerian minority and the Estonian population. The pace of population decline appears non-linear for these populations: the decline slows down during the projected recovery of fertility level between 1998 and 2008, but then accelerates steeply as the small cohorts born since the 1990s start entering the childbearing age (Figure 17). Throughout the projection period, the decline in numbers is accompanied by the progression of population ageing, with the proportion of children undergoing rapid decrease, the relative number of elderly rising steeply and the proportion of population of working age remaining virtually unchanged. The increase in the elderly also produces an almost linear growth in the number of deaths. On the background of the referred common trends, to some extent younger initial age structure and projected maintenance of higher level of fertility implies the depopulation being somewhat less sharply expressed among the Russian national minority. Correspondingly, the Ingerians are characterised by the most advanced degree of population ageing (elderly 65+ form 21 per cent of total population and median age of population is 46 years) and the steepest rate of depopulation (close to 0.9 per cent by the end of projection period).

Figure 17. PROJECTED NUMBER OF POPULATION, 1990-2030



Source: Authors' calculation

It should be noted that the projection focuses solely on the demographic factors, whereas in reality minority development is also affected by the continuity of identity and other characteristics between generations. In the light of the discussion about mixed marriages, and trends in language and religion characteristics in previous sections, the future size of the Ingerian minority may well be overstated in the demographic projection. The Russian national minority, by contrast, may well be augmented in future as immigrants of ethnic Russian background join the minority. This possibility has led to the introduction of two additional projection scenarios, based on the Project consultancy.

The additional scenarios involve the possible acquisition of Estonian citizenship by the immigrants of ethnic Russian background, on the assumption that the granting of citizenship signifies their immediate inclusion in the minority population. The baseline demographic assumptions are unchanged. The first additional scenario entails adding all those post-war immigrants of ethnic Russian background who had obtained the Estonian citizenship by 1997 to Russian minority, with no further accessions thereafter. Since most immigrants likely to choose Estonia as their homeland have already been granted citizenship, this scenario mirrors the observed trend. A couple of recent years have witnessed a sharp reduction in application flow.

The second additional scenario departs from some major breakdown of stability in Europe in general or in Russia. All the immigrants of Russian origin who have not yet applied for citizenship and have preferred to hold an alien's passport, change their minds and elect to become Estonian citizens. The prevailing legal procedures - citizenship is granted within a year of submitting an application -would allow this to be realised in as short a period as five years. Although this is an unrealistic scenario in current circumstances, it might become more tangible if the continuation of crises in Russia begins to endanger persons with previous Soviet origin.

According to the first additional scenario, the Russian minority peaks at 115 thousand, followed by the gradual reduction in size under 106 thousand by the year 2030 accompanied by rapid ageing. According to the second additional scenario, the size of Russian minority will grow rapidly and reach 300 thousand in the early 21st century, but then decline to about 280 thousand by the year 2030. It should be noted, however, that the application of citizenship criteria implies a rapid increase not only in the number but also add to the internal heterogeneity of the Russian national minority and significantly modify the population characteristics already identified. Studies on various aspects of demographic development have revealed extensive differences between native and immigrant population [EKDK 1995b; 1995c; UN ECE 1999a; 1999b], and the analysis carried out in the framework of the present project confirms that significant differences distinguish the Russian and Ingerian national minorities from the Estonians as well as from the immigrants. It should be underlined that the referred specific behavioural patterns of the national minorities have evolved over substantial periods of time. For immigrants, such patterns cannot emerge over one or two generations but require longer experience of integration to the country, and the process of integration of the immigrant population would be likely to stretch over considerably more than one or two generations.

CONCLUSIONS

The current project has focused on the development of the national minorities over the period 1910-1995, covering three successive generations. The approach has identified the principal differences displayed by the national minorities over a longer period, and traces the extent to which they have diverged from or converged with the majority population. It has also provided a means to separate out and disregard various short-term fluctuations and temporary policy influences during this dynamic century. In addition, the project has also served to support the information base needed to formulate national minority policies for Europe in the 21st century.

The investigation of national minorities has been built around the application of a consistent set of five population characteristics: country of origin/place of birth, individual self-identification, usual language, religious affiliation and citizenship. This framework has proved particularly appropriate in case of Estonia as a means of identifying the national minorities and distinguishing them from the majority population as well as from the immigrant community. The discontinuity of societal development in the country was accompanied by the breakdown of the national statistical system, which, in turn, has created specific difficulties in following the development of the national minorities. For the last fifty years there have been no consistent data about the national minorities available, and in addition to the regular analysis of existing sources, a special effort was therefore required to bridge the information gap. It was for this purpose that the National Minority Survey was launched.

The Estonian National Minority Survey applies the modern event history methodology to the reconstruction of times series of the main demographic processes and covers the period since 1945. The survey is integrated into a system of national surveys, which allows comparisons to be made between the national minorities and the majority population. Judging from the literature, the Estonian National Minority Survey appears to be one of the first of its kind in so far as it focuses on the reconstruction of the development of national minority population over a fifty year period. The methodological experience gained may also be of relevance to other countries with limited census and vital statistics information.

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APPENDIX

Table 1. POPULATION AGE STRUCTURE,
1934 and 1989

Age	1934											
	Estonians		Russians		Germans		Swedes		Jews		Latvians	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
	Male											
0-9	77367	16.6	8914	20.0	804	12.3	690	18.8	221	10.0	198	8.8
10-19	70945	15.2	7914	17.8	1025	15.7	619	16.9	358	16.2	263	11.7
20-29	88985	19.1	8549	19.2	1257	19.2	679	18.5	504	22.8	399	17.7
30-39	70211	15.1	7016	15.7	897	13.7	528	14.4	369	16.7	304	13.5
40-49	55612	11.9	5151	11.6	854	13.1	375	10.2	292	13.2	269	11.9
50-59	47075	10.1	3773	8.5	823	12.6	361	9.8	244	11.0	354	15.7
60-69	33714	7.2	2103	4.7	569	8.7	245	6.7	146	6.6	277	12.3
70+	21602	4.6	1091	2.4	301	4.6	167	4.6	75	3.4	190	8.4
Unknown	278	0.1	61	0.1	4	0.1	1	0.0	5	0.2	0	0.0
Total	465789	100.0	44572	100.0	6534	100.0	3665	100.0	2214	100.0	2254	100.0
	Female											
0-9	75375	16.2	8818	19.8	770	11.8	635	17.3	251	11.3	222	9.8
10-19	69538	14.9	8028	18.0	1081	16.5	613	16.7	300	13.6	293	13.0
20-29	88308	19.0	8684	19.5	1312	20.1	531	14.5	415	18.7	421	18.7
30-39	81588	17.5	7501	16.8	1320	20.2	576	15.7	443	20.0	494	21.9
40-49	69505	14.9	5989	13.4	1402	21.5	532	14.5	336	15.2	577	25.6
50-59	59640	12.8	4209	9.4	1441	22.1	441	12.0	255	11.5	474	21.0
60-69	47099	10.1	2840	6.4	1334	20.4	372	10.2	131	5.9	385	17.1
70+	35373	7.6	1954	4.4	1146	17.5	272	7.4	76	3.4	313	13.9
Unknown	305	0.1	61	0.1	6	0.1	4	0.1	13	0.6	2	0.1
Total	526731	100.0	48084	100.0	9812	100.0	3976	100.0	2220	100.0	3181	100.0

	1989							
	Estonians		Russians		Ingerians		Immigrant Population	
	Male							
0-9	73562	16.6	2795	16.3	2228	17.5	42251	16.4
10-19	71664	16.1	2851	16.6	2125	16.7	38697	15.0
20-29	64867	14.6	2619	15.3	2013	15.8	44028	17.1
30-39	60797	13.7	2776	16.2	2519	19.8	49820	19.4
40-49	57295	12.9	2229	13.0	1168	9.2	30488	11.8
50-59	54580	12.3	1926	11.2	1377	10.8	29272	11.4
60-69	34010	7.7	1253	7.3	935	7.3	16865	6.6
70+	27273	6.2	701	4.1	365	2.9	6043	1.9
Total	444048	100.0	17150	100.0	12730	100.0	257464	100.0
	Female							
0-9	71111	13.7	2702	13.3	2154	13.3	40666	14.6
10-19	70564	13.6	2814	12.9	2093	12.9	32157	11.5
20-29	65139	12.5	2627	12.4	2018	12.4	40230	14.4
30-39	62642	12.1	2864	16.1	2603	16.1	51442	18.5
40-49	62586	12.1	2532	8.3	1343	8.3	32935	11.8
50-59	64266	12.4	2508	12.6	2049	12.6	36271	13.0
60-69	56699	10.9	2229	14.2	2298	14.2	28570	10.3
70+	66226	8.1	2080	7.5	1659	7.5	16193	4.2
Total	519233	100.0	20356	100.0	16217	100.0	278464	100.0

Source: RSKB 1935; Authors' calculation, ERA and EPU

Table 2. VITAL EVENTS AND RATES, 1923-1938

Year	Estonians		Russians		Germans		Swedes		Jews		Latvians	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
						Births						
1923	17739	18.3	2035	22.3	231	12.7	160	20.4	72	15.7	75	12.5
1924	16898	17.3	1970	21.5	218	12.0	137	17.5	69	15.0	55	9.2
1925	16280	16.6	2004	21.8	187	10.4	140	17.8	41	8.9	55	9.3
1926	15725	16.0	1998	21.7	161	9.1	147	18.8	51	11.1	57	9.7
1927	16778	17.1	2254	24.5	205	11.7	136	17.4	44	9.6	70	12.0
1928	17067	17.4	2240	24.3	202	11.6	142	18.3	47	10.3	73	12.6
1929	16347	16.6	2124	23.0	144	8.4	139	18.0	49	10.8	61	10.7
1930	16930	17.2	2033	22.1	141	8.3	131	17.1	42	9.3	57	10.1
1931	16974	17.2	2015	21.9	145	8.6	158	20.7	45	10.1	55	9.8
1932	17161	17.3	2120	23.0	102	6.1	129	16.9	43	9.7	48	8.7
1933	15822	16.0	1936	21.0	105	6.4	130	17.0	38	8.6	61	11.2
1934	15032	15.1	1844	19.8	136	8.4	112	14.6	40	9.0	35	6.5
1935	15472	15.6	1955	20.9	174	10.8	130	16.9	43	9.7	34	6.3
1936	15741	15.8	1993	21.2	162	10.1	126	16.3	40	9.1	45	8.4
1937	15760	15.8	1968	20.8	164	10.3	111	14.3	44	10.0	35	6.6
1938	15981	16.0	1991	20.9	176	11.1	91	11.7	57	13.0	53	10.1
						Deaths						
1923	14103	14.5	1055	11.6	294	16.1	96	12.2	31	6.8	70	11.7
1924	14234	14.6	970	10.6	311	17.2	65	8.3	34	7.4	56	9.4
1925	13901	14.2	1210	13.2	276	15.4	75	9.6	32	7.0	54	9.1
1926	14851	15.1	1303	14.2	291	16.4	104	13.3	55	12.0	51	8.6
1927	17056	17.4	1521	16.5	318	18.1	103	13.2	52	11.4	106	18.1
1928	15456	15.7	1597	17.3	303	17.4	107	13.8	51	11.2	107	18.5
1929	17631	17.9	1705	18.5	342	19.9	153	19.8	52	11.5	104	18.2
1930	14705	14.9	1317	14.3	252	14.8	92	12.0	58	12.9	79	14.0
1931	15935	16.1	1513	16.4	286	17.0	90	11.8	54	12.1	91	16.2
1932	14559	14.7	1460	15.9	255	15.4	87	11.4	48	10.8	105	19.0
1933	14425	14.5	1408	15.2	257	15.7	110	14.4	46	10.4	105	19.2
1934	13953	14.1	1307	14.1	295	18.1	78	10.2	50	11.3	58	10.7
1935	14903	15.0	1362	14.6	266	16.5	97	12.6	62	14.0	84	15.6
1936	15470	15.6	1485	15.8	288	18.0	98	12.7	49	11.1	98	18.4
1937	14603	14.7	1393	14.7	276	17.3	93	12.0	63	14.4	90	17.0
1938	14543	14.6	1299	13.6	299	18.9	96	12.4	67	15.3	72	13.7

Source: RSKB 1922-1940

Table 3. SELECTED COHORT INDICATORS,
birth cohorts 1924-1973

	1924 1928	1929 1933	1934 1938	1939 1943	1944 1948	1949 1953	1954 1958	1959 1963	1964 1968	1969 1973
					Estonians					
Total fertility rate	1.92	1.90	1.96	1.88	1.94	2.11	2.11	1.99	1.43	0.74
Median age at first birth	24.6	24.4	24.7	24.5	23.6	22.9	22.7	22.2	22.4	22.1
Non-marital births (%)	27.3	19.5	14.9	16.9	16.7	24.3	30.9	29.1	35.1	49.7
Total abortion rate	0.69	0.96	1.39	1.36	1.47	1.47	1.31	1.01	0.65	0.32
Never-use of contraception (%)	40.6	26.7	19.7	12.1	9.7	4.9	8.3	6.2	3.9	4.9
Median age at first marriage	23.6	23.1	22.8	23.0	22.5	21.5	21.2	20.5	20.9	19.9
Consensual unions (%)	42.1	46.7	45.5	55.2	55.1	69.4	75.5	80.6	85.5	94.6
Ethnically mixed marriages (%)	9.6	9.1	4.9	4.8	6.4	7.4	8.9	5.1	6.3	3.6
					Russians					
Total fertility rate	1.96	1.76	1.81	1.94	1.85	2.01	2.03	1.62	1.65	0.91
Median age at first birth	23.7	23.4	22.8	22.5	21.6	21.7	21.2	21.8	20.2	21.3
Non-marital births (%)	18.3	11.9	18.4	14.7	14.9	13.6	16.3	20.3	27.4	31.7
Total abortion rate	0.87	1.25	1.61	1.52	1.81	1.90	1.35	1.16	1.00	0.87
Never-use of contraception (%)	41.8	39.5	35.3	30.1	16.8	22.2	12.9	9.6	9.6	9.4
Median age at first marriage	23.5	23.3	22.8	23	21.7	21.7	20.9	21.4	20.2	21.7
Consensual unions (%)	38.4	35.4	38.4	40.7	43.2	46.0	46.2	66.1	67.2	71.8
Ethnically mixed marriages (%)	27.7	28.3	34.1	34.4	40.0	35.6	38.0	43.2	44.3	33.8
					Ingerians					
Total fertility rate	2.09	1.96	1.88	1.73	1.73	1.81	2.01	1.77	1.45	0.84
Median age at first birth	24.1	23.4	22.8	23.1	22.0	21.6	21.0	21.5	20.7	21.4
Non-marital births (%)	25.4	20.8	9.9	18.0	12.2	26.4	19.9	34.9	39.5	38.1
Total abortion rate	0.57	0.96	1.18	1.40	1.51	1.44	1.46	1.22	0.88	0.54
Never-use of contraception (%)	48.3	45.2	28.8	25.9	24.7	13.4	11.9	13.6	12.0	8.7
Median age at first marriage	24.4	23.7	23.6	23	21.6	21.6	21.2	21.4	20.4	21.6
Consensual unions (%)	42.6	38.1	32.3	38.8	47.1	59.6	63.0	62.9	71.9	86.0
Ethnically mixed marriages (%)	82.5	76.4	86.9	91.2	94.3	96.6	97.1	99.3	97.7	96.6

Source: Authors' calculation, EPU

Table 4. SCENARIOS AND PROJECTION RESULTS, 1990-2030

Demographic Indicators	Estonians	Ingerians	Russians scenario 1	Russians scenario 2	Russians scenario 3
			1990		
TFR	2.22	2.04	2.22	2.22	2.22
Life expectancy, male	66.2	66.2	66.2	66.2	66.2
Life expectancy, female	75.0	75.0	75.0	75.0	75.0
Population number	963280	28950	37510	37510	37510
Age structure					
0-14 (%)	22.3	22.9	22.1	22.1	22.1
15-64 (%)	63.9	66.0	66.4	66.4	66.4
65+ (%)	13.8	11.1	11.5	11.5	11.5
			2000		
TFR	1.37	1.26	1.48	1.48	1.48
Life expectancy, male	66.0	66.0	66.0	66.0	66.0
Life expectancy, female	75.0	75.0	75.0	75.0	75.0
Population number	933730	28590	37570	113820	191220
Age structure					
0-14 (%)	18.3	17.1	18.7	21.1	21.1
15-64 (%)	66.5	67.1	67.7	63.1	62.0
65+ (%)	15.2	15.8	13.6	15.8	16.9
			2010		
TFR	1.64	1.48	1.80	1.80	1.80
Life expectancy, male	66.0	66.0	66.0	66.0	66.0
Life expectancy, female	75.0	75.0	75.0	75.0	75.0
Population number	908290	27710	37200	110310	295620
Age structure					
0-14 (%)	16.0	14.7	16.9	18.0	20.9
15-64 (%)	67.8	71.3	69.1	67.6	63.8
65+ (%)	16.3	14.0	14.0	14.4	15.3
			2020		
TFR	1.64	1.48	1.80	1.80	1.80
Life expectancy, male	66.0	66.0	66.0	66.0	66.0
Life expectancy, female	75.0	75.0	75.0	75.0	75.0
Population number	871100	26310	36280	108950	287430
Age structure					
0-14 (%)	16.7	15.0	17.6	18.3	17.3
15-64 (%)	67.0	69.0	65.8	66.7	68.1
65+ (%)	16.3	16.0	16.6	15.0	14.6
			2030		
TFR	1.64	1.48	1.80	1.80	1.80
Life expectancy, male	66.0	66.0	66.0	66.0	66.0
Life expectancy, female	75.0	75.0	75.0	75.0	75.0
Population number	818820	24380	34610	105820	282810
Age structure					
0-14 (%)	14.7	12.8	16.2	17.8	18.1
15-64 (%)	67.7	66.3	65.9	65.8	66.5
65+ (%)	17.6	20.9	18.2	16.4	15.4

Source: Authors' calculation