

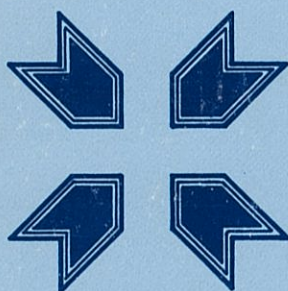
RAHVASTIKU-UURINGUD POPULATION STUDIES

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MARITAL STATUS AND LIVING ARRANGEMENTS OF THE ELDERLY IN ESTONIA

Luule Sakkeus

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The paper belongs to the series of reports prepared in the framework of the Project *Dynamics of Population Aging in the ECE Region*. Based on the microdata from the 1989 population census, the paper concentrates on the marital status and living arrangements of the elderly in Estonia.

In the paper, the marital status and living arrangements of the population aged 50 and above are investigated. In particular, the differences in the marital status and living arrangements among the elderly are analyzed relative to age, sex, ethnicity, education, migrant status and place of residence.

To our knowledge, this is the first study of marital status and living arrangements that employs individual-level data from the 1989 Estonian census. The paper has been prepared under the support of Estonian Science Foundation, Grant No 911.

1. METHODOLOGICAL FRAMEWORK

Ageing process, being primarily affected by the general decline of fertility and overall growth of life expectancy, being also affected by immigration, has a great impact to the transitions in marital status as well as in living arrangements. The increasing numerical growth of the elderly has increased the attention of scientists as well as policy makers towards the issues of living arrangements of the aged. The family relations and living arrangements are of particular interest in the studies of the ageing societies giving grounds for developing social welfare to cover the needs of the groups at risk. The marital status is one of the main categories to characterize the differences among the elderly population, being the indicator for different needs of support systems and individual well-being. The living arrangements, partly determined by the changes in the transfers from one marital status to another on a general level also reflect overall demographic, cultural and economic characteristics that influence the composition of the older cohorts.

In 1989 Estonian population and housing census the family was regarded as a unit of persons related by blood, adoption, marriage or kin, sharing the same dwelling and having a common family budget. The initially processed variable 'family type' was combined into a new variable of 12-positioned family status. In the family status couples with and without children and lone parents are distinguished by their belonging to a nucleus or extended family. Single persons and family members living apart were recoded as single persons. Individuals living temporarily in the family (visitors etc at the time of the census) were classified into single persons or separate families.

The variable 'marital status' includes married (both legally or de facto), single (never-married), widowed (marriage dissolved by death of a spouse and not remarried) and divorced (legally divorced or de facto separated). The analysis has been carried through about the permanent population.

2. MARITAL STATUS OF THE ELDERLY

Historically Estonia belongs to countries where the European marriage pattern had prevailed. During the postwar period this pattern was replaced by the tendency towards higher marriage rates and earlier family formation, which clearly involves the impact of the immigrant population's different marital pattern. Estonian family formation pattern is characterized by the increasing frequency of non-marital cohabitation. Non-marital cohabitation is much more common for native-born population than immigrants and must be taken into account when analysing the aged population of Estonia.

Frequency of divorces had been growing until the end of 1970s, total divorce rate indicates a slight tendency towards fewer divorces starting from the beginning of the 1980s.

Marital status of the elderly population has direct impact on the life of the old people. It has been reported that married persons tend to have higher life expectancy, are more active in social life and enjoy better health status [Bengtson, Rosenthal and Burton, 1990]. It must also be borne in mind that the needs of the old people differ significantly whether they are married or not.

Table 1

**Marital Status of the Population Aged over 60 and over 75 by Sex and Ethnicity,
Estonia, 1989 census (per cent)**

	Married	Single	Widowed	Divorce
<u>Total population aged 60 and over</u>				
60+	46.9	7.4	38.8	6.7
Male	76.3	4.5	13.6	5.6
Female	32.3	8.9	51.3	7.2
Estonians	45.0	9.1	39.4	6.3
Male	74.0	6.6	14.0	3.0
Female	30.7	10.8	52.0	6.5
Non-				
Estonians	51.2	3.6	37.3	7.7
Male	81.6	1.5	11.5	5.2
Female	36.1	4.5	50.1	8.9
<u>Total population aged 75 and over</u>				
75+	25.6	8.4	62.4	3.4
Male	63.2	4.9	28.3	3.4
Female	12.2	9.6	74.5	3.4
Estonians	26.3	9.6	60.4	3.4
Male	62.6	5.5	28.1	3.6
Female	12.8	11.2	72.7	3.4
Non-				
Estonians	22.7	3.3	70.5	3.2
Male	66.0	1.8	29.5	2.4
Female	10.3	3.7	82.2	3.4

Marital status of the elderly is greatly affected by the developments in the general life expectancy of the population as well as the life expectancy of the older cohorts themselves. Although widowhood rates rise with age, with the increase of life expectancy older population has the tendency of growth of those to be married. Developed countries experience also decreasing propensity of never-married and widowed among the elderly over the time, whereas the proportion of divorced (separated) is slightly increasing in time [Kinsella and Taeuber, 1993]. Gender differentials are mainly the outcome of differences in longevity, in ages of marriage

and tendency to re-marry. The most outstanding impact has the high male mortality to marital patterns, which is a special feature for all East European countries.

Estonia is considered a country with relatively early beginning of mortality transition when measured by East-European standards. Until the first half of the 1960s life expectancy increased steadily, since that, however, only minor changes in life expectancy have occurred. During the late 1960s and 1970s there has been even a decline in life expectancy, especially for males in working ages, which clearly affects the proportion of widowed females. Although the 1980s were characterized by a slight improvement in life expectancy, despite some decrease the difference between life expectancy for males and females accounted for 10.2 years in 1990, which is the main source for overwhelming proportion of females in the aged population as a whole. Among widowed population aged over 60 years, females constitute 88.4 per cent. Never-married old women comprise 86 and divorced or separated females 72.3 per cent of the relevant population aged 60 years and over. Only among the married population 60 years and over do the male population prevail, constituting 54 per cent of the married.

Among the population over 60 years more than three out of every fourth male is currently married and even among 75 years and older almost two thirds of male population are still married, whereas for females the propensity to be married is more than 2.5 to 5 times lower among these ages. Practically every second woman is widowed among 60 years and older and three fourth are widowed of the 75 years and older female population. Among the gender differentials twice as high propensity to be single among women compared to men is observed. The overall trend in changes of marital status pattern is also true for Estonia. Compared to 1979 census, the propensity to be married has increased, especially among women from 27 to 32.3 per cent as well as the proportion of divorced from 4.9 to 6.7 per cent of the population aged 60 years and over has grown. Proportions of widowhood and being single have both showed decrease.

The different marital pattern of the two sub-populations - Estonians and Non-Estonians is revealed. It must also be reminded that among the Non-Estonian population aged over 60, immigrants (born outside of Estonia) form more than 91 per cent, the younger cohorts being either immigrants or the second generation of them. Even among the Non-Estonian population over 20 years, foreign-born population comprises approximately 80 per cent. In the analysis of the differences between the native- and foreign-born population of Estonia [Katus and Sakkeus 1992], the conclusion is reached that the second generation of the post-war immigrants follows the demographic behavioural pattern of their parental home regions rather than the region they are residing in: although born in Estonia, little adaptation has occurred. At the present, immigrant population being younger, their impact with their differentiated behavioural pattern does not yet affect the aged population of Estonia. In years to come their impact must be regarded more seriously, as their ageing process is gathering momentum [Katus, 1989] and effective social policy has to cope with the different trends and needs of the two sub-populations of Estonia.

By 1989 census data Estonians comprise the major part of the aged population. By marital status the proportion of Estonians differ greatly. If among widowed population aged 60 years and over Estonians comprise almost 90 per cent of it and among singles

their proportion is not much less (85.9 per cent), then among married and divorced (separated) aged population the share of Estonians is not so overwhelming, constituting 67.2 and 65.4 per cent of respective status.

At first hand, no significant difference by marital status can be observed by the ethnic factor. The propensity to be married is higher among Non-Estonians than among Estonians, being mostly due to the fact that the marital institution is more spread among Non-Estonians. Overall gender differential among married is more clearly observed among Non-Estonians over 75 years, where males are almost 6.5 times more likely to be married compared to only one out of ten among women.

One of the biggest behavioural differences among the two sub-populations can be observed in correlation with the never-married: Estonians are twice more likely to be single than Non-Estonians, in cohorts older than 75 the difference is even more than three times, for Non-Estonian males the propensity being negligible. This might be one of the major sources of diversity for future behaviour. Estonian females with their high proportion of singles demonstrate behaviour indicating closeness to Scandinavian pattern, the latter having the highest levels of singles with the propensity of male singles to be increasing [Myers, 1994].

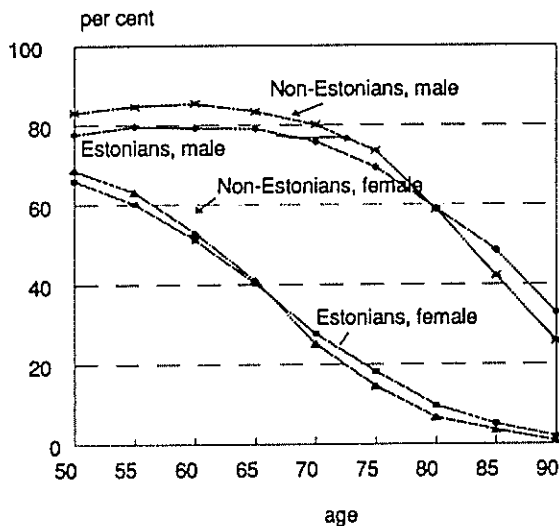
The opposite trend can be observed among the divorced. Non-Estonians have comparatively higher proportion of those being divorced among the elderly population. The difference between Estonians and Non-Estonians is relatively bigger for male population. Although women are more frequently experiencing propensity to be divorced, the difference between genders is at the higher level less for Non-Estonians.

As the basic analytic approach, the present study builds on the construction of age-profiles reflecting different aspects of the marital status of the elderly people. Consistent with the methodology adopted by UN ECE PAU, the profiles start at age 50 and go until the most advanced ages [United Nations 1992]. In the following the age-profiles for different marital statuses are presented.

2.1. AGE-PROFILES OF THE MARRIED ELDERLY POPULATION

By propensity married form the overwhelming part of the younger cohorts of the elderly (Figure 1). Among the married population the greatest gender differences are revealed. As to the ethnic factor, the share of married is greater for Non-Estonians in the younger cohorts, starting sharply to decrease beginning with age 65. The life expectancy of the Non-Estonians is more typical to the East-European pattern and is slightly lower than for Estonians, thus having an impact on a decreasing propensity to be married by age.

Figure 1 Married by sex and ethnicity
Estonia 1989



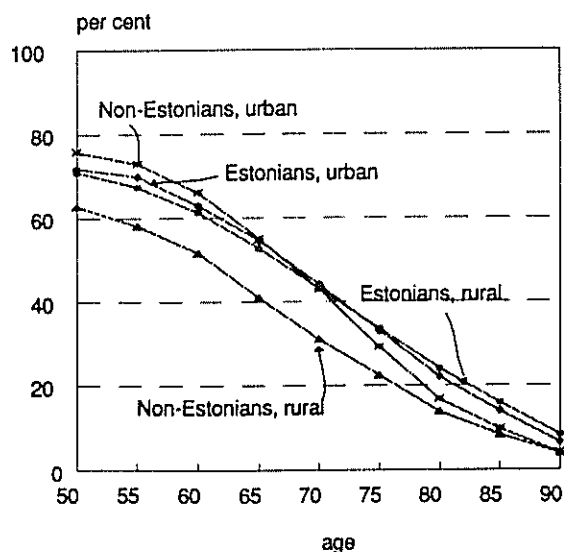
Gender differentials are the smallest in younger cohorts of the married elderly, for 50-59 years the difference being around 10 per cent. If for male population the propensity to be married even rises in ages 50-59, the trend which is more pronounced for Estonians, then for females the decline in being married starts at age 60, from what on the decrease is steep and by age becoming more distinct.

The decline in the proportions of married elderly male is reached only at age 75, the trend gathering speed for oldest old. 10 years lower life expectancy for male population is the most serious explanation for the

difference.

Non-Estonian elderly, although generally depicted by the similar curve, show diversity from the Estonian age-profiles of the married elderly. The general life-expectancy being lower than for Estonians, the profiles of being married are affected to be lower for females starting at age 65. On the contrary, at the younger cohorts (ages 50-64) Non-Estonians experience higher propensity to be married, which is especially pronounced for male population. The turnover with Estonians takes place at age 80 for married elderly male, from which on the decrease is noticeable and at age 90 only every fourth man remains married. Although, census data recorded marital status according to the person's self-determination, the effect of less spread cohabitation among Non-Estonians might be part of the explanation of the higher share of married among the latter in younger cohorts and among male.

Figure 2 Married by ethnicity and residence
Estonia 1989



Gender differentials are more exposed for Non-Estonians. The decline in the propensity of being married is for Non-Estonian females experienced from the very first cohorts under investigation. Starting from 65 the females being married lose in every next cohort approximately two times of the propensity compared to the former one (Figure 1).

The differences by residence, whether living in urban or rural area, are less pronounced, in particular for Estonians. Rural population experiences lower proportions of those being married at younger

cohorts of the elderly. The trend is reversed for the oldest old (Figure 2). Biggest differences are found among Non-Estonians by residence, their urban population demonstrating higher propensity up to age 70, from which on the steep decrease in the proportions of urban married Non-Estonian elderly can be traced. At advanced ages the differences by residence are negligible, Estonians experiencing slightly higher shares for rural married elderly at these ages.

Figure 3 Non-migrants compared to migrants married by sex, propensity Estonia 1989

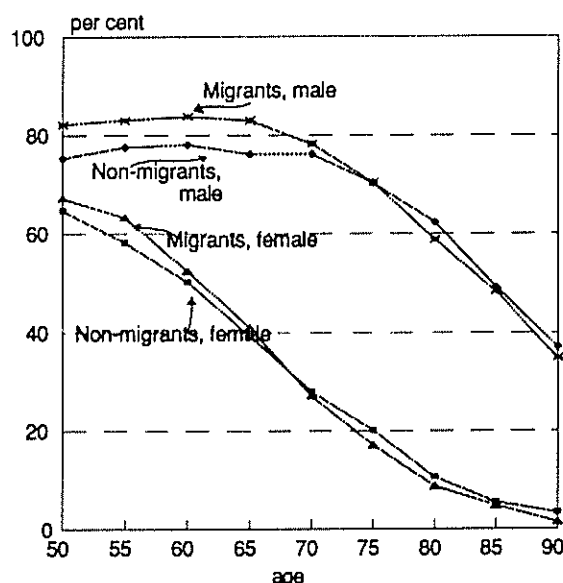
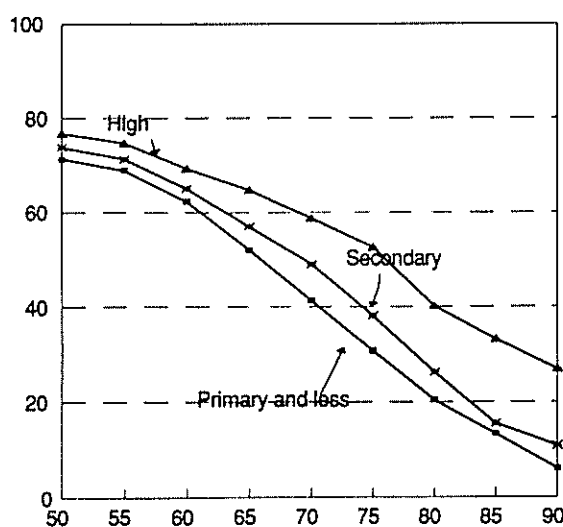


Figure 4 Married by education and age Estonia 1989



life cycle (like being married or entering into other states of marital pattern more frequently). Also, migrant status most probably offers more opportunities to find a partner. Migrants are often lacking other kin in their new residence and marriage offers the replacement. That is also why among the Non-Estonians the higher proportions of the married are revealed at younger cohorts of the elderly. Unfortunately, we lack any evidence on the differences of life-expectancy among non-

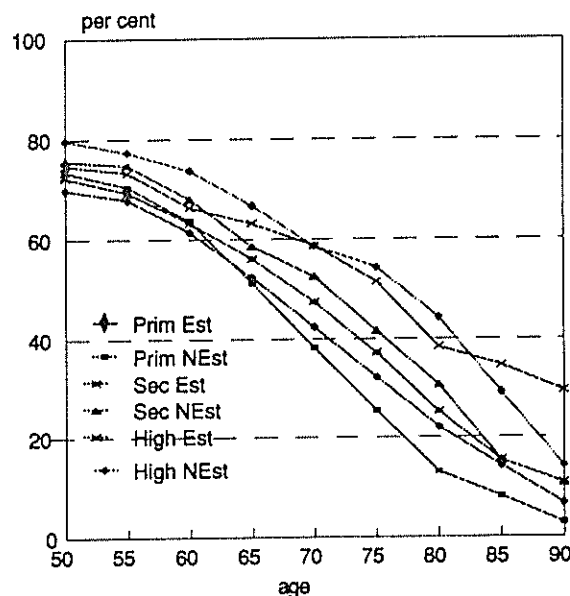
According to the migrant status, ie. whether a person lives at the same residence since birth or has moved, the age profiles show the similar trend to the residential curve. Non-migrants for both sexes indicate lower proportion of those being married at younger cohorts of the elderly, experiencing the reverse trend among the oldest old (Figure 3). However, the timing and pattern of the curve reveal bigger differences between genders. Male non-migrants, although having proportionately less married among the younger cohorts, tend to maintain the level up to age 70, whereas migrants start to lose in the proportion of the married at age 65.

The reversal of the proportions for non-migrant and migrant married males takes place at 75. For females, both - non-migrants and migrants- have a steep decrease from the very first age-groups under investigation (age 50). The reversal of trends for females takes place at a 5-years' earlier cohort than male - at 70. To explain the trends by migrant status we lack any profound research in the field. On a speculation level, the explanations for the differences must be sought in a general behaviour of migrants: generally migrants are more active group of population, thus leading more active life in respect of other changes in their

migrants and migrants, however, it seems that migrants might experience a slightly lower life-expectancy, which affects especially the oldest old.

The level of educational attainment affects the propensity of being married: the higher the level of attainment, the higher the propensity of being married. The effect is revealed by age, with older age and higher level of educational attainment the propensity to be married is higher (Figure 4). The difference is greatest for elderly population with the highest completed educational attainment, who experience only modest decline even for the oldest old and their propensity to stay married in older cohorts is 1.5 to 2 times higher than for lower levels of educational attainment. The higher proportion of being married for the highest educational attainment is acquired mostly at the expense of males, while for females the effect of educational attainment is practically negligible and revealed only in comparison with the lowest level.

Figure 5 Married by education, age and ethnicity
Estonia 1989



Differences in educational attainment are more revealed if compared between Estonians and Non-Estonians. In the comparison the background effect of migrant status is revealed, as most of the Non-Estonians are immigrants and very few have never changed a residence, even if born in Estonia. As an overall trend for Non-Estonians, at all levels of educational attainment the higher propensity to be married is observed, especially in younger cohorts. For Non-Estonians with the highest level of education and attainment of secondary level, the propensity remains higher into the advanced ages compared to Estonians. However, the stabilization effect of higher education for the oldest old to

remain at that level is not the case for Non-Estonians. Non-Estonians with the lowest level of education in combination with the migrant status and lower life-expectancy demonstrate the steepest decrease of shares among the elderly married population and are characterized by the lowest shares starting already at age 65 (Figure 5).

The level of educational attainment acquires significance with age. One of the explanations to that is that higher level of education promotes healthier way of life, also frequently are among low-educated people those who already due to their illness, disability are not able to acquire higher levels of education and thus are affected by higher mortality indicators. At age 90 the greatest difference in propensity to be married by education can be found between low-educated Non-Estonians and high-educated Estonians: the difference being almost tenfold. However, the effect of the attainment of high education is most expressed for Estonians, of whom among oldest old 30 per cent remain married.

2.2. AGE-PROFILES OF SINGLE ELDERLY

In several studies the hypothesis of greater longevity of married elderly has been put forth [Myers, 1990]. On one hand, the hypothesis has been put forward that a variety of environmental, social and psychological factors make the married state healthier than the unmarried one. It is also argued that marriage and remarriage is selective in respect that healthier persons get proportionately more often married. Even among divorced and widowed the remarriage is more often taking place which leaves the single persons category as one at the highest risk. This category of elderly population might be of particular concern with the ageing process gathering pace. In the following chapter it is tried to investigate who are the singles in Estonia and which are the main characteristics for this category of the elderly population. By 1989 census definition a single should be the person who has never been married, which does not exclude those having lived in consensual units and not reporting themselves in categories either married or separated.

Figure 6 Single by sex and ethnicity
Estonia 1989

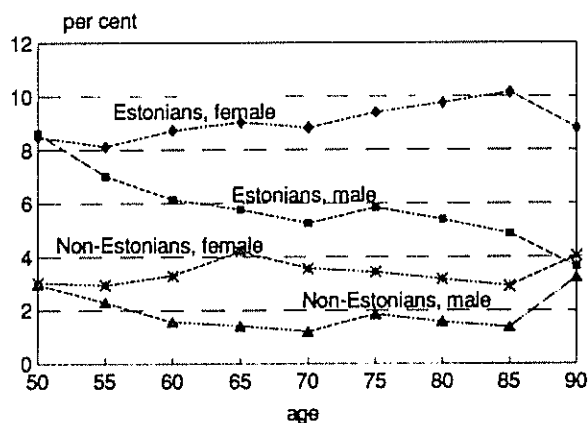
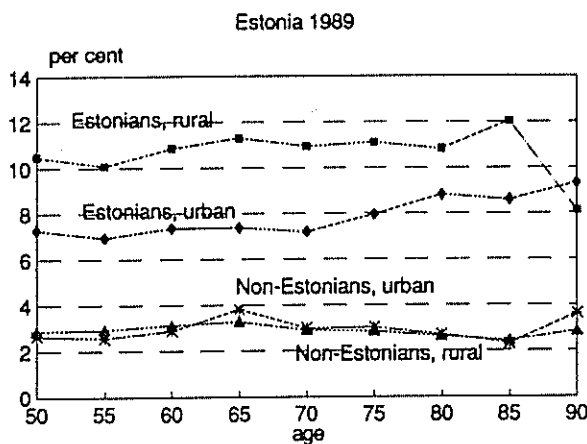


Figure 6 demonstrates picturesquely that being single is the similar opportunity for both genders at age 50. In next age ranges the enormous diversification is observed. By age the differences increase, while for females the propensity of being single is growing and for males it is decreasing. As it was mentioned above, by the proportion of singles among the elderly population Estonia is quite outstanding and close to Scandinavian level, which is one of the highest in the developed world. However, the

great gender differentials show the difference from the Scandinavian pattern. The propensity of male population to be single in some age cohorts is even twice less than for females, which definitely is the result of the impact of male mortality. Although there has been no such investigations, however, it seems relevant that single elderly male population might experience even higher mortality rates. Another explanation to their decreasing share by age is that males enter into other marital states more frequently than females.

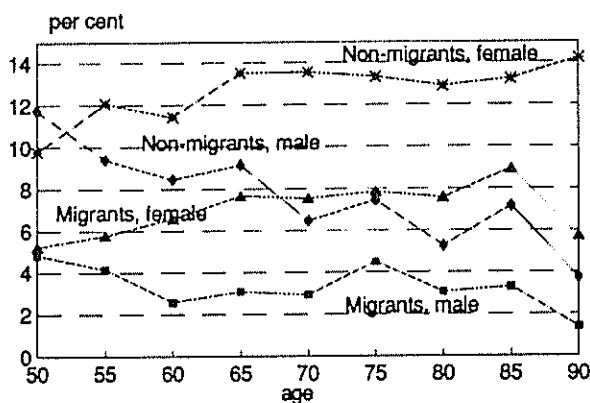
Figure 7 Single by ethnicity and residence



Estonians is rather diminishing, oppositely to Estonians.

Figure 7 brings out the differences in urban and rural areas in respect of single elderly. As the higher proportions of singles are characteristic for Estonians, it is no surprise that rural areas demonstrate twice as high share of singles along the younger cohorts. The propensity of singles is also higher for rural areas because most of the institutions for aged are located in the rural areas. However, by age the proportion of singles in urban areas remains on the similar level up to age 70, indicating the increase from that on.

Figure 8 Non-migrants compared to migrants single by sex, propensity Estonia 1989



level. The nonmigrant status for Non-Estonians brings about another peculiarity: above age 75 Non-Estonian male nonmigrants are twice more frequently single than relevant females.

Educational attainment is of no great significance to the propensity of being single (Figure 9). However, people with completed secondary education tend to have the lowest level for all younger age groups until age 70. For oldest old the higher the level of educational attainment, the higher the propensity of being single. However, if Non-Estonian singles tend to have the highest levels with the lowest educational attainment, which is more common, as singles are often those disabled, then Estonian singles contribute to the highest levels of those with higher level of educational attainment, which demonstrates increase by age.

As mentioned above the high proportion of singles among elderly is mostly acquired due to Estonians' higher levels. Although on a substantially lower level, Non-Estonians demonstrate the same age pattern and similar diversity by sex. The biggest difference between genders for Non-Estonians are observed at age 65, when females' propensity to be single is almost 4 times higher than for male elderly. By age the diversity in genders for Non-

As to the migrant status, non-migrants tend to stay single twice more frequently, which again depicts the more common to Estonians pattern (Figure 8). As to gender differentials, the migrant status does not bring about any principal change: females show higher proportions for both statuses to remain single. The attention should be paid to the fact that among the Non-Estonian nonmigrants (ie living in the same residence from birth) the propensity to be single is at the comparative to the Estonians' high

Figure 9 Single by education and age
Estonia 1989

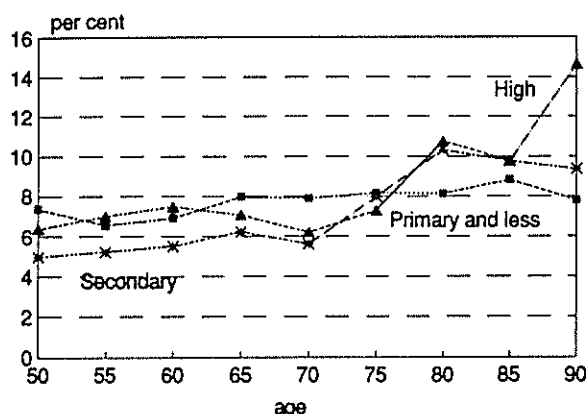
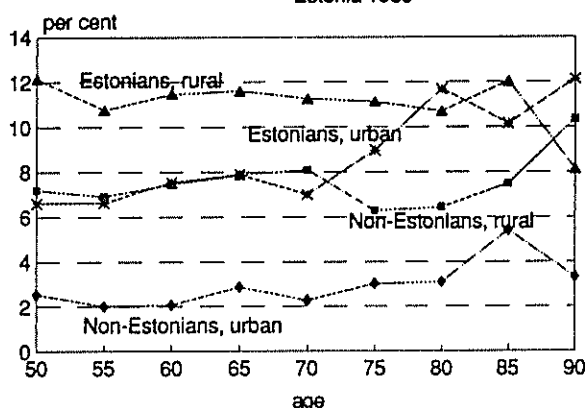
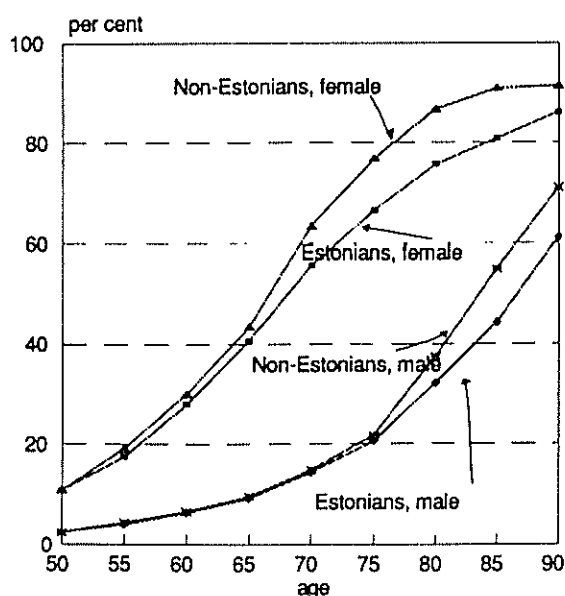


Figure 10 Singles by secondary education, ethnicity, residence and age
Estonia 1989



Although widowhood rates rise with age for both sexes, for females among population over 60 years the widows constitute more than 50 per cent. In widowhood Non-Estonians show higher levels of this state compared to the Estonians.

Figure 11 Widowed by sex and ethnicity
Estonia 1989



Educational differences are revealed in respect with ethnic factor and residential area on the example of secondary level of educational attainment (Figure 10). As stated above share of singles is greater in rural areas, the propensity of the elderly singles is twice or even more lower in urban areas. For Non-Estonian rural population the level of Estonian singles of urban area is achieved. With age the proportion of singles having secondary level of education is increasing for Estonians in urban areas. Among Non-Estonians this trend is not so well exhibited.

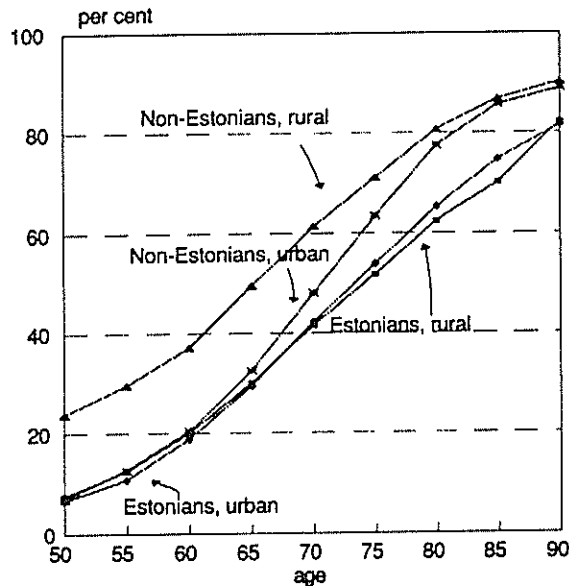
2.3. AGE-PROFILES OF THE WIDOWED

The widowhood age-profiles show absolutely opposite trends compared to the married. The propensity is low in younger cohorts, increasing by age.

In respect to age, change in the marital state towards increasing proportion of being widowed is noticeable. Such transitions are often having their impact also on mortality. In the early periods of widowhood their mortality also increases. However, the divergency in life expectancy for males and females has significant impact towards the rising widowhood shares for females. Life-expectancy for Non-Estonians is lower both for females and males compared to Estonians, the difference being more pronounced for older females [Katus, Puur, 1992]. That explains the higher shares of Non-Estonian widowed for both sexes. The share of widowed Non-Estonian male is significantly increasing beginning

with age 75 (Figure 11).

Figure 12 Widowed by residence and ethnicity
Estonia 1989

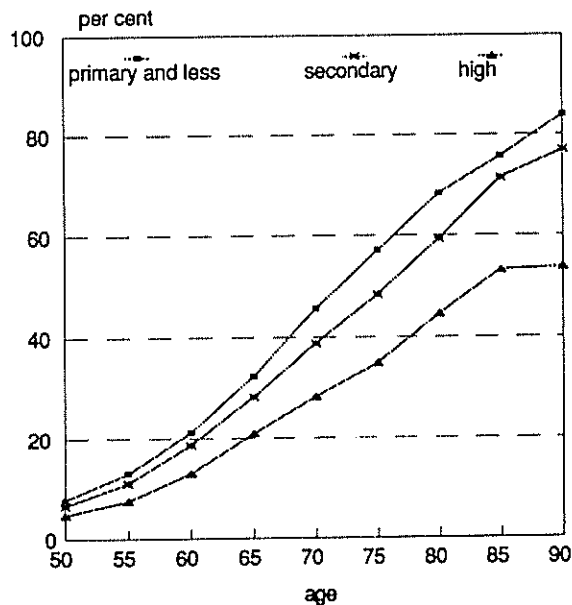


The differences between urban and rural areas for widowed elderly are practically negligible. The ethnic factor brings out the differences, Non-Estonian rural population being with the highest propensity to be widowed compared to all other groups. Proportions of the Non-Estonian widowed elderly in urban areas shoot up by its propensity from the ages over 70, acquiring for the age group 80-84 30 per cent higher share compared to ten years younger age group (Figure 12).

Educational attainment plays differentiating role, where the reversal impact of this factor compared to the married elderly is observed (Figure 13).

Significant difference is observed between the proportions of widowed with the lowest level of educational attainment and the highest level. In respect to Non-Estonians the differentiation is more pronounced: with the lowest level of education Non-Estonians experience the largest propensity of being widowed as well as the highest levels of increase by age. Non-Estonian widowed elderly with the highest level of educational attainment have the lowest propensity of being widowed compared also to Estonians.

Figure 13 Widowed by education and age
Estonia 1989



For Estonians the education does not play such a role, although by age the lowest levels of widowhood are characteristic to Estonians with the attainment of secondary education. For Estonians already observed stabilization effect of the higher educational attainment in the very advanced ages is also relevant for widows.

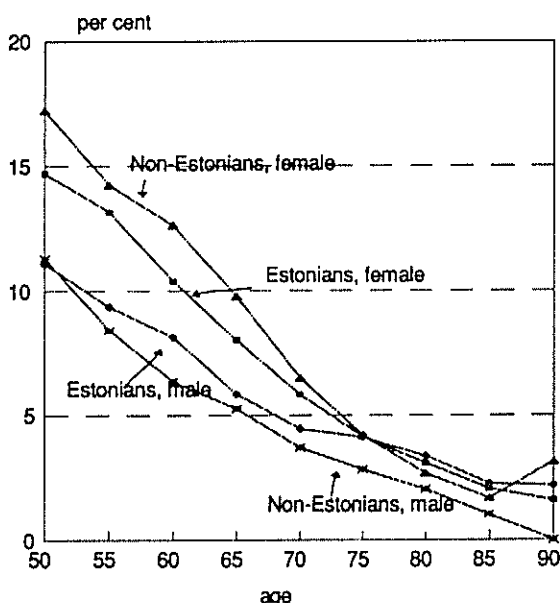
2.4. AGE-PROFILES OF THE DIVORCED ELDERLY

In most European countries the divorce rates have grown over the last decades [Macura, Adams et al, 1994]. The proportions of divorced or separated among elderly have also increased, the number of older women who are currently divorced has risen sharply in many countries [Myers, 1994]. As mentioned above, in Estonia the

frequency of divorces also showed growing tendency until late 1970s, although in 1980s total divorce rates are having decrease.

The general trend of increasing divorce rates could also be followed in the age profiles of the divorced elderly, which are particularly high in younger cohorts and indicating that their share in the future could be much higher than the level of divorcees currently over 75.

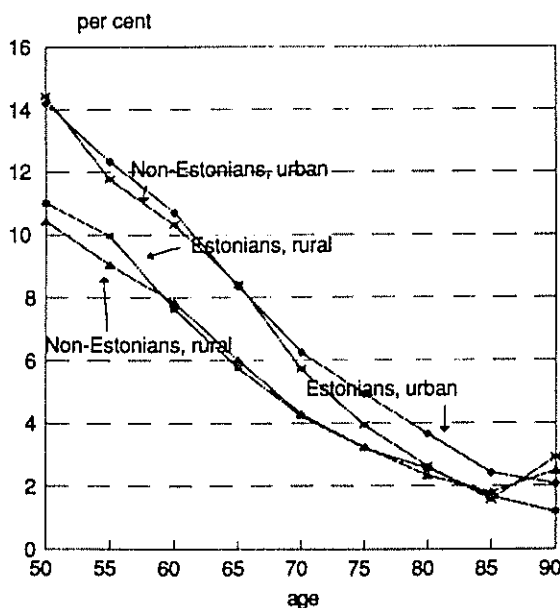
Figure 14 Divorced by sex and ethnicity
Estonia 1989



The age profiles by gender and ethnicity (Figure 14) show that the increase has been mainly acquired at the expense of Non-Estonians. The high proportion of divorcees is mainly acquired at the expense of females' higher shares in younger cohorts, Non-Estonians demonstrating the higher proportions up to age 70. Non-Estonian males are indicating towards the changing pattern in the propensity of being divorced: being representatives of more traditional behaviour, the increase at the youngest cohort - age 50 - might be the first notion towards their increase in the future, although throughout the age profile Non-Estonian divorced male elderly remain at the lowest levels. Estonians' divorced

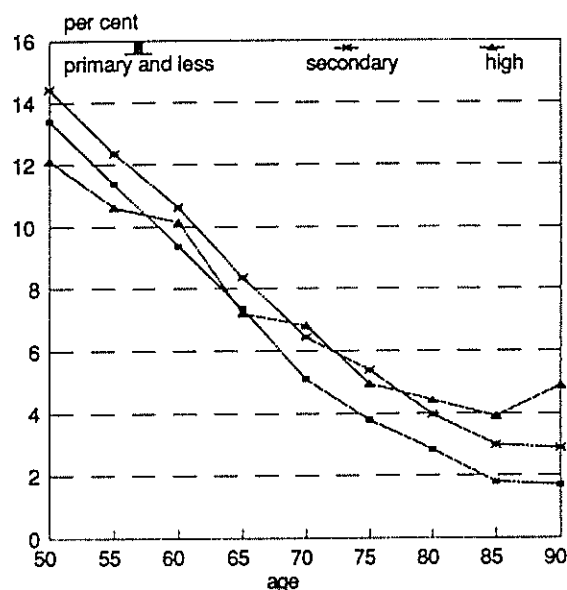
aged population is comparatively stable by their age pattern. Of interest is the higher propensity of Estonian male divorcees at the advanced ages compared to all other groups, the turnover taking place at age 75.

Figure 15 Divorced by residence and ethnicity
Estonia 1989



Elderly population demonstrates higher shares of divorced for those residing in urban areas. In the case of divorced elderly, ethnicity does not play any differentiating role in correlation with place of residence. Estonians experience slightly higher propensities, in particular for urban population at advanced ages. However, the upward slope of Non-Estonian divorcees at age 90 both for urban and rural areas is noteworthy (Figure 15).

Figure 16 Divorced by education and age
Estonia 1989



Educational differences are not very significant for divorcees. However, the differences are revealed for the youngest and oldest cohorts (Figure 16). In the youngest cohorts the lowest propensity to be divorced demonstrate those with the highest level of educational attainment compared to the highest levels of those with secondary attainment. With age, the stabilizing effect of higher education is revealed and for the oldest old, those with higher educational attainment show increase and attain the highest propensity of being divorced, while those with the lowest educational attainment remain at the lowest level by the proportion of divorcees for the oldest old.

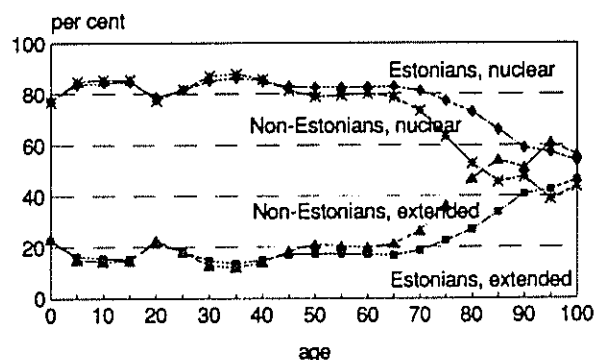
3. LIVING ARRANGEMENTS OF THE ELDERLY

Living arrangements are closely correlated with the marital status as well as with the general demographic transition towards general decline of fertility and low mortality rates. In line with the general demographic transition the hypothesis of family nuclearisation was put forward [Goode, 1963]. Later the hypothesis was broadened and stated that in no society has the large residential family become the modal form, neither might the 'nuclear family' be the universal one in all societies [Levy 1965].

As pointed out by Hajnal [1965] nuclear family has been dominant family form in Western Europe as opposed to Eastern family system. By Estonian demographers [Katus, 1982; Palli 1988] it has been brought out that Estonia lies just at the border dividing these two patterns, however Estonians belonging to the Western one. The following also tries to reveal the impact of long-term immigration from East to this pattern.

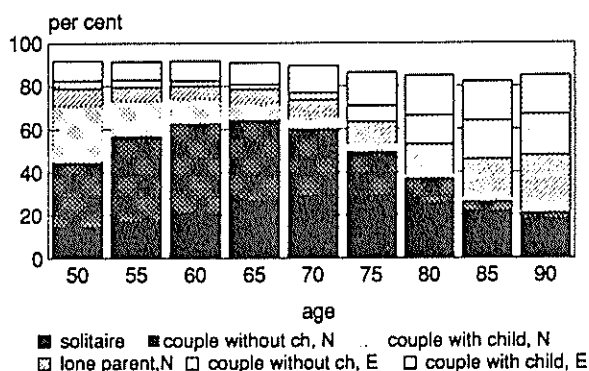
Historical studies have indicated that already in the past in the Western societies the nuclear family was a dominant family form [Laslett and Wall, 1972], which is mainly the outcome of the prevalence of the Western marriage system, meaning later age at marriage and thus leading to fewer complex households and more households with parents living with their unmarried children [Wall et al, 1983]. In the present situation of changes in family system, for Western type of families the new phase does not mean the transition from extended families towards nuclear ones, but rather a phase of denuclearisation and diversification of family forms and living arrangements [Höhn, 1994]. For Eastern Europe, where the early marriage has prevailed, the extended and complex families were more common forms of family system. For these populations the transition towards nuclearisation has been revealed.

Figure 17 Percentage of living in nuclear or extended families
Estonians and Non-Estonians
Estonia 1989



indication to that. Estonians demonstrate high propensity of nuclear families throughout the age profiles, some decline of it is revealed only for very advanced ages.

Figure 18 Population living arrangements
Family types
Estonia 1989

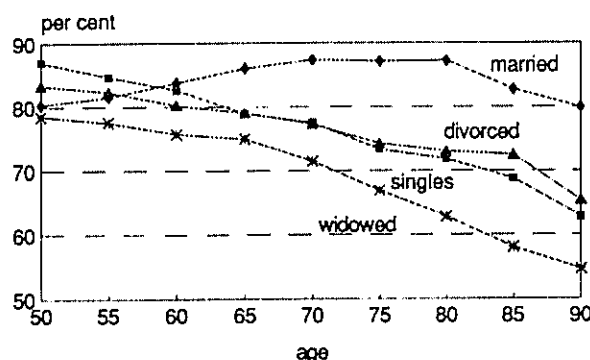


on the reference person. For the present analysis, the reference has to be made in respect with the categories concerning definition of couples. In census data, the typology is formed in relationship with the reference person. In case of the elderly, especially at advanced ages, particularly starting with age 75, if not referred to as singles or married, they are heads only in approximately 20 per cent of the households. In respect of categories, representing living in couples, aged population in these cases are living in their kin's household, where the latter (for example children) form a couple, elderly form the third generation, representing mostly either parents or parents-in-law.

In the case of Estonia the above-mentioned general trend could be observed for the development of living arrangements, if Estonians as the representatives of Western family system are compared to Non-Estonians as the bearers of East European pattern (Figure 17). The transition of Non-Estonians' behaviour towards nuclearisation of families is observable. The higher proportions of extended forms since age 45 for Non-Estonians are the

Among the living arrangements almost 80 per cent fall to the types of nuclear family (living alone, living in couples without children, living in couples with children and being a lone parent) in cohorts up to age 70 (Figure 18), after which age extended forms are acquiring more significance. At advanced ages in nuclear types, the couples without and with children are changing places by their proportions. The typology of family forms in 1989 census data for Estonia is dependent

Figure 19 Living in nuclear families
by marital status
Estonia 1989



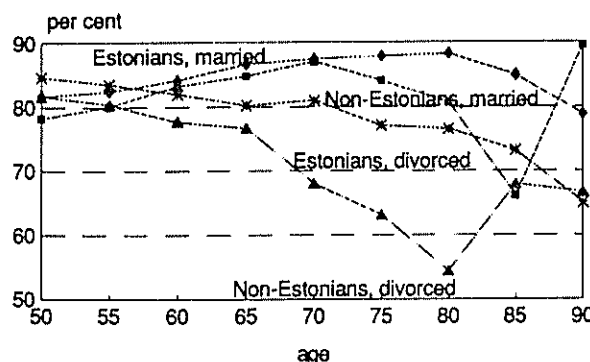
By different marital states the tendency to live in nuclear families is differently exposed (Figure 19). In the first youngest cohorts under investigation, the highest shares for living in nuclear families are demonstrating singles and divorced. Throughout the age profiles the share of living in nuclear families for these two marital states lose in propensity, in particular it is relevant for singles. Married elderly have the second lowest before the widowed propensity

of living in nuclear forms of living arrangements in earlier stage of old age. However, since 60 years of age, married in nuclear forms gather momentum and have the highest proportions throughout the advanced ages. Widowed are less of all marital states living in nuclear type of families and by age the decreasing shares are noticeable.

The main difference in living arrangements is revealed between genders. Among population over 60 females tend to live three times more frequently alone than men, the difference being more significant for Non-Estonians. The counterbalance is acquired through male living more often in couples without children, owing to the general trend of their higher marital rate. In this category, the gender differential is also more pronounced for Non-Estonians. Main difference in living arrangements between genders is observed among lone parents. Estonian females tend to live almost 6 times more frequently than men as lone parents, the difference for Non-Estonians in this comparison being near fourfold. Estonian females also tend to live twice as frequently as Non-Estonian females in type categorized as 'other', thus exposing more variance in the living arrangements.

3.1. LIVING ARRANGEMENTS OF THE MARRIED ELDERLY

Figure 20 Living arrangements of nuclear families
Married and divorced by ethnicity
Estonia 1989

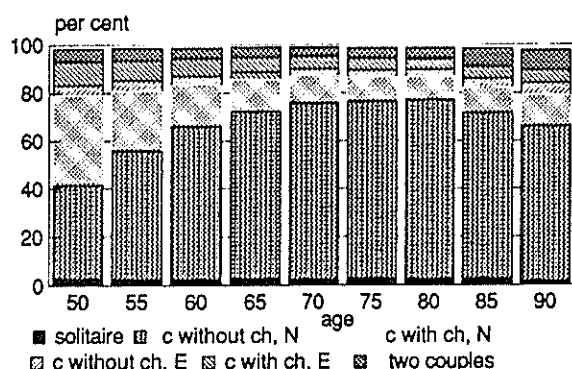


For those being married living in nuclear families is more pronounced in all ages. The curve for extended families is steeply losing its propensity already at the younger cohorts.

The prevalence of Western-type family system for Estonians is revealed also by their higher propensity to live in nuclear families through the whole age profile. Non-Estonians' propensity in the relevant

type is in all age groups lower, losing considerably in its proportions for ages over 70 (Figure 20).

Figure 21 Living arrangements of the married
Estonia 1989



As for gender differentials of elderly population by living in nuclear or extended families, married male comprise almost 100 per cent of male living in nuclear families, losing its propensity only at the very advanced ages (85+). For females, the married constitute around 80 per cent among the nuclear families up to age 65, from which on they lose the propensity. The latter is particularly pronounced for Non-Estonian females.

In analyzing the living arrangements of the married by a more detailed typology, the main type for married elderly is to live in nuclear families as couples without children (Figure 21). This type of arrangement is acquiring significant propensity by age, comprising almost 75 per cent among the ages 70-84, losing it somewhat only at very advanced ages.

Figure 22 Family size by marital status
Estonia 1989

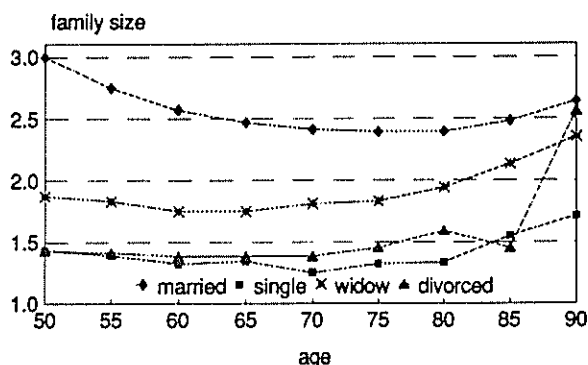
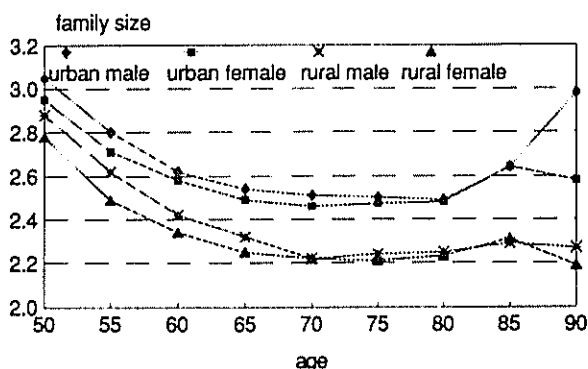


Figure 23 Family size of married by sex, age and residence
Estonia 1989



The pattern is common to many developed countries, where the changing pattern of family structures is expressed in the general decrease of older persons living with family members as the result of the propensity to acquire more independence at older ages [United Nations, 1994]

Family size of the married is the largest among all marital statuses, although remains in all ages under 3 persons, except for age 50 (Figure 22). It is interesting to note that residential differences are more pronounced by family size than, for instance, differences in respect to gender. Urban married elderly live in bigger by size families, irrespective of place of residence, married elderly females live in smaller families, the tendency acquiring speed with age (Figure 23).

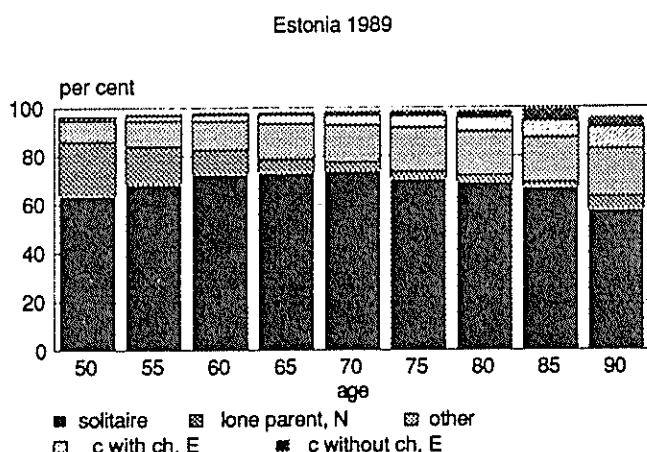
3.2. LIVING ARRANGEMENTS OF THE SINGLE ELDERLY

If to compare the living arrangements of all unmarried persons with those of married ones, although in the youngest cohorts living in nuclear families is at the similar level, with age all these states lose in propensity of living in nuclear families. However, among the nuclear forms living alone acquires significance and forms the main type of living arrangements for these states.

As various studies show, the propensity to live alone increases over time owing to several factors:

- (1) greater longevity has combined the desire and ability to live independently [United Nations, 1994]
- (2) change in relationships between parents and children without sharing the common residence [Sussmann, 1976]
- (3) the important determinant are the norms and patterns of childrearing [Pampel, 1983]
- (4) housing availability and income independence are additive for the propensity to live alone but they are only supporting the changing pattern of the living arrangements as a whole.

Figure 24 Living arrangements of the singles



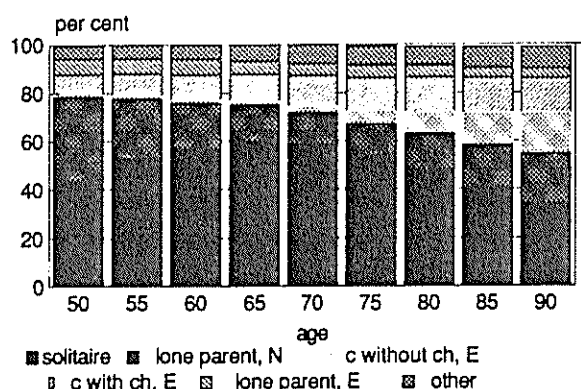
Living alone is the main type of living arrangements for elderly single population. Of all single population aged 60 and over 71 per cent live alone. However, among the living alone singles constitute only 16.8 per cent. Living alone is the dominance for single women and Estonians, who constitute approximately 80 per cent of the relevant population.

ge-profiles for singles living alone show increase in solitariness up to age 70, forming in each age group about 60-70 per cent of all the living arrangement forms. Another major type for singles' living arrangement is to live in nuclear families as a lone parent, the proportion of which by age is reducing, although at the very advanced ages, it gathers again more importance (Figure 24). After 75 the complex type of living arrangements marked under category 'other' is gathering importance. Remarkable is the emergence of the categories with 'couples' for older ages: with or without children, which suggests that single persons tend to enter into other kin's households as siblings, children or other relative or non-relative. The so-called 'singles' are also living in their children's households as parents or parents-in-law, so the category 'single' is not representing the pure never-married status, as far as those, having ever cohabited and no longer living together, determined themselves as singles. Family size of singles is one of the lowest and comparable to the family size of the divorced (see Figure 22), however the average family size is among singles also increasing for advanced ages, still remaining at the lowest level compared to all other states.

3.3. LIVING ARRANGEMENTS OF THE WIDOWED

It is often reviewed that by living arrangements, widows should be more dependent on related children and may have little choice to live alone [Pampel, 1983]. The Estonian case does not prove the point. Although, of all widowed population aged 60 and over 53 per cent are living alone, among all living alone the widowed constitute 65 per cent. However, besides the high share of living alone, the next by proportion are the forms of living arrangements of extended families.

Figure 25 Living arrangements of the widowed
Estonia 1989



In living arrangements of the widowed, living alone prevails throughout all ages. The propensity of living alone shows increase up to age 65, accounting for more than 40-60 per cent of all the forms (Figure 25). Next by propensity is living as a lone parent in nuclear family. After 75 the similar trend compared to singles is observed: the proportion of living in couples (both with and without children) gains significance. In the case of widowed, these couples are representing extended families. The significant propensity of

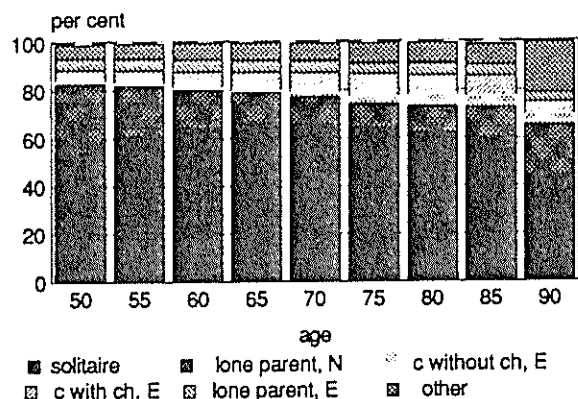
living in extended families at older ages is mainly acquired at the expense of Estonian male widowed elderly population.

Family size of the widowed elderly population is the next largest after the married. Females are living in families, which are greater by size. For both genders the family size is demonstrating increase by age, which clearly indicates that the kin relationships are more expressed towards those widowed (see Figure 27).

3.4. LIVING ARRANGEMENTS OF THE DIVORCEES

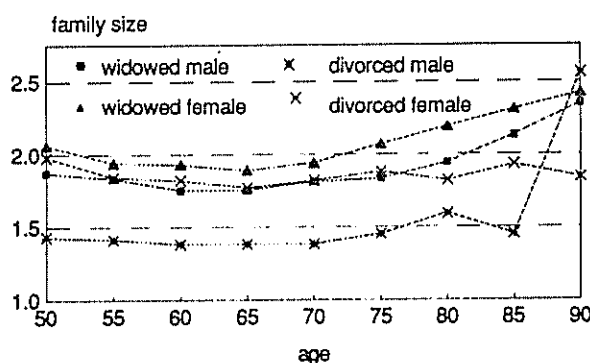
Living arrangements of the divorced elderly are comparable to those of widowed, with the exception that living alone is more widespread along all age groups for divorced elderly (Figure 26). However, by the propensity of living in nuclear families they are the third after married and singles in the younger cohorts, after 65 the change of places with singles take place and divorced remain throughout all ages with the next highest proportion of living in nuclear families after married elderly.

Figure 26 Living arrangements of the divorced
Estonia 1989



Among the divorced aged population, population living alone constitutes among all other types of living arrangements more than 64 per cent. By prevalence lone parents living in nuclear families are the next, with a bit smaller shares compared to the relevant proportions among widowed aged population. These two types together maintain the prevalence among all other types of living arrangements throughout all ages. Only for age group over 90 mixed type of living arrangements defined under category 'other' is outstanding with its nearly 22 per cent proportion.

Figure 27 Family size by marital status
Widowed and divorced by sex
Estonia 1989



By family size divorced are at the same level with singles, having it fluctuating around 1.5 persons. However, by age the divorced elderly gain in their family size. Again the outstanding proportion of the living arrangements characterized as 'other' for age over 90 shoots the family size for this cohort up to the comparable level of family size for married elderly, the latter being the largest by size. As shown on Figure 27, the small family size is constituted at the expense of females, whereas divorced male population has the family size comparable with the size for widowed male. The enlargement of the size for age 90 is also formed at the account of females.

CONCLUSIONS

In the developed countries, where the below-replacement fertility is maintained, demographic ageing is advancing and gaining momentum, because every cohort of children is smaller than the parents' cohort. With the general advancement in mortality rates towards higher life-expectancy, most people survive to retirement age and with lower mortality rates the lives of old and very old people are lengthened. Even high immigration cannot prevent a population from ageing in the long term, as immigrants

age themselves and the effect of immigration becomes small and temporary. If the immigration involves population whose demographic characteristics are very different of the native-borns, immigrants only add to the problems of ageing in general with the need to take into account a variety of diversified, partly controversial needs of the aged population.

Due to these general trends in demographic processes, which bring about the intensification of the ageing process, the aged population experiences transitions in their life cycle, which also shape and restructure the needs of the elderly throughout the process. One of the main characteristics, determining the individual health, economic and social independence and general well-being, are the transfers of marital states. The transitions between these states often determine the changes in living arrangements together with living conditions.

Although Estonia belongs to the East European mortality type with the trend of mortality stagnation in 1970s and the great differences between male and female life-expectancies, the typical increase of proportions of elderly married people has also taken place in Estonia between 1979 and 1989 censuses. On a whole it means reduction for widowhood proportions, although it also means that people enter into widowhood later in their life-cycle, which might have a more complex impact to the living arrangements of the widowed and their relationships' formation with other kin in the future. Widowhood is the main status for elderly females. Higher proportions of those widowed among elderly Non-Estonians are the reflection on their more pronounced East European type mortality, which adds numbers of the widowed both to males and females. However, as living in consensual unions is much more spread among Estonians than among Non-Estonians, the lower propensity of widowhood for Estonians might also be on the account that census data underrecorded actual widows who had lost their spouse while living in a consensual union. In the Estonian case, the widowhood is compared to other unmarried categories of elderly less likely to raise the likelihood to be institutionalized at older ages. In the present research we lack evidence, what is the main cause for that. Some studies have revealed that kin availability (especially living children and parents), chronic diseases are raising the likelihood to live alone, positively associated income variables add to the proportions of living alone [Wolf, 1988], on the other hand, the non-availability of kin increases especially for widowed the probability to be institutionalized. For Estonia, it might mean the further increase of those living alone at older ages. Bearing in mind the fertility decline in general and the migrant status combined together with lower fertility of Non-Estonians might increase the need for institutionalization.

The single and divorced elderly population, although less numerous among the aged compared to the two first described states, are often regarded as the groups of elderly at most risk. However, it is also argued, that never-married status might involve more those who are socially and economically more independent and have for a longer period in their life-cycle been coping with the every-day life [Wolf, 1988]. That leaves the divorced population with the greatest problems for older ages. Although, divorces are not commonly appearing at older ages, like, for instance, widowhood, and having been divorced, a person has had an adaptation period of the state before reaching the old age, nevertheless, the increase in proportions of divorced and their more frequent institutionalization might add to the problems of future social care. Again the reference

has to be made, that the increase of divorcees has been especially significant for Non-Estonian population.

Besides the marital status, being the demographic determinant of the living arrangements, developments in health and housing policy together with the social care system and economic independency are of relevance to the changes in the living arrangements of the elderly.

LITERATURE

Bengtson, Vern L., Carolyn Rosenthal and Linda Burton (1990). Families and aging: diversity and heterogeneity. In *Handbook of Aging and the Social Science*, Robert H. Binstock and Linda K. George, eds., 3rd ed. San Diego, California: Academic Press, pp. 263-287.

Goode, William (1963). Industrialization and Family Change. In *Industrialization and Society*, Bert Hoselitz and Wilbert Moore, eds. Paris: Mouton and UNESCO.

Höhn, Charlotte (1994). Ageing and the Family in the context of Western-type Developed Countries. In *Ageing and the Family*. Proceedings of the United Nations International Conference on Ageing Population in the Context of the Family, Kitakyushu, Japan, October, 1990, UN: New York, pp. 29-33.

Katus, Kalev (1982). *Dolgosrochnye tendencii razvitija i upravlenija demograficheskoj sistemoj*. Thesis for Ph.D.- Moscow.

Katus, Kalev (1989). *Demographic Transition and Population Ageing: case of Estonia*. RU Seeria B No. 10, Tallinn:EKDK, 14 pp.

Katus, Kalev ja Allan Puur (1992). *Eesti rahvastiku suremustrend elutabelite analüüsi põhjal*. RU Seeria B No. 14, Tallinn:EKDK, 43 lk.

Katus, Kalev, and Luule Sakkeus (1992). *Foreign-Born Population of Estonia*. Paper presented at the Academy Colloquium *Population of the Former USSR in the 21st century*. September 29 - October 2, Amsterdam, 24 pp..

Kinsella, Kevin, and Cynthia M. Taeuber (1993). *An Aging World II*. International Population Reports P95/92-3. US Census Bureau. Washington, 160 pp.

Laslett, Peter and Richard Wall, eds. (1972). *Household and Family in Past Time*. Cambridge, United Kingdom: Cambridge University Press.

Levy, Marion Jr. (1965). Aspects of the analysis of family structure. In *Aspects of the Analysis of Family Structure*. Ansley Coale et al., eds. Princeton, New Jersey: Princeton University Press, pp.1-63.

Macura, Miroslav, Adams Edith and Dorota Holzer-Zelazewska (1994). Changing Patterns of First Marriage, Divorce and Remarriage in Europe and North America. In *Ageing and the Family*. Proceedings of the United Nations International Conference on Ageing Population in the Context of the Family, Kitakyushu, Japan, October, 1990, UN: New York, pp. 45-60.

Myers, George C. (1994) Marital-Status Dynamics at Older Ages. In *Ageing and the Family*. Proceedings of the United Nations International Conference on Ageing Population in the Context of the Family, Kitakyushu, Japan, October, 1990, UN: New York, pp.112-120.

Palli, Heldur (1988) *Otepää rahvastik aastail 1716-1799*. Tallinn

Pampel, Fred C. (1983) Changes in the Propensity to Live Alone: Evidence from Consecutive Cross-Sectional Surveys, 1960-1976. *Demography*, Vol.20, No.4

Sussman, M. B. (1976) The Family Life of Old People. In *Handbook of Aging and the Social Science*, Robert H. Binstock and Ethel Shanas, eds. New York: Van Nostrand Reinhold, pp. 218-243

United Nations Economic Commission for Europe. Population Activities Unit. (1992) *Dynamics of Population Aging in the ECE countries*. A Project Undertaken by the Population Activities Unit of the Economic Commission for Europe.

United Nations (1994). Overview of Recent Research Findings on Population Ageing and the Family. In *Ageing and the Family*, Proceedings of the United Nations International Conference on Ageing Population in the Context of the Family, Kitakyushu, Japan, October, 1990, UN: New York, pp.79-104

Wall, Richard, Jean Robin and Peter Laslett, eds. (1983). *Family Forms in Historic Europe*. Cambridge, United Kingdom: Cambridge University Press.

Wolf, Douglas A.(1988). Kinship patterns and household composition: older unmarried Hungarian women, 1984. *European Journal of Population*, No. 4, 1988, pp. 315-337.