TRANSITION TO ADULTHOOD IN ESTONIA: EVIDENCE FROM ESTONIAN FFS

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The paper outlines the process by which young people are transformed into adult members of society in Estonia. In particular, the paper covers three processes which represent the central steps in the progression from adolescence to adult status: completion of schooling and entry into labour force, formation of first partnership, and entry into parenthood. The data for the paper come from the Estonian Family and Fertility Survey which is a national part in the framework of the European FFS. Analytical methods applied combine classical demographic techniques with multivariate event history models. The paper has been prepared as a country case study in the framework of *Globalife* comparative study, coordinated by Bielefeld University, and presented at international workshop *Transition to Adulthood: the Role of Country-Specific Institutions* (March 23-24, 2001). The paper has been prepared in the framework of the research theme 0501463s00 and supported by the ETF grant No 4796.

1. INTRODUCTION

The aim of this paper is to offer an exploratory analysis of the process by which young people are transformed into adult members of society. Prepared as a country case study in the framework of *Globalife* project, the paper focuses on the patterns of transition to adulthood in a particular national setting — in Estonia. Following the general analytical framework of the project, the paper covers three processes/events which represent the central steps in the progression from adolescence to adult status: completion of schooling and entry into labour force, formation of first partnership, and entry into parenthood.

Research questions addressed in the paper took start from the set of pilot studies prepared in the *Globalife* project framework [Bernardi 2000; Sommer, Klijzing and Mills 2000; Simo, Golsch and Steinhage 2000]. To cast light on the embededness of these process in the societal context, including the varying degree of uncertainty faced by young individuals, the paper applies two complementary perspectives. First, transition to adulthood is examined in the dynamic perspective, by comparing the experience of successive birth cohorts. Shifts between the cohorts could be point, among others, to the role of societal institutions in structuring the individual life courses. Second, the paper addresses the inter-cohort difference of the transition processes, by comparing the experience across subgroups of the population. Intra-cohort heterogeneity could provide further indication about the choices and constraints which potentially affect the attainment of adult status.

The data for the paper come from the Estonian Family and Fertility Survey which is a national part in the framework of the European FFS, coordinated by the Population Activities Unit of the United Nations Economic Commission for Europe. The survey was implemented by Estonian Interuniversity Population Research Centre, under the supervision of the national FFS Working Group. Consistent with the internationally developed core questionnaire, Estonian FFS provides a large variety of retrospective life history information. The survey programme covered all major individual careers, including complete event histories on partnership formation and dissolution, fertility, pregnancies and abortions, migration and residential mobility, education and labour force participation.

The implementation of the Estonian FFS was divided into two separate stages, primarily due to financial constraints. The female survey was carried out in 1994 (n=5,021 respondents). The male survey followed with three-years time-lag, fieldwork carried out in 1997-early 1998 (n=2,511 respondents). Both male and female surveys of the Estonian FFS have been based on nationally representative probability sample. The present paper makes use of the female survey which has become available for research earlier. Detailed description of survey methodology, procedures and results are available from the volumes of *Methodological Report*, *Standard Tabulations* and *Country Report* [EKDK 1995a; 1995b; 1999; 2001a; UNECE 2000].

In the context of European survey, two aspects of Estonian FFS should be underlined. First, differently from the standard recommendation, the Estonian FFS extended the cohort range of the target population beyond the fertile age. The upper limit of the target population was extended for twenty years, i.e. up to birth cohort 1924. Most importantly, the extension of the cohort range was motivated by the fact that FFS was the first survey of

its kind in Estonia. Leaving to the future the data collection on older cohorts, who by the time of the survey had already reached age 70, would have probably led to the eventual loss of information. Additionally, the extension of cohort range was encouraged by the gaps in existing population information for immediate post-war decades. This period has been poorly covered by vital statistics, neither has there been any census nor representative surveys which could supply the data on respective cohorts.

Second, the target population of the Estonian FFS included foreign-origin population, i.e. immigrants and their second generation. The need for such an extension arose from the extremely high proportion of foreign-origin population which had emerged as result of post-war immigration from various regions of the Soviet Union [Sakkeus 1991; 1996]. According to the 1989 census, the proportion of foreign-origin population accounted for 36 per cent of total population. Moreover, the foreign-origin population has been characterised by distinct patterns of demographic behaviour, spatial distribution, age structure etc [Katus and Sakkeus 1993; Katus *et al* 1999; Viikberg 1999]. As a result of the referred proportion, the patterns for total population could be understood only through separate examination of native and foreign-origin population. This methodological approach has been applied systematically in previous analyses, based on the Estonian FFS, and followed in the present paper.

Third, the Estonian FFS has been integrated into the system of nationally representative event history surveys, carried out in the 1990s. Besides, the Estonian FFS it includes the the Labour Force Survey [Noorkõiv and Puur 1996], Health Survey [Leinsalu *et al* 1998], and National Minority Survey [EKDK 2001b]. The surveys, included in the system, share common methodology. In this framework, each survey was given a dual task: on one hand, the development of definitions, concepts and appropriate measurement tools in its field, and on the other hand, systematic application of definitions, elaborated by other surveys. The referred approach ensures the comparability across the surveys and allows to combine them depending on specific task.

The paper is structured in three main sections. Following the introduction, the second section outlines the main features of the societal context in which the progression of FFS cohorts from adolescence to adulthood has occurred in Estonia. By means of survivorship functions, the third section focuses on the change over cohorts, addressing each referred transition separately as well as in combination. By means of multivariate event history models, the fourth section explores the intra-cohort heterogeneity in transition to adulthood, paying special attention to modifications over time. The concluding section of the paper summarises the findings from the perspective of globalisation.

2. SOCIETAL CONTEXT OF TRANSITION INTO ADULTHOOD

The Estonian FFS birth cohort range from 1924 to 1973 which implies the fifty years' timespan between the experience of the oldest and youngest. The oldest cohort has undergone the passage to adulthood already in the 1940s–early 1950s while for the youngest cohort, corresponding transition has occurred mostly in the 1990s. Such a prolonged time period embeds considerable alteration of societal conditions already by itself, however, in case of Estonia, the turbulence has been added by systemic changes,

experienced by the countries of Central and Eastern Europe. At the end of the 1980s, the region witnessed the onset of fundamental changes which aimed at restoration/building of democracy and market economy, and for some countries, coincided with the restoration of statehood. Considering the temporal perspective of the paper, however, the recent societal transition appears not the first of its kind, and in order to understand the context in which the progression to adulthood occurs, discussion should be started from the preceding one and its aftermath.

The first transition which has been experienced by the FFS cohorts dates back to the 1940s–early 1950s when the existing principles of societal organisation were declared obsolete and replaced. The emergence of the referred transition is directly related to the Second World War and ensuing geopolitical rearrangement. The Molotov-Ribbentrop Pact by the Soviet Union and Germany divided Eastern Europe into spheres of interest, and as a result, the Soviet Union occupied and annexed Estonia in 1940. In 1941-1944 Estonia was under German occupation, and in 1944 the second Soviet occupation began which lasted for almost 50 years. Unlike in Central Europe, the referred period involved not only the absence of self-determination but also dismantling of national institutions — the position of Estonia under Soviet rule has been shortly defined as a state of dependence [Misiunas and Taagepera 1983; 1993].

The new regime introduced forceful and rapid rearrangement of entire societal organisation by means of political terror, arrests and mass deportations. To escape this fate, about 7 per cent of the population fled from the country forming a basis of the Estonian diaspora in the West. The impact of these violent changes can be revealed by combined population losses resulting from the war and repressions: disregarding the post-war immigration which has increased the number of total population, Estonia is one of the few European countries where the pre-war population size has not been reached [Katus 1990]. From the viewpoint of social structure, the activities of the new regime appeared not uniform but were deliberately targeted against higher social and professional strata, which suffered particularly heavy losses. Although the official propaganda of the period attempted to demonstrate the improvement in living standards, the referred period has been marked by significant deterioration of most welfare indicators, ranging from infant mortality rate to dwelling density, or from per capita food production to crime rate [Eesti saatuseaastad..., 1963-1972].

Following the extreme turbulence, the period from the mid-1950s to the 1980s is characterised by relative stabilisation: general societal conditions became less harsh, reflected by gradual recovery in economic and social development. During the 1960s agricultural sector began to recuperate from the impact of forced collectivisation, and within the context of the Soviet Union, Estonia gained importance as a supplier of food products. This meant, however, that differently from developed market economies, the share of agricultural sector employment stood rather high (close to one fifth of the labour force) in the referred period, even rising during the 1980s. Regarding the development of other sectors, Soviet policies dealing with economic development favoured heavy industries also in Estonia. This course implied a vast expansion in industrial production, and already by the end of the 1950s, secondary sector dominated the structure of labour force.

Characteristic to centrally planned economies, the demand for labour exceeded supply, securing full employment to all who were willing to take up a job. Aside offering extraordinarily high degree of job security, exercised employment policies resulted in noticeably high levels of labour force among women and older workers [Puur 1995]. Moreover, in case of Estonia the strategy of economic development required a sizeable input of labour which was unavailable locally. The referred demand for labour gave an important momentum to immigration into Estonia, which during the immediate postwar decade had been strengthened by the considerations of geopolitical and social rearrangement. The immigration to Estonia originated mostly from the European part of Russia which by the time had entered the stage of mobility transition and featured considerable migration potential [Sakkeus 1991; 1996].

The maintenance of high immigration volume through the 1970s and 1980s implied the enlargement of migration hinterland from the neighbouring regions of Russia to more distant regions. These regions had entered demographic transition later, and hence, were characterised by rapid population growth. Immigrants from these new regions came from socially and culturally diverse environment, which had few, if any, historical relations to Estonia, and introduced considerable heterogeneity to the immigrant population itself. To this end it is important to note that the distinction between foreign-origin population should not be mixed with ethnic dimension. The 1989 census, for example, revealed the presence of more than 120 ethnicities in the foreign-origin population, and on the other hand, native population includes besides Estonians ethnic minority populations which have settled in Estonia long age [Viikberg 1999; Katus, Puur and Sakkeus 2000].

Turning to education, high literacy rate (94.3 per cent of total population aged 14+ could either read or write) was reported already by the 1881 census. The referred literacy level was typical to Baltoscandian region and exceeded that of several West European countries [Reiman 1937]. The expansion of school enrollment continued in Estonia until the late 1960s, with each next cohort reaching higher attainment of secondary and tertiary education. Considering the FFS cohort range, primary/incomplete secondary education was still most common among cohorts born in the late 1920s and early 1930s. Starting from the birth cohorts of the late 1930s, secondary education had become the prevailing standard. Regarding tertiary education, however, the upward trend came virtually to an halt at the end of the 1960s, and the 1970s–1980s witnessed stagnation in the proportion of graduates from university or some equivalent programme. Taking into account the continued expansion of secondary education, which reached a peak in the 1980s, continuation ratios to tertiary studies even fell after 1970 [Helemäe, Saar and Vöörmann 2000]. Nevertheless, excessive demand for labour secured smooth transition from school to work.

In Estonia, as elsewhere in Central and Eastern Europe, the period of relative stability in societal conditions came to an end at the turn of the 1990s. Compared to the societal transition of the 1940s–1950s, the recent transition has received considerable attention from various disciplinary perspectives. In the context of globalisation, one unwillingly notices several similarities between the direction of recent transformation in Central and Eastern Europe, and the major social and economic changes generalised which in developed market economies has been conceptualised as the globalisation process.

The recent transition has implied the departure from previous economic isolation, adjustment to world prices, diversification and re-orientation of trade flows, substantial influx of foreign investments etc. As a result, former closed economies have become more integrated, and at the same time dependent, on the developments on the global scene. From the viewpoint of national economies, adjustment to new realities has necessitated extensive restructuration which has involved substantial declines in previously favoured economic sectors, on one hand, and the emergence and expansion of new/other sectors on the other hand. Aside sectoral shift, there has been a significant changes in the demand for particular skills, re-allocation of jobs from large to medium and small enterprises, re-emergence of self-employment, diversification of work patterns etc.

From the viewpoint of individuals, the recent transition has implied the loss of previous life-time job security. Sudden increase of uncertainty is most vividly manifested in the decline of employment opportunities and upsurge of unemployment. In most countries of Central and Eastern Europe unemployment rate stays close or above double-digit level [EC 2000a]. Similar to the experience of developed market economies, the recent transition has increased the significance of knowledge and information, which is among others reflected in the resumed growth in educational enrollment. However, compared to the former countries, social safety net and welfare policies in CEEC have offered much less to those who have failed to keep up with the pace of changes [UNECE 1995-1999].

Considering the transition experience of Estonia against the general background of Central and Eastern European countries, several features are worth of mentioning. On one hand, belonging to the former Soviet Union, the country's starting conditions were significantly less favourable than in countries like the Czech Republic, Hungary, Poland and Slovenia. Due to former close integration, it caused even greater shock, particularly as Estonia together with two other Baltic states choose to remain outside the CIS. Additionally, the transition needed to be accomplished in parallel with the re-establishment of national institutions. On the other hand, in the beginning of 1990s Estonia opted for rather radical path of economic reform, placing few obstacles in the way of price adjustment, international trade, privatisation and foreign investment [Lugus and Hatchey 1995]. Liberal economic policies were paralleled with the introduction of remarkably low payroll tax, minimum wage, unemployment benefits and pensions as well as short notification of discplacement.

Combination of relatively disadvantaged starting position and the absence of attempts to withhold inevitable changes have resulted in relatively quick structural adjustment in Estonia. Measured by the gross sectoral shift, for example, only Hungary had greater reallocations of employment between sectors. According to the share of tertiary sector, often used as an indicator of modernisation, Estonia, together with Hungary has reached the levels observed in certain countries of the European Union [EC 2000b]. Recent statistics on educational enrollment indicates that the progression rate towards higher education has risen sharply during the 1990s, for example at the end of the decade students accounted close to 40 per cent of age group 20-24 [ESA 2000]. Also, the progression towards knowledge-based society has been remarkably rapid in the field of communication infrastructure and Internet access.

Turning to the present paper, the FFS dataset does not cover the two societal transitions equally. While the experience of the first transition can be fully captured in the life courses

of the oldest cohorts born in the late 1920s–early 1930s, the timing of data collection in early 1994 allows the recent transformation to be reflected only to a limited extent, at least for quantitative analysis. Attempts to make generalisations about new behavioural patterns and social realities from severely censored life histories could easily lead to methodological difficulties [Sommer, Klijzing and Mills 2000]. Therefore, the paper has greater chances to provide conclusive results about the societal transition of the 1940s–early 1950s, not the recent transformation. In the context of globalisation research, such parallel may prove interesting. Extended cohort range of the Estonian FFS provides an opportunity to explore this avenue which may be not to the same extent be possible in other countries of Central and Eastern Europe.

3. COHORT TRENDS IN THE ENTRY INTO ADULTHOOD

The present section provides the description of the changes which have occurred in major life events used to define the entry into adulthood: first partnership, first parenthood and completion of education/entry into labour force. In contemporary societies the referred transitions can be regarded as normative events which belongs to the typical life course of individuals, and hence, the shifts in corresponding patterns are concerned primarily with their timing rather than prevalence.

The alteration in the timing of events is highlighted analytically by means of survivorship functions which represent the cumulative proportion of individuals who have experienced specific life course events by different age. Survivorship functions have been calculated separately for all ten five-year birth cohorts in the Estonian FFS sample, separately for native and foreign-origin population. For visualisation considerations the plotted data are limited to six cohorts. For all the events concerned, the presentation of survivorship functions starts at age 15; the upper age limit depends at which point the processes approach a plateau. The calculation of survivorship functions has been performed using the TDA software package [Blossfeld and Rohwer 1995]. Additionally, some summary characteristics such as median age i.e. age at which exactly half of the cohort members have experienced an event are presented.

Considering the survivorship functions it is important to note that, as at the time of the interviews the FFS cohorts had reached different point in their life course, the duration of their exposure to the risk of different events marking the transition into adulthood varies. Particularly a couple of youngest cohorts, as a result of their age at the interview, had not yet experienced all the events by the time of the interview. Although the survival analysis takes into account the fact of censoring, the patterns of transition for those cohorts cannot be explored to the extent comparable to older cohorts.

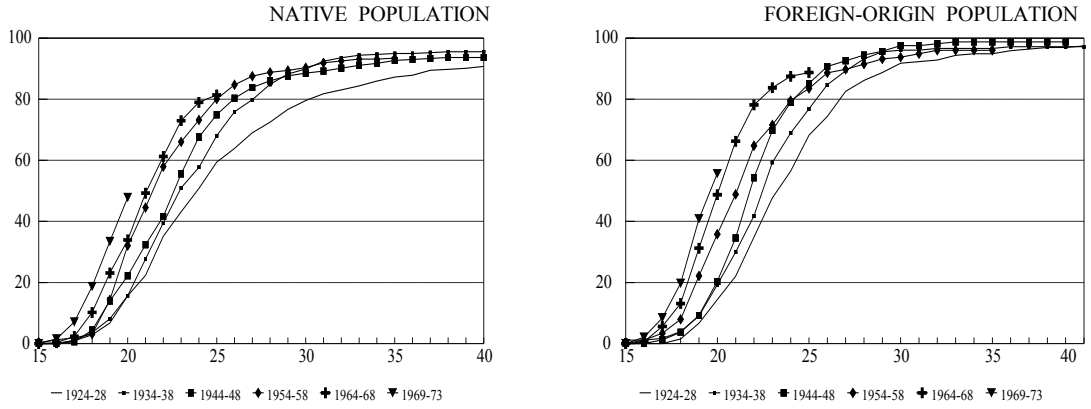
3.1. Timing of first partnership

Estonia has historically belonged to the region of European marriage pattern [Hajnal 1965]. This pattern of relatively late marriage, with a high proportion of the population never marrying, had been established in Estonia at least by the 18th century, distinguishing the country from its eastern neighbours who never experienced such pattern of behaviour [Palli 1988; Vishnevski and Volkov 1983]. The examination of vital and census statistics

for the 1920s and 1930s indicates that between the two World Wars, the late/low prevalence marriage pattern was still prevailing in Estonia. The mean age at first marriage, for example, stood above 26 years among females and above 29 years among males in the late 1930s [RSKB 1937-1940].

Figure 1 presents the survivorship function for first partnership, or in other words the transition from singlehood to union: marriage or cohabition. The data reveal a long shift towards younger union formation in Estonia, which evidently got started already in the pre-FFS cohorts. In the three oldest cohorts of native population, 1924-1938, the juvenation of partnerships was concentrated in relatively later ages: the biggest increase in the cumulative percentage of women, who had experienced first partnership, occurred beyond age 25. It is important to note that the referred shift has been clearly limited to the timing of first partnership — in all the cohorts followed to sufficient length, about 95 percentage of women had entered a partnership by age 40, a level that does not change noticeably across the cohorts.

Figure 1. ENTRY INTO FIRST PARTNERSHIP



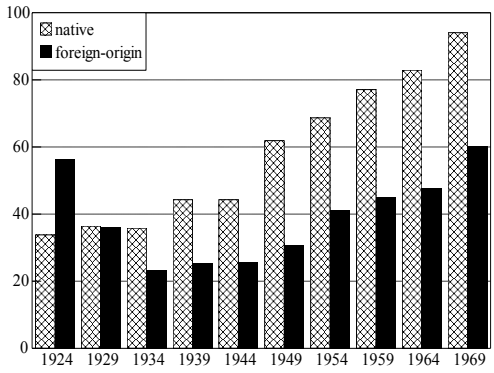
In subsequent cohorts, the changes in the timing of first partnership shifted to ever younger age interval. For example, the increase in proportion of women who started their first partnership before age 20 can be followed from 1939-1943 cohort, and to the 1964-1968 cohort, the percentage of such early entrants more than doubled. Women born in the youngest cohort, 1969-1973 started their first partnerships very early indeed, almost one fifth of them being involved in a partnership already by age 18. The trend towards earlier entry into first partnership is also reflected in the development of median age which has dropped from 23.5 years in the oldest cohort to 20.0 years in the youngest cohort. Decline in median age at first union has been the most rapid among women born in the 1940s, however, with minor intermediate reversal, juvenation trend has continued until the very end of the FFS cohort range. In comparative perspective, particularly the continuation of juvenation of first partnerships distinguishes Estonia from the countries which experienced the disintegration of European marriage pattern after World War II.

The trend towards younger entry into first partnership can be followed also among foreign-origin population, but at the same time, there have also been noticeable differences. Comparison of survivorship functions reveals that across all cohorts, foreign-origin women have started their first partnerships on the average earlier than native women,

depending on the cohort up to one year earlier. It should be noted that the earlier start of unions does not reflect higher frequency of very early partnerships among foreign-origin population but rather lower frequency of relatively later partnerships. For the oldest cohorts, the referred timing difference could at least partly be attributed to the absence of European marriage pattern among foreign-origin population. The median age at first partnership reaches the lowest point among the youngest cohort, however differently from native population, the decline follows a more linear trajectory.

The start of the first union in a person's life may be either the start of direct marriage or cohabitation/consensual union, which may or may not be converted into marriage in a later stage. Compared to registered marriage, cohabitation has been regarded as more flexible form of conjugal union which entails lesser social and legal obligations to the partners involved. Based on the distinction between direct marriage and cohabitation, Figure 2 decomposes the transition to the first partnership according to the type of union. Even a short glance on the graphs is enough to notice much greater inter-cohort change in the proportion of direct marriage and cohabitation, than in the timing of all first partnerships combined.

Figure 2. PROPORTION OF FIRST PARTNERSHIPS STARTED AS CONSENSUAL UNIONS



In the oldest cohorts of native population, direct marriage accounted close to two thirds of all first unions, a proportion which remained relatively stable until the 1939-1943 cohort. From that cohort on, the role of direct marriage as first partnership entered a rapid decline. Starting with the 1949-1953 cohort, proportions were reversed and consensual union replaced direct marriage as the mainstream route to family building. In the youngest cohort of the native-born population, 94 per cent of first partnerships had begun as consensual unions. Although the percentage for the referred cohort is likely somewhat boosted by the effect of censoring, the observed frequency of consensual unions resembles Scandinavian countries which are widely known as forerunners in the spread of consensual unions [Manting 1994; Trost 1988]. In this context it should be also noted that the definition of consensual union applied in the Estonian FFS was rather conservative defining cohabitation "as fully shared family life except for the fact of formal registration as marriage" [EKDK 1995a].

Similarly to the timing of first partnership, foreign-origin population shows considerable difference in the way in which the first partnership begins. Despite the same societal environment, foreign-origin population has been much less prone to start the first partnership as a consensual union. While in the 1924-1928 cohort the proportion of direct marriages and consensual union appears quite similar across subpopulations, in the 1929-1943 cohorts of foreign-origin population direct marriage increases its importance, accounting for 75 per cent of all first unions. The following transformation in the proportion of partnership types has proceeded among foreign-origin population with substantial time-lag — consensual union outnumbered direct marriage among first

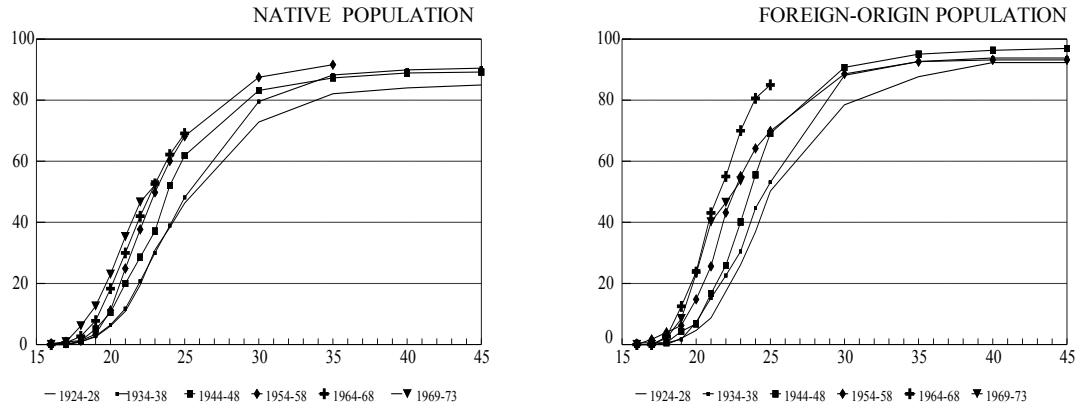
partnerships only in the 1964-1968 cohort. In the 1969-1973 cohort, consensual unions accounted for 63 per cent of all first partnerships.

3.2. Timing of entry into parenthood

The birth of a first child is another family-related event that marks the progression to adulthood. From a demographic point of view, it leads to active participation in population reproduction. From a life course perspective, the birth of a child defines the onset of parental responsibilities which impact goes far beyond the transition itself and shape important part of the following adult life. In the process of family formation, parenthood typically follows the entry into partnership with certain time-lag, and in that context, partnership could be regarded as a step towards the "readiness" for procreation.

Survivorship functions for first birth, or in other words from childlessness to motherhood, are presented on Figure 3. Regarding the state of origin, the data reveal a gradual decrease in the proportion of women remaining childless up to the end of reproductive age. Among the native-born population, in the cohorts which have completed or almost completed childbearing career, the percentage of childless women has decreased from 15 percent to 7-8 per cent. In other words, Estonia has witnessed a lengthy process of decreasing childlessness, the closing stage of which has been captured by the FFS survey. It is worth of noting that this proportion has been as high as 25 per cent in the older pre-FFS cohorts; the decline in ultimate childlessness is closely related to the disappearance of the European marriage pattern.

Figure 3. ENTRY INTO PARENTHOOD



There has been a noticeable shift of the first birth towards younger age, however, this shift is not evenly distributed across cohorts. In the four oldest five-year cohorts, 1924-1943, relatively small but systematic and unidirectional changes occurred in the timing of first birth. The referred changes were concentrated in age-span beyond 25 and were likely a reflection of decrease in completed childlessness. Median age at first birth fluctuated around 24.5 years in the cohorts, with no sign of trend. The fifth birth cohort, 1944-1948, introduced a largest shift in the timing of first birth, and this shift concerned the entire reproductive age-span. The trend towards earlier parenthood, although gradually decelerating, continued also in the following cohorts, up to the youngest. In the 1969-1973

cohort, 35 per cent of women gave birth to their first child by age 20. Quite likely, the referred cohort has experienced the ever-youngest entry into parenthood since the formation of European marriage pattern in Estonia in 18th century.

A similar trend can be observed among foreign origin population. Nevertheless, their starting point, i.e. fertility pattern for the oldest cohort has been younger and characterised by a significantly lower proportion of childless women. Also, the change over the course of fifty years has been somewhat greater. As a result, the younger cohorts of foreign origin population demonstrate a remarkably early start in childbearing. Half of the foreign-origin cohort 1964-1968 had the first child by age 22, and up to the 24th birthday, only one fifth had not entered parenthood (compared to about 40 per cent among native population). Still, the difference in the timing of first birth between native and foreign-origin population does not stem from the higher proportion of very young mothers among the latter but from the lower proportion of women who enter motherhood relatively later.

Because of important implications for other social careers of women, the continued trend towards such an early entry into motherhood needs an explanation. One possible hypothesis could be the Soviet housing policy under which a person or family could not buy a dwelling but was given a flat/house upon fulfilling several preconditions. Since the arrival of the child enlarged the number of family members and contributed to the increase of occupancy density, which according to the applied procedures, contributed to the chances of a couple for qualifying for a new dwelling. As childlessness by choice was rarely an option, these pragmatic considerations could have certain effect on the timing of first birth.

3.3. Timing of school-to-work transition

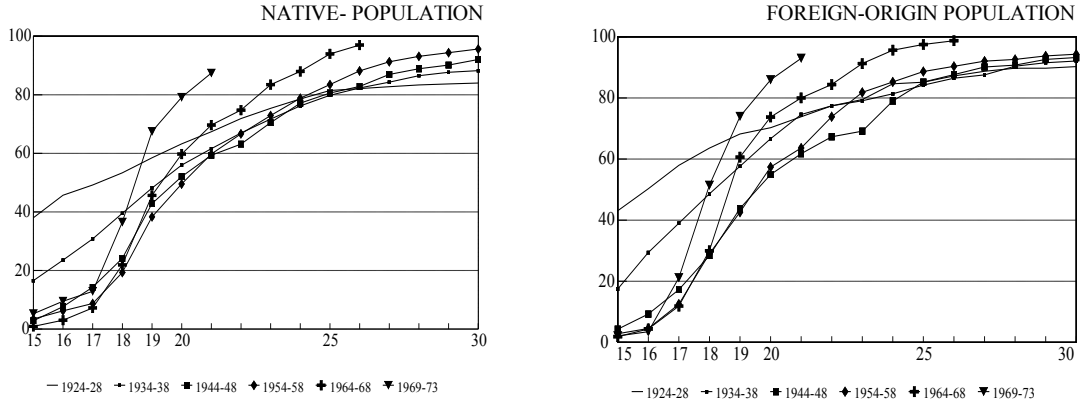
Estonian FFS collected separate event histories on respondents' educational and labour force careers which offer a possibility to explore the changes in the timing of the two transitions separately. Although completion of schooling and entry into labour force are closely linked they do not overlap fully. Completing school does not mean, on one hand, that a person immediately can, has to or wants to start working. On the other hand, studies could be intermittent or parallel with work, and entry into labour force may precede the completion of schooling.

The change in the timing of school completion has been driven by the extension of school enrollment and increased progression to higher levels of educational system. In Estonia, like in most other European countries, a remarkable rise in educational attainment has taken place across the FFS cohorts. The proportion of female population having at least secondary education increased from roughly a third in the 1924-1928 cohort to over 90 per cent among women born in the 1950s and 1960s. While in the two older cohorts, the most prevailing educational attainment was still primary education, (upper) secondary education had become the prevailing standard from the 1934-1938 cohort. As noted in earlier in the paper, the share of higher education expanded up to the birth cohorts of early 1940s, who completed their schooling in the 1960s: nearly one in every five women has graduated from a higher educational establishment. In the following FFS cohorts, however, the proportion of university graduates has remained virtually unchanged, slightly above 20 per cent.

These trends in educational attainment have been characteristic both to the native and foreign-origin population but there are also certain differences. A longer tradition of comprehensive education has resulted in virtually negligible proportion of illiterates or persons without primary education already in the oldest cohort of native population. In corresponding cohorts of foreign-origin population, respective category still exists. On the other extreme of the attainment scale, the data suggest a slightly higher proportion of university graduates among native population. Although gender differences are not addressed in the paper, it is interesting to note that, with the exception of a couple of oldest cohorts, native women have exceeded men in the proportion of both secondary and tertiary education. Among the foreign-origin population, the gender difference in education has preserved a prevailingly opposite outlook with men featuring higher attainment in tertiary education.

Figure 4 presents the shift in the timing of school completion by means of survivorship function. Considering full-time studies, in the oldest cohort of native population, half of the cohort had completed their education already by age 16.3 years. The following four cohorts demonstrate relatively rapid postponement of school completion, in the 1939-1943 cohort the median age of school completion reached 18.7 years. Reflecting the stagnation in tertiary education, the trend towards the advancement of schooling largely ceases with the referred cohort. Median age at completion of full-time studies reaches a peak, 19 years, in the 1964-1968 cohort. To this end it must be noted that conclusions about the school completion in the youngest cohort should be regarded with caution as substantial proportion of respondents had not completed their studies by the time when the data were collected.

Figure 4. SCHOOL COMPLETION

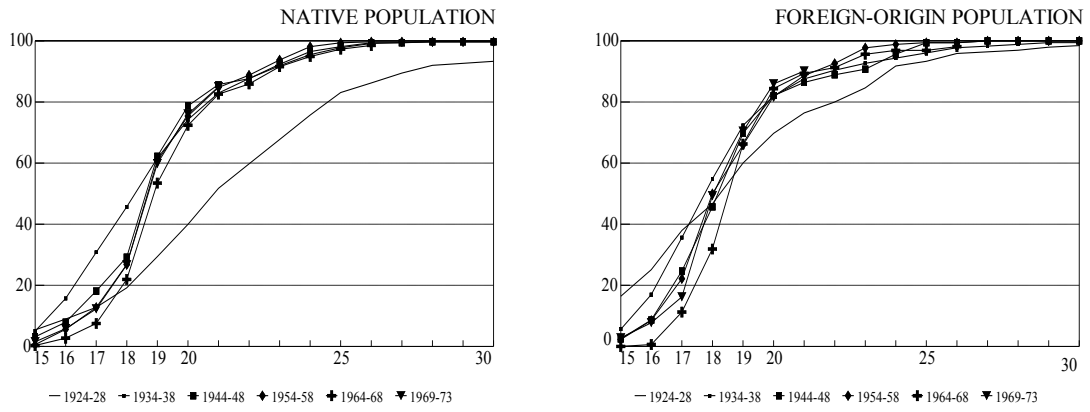


The foreign-origin population has shared these developments with certain specific figures. Due to somewhat lower educational attainment and institutional difference in educational system, foreign-origin population has generally completed their education earlier. On the average, the difference between the two subpopulations in the median age at completion of full-time studies accounts for 0.8 years, being greater among older cohorts and decreasing towards the younger. One year shorter duration of general secondary education, resulting from the school curricula adopted from Russian Federation, implies that given the same

level of education, on average foreign-origin women have spent less time in the educational system.

Survivorships for the entry into labour force are presented on Figure 5. Observed differences between successive cohorts refer fully to changes in the timing of event as the proportion of women who never-worked during lifetime had dropped close to nil already in the last pre-FFS cohorts. A few such exceptional cases are almost exclusively related to serious health problems and disability which have prevented a person from starting a job. Judging upon relatively rapid prolongation of studies and postponement of school completion in older FFS cohorts, discussed above, one could assume a shift towards later entry into employment. Moving from the oldest to younger cohorts, however, the opposite development can be noted, particularly among native population. The 1924-1928 started their first job on the average at age 20.9 years, the median age at entry into labour force dropped to 18.3 years in the 1934-1938 cohort. It is interesting to note that across the FFS cohort range, the 1924-1928 cohort is simultaneously characterised by the earliest completion of schooling and latest entry into labour force.

Figure 5. ENTRY INTO LABOUR FORCE



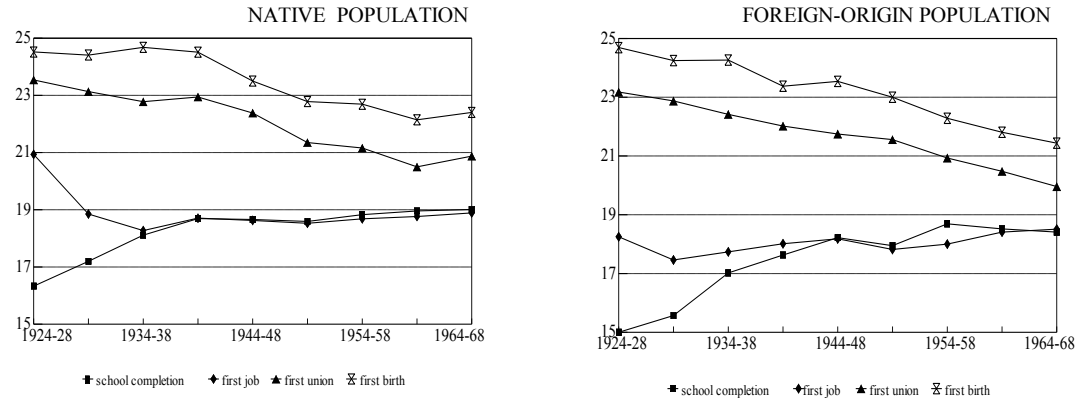
The observed interval between the end of schooling and first job could be mediated by several factors. The youth of these women coincided with the period of war and societal rearrangements which could have introduced various irregularities and delayed the transition. The behaviour of the oldest cohort could also reflect the characteristic features of farm-based agriculture and hence reflect an important contribution of unpaid family work which was eliminated during the sovetisation. Another possibility is to link the interval between school completion and work to the disappearance of breadwinner-homemaker model [Davis 1984]. Data on maternal generation of the FFS respondents suggest that in case of Estonia, the referred model reached a peak in cohorts born around the 1890s. The breadwinner-homemaker never prevailed in Estonia but in the referred birth cohorts it may have reached the level of 20-25 per cent among urban population. In the following generations the prevalence breadwinner-homemaker model gradually decreased, leading finally to its disappearance. Relatively late entry into labour force could be regarded as a kind of concluding stage in this development, sharply accelerated by sovetisation.

After the establishment of the close link between school completion and entry into labour force in the 1934-1938 cohort, there has been relatively little change in the timing of first job. The change has been mostly limited to decrease in the proportion of very early entrants (at ages 16-17), however, this has caused no significant increase in the median age. Median at first job has increased only slightly, reaching a peak of 18.9 years in the 1964-1968 birth cohort. Foreign-origin population has followed basically the same trend, but the differences between cohorts were much smaller, particularly with respect to the shift towards earlier entry into labour force in the oldest FFS cohorts. Compared to native, the foreign-origin population has started working at continually younger ages. The difference in the median age between the two subpopulations accounted for 2.7 years in the oldest cohort and decreased to less than a year in cohorts born 1934-1938 and later.

3.4. Integrated biographical perspective

In the previous sections of the paper the entry into first partnership, parenthood, completion of schooling and entry into labour force were discussed separately. The purpose of this section is to bring together the individual careers which define the transition into adulthood and synthesise them into some general pattern. It is important to note that all the referred events may be thought as being the core of transition into adulthood in the sense that they mark important steps towards adult status and are expected to be experienced by an overwhelming majority of cohort members. To summarise the changes in the timing of events over cohorts, Figure 6 presents the trends in median age.

Figure 6. MEDIAN AGE AT TRANSITION TO ADULTHOOD



The data reveal dissimilar development for different types of events. The prevailing tendency in family-related transitions has been juvenation. In this respect, the decline in the median age at first partnership and entry into parenthood has followed a markedly parallel trajectory. The timing of non-family transitions has featured greater heterogeneity. In the three oldest cohorts the entry into labour force underwent a remarkably rapid shift towards younger age, particularly for native population. As noted above, however, the referred shift was likely not limited to the timing of the event but reflected a more general transformation in the pattern of female labour force participation. Starting with the 1939-1943 cohort, there have been no major change in the timing of labour force entry. The only

event under examination that has not featured any shift to younger ages, is the completion of education. The completion of full-time education has been postponed for 2.7 years among native population, among foreign-origin population the postponement has been even greater. Similarly to labour force entry, major change in the timing of school completion occurred in the three oldest cohorts. Also, it should be noted that from the cohort 1934-1938 on, the completion of full-time studies and entry into labour force closely coincide.

The observed trends in the timing of familial and non-familial events can be summarised in two major changes in the transition from adolescence to adulthood. First, despite increase in the duration of schooling, the transition to adulthood has been accomplished by progressively younger age. The completion of the transition to adulthood and attainment of full adult status can be judged upon the entry into parenthood which appears the last event in the series. While in the older FFS cohorts the transition was completed between age 24 and 25 on the average, in younger cohorts the attainment of full adult status had dropped noticeably below age 23. Among native population, the largest shift in the referred direction was introduced by the birth cohorts of the 1940s, among foreign-origin population, the juvenation had been more linear. Despite the following cohorts display some signs about the cessation of the trend, shift towards earlier attainment of adult status has been continued until the youngest cohort 1969-1973.

Another major change has been the concentration of transition from adolescence to adulthood into shorter age-span. This development can be observed at two complementary levels. Considering the interquartile range i.e. the age-span during which the central 50 per cent of cohort members attain the adult status, the data reveal compression of events into a shorter interval across all individual processes. From the viewpoint of cohort experience, the decline in transition spread implies a decrease in the heterogeneity among cohort members. Aside individual processes, the compression into shorter age-span holds also for the entire passage to adulthood. Among native population, the interval between the medians of the earliest event, completion of full-time studies, and the latest event, entry into parenthood has shortened from 8.2 years to 3.4 years. Among foreign-origin population the compression of the transition has been even greater. Figure 6 demonstrates that the decrease has resulted from the combined effect of the later school completion/entry into labour force and earlier family formation.

From the life course perspective, the concentration of transition to adulthood into shorter age-span has implied closer spacing of individual events. In other words, in younger cohorts, the transition to adult status has been reached more simultaneously, and the importance of specific intermediate stage between adolescence and adulthood, with some transitions already accomplished and the others still lying ahead, has been significantly reduced. Closer spacing between individual events has also increased the overlap between the attainment of adult status in different spheres. Although on average, family transitions have continued to occur prior to non-family transitions in all cohorts, there has been an increase towards younger cohorts in the proportion of individuals who have experienced the reverse ordering of events. Available information from period statistics suggests that several of these, and the features discussed above, may have undergone modification during the 1990s, however, the new features of transition to adulthood can be captured only in the new round of FFS-type survey.

4. MODELING OF TRANSITION TO ADULTHOOD

The following part of the paper presents the results of multivariate analysis of transition to adulthood. Taking the advantage of event history data available from Estonian FFS, entry into first partnership, entry into parenthood and entry into labour force are modeled by means of a piecewise constant exponential transition rate model [Blossfeld, Hamerle and Mayer 1989; Blossfeld and Rohwer 1995]. In a transition rate model the risk of experiencing an event is analysed as being dependent upon a time factor and upon a set of characteristics, usually referred to as covariates.

In a piecewise constant exponential model, the time axis is split into predefined intervals, assuming that transition rates from origin to destination state are constant within these intervals. In the case of the present paper, time axis is based on the age of an individual. The time axis is split into sixteen intervals with varying duration. Reflecting the age-pattern of the processes under study, between age 15 and 25 the time axis has been split into single-year intervals; beyond that range the split into five-year intervals has been applied, up to the open-ended interval 45+. Similar split of the time axis has been used for all three processes under consideration. The observation ends either with an event, i.e. first partnership, entry into parenthood or entry into labour force, or with the date of an interview in the case of right-censored observations.

The purpose of including covariates in the models was to explore the variation in transition rate across population characteristics, and on that basis, to consider possible connections between the transition to adulthood and societal development, from the viewpoint of globalisation processes. It was decided to use a precisely similar set of covariates for first partnership, entry into parenthood and entry into labour force. Although the applied selection may not be the optimal choice from the viewpoint of each particular transition, the priority was given to the comparability between models and the possibility to match the impact of selected characteristics across events. In other words, the aim of presented modeling was not to study the determinants of the three of events in depth but to provide an account of the existing heterogeneity among individual experiences.

In addition to time-axis (age), fitted models include six time-fixed categorical covariates. Historical time, related changes in behavioural patterns and economic, social and political conditions are accounted for by introducing *birth cohort* as covariate. The covariate distinguishes between ten five-year birth cohorts starting with 1924-1928, which serves for a reference category, and ending with 1969-1973 cohort. *Type of settlement* distinguishes between urban (reference category) and rural residents, based on their place of residence at the time of the interview. Consistent with UNECE project recommendations, the distinction between urban and rural settlements is based on the number of population, with 2,000 inhabitants applied as a dividing line.

Educational attainment refers to the highest level of completed education of the respondent at the time of the interview, and is classified in three categories. Tertiary education refers to persons who had graduated from higher educational establishment (university or equivalent programme), on average the category corresponds to 15-16 years of schooling. Secondary education combines all types of completed upper secondary

education which, depending on the programme and population group, accounts for 10-12 years of schooling. Secondary education is also used as a reference category. All persons who have not completed the upper secondary education are included in the third category, labeled as primary education. It is acknowledged that the members of the youngest cohorts have a chance of educational advancement after the interview, however, the proportion of those currently enrolled appears too low (less than 10 per cent in the youngest cohort) to introduce any major bias.

Religion is based on self-evaluation of the respondent given at the time of the interview, and distinguishes between three categories. First category includes respondents who considered themselves religious, irrespective of particular confession to which one did adhere. The second category comprises persons who practiced (some) religious customs but did not regard themselves religious. The third category, which is used as a reference, includes respondents who felt indifferent towards religion. Also a fairly small number of respondents, who defined themselves as atheists, has been added to the third category. To this end it is worth of noting that in Estonia the FFS appears the first nationally representative survey after the fall of Communism to include the religiosity dimension in its programme.

Social discontinuity introduced by the Communist regime has made it very difficult to develop a concept of social class which would be applicable across the entire period covered by FFS cohorts. S*ocial origin* included in the models refers to the position of the respondents parents/grandparents before the societal transition of 1940s-1950s. Based on occupational characteristics, the covariate makes a distinction between three categories: self-employed, including both own-account workers and employers, white collar workers and blue collar workers. In the models, the category of blue collar workers is used for a reference. Due to considerable internal heterogeneity of foreign-origin population with respect to the country/region of origin, socio-economic, ethnic and cultural characteristics, modeling has been limited to the native population exclusively.

Locus of control has been included in the models to control for some important personality traits of the respondents. The concept, first introduced by psychologist Julian Rotter, has been used in different fields of social research to determine the level of personal independence [Laird and Thompson 1991]. It distinguishes between two opposite poles — internal and external locus of control —, which represent a personality orientation apparently manifesting itself in all major life decisions. The individuals who feature an internal locus of control tend to be self-contained and convinced about their ability to control their own life course. The individuals with external locus of control are characterised by a lack of confidence and conformism: they are inclined to think that external forces determine their destiny. Estonian FFS employed a standard set of statements to determine the locus of control of the respondents. On the basis of these questions, respondents were divided into "externals" and "internals". The respondents not demonstrating homogeneous attitude were left unclassified and serve as a reference category. Table 1 summarises the number of observations included in transition rate models by birth cohort and covariates.

The model selection strategy applied in the paper is straightforward. For each transition — entry into first partnership, entry into parenthood and entry into labour force — the estimation of three sets of models was performed. The purpose of the first set of models

was to produce non-adjusted estimates for the covariates: transition rate models for non-adjusted estimates included age (duration), birth cohort and just one additional covariate at a time. The inclusion of the birth cohort was considered necessary to deal with structural changes, such as educational expansion, which have occurred over time. The purpose of the second set of models was to produce the estimates, adjusted for the effects of all other covariates. Correspondingly, the second set of models included age (duration), birth cohort and all covariates discussed above. Estimates for first and second set of models have been presented systematically in the tables of the following section. Additionally the third set of models was fitted for successive birth cohorts to account for potential changes in the transition to adulthood over time and test for relevant interactions. The third set of models included all covariates except the birth cohort which was used as case selection criterion. To compete with the approximately tenfold reduction in effective sample size, models were fitted not for each five-year birth cohort separately but for the groups of three consecutive five-year cohorts. Application of this principle of moving average was possible for all cohorts with the exception of the very oldest and youngest.

Table 1. NUMBER OF OBSERVATIONS
Estonian FFS, female survey

	1924 1928	1929 1933	1934 1938	1939 1943	1944 1948	1949 1953	1954 1958	1959 1963	1964 1968	1969 1973	Total
Type of settlement											
urban	190	202	231	247	191	188	201	201	206	225	2082
rural	123	133	126	137	124	114	120	120	127	101	1225
Educational level											
primary	196	196	144	114	64	56	35	21	15	35	876
secondary	93	87	155	190	180	184	217	229	246	273	1854
tertiary	24	52	58	80	71	62	69	71	72	18	577
Religion											
religious	54	52	29	25	18	15	24	21	23	27	288
following customs	56	71	101	129	111	110	136	130	164	174	1182
indifferent	203	212	227	230	186	177	161	170	146	125	1837
Social origin											
self-employed	203	201	216	215	173	164	173	170	168	150	1833
white collar	19	25	28	35	29	29	32	37	48	33	315
blue collar	91	109	113	134	113	109	116	114	117	143	1159
Locus of control											
internal	60	66	67	91	85	75	83	93	91	89	800
neutral	211	231	238	239	438	200	212	203	214	216	2156
external	42	38	52	54	38	27	26	25	28	21	351
TOTAL	313	335	357	384	315	302	321	321	333	326	3307

Note: Table 1 includes respondents from native population

In addition to transition rate models, logistic regression model was fitted to the type of first partnership. Dependent variable was set to 1 if the respondent had started first partnership as consensual union, and 0 if the first partnership was started as direct marriage. The set of covariates included as well as the basic strategy applied for logistic regression model has been identical to that of transition rate models, discussed above.

Presentation of the results appears systematic for the first and third set of models, presentation for the second set of models is limited to selected interactions. In the presentation of the results the focus is on the exponents of the b-parameters that express relative risks. They indicate the factor by which the transition rate for a given category deviates from the selected reference category. The information about statistical significance of relative risks is also included in the presentation. In technical terms, the construction of dependent and independent variables and their extraction from the FFS dataset was handled by SPSS software package. The fitting of transition rate models was done using TDA programme, logistic regression models were fitted by using SPSS. The following four subsections present the estimates from transition rate and logistic regression models for different events, the interpretation and discussion of the results from the perspective of globalisation processes is assembled in concluding part of the paper.

4.1. Timing of first partnership

Starting with first partnership, the model reveals a steady and statistically significant increase in relative risks of the event by birth cohort, the upward trend being continued until the youngest cohort (Table 2). To this end it should be noted, however, that the estimates for the youngest cohort should be treated with caution. Judging upon available evidence from vital statistics the 1969-1973 has been affected by the sharp shift towards later partnership formation, and particularly the entry into parenthood but the referred turn has not yet visible in FFS data. In other words, had the data collection occurred a few years later, one would likely received different gradients for the youngest cohort. To draw attention to potential bias, estimates for the youngest cohort have been given in brackets. Comparing adjusted and adjusted models, it is interesting to note that after introducing the controls for other covariates, the effect of

Table 2. ENTRY INTO FIRST PARTNERSHIP
Transition rate model: relative risks

	Non-adjusted	Adjusted
Birth cohort		
1924-1928	1.00	1.00
1929-1933	1.14	1.18*
1934-1938	1.27**	1.39**
1939-1943	1.23**	1.41**
1944-1948	1.34**	1.59**
1949-1953	1.69**	1.98**
1954-1958	1.61**	1.91**
1959-1963	1.87**	2.26**
1964-1968	1.86**	2.25**
1969-1973	(2.79**)	(3.08**)
Type of settlement		
urban	1.00	1.00
rural	1.20**	1.10*
Educational level		
primary	1.31**	1.30**
secondary	1.00	1.00
tertiary	065**	0.64**
Religion		
religious	0.91	0.90
following customs	1.02	0.98
indifferent	1.00	1.00
Social origin		
self-employed	0.91*	0.92*
white collar	0.90	1.04
blue collar	1.00	1.00
Locus of control		
internal	1.05	1.11*
neutral	1.00	1.00
external	0.89*	0.85**

** $p<0.01$, * $p<0.05$

birth cohort even strengthens. This implies that the observed shift towards earlier partnership formation would have been greater, if other factors, primarily the rise in educational attainment, had not exerted certain influence in the opposite direction.

Residence in rural area contributes to slightly earlier entry into first partnership. Comparison of adjusted and non-adjusted model estimates indicates that about half of the observed effect can be attributed to lower education attainment of rural population, however, after controlling for the effect of other characteristics statistically significant 10 per cent excess in relative risk still persists. Examination of the set of models run for birth cohorts separately shows that the earlier partnership formation among rural residents can be followed starting with the 1934-1938 birth cohort. With slight reduction in a couple of intermediate generations, the referred timing difference reaches the highest level among the youngest cohort with rural residents having 30 per cent excess in relative risk over their urban counterparts.

Educational attainment makes a systematic and statistically significant difference in the timing of partnership formation. Compared to reference category with secondary education, respondents with primary education feature 30 per cent higher probability of union formation whereas graduates from tertiary education demonstrate 35 per cent lower risk. It may be noted that earlier analyses of the timing of partnership formation in Estonia, based on relative small sample of capital city population, did not reveal significant differences between those who had completed secondary education and those who had a lower than secondary education [Vikat 1994]. Differently from birth cohort and place of residence, controlling for other characteristics has effect neither on the direction nor on the strength of the gradient. Also, the observed pattern appears relatively stable across cohorts, except for the difference between primary and secondary education which has been increasing in three-four youngest cohorts.

Being religious is related to somewhat later start of first partnership, although the difference from reference category remains below statistical significance. The behaviour of respondents who follow (some) religious customs but do not consider themselves religious proves closely similar to the reference category. The introduction of controls for other covariates did not imply any noticeable change in the model estimate which should be regarded as an indication about the relative independence of religiosity and value patterns, possibly related to it. Examination of the religiosity differential across cohort reveals an interestingly curvilinear pattern. Negative gradient of religiosity which appears quite stable in older cohorts weakens and disappears in the intermediate cohorts 1944-1958. In the following cohorts, however, the previous gradient reappears. Notably, in the two youngest cohorts it becomes statistically significant and exceeds, for example, the magnitude of urban-rural difference.

Having self-employed parents/grandparents slows down the entry into first partnership; the effect is not particularly strong in general model but still sufficient to reach the level of statistical significance. It is interesting to note that the referred effect can be observed starting with the cohort 1944-1948, i.e. in generations who completed their socialisation during or after the social discontinuity introduced by sovetisation. Having white collar parents/grandparents seems to have a weak effect in opposite direction, accelerating partnership formation. Models fitted for birth cohorts separately reveals that the absence of significant effect of the results from interaction: in the cohorts 1924-1948 being born to

white collar parents implied noticeably earlier partnership formation whereas in most of the following cohorts, the direction of the gradient has been reversed.

Internal locus of control seems to be related to earlier entry into first partnership while external locus of control implies a later start of union. In the adjusted model, the difference of both "internals" and "externals" from reference category reaches the level of statistical significance. Despite some irregular variation, the observed gradient maintains direction and displays no major change across cohorts.

4.2. Type of first union

In order to study the way first partnerships are started, and at the same time control for the differences in overall union formation probabilities, logistic regression models were applied.

Table 3 presents the model estimates which addressed the likelihood of starting the first partnership as consensual union, against the odds of a direct marriage. Consistent with the findings in earlier sections of the paper, the data reveal a remarkably strong shift from direct marriage to consensual union. The increase in the likelihood of consensual union started to accelerate with the 1949-1953 birth cohort, and continued until the end of FFS cohort range. Due to selection bias, however, the change in relative risk for the 1969-1973 appears overestimated. As consensual unions tend to be formed in younger age, part of this upsurge in relative risks likely reflects the change in the timing of first union.

Table 3. TYPE OF FIRST PARTNERSHIP
Logistic regression model: relative risks

	Non-adjusted	Adjusted
Birth cohort		
1924-1928	1.00	1.00
1929-1933	1.12	1.11
1934-1938	1.10	1.15**
1939-1943	1.56**	1.68**
1944-1948	1.55**	1.70**
1949-1953	3.18**	3.43**
1954-1958	4.30**	4.74**
1959-1963	6.61**	7.41**
1964-1968	9.53**	10.58**
1969-1973	(31.10**)	(33.63**)
Type of settlement		
urban	1.00	1.00
rural	1.14	1.08
Educational level		
primary	1.34**	1.32**
secondary	1.00	1.00
tertiary	0.96	0.94
Religion		
religious	0.76*	0.75*
following customs	0.91	0.90
indifferent	1.00	1.00
Social origin		
self-employed	0.99	0.99
white collar	1.04	1.11
blue collar	1.00	1.00
Locus of control		
internal	0.92	0.94
neutral	1.00	1.00
external	0.53**	0.54**

** p<0.01, * p<0.05; dependent variable coding: consensual union=1, direct marriage=2

Rural residence is related to somewhat greater likelihood of entering first partnership as consensual union. Similarly to the timing of first partnership, the comparison of estimates from adjusted and non-adjusted model allows to attribute the effect partly to structural differences between rural and urban

population, particularly lower educational attainment of rural residents. Fitting of the model to birth cohorts separately reveals an interesting interaction: higher likelihood of consensual union among rural residents is characteristic to cohorts up to 1954-1958, in the three youngest cohorts the pattern is reversed with urban residents having become more prone to start the first partnership as non-marital cohabitation.

The likelihood of consensual unions versus direct marriages was found to be different by educational attainment. Respondents with lower than secondary education had more than 30 per cent higher probability of non-marital start of their first partnership than their counterparts with secondary education. Evidently, the observed effect reflects to an important extent earlier partnership formation among less educated women. Higher education implies somewhat lower probability of starting the first partnership as consensual union, however, the difference is statistically insignificant. Examination of the models fitted separately for birth cohorts indicates that the effect of educational attainment has undergone certain modifications over time. For primary education, the gradient changes direction in a couple of youngest cohorts, suggesting lower likelihood consensual union among those who had not completed secondary education. For higher education, the distinction from reference category dissapears in the middle cohort range but re-emerges again among younger cohorts.

Adherence to religion made also a visible difference in the mode of entry into first partnership. Being religious reduced the likelihood of starting first partnership as a consensual union by 25 per cent, the effect of religiosity on the way of partnership formation appears statistically significant. The direction of the gradient is consistent across all cohorts, displaying a tendency towards strengthening in the youngest cohorts. In the cohorts 1959-1973, for example, the respondents who defined themselves religious featured approximately 50 per cent lower chance of entering a consensual union than the reference group. Similarly to the timing of first partnership, following religious customs did not introduce a significant difference in the pattern of union formation.

Compared to other covariates, social origin of the respondent displayed relatively weak relationship to the mode of union formation. Respondents with white collar parents/grandparents had about 11 per cent more likelihood to start their first partnership in consensual union, however, the difference from reference category proved statistically insignificant. The effect of having self-employed parents/grandparents proved negligible. Regarding the locus of control, "externals" featured close to 50 per cent lower probability of starting first union as cohabitation. Also, the strong and statistically significant distinction from the reference category did not display major change across cohorts.

4.3. Timing of entry into parenthood

Model estimates for the timing of first birth appear closely similar to those of the first partnership (Table 4). The data reveal a continuous increase in the likelihood of an event across birth cohorts, however, again a word of caution is necessary in respect to the youngest cohort 1969-1973. The effect of birth cohort strengthens after the introduction of controls for other covariates which means that the shift towards earlier entry into parenthood would have been even greater if other factors had not withhold it. The latter refers mainly to the rise of educational attainment of the population.

Rural residence is related to the earlier timing of the entry into parenthood, and compared to first partnership, the effect appears somewhat stronger. In non-adjusted model, rural residents feature 40 per cent higher risk of an event that their urban counterparts. After controlling for the effect of other covariates, the excess in relative risk is reduced to 27 per cent but exceeds well the level of statistical significance. Models fitted for birth cohorts separately indicate the consistency in the direction of the observed gradient across the entire FFS cohort range. While moving from older to younger cohorts, it shows a tendency towards gradual increase: relative risk for rural residence peaks in the youngest cohort 1969-1973 with rural residents having more than 50 per cent excess over their urban counterparts.

The timing of first birth appears linearly related to the educational attainment of the respondent. After controlling for the effect of other covariates, respondents with primary education had a 35 per cent higher relative risk of entering parenthood than those with completed secondary education. The graduates from tertiary education were characterised by 35 per cent lower risk of becoming a parent; this translates into over two times difference between the extremes of educational attainment. Consistent with the entry into first partnership, the observed pattern has remained basically unchanged across birth cohorts. The only exception from this rule to be mentioned, is the difference between primary and secondary education which has been widening in a couple of youngest cohorts.

Table 4. ENTRY INTO PARENTHOOD
Transition rate model: relative risks

	Non-adjusted	Adjusted
Birth cohort		
1924-1928	1.00	1.00
1929-1933	1.07	1.11
1934-1938	1.19*	1.32**
1939-1943	1.15	1.32**
1944-1948	1.37**	1.64**
1949-1953	1.78**	2.14**
1954-1958	1.68**	2.05**
1959-1963	1.94**	2.42**
1964-1968	1.81**	2.27**
1969-1973	(2.64**)	(3.07**)
Type of settlement		
urban	1.00	1.00
rural	1.41**	1.28**
Educational level		
primary	1.41**	1.35**
secondary	1.00	1.00
tertiary	0.63**	0.64**
Religion		
religious	0.91	0.90**
following customs	1.07	1.01
indifferent	1.00	1.00
Social origin		
self-employed	0.92*	0.94
white collar	0.78**	0.94
blue collar	1.00	1.00
Locus of control		
internal	1.05	1.13**
neutral	1.00	1.00
external	0.95	0.92

** $p<0.01$, * $p<0.05$

Respondents who had defined themselves religious are characterised by somewhat later entry into parenthood, although the 10 per cent difference in relative risk falls below statistical significance. Across cohorts, the observed negative gradient of religion proved relatively stable in four older cohorts, then disappeared and reversed in the intermediate cohorts 1944-1958, and re-appeared again in the following cohorts. Introduction of controls for other covariates implied noticeable change neither in the direction nor in the strength of the gradient. The

behaviour of respondents who follow (some) religious customs but do not consider themselves religious proves closely similar to the reference category.

Self-employed or white collar parents/grandparents slightly postpone the entry into parenthood but the effect appears statistically insignificant. Examination of the models fitted for separate cohorts, however, reveals that the absence of clear-cut differential on the aggregate level stems from the interaction between social origin and birth cohort. In four older cohorts, the respondents with self-employed or white collar parents/grandparents display relative risks of becoming a parent above the reference category. In the 1944-1948 cohort, the direction of the gradient is switched, and in the following cohorts, respondents with self-employed or white collar parents/grandparents feature an increasing slower entry into parenthood, compared to the reference category.

Similarly to first partnership, internal locus of control seems to be related to somewhat earlier entry into parenthood. External locus of control implies a later start of union but the difference of "externals" from the reference category is not statistically significant.

4.3. Timing of entry into labour force

Model estimates for entry into labour force are presented in Table 5. Compared to the reference cohort 1924-1928, the model reflects the shift towards younger start of working life in a couple of following cohorts. Consistent with the evidence presented in earlier sections, despite minor fluctuations in relative risk the following cohorts have introduced relatively little change in the timing of the event. The comparison of non-adjusted and adjusted model indicates that the shift towards earlier entry into labour force, observed in older cohorts, has been to a noticeable extent attenuated by simultaneous expansion in educational enrollment.

According to non-adjusted model, rural residence appears to be related to slightly earlier entry into labour force. Relative risk for rural residence accounts to 14 per cent and the difference from reference category proves statistically significant. The introduction of controls for other covariates, however, leads to almost complete disappearance of the effect. Examination of the effect of rural residence across cohorts provides some support to the hypothesis that dismantling of farm-based agriculture in the late 1940s-early 1950s could have made some contribution to the decline in the age at entry into labour force observed in older cohorts, but evidently, other factors have played more important role in the referred development.

Educational attainment makes expectedly a strong distinction in the timing of entry into labour force. Because of different duration of schooling, relative risk of the event for respondents with primary education appears more than 50 per cent higher than in the reference category. And accordingly, respondents with tertiary education feature relative risk more than 50 per cent lower. Although the direction of the gradients has been maintained in all cohorts, the models ran separately for birth cohorts revealed a relatively strong interaction between educational attainment and cohort: relative risks for both primary and tertiary education have increased steadily when moving from older to younger cohorts. Reflecting the established connection between school completion and the start of working-life as well as subsequent decline in the role of part-time studies, the contrast in

relative risks between the respondents with primary and tertiary education has increased from 1.6 times to more than 7.5 times.

Table 5. ENTRY INTO LABOUR FORCE
Transition rate model: relative risks

	Non-adjusted	Adjusted
Birth cohort		
1924-1928	1.00	1.00
1929-1933	1.77**	2.16**
1934-1938	2.44**	3.48**
1939-1943	2.16**	3.07**
1944-1948	2.36**	3.69**
1949-1953	2.41**	3.82**
1954-1958	2.36**	3.71**
1959-1963	2.25**	3.64**
1964-1968	2.02**	3.28**
1969-1973	(2.35**)	(3.13**)
Type of settlement		
urban	1.00	1.00
rural	1.14**	0.98*
Educational level		
primary	1.52**	1.53**
secondary	1.00	1.00
tertiary	0.45**	0.45**
Religion		
religious	1.09*	0.88
following customs	1.02	0.96
indifferent	1.00	1.00
Social origin		
self-employed	0.86**	0.87**
white collar	0.75**	0.94
blue collar	1.00	1.00
Locus of control		
internal	0.85**	0.94
neutral	1.00	1.00
external	0.97	0.90

** p<0.01, * p<0.05

The effect of religion on the timing of entry into labour force is very similar to that observed for partnership formation and entry into parenthood. In the adjusted model, being religious is related to somewhat later start of working-life; the 12 per cent difference in relative risks is relatively close to statistical significance. Examination of cohort-specific models revealed the curvilinear pattern, already described in previous sections: negative gradient of religiosity in older cohorts which disappears in intermediate cohorts and re-appears again in the youngest cohorts, reaching the level of statistical significance.

Self-employed or white collar parents/grandparents tend to postpone the start of working-life. The effect of having white collar parents is reduced after introducing the control for other covariates, primarily through intergenerational transfer of educational attainment, but self-employed parents maintains its significance. Interactions of social origin with birth cohort are not clearly expressed. The gradient of relative risks of "internals" and "externals" runs in similar direction and remains below the level of statistical significance for the entry into labour force.

5. DISCUSSION OF THE RESULTS

The concluding section of the paper summarises the main findings about the transition to adulthood in Estonia, regarding the process from the perspective of globalisation. During the period covered by the experience of FFS cohorts the prevailing regime imposed relatively strong isolation of the country from the rest of the world, however, one can identify several developments and features which have direct or indirect parallels in globalisation framework. The growth in educational enrollment, for example, progressed rather rapidly in Estonia until the 1970s. Indirect parallels evidently include the upsurge of

uncertainty about future and disruption of the entire spectrum of social relations, introduced by the violent societal rearrangements of the 1940s and 1950s. Although the origin and nature of the referred uncertainty differs from that experienced in OECD-type societies, its disruptive impact on the lives of individuals and the nation can hardly be overestimated.

The existing parallels allow to put a question about whether and to which the extent such developments may have shaped the transition to adulthood. In particular, the globalisation framework attempts to link modern societal developments to the changes in family formation and entry into parenthood through the mechanism of uncertainty. According to the referred theoretical framework, if there is rising uncertainty, changes in the partnership and reproductive behaviour are anticipated, including the postponement of a first partnership and entry into parenthood, and increased preference towards consensual union which leaves room for greater flexibility and requires lesser long-term commitment from the individuals involved. In a given context, Estonian case may be interesting for it allows to test the hypotheses about the mechanism of uncertainty in a different societal context. Additionally, Estonia shares close similarity with the OECD-type countries in terms of long-term population development — it has shared European marriage pattern, belongs to pioneering countries of demographic transition which reached below-replacement fertility already by the 1920s etc [Katus 1994].

The analyses revealed a shift towards earlier formation of partnerships and entry into parenthood over the entire cohort range of Estonia FFS. This implies neither the societal transition of the 1940s-1950s nor the transition of the 1990s has been accompanied with the postponement of the referred events. In the light of recent statistics, this statement may need to be revised for the recent societal transition which has been covered by the FFS only to a limited extent. However, the absence of postponement holds surely for the societal transition of 1940s-1950s. Beyond the evidence available from the FFS, it has been verified on the basis of other national surveys, particularly the Estonian Health Survey which allows to go back to the cohorts born during the First World War [Leinsalu *et al* 1998]. While it is hardly possible to cast doubt on the hardship and disruptive effect introduced during the period, why were these conditions left unreflected in the partnership formation and entry into parenthood of the generation?

A possible explanation to the contradiction between the upsurge of uncertainty and loss of security and trends in the timing of partnership formation and parenthood could be sought from the regularities of long-term population development. The shift of partnership formation and childbirth towards earlier age was experienced has been a common feature for most, if not all, nations historically charactiserised by the European marriage pattern. Evidently, in case of Estonia the disintegration of the European marriage pattern and following development had overridden the effect of societal conditions. Although the extremely harsh societal conditions proved insufficient to alter the course of the long-term trend, their impact could still be found in specific features of partnership and fertility development. Most importantly, Estonia, together with Latvia, are the only exceptions among the nations with early demographic transition which did not experience the post-war baby-boom [Katus 1997; UNECE 1998]. However, close examination of the latter phenomenon goes beyond the study of transition to adulthood.

Another feature of first partnership formation and entry into parenthood in Estonia which requires explanation is the continuation of the juvenation trends until the youngest cohorts covered by the FFS. This feature distinguishes Estonia, again together with Latvia, from the countries with comparable pattern of earlier demographic development. One possible reason for such deviation with regard to parenthood, put forward is the paper, could be the housing policy which prevailed under the previous regime. Housing market did not exist in these circumstances and dwellings were distributed by authorities; persons could apply for a dwelling upon fulfilling certain preconditions. Since the birth of a child enlarged the family and increased the number of family members per square metre, it contributed to chances for qualifying for a new dwelling. As couples planned to have a child anyway, pragmatic considerations could have influenced the timing of an event. But of course, this hypothesis can explain only the continued trend towards earlier partnership formation.

Aside the juvenation of partnership formation and parenthood, another finding from the Estonian case study which deserves attention, is the change in the way in which first partnerships are started. Across FFS cohort range, there has been a switch from direct marriage to consensual union which has become a dominant mode of entering the first partnership. It is noteworthy that the switch from direct marriage to consensual union was accomplished prior to recent societal transition, and hence, cannot be attributed to the rise in uncertainty of future developments and growing unemployment among successive youth cohorts. Nor can the switch be explained by some unidentified institutional factors, operational in Estonia during the 1970s and 1980s. If the observed switch would have been supported by some features of highly unified Soviet economic and/or social policies, one would have likely observed similar responses among native and foreign origin population. In reality, however, native population accomplished the switch about two decades earlier than foreign origin population.

Evidently, the explanation to the observed feature could be also sought from the patterns of long-term population development, dating back to the timing of demographic transition. In that sense, partnership formation in Estonia displays considerable similarity with Scandinavian countries, Latvia, and to somewhat lesser extent, Finland. Corresponding features in the role of consensual unions versus registered marriage can be followed clearly in the patterns of non-marital fertility. In terms of non-marital fertility, Estonia has followed Sweden, Denmark and Norway throughout the whole period of post-transitional fertility [Katus 1992]. In the early 1990s, the proportion of non-marital births exceeded 50 per cent of total births. Based on the evidence from FFS, starting from the cohort 1934-1938 the proportion of women in registered marriage at the moment of first birth has been continuously declining. Among the youngest FFS cohort, only half of first children were born in legal marriage and the developments in the 1990s have considerably diminished this proportion.

At the same time its should be noted that the prevailing societal conditions introduced specific features into the pattern of consensual unions, compared to the Western countries of Baltoscandian region. Most importantly, in Estonia non-marital cohabitation has been a relatively short stage at the beginning of the partnership career rather than long-lasting status. To considerable extent, the shorter duration of non-marital cohabitation has been mediated by the shorter interval between the start of the union and pregnancy/decision to have a child. Upon arrival of the child, consensual unions have been usually converted to marriage. The data on family planning behaviour and contraception, available from the

FFS suggests that limited availability of efficient contraceptives and poor knowledge have been primarily responsible for the referred feature.

The need to consider the long-term population development could be also supported by the results of event history modeling. In that context, certain population groups can be regarded as forerunners which introduce innovations into partnership and parenting behaviour while the other groups switch to these new patterns with some time-lag. In the paper, the observed time difference between native and foreign-origin population in switching from direct marriage to consensual union becomes interpretable in this light. This view seems to hold also for the observed differentials by urban-rural residence and social origin in the timing of partnership formation and parenthood. In the oldest cohorts, in which the juvenation of partnership formation prevailed, rural residents and those with blue collar background featured somewhat later entry into first partnership. In younger cohorts, in which the juvenation trend started to approach its end, the gradient became reversed and later timing of the events became characteric to urban residents and those with white collar/self-employed background. Also, in the youngest cohorts the differentiation of behavioural patterns has increased across most explored population dimensions.

In short, the analysis of transition to adulthood in Estonia could be summarised in the following main points. First, the developments which often accompany globalisation processes could develop also under rather stable and secure societal conditions. Second, loss of security, high uncertainty about future developments and disruption of social relations have not necessarily translate into postponement of partnership formation and parenthood. And third, aside institutional mechanisms, the outcomes of globalisation could also be influenced, strengthened or moderated, by the regularities of long-term population development.

REFERENCES

Bernardi, Francesco (2000). *Globalisation and Social Inequality: Changing Patterns of Early Careers in Italy*. Globalife Working Paper No.7.

Blossfeld, Hans-Peter, Alfred Hamerle and Karl Ulrich Mayer (1989). *Event History Analysis. Statistical Theory and Application in the Social Sciences*. Hillsdale, New Jersey, Lawrence Erblaum Associates Publishers.

Blossfeld, Hans-Peter and Götz Rohwer (1995). *Techniques of Event History Modeling. New Approaches to Causal Analysis*. New Jersey, Lawrence Erblaum Associates Publishers.

Davis, Kingsley (1984). Wives and Work: the Sex-Role Revolution and its Consequences. *Population and Development Review*, Vol.10, No.3, pp.397-417.

Eesti saatusaastad 1945-1960 (1963-1972), kd.1-6. Stockholm.

EC (2000a). *Employment in Europe 1999*. Brussels and Luxembourg, European Commission.

EC (2000b). *Labour Market Bulletin of Central and East European Countries*. Brussels and Luxembourg, European Commission.

EKDK (1995a). *Estonian Family and Fertility Survey. Methodological Report*. RU Series A, No.39. Tallinn, EKDK.

EKDK (1995b). *Estonian Family and Fertility Survey: Standard Tabulations*. RU Series C, No.6. Tallinn, EKDK.
EKDK (1999). *Estonian Family and Fertility Survey. Methodological Report of Male Survey*. RU Series A, No.40. Tallinn, EKDK.
EKDK (2001a). *Estonian Family and Fertility Survey: Standard Tabulations of Male survey*. RU Series C. Tallinn, EKDK. *Forthcoming*.
EKDK (2001b). *Estonian National Minority Survey: Methodological Report*. RU Series C. Tallinn, EKDK. *Forthcoming*.
ESA (2000). *Statistika aastaraamat*. Tallinn, Eesti Statistikaamet.
Hajnal, John (1965). European marriage patterns in perspective. *D. Glass and D. Eversley (Eds). Population in History.* Chicago.
Helemäe, Jelena, Ellu Saar and Rein Vöörmann (2000). *Kas haridusse tasus investeerida*? Tallinn, Teaduste Akadeemia Kirjastus.
Katus, Kalev (1990). Demographic Trends in Estonia Throughout the Centuries. *Yearbook of Population Research in Finland.* Helsinki, Population Research Institute, pp.50-66.
Katus, Kalev (1992). *Trends in Non-Marital Fertility in the Baltic Region*. EAPS/BIB Seminar on Demographic .
Katus, Kalev (1997). Long-term Fertility Development in Baltoscandia. *Yearbook of Population Research in Finland.* Helsinki, Population Research Institute, pp.18-34.
Katus, Kalev (1994). Fertility Transition in Estonia, Latvia and Lithuania. *W.Lutz, S.Scherbov and A.Volkov (Eds). Demographic Trends and Patterns in the Soviet Union Before 1991*. London-New York, Routledge, pp.89-113.
Katus, Kalev, Allan Puur and Luule Sakkeus (2000). Development of National Minorities in Estonia. *W.Haug, P.Compton and Y.Courbage (Eds). Demographic Characteristics of National Minorities in Certain European States.* Strasbourg, Council of Europe, pp.29-92.
Katus, Kalev, Allan Puur, Luule Sakkeus and Asta Põldma (1999). *Rahvastikuvananemine Eestis*. RU Sari D, No.1. Tallinn, EKDK.
Katus, Kalev and Luule Sakkeus (1993). *Foreign-Born Population in Estonia*. RU Series B, No.19. Tallinn, EKDK.
Laird, J. and N.Thompson (1991). *Psychology*. Boston-Toronto, Houghton Mifflin Company.
Leinsalu, Mall, Marina Grintshak, Rivo Noorkõiv and Brian Silver (1998). *Estonian Health Survey. Methodological Report*. Tallinn, EKMI.
Lugus, Olev and George Hachey (1995). *(Eds). Transforming the Estonian Economy*. Tallinn, Institute of Economics.
Manting, Dorian (1994). *Dynamics in Marriage and Cohabitation. An Intertemporal Life Course Analysis of First Union Formation and Dissolution*. Amsterdam, Thesis Publishers.
Misiunas, Romuald and Rein Taagepera (1983). *The Baltic States. Years of Dependence 1940-1980*. Berkeley, University of California Press.
Misiunas, Romuald and Rein Taagepera (1993). *The Baltic States. Years of Dependence 1940-1990*. Berkeley, University of California Press.
Noorkõiv, Rivo and Allan Puur (1996). *Estonian Labour Force Survey 1995: Experience from Retrospective Data Collection*. Paper presented to the European Conference of Statisticians. Paris.
Palli, Heldur (1988). *Otepää rahvastik aastail 1716-1799*. Tallinn. Eesti Raamat.

Puur, Allan (1995). Labour Force Participation Trends in the Baltic States 1959-1989. *Crister Lundh (Ed). Demography, Economy, Welfare*. Lund, pp.285-303.

Reiman, Hugo (1937). Kirjaoskus ja haridus Eestis. *Eesti Statistika Kuukiri*, Nr.183(2), lk.49-57.

RSKB (1937-1940). *Eesti Statistika Kuukiri.* Tallinn, Riigi Statistika Keskbüroo.

Sakkeus, Luule (1991). *Post-war Migration Trends in Estonia.* RU Series B, No.15. Tallinn, EKDK.

Sakkeus, Luule (1996). Trends of International Migration in Estonia. *T.Freijka (Ed). International Migration in Central and Eastern Europe and the Commonwealth of Independent States*. New York and Geneva, United Nations, pp.57-67.

Simó, Carles, Katrin Golsch and Nikolei Steinhage (2000). *Entry into First Parenthood in Spain and the Process of Globalisation*. Globalife Working Paper No.8.

Sommer, Thorsten, Erik Klijzing and Melinda Mills (2000). *Partnership Formation in a Globalizing World: The Impact of Uncertainty in East and West Germany*. Globalife Working Paper No.8.

Trost, Jan (1988). Cohabitation and Marriage. Transitional Pattern, Different Lifestyle or Just Another Legal Form. *H.Moors and J.Schoorl (Eds). Lifestyles, Contraception and Parenthood*. The Hague/Brussels, NIDI.

UNECE (1995-1999). *Economic Survey for Europe*. New York and Geneva, United Nations.

UNECE (1998). *Fertility and Family Surveys in the Countries of the ECE Region. Latvia.* New York and Geneva, United Nations.

UNECE (2000). *Fertility and Family Surveys in the Countries of the ECE Region. Estonia.* New York and Geneva, United Nations.

Viikberg, Jüri (1999). *(Koost). Eesti rahvuste raamat.* Tallinn, Eesti Entsüklopeediakirjastus.

Vikat, Andres (1994). *Family Formation in Estonia.* Publications of the Finnish Demographic Society, No.15. Helsinki.

Vishnevski, Anatoli and Andrei Volkov (1983). *(Eds). Vosproizvodstvo naselenia SSSR.* Moscow.