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TRENDS IN NON-MARITAL FERTILITY IN BALTIC REGION

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Births outside marriage have considerably increased during the recent decade by their share in all births as well as in absolute numbers in many European countries. Scandinavian states have been pioneers in this development. In some other countries the non-marital fertility has still remained low. In general, births outside marriage form one of the most heterogeneous demographic processes in contemporary Europe [Bartanova 1991; Cooper 1991; Kuciarska-Ciesielska 1988; Leridon 1990; Munoz-Perez 1991; Recent.. 1991].

As far as the pioneering countries of the non-marital fertility increase have usually been also the pioneers of the demographic transition, one could suppose that such kind of development would be characteristic for many other European nations in the near future, who so far have not yet experienced the explosional growth in births outside marriage.

Estonia as well as Northern Latvia have historically been among the fore-runners in fertility transition, however, during the last half of the century the social conditions have been far from the ones in Western countries [Katus 1991]. These specific conditions have also been typical for the third Baltic country, Lithuania, where the transition took place later with timing much closer to other East European countries [Stankuniene 1989]. Finland forms in the present analysis the role of the background country with the social development close to Western countries but with the later fertility transition compared to Estonia and, to lesser extent, Latvia [Strömmer 1969]. The comparative investigation of the dynamics of the trend of births outside marriage in these countries would help to formulate hypotheses for interrelations between development in fertility and marriage and wider social shifts in society.

1. BIRTHS OUTSIDE MARRIAGE: NATURE AND DEFINITIONS

Births outside marriage, whatever their present or future importance seems to be, are not forming an independant demographic phenomenon. On one hand, it is a subgroup of all births and changes in non-marital fertility are dependant on general fertility development. On the other hand, such births can occur, if part of the female population in fertile age is not married, and the higher this proportion, the higher the probability of births out of marriage, in case all the other factors are equal. Therefore, the non-marital fertility is also dependant on marital development.

In traditional society, female's marital, sexual and reproductive behaviours were tightly linked. Woman remaining single in the beginning of her fertile age was more an exception than the rule, and having a baby outside marriage was even more exceptional with strongly negative attitude from the society.

At the first stages of demographic transition, the European marriage pattern was introduced. Much more femaleyears in fertile age were spent outside of marriage; the

abstract probability of non–marital fertility increased noticeably. However, the tight link of the mentioned three demographic behaviours seemed to be still in strength and the births outside marriage remained relatively nonfrequent compared to the increase of their probability. Nevertheless, even despite of the continuous negative social attitude, the increasing trend of births outside marriage gradually emerged in all the countries covered by European marriage pattern. Particularly it has been studied in the framework of Princeton Project for most of the European countries [Coale, Watkins 1986]. In other words, the social phenomenon of non–marital births has been introduced centuries ago for the countries characterized by European marriage pattern, even if the intesity of such births remained relatively low for a long period.

The countries to East from the well–known line St.Petersbourg–Triest, stated by Hajnal [1965], have not experienced the European marriage pattern. The abstract probability of births outside marriage remained relatively low in these countries during a long period and non–marital births as a social phenomenon were practically introduced only during the period of rapid fertility decline; in other words, the phenomenon is historically a newer one in these countries.

Taking into consideration these implications, it is assumed that the old borderline of European marriage pattern could be still useful in explanation the spread of modern non–marital fertility to some extent. As to the countries under the interest in our analysis, Estonia and later Finland experienced the European type of marriage as well as North–Western part of Latvia; Lithuania stayed at another side of the Hajnal's line.

In no contradiction with the statement concerning the dependency of non–marital fertility trend on general development of fertility and marriage, there is another way to look for the possible explanations for the new trend of non–marital births. This is connected with the problem of definition of births outside marriage and marriage itself. Most of the authors dealing with the non–marital fertility have more or less stressed the importance of the matter, however, no satisfactory solution of the problem has been proposed.

Naturally, not only a woman but also a man is engaged to every birth case. What then is the criterion that the birth is not considered to be the marital birth? From juridical point of view the solution is simple: all births which occur for unmarried females are births outside marriage. When dealing with data from vital statistics or censuses, especially building up time–series, this definition may often happen to be the only one which could be used.

However, even this simple definition has its shortcomes: would the marital status of a mother at the time of birth or at the time of conception of the baby be taken into account? If a mother is unmarried at the moment of conception but already married at the birth of her child, it could be assumed that we have actually been dealing with cases similar to births outside marriage, combined with its strong influence to marital behaviour. Anyway, such cases have probably noticeable difference from births resulting from marital conceptions from the viewpoint of family planning, for example.

For the countries, where the considerable number of births occur in lesser time interval than nine months after the marriage, the standpoint on above discussed matter would influence the estimations of non-marital fertility. For example, nearly 40 per cent of the first births among Estonian females occur in seven months after the marriage, however, in vital statistics they usually cannot be separated from "full-marital" births.

The second shortcome of this simple criterion to define birth outside marriage is the non-dependency of the criterion on events after the birth has occurred. If a marriage will end in a relatively short time after the birth, the mother and her child would usually face conditions closer to non-marital than marital birth cases, for example. This shortcome is characteristic for all other criterions based on the status of mother at any fixed date.

In this respect the specific history of the Baltic states must be taken into consideration. Many families have been broken because of the WW II, but especially because of the nation-wide repressions in the 1940-1950s (families were separated when sent to Siberia, arrests and hiding from authorities often separated husbands, etc.). In conditions of high intensity of family break-downs because of external factors, the importance to differentiate births outside marriage by criterion on marital status of a mother at the moment of birth and by criterion on marital continuity increases.

At present, the more serious problem of estimating the births outside marriage is connected with the definition of the marriage itself. If cohabitation is socially accepted, there would be a large number of real families with the only exception from legal marriages that they are not officially registrated. Birth of a child in such a family meets usually all the conditions of a legal marriage, despite the fact that the birth is registrated as non-marital.

In such a case the general question is: what kind of relations could be considered as "marital enough" from the viewpoint of the marital/non-marital births (regardless of their official registration). Even if such a criterion will be determined it would be probably not easy to apply it for estimations. By the standards of vital registration (starting from 1968) in the Baltic countries the birth having occurred to unmarried mother could be registrated (1) by joint application of mother and farther (farther is officially approved by such a statement) or (2) by the application of mother only. Unfortunately the information has been seldomly used in statisitical tabulations on fertility.

I consider the definition of birth outside marriage rather an important issue, especially if comparisons by regions or by periods are carried out. However, at the current state of information on non-marital births in Baltic countries such discussions are not of big value; data available dictates the definitions. However, all Baltic countries have joined the European Family and Fertility Survey. If succeeded, it would be the first nation-wide survey for all three countries; collecting the information on life-course events on reproductive and marital/partnership behaviour (at least planned in case of Estonia) would provide also data for intensive study on non-marital fertility. Finland has conducted several analoguous surveys as well as carried out the mentioned one already [Nikander 1992].

2. DATA AVAILABLE ON BIRTHS OUTSIDE MARRIAGE IN BALTIC STATES

Data available includes the vital registration on births and 1989 census tabulations. As stated above, no comparable surveys have been conducted, giving individual-level information on births outside marriage in Baltic countries. Two surveys have been carried out on demographic behaviour among Tallinn population including the information on non-marital births [EKDK 1988; EKDK 1989]; this data is not included to the present report as the analysis is having mainly the comparative purpose.

Registered birth cases in Baltic countries have been annually tabulated by age of mother and parity (1945-1954 by single age groups, 1955-1977 by 5-year age groups, and since 1978 again by single age-groups). For most years of the period there is also data on births by age and marital status of mother. In 1945-1967 data is tabulated, with minor details, for "births registrated without father". This does mean that the mother was not officially married at the date of birth of her child (she has no marriage certificate what is the source of the information when the birth is registrated). According to the new Marital Codex, the registration of birth became additionally possible by a joint application of both parents in 1968. However, the data was only occassionally used in statistical tabulations. Nevertheless, the time-series could be followed by the data available on marital births by age of mother for 1968-1991.

Data on first births by age of mother is available for the whole post-war period; for births outside marriage only for some subperiods, continuously for the last decade.

Majority of the discussed tabulations have not been published. Information is available from the annual files on vital registration prepared by Population Departments of the Statistic Offices; in Soviet period only for official use. In Latvia and Lithuania the files for the 1950-1960s are located in State Archive, for 1970s in the Archive of the Statistical Office and the most recent files are in the Population Department of Statistics. In Estonia all the files are in the Population Department of the Statistics Estonia.

Finnish data on births by age, parity and marital status of mother 1960-1990 is derived from the Population Database, Statistics Finland.

The tabulations on age-specific distribution of marital and non-marital births were used to calculate the corresponding fertility rates. Age-structures needed for the task, particularly the intercensal age-structures of total female population, were available for Estonia and Finland (Population Database, Statistics Finland and Population Database, Estonian Interuniversity Population Research Centre). For Latvia and Lithuania female age-structures are rough estimations, calculated on the basis of data on four censuses of 1959, 1970, 1979 and 1989 by the author.

Overall, marital as well as non–marital birth rates are calculated to all females as a denominator. No target population in case of marital and/or non–marital fertility has been available for the intercensal periods. It is the reason why these indices cannot be used to measure the intensity of the processes. However, the indices calculated by this simple method serve as a quite useful instrument to study the trends and relative levels. In this case the sum of age–specific and/or total fertility rates of marital and non–marital childbearing are equal to corresponding overall rates, particularly:

$$TFR = MTFR + NMTFR,$$

where MTFR is marital total fertility rate and
NMTFR is non–marital total fertility rate.

In order to eliminate the impact of the differences in female age–structures in four countries, all proportions of of the subgroups of birth cases used in the analysis are calculated on the basis of the total rates.

The data for analysis is limited to vital statistics in order to obtain comparability. Census data on fertility as well as available special tabulations on annual birth cases concerning Estonia, included into the analysis, are discussed separately.

3. NON–MARITAL FERTILITY: TRENDS IN BALTIC REGION

3.1. General trend of fertility and non–marital fertility

Estonia, Latvia, Lithuania and Finland have experienced the fertility transition of different timing; conventionally they could be united in two groups. Estonia and Latvia (except the latter's Eastern part, Latgalia) have been pioneers in the process and characterized by under–replacement fertility already in the 1930s. Exceptionally from other nations of relatively early fertility transition they have not experienced the baby–boom after the WW II. Figure 1 demonstrates relatively stable fertility level during all the post–war period in these countries. Definite fertility increase in the end of the 1960s, especially in Estonia, must be also mentioned; but as it was characteristic only for the native population and not for immigrants, the overall fertility level has not changed too sharply. The trend of increase in the second part of the 1980s and following sharp decrease could be also followed, however, in general, the fertility level estimated by period TFR has been surprisingly stable.

The timing of the fertility transition in Lithuania and Finland has been later for some decades. After the WW II the fertility level is clearly higher in both these countries compared to Estonia and Latvia. Both countries have also experienced the following fertility decline: it has been rather sharp in Finland in the 1960–1970s, typically also for North–Western Europe; and much more gradual in Lithuania. Present fertility levels are rather close in all four countries.

The non–marital fertility shows considerably different trend compared to the overall fertility. In Estonia and Latvia this trend is U–shaped (Figure 2). In Estonia only recently the NMTFR reached the level experienced in early 1950s, in Latvia the

previous level has not reached yet. Also in Lithuania, the non–marital fertility has been rather high in the 1950s but has stabilized at a low level after the considerable decline; there has been no increase of the level in the recent decade.

Data on Finland starts from the 1960s and demonstrates the lowest level of non–marital fertility at the time. Most probably the level has been the lowest also for the previous decade. One can assume that such a large difference between three Baltic countries, on one hand, and Finland, on another hand, refers to specific heterogeneity in social conditions. Probably, not so much the disbalance between males and females, caused by war (Finland also suffered heavy population losses), but social repressions carried out by Soviet authorities is the explanation. Many families were dissoluted during the war and could not unite in new conditions, many people were deported to Siberia, many others arrested; probably some marriages have not been officially registered because of people hiding from new authorities. In general, normal life was violated in the Baltic countries.

Nevertheless, whatever the social difficulties, women continued to have babies, outside of marriage if there was no conditions for marriage. Even the catholic Lithuania in early 1950s demonstrate the level of non–marital fertility which has been out of common sense for the next two generations and may be for some of the following as well.

It is interesting to point out that the decline of the non–marital fertility in Estonia, Latvia and Lithuania during the 1950–1960s seems to have a little impact on the overall fertility; this level has remained relatively stable in Estonia and Latvia. On the other hand, the sharpest decline of the overall fertility in Finland had no contribution to the change of the non–marital fertility.

Figure 3 presents the share of the non–marital fertility in overall fertility. Trends are similar to the previos Figure on absolute data of non–marital fertility. Nevertheless, the sharp increasing trend in Finland is even more outlined: its level exceeded the Lithuanian and Latvian corresponding levels earlier than in previous Figure and almost caught the Estonian share of non–marital fertility.

These comparisons demonstrate that the revolutionary increase in non–marital fertility in Finland during the last decade or two (as well as in some other European countries) does not speak so much about the very high level achieved than about the previous very low level. Estonia has not experienced such a sharp increase (maybe only the very recent years could be estimated in this quality), however, the absolute level as well as the share of non–marital fertility still remains higher compared to Finland.

3.2. Non–marital fertility curve

Figures 4–7 on age–specific changes in non–marital fertility add some more details for the described trends. For every country the non–marital fertility curves in 1950, 1960, 1970 and 1990 are compared to the age–specific rates of the 1980, which seems to be some kind of a watershed in the dynamics of the curve.

Data on all three Baltic countries prove the fact that the relatively high level of non–marital fertility in the 1950s was due to the corresponding behaviour of the older females: for women 25 years and older births outside marriage were two–three times more common than in the 1980s. This is one more argument to assume the connection between the high rate of non–marital fertility and destabilization of marriages because of repressions in these countries after the WW II.

On the other hand, the non–marital fertility rise in the 1980s is caused by younger women. This rise for females in their early 20s in Latvia is less expressed than in Estonia, particularly explaining the considerably lower increase in general non–marital fertility, discussed above. There has been no increase of non–marital fertility in younger ages in Lithuania, and no increase of the general level as well.

Finland demonstrates a different case. The non–marital fertility increase in the 1970s seems to take place in all age groups, however, the sharp increase in the 1980s is due to the fertility rise in the older ages of females.

3.3. Mean age of non–marital childbearing

The dynamics of the age–specific fertility rates seems to join three Baltic countries in one group and Finland into another. This becomes even more evident, when analyzing the mean age of non–marital childbearing (NMMAC). Figure 8 presents the absolute trend of the index. Having at the background the surpisingly homogeneous dynamics of NMMAC in Baltic countries, the Finnish trend appears to be drastically different. Before the increase of the non–marital fertility in early 1970s (see also Figure 2) the mean age of non–marital fertility has been rather low in Finland. Last 15 years has added nearly 4 years to the mean age and now it is the highest among the four countries. Next Figure is hinting that the increase of mean age of childbearing in Finland is not only characteristic to the non–marital fertility but for all births as well. No considerable increase of mean age of childbearing could be found in Baltic countries.

Figure 9 presents the difference between mean ages of overall and non–marital childbearing. In Estonia and Latvia the births outside marriage occur in slightly older age of a mother than all the births during most of the period. Lithuania has also joined the two countries in the last decade. In Finland there is a three–years' difference in mean ages: non–marital fertility is considerably younger as typical for many other European countries.

Undoubtedly, the Finnish mothers having birth outside marriage form a specific group: difference in timing of such an extent does mean considerable variance in education, working career and, probably, in many other social characteristics between women having marital or non–marital children. Not so large corresponding differences could be expected in Baltic countries.

3.4. First births outside marriage

There is a ground to expect a difference in parity distribution between marital and non–marital fertility. Some women having first birth outside marriage would marry later and their following children would be born in marriage; some other women who would not marry, would also refuse to have children of higher parities. The comparable data on first births by marital status of mother is available for the latest decade.

Figure 10 shows that the proportion of the first children in all non–marital births has been not very high in Baltic countries; ca 40 per cent of all non–marital births have been of higher orders. Finnish case demonstrates once more the different trend, however, the share of the first births has considerably declined and there is no difference between four countries at the present time. It is somewhat surprising taking into account the large variance of non–marital fertility levels, especially between Estonia and Finland, on one hand, and Lithuania, on the other hand.

When comparing the first births outside marriage to all first births, the relative homogeneity disappears (Figure 11). Naturally, this comparison reflects the same situation as described by Figure 2 on the share of all non–marital births, nevertheless, Finland and Estonia demonstrate much more similar trend to each other and Latvia holds clearly the intermediate position between these countries and Lithuania when only the first births are taken into account.

The difference between mean ages of overall and non–marital childbearing for the first parity presents the same picture as for all the parities combined (Figures 12 and 9): Finland differs considerably from the rather homogeneous group of Baltic countries.

4. ETHNIC DIFFERENCES IN NON–MARITAL BIRTHS: CASE OF ESTONIA

Among four countries under discussion Estonia and Latvia had experienced the heavy immigration during the post–war period: according to the 1989 census data more than one quarter of the total populations are foreign–borns [Katus, Sakkeus 1992]. Demographic behaviour of the immigrants as well as their second generation is considerably different compared to the native population; the differences in the trend of the non–marital fertility could also be expected.

Data available does not allow to separate the immigrants directly. However, in case of Estonia, it is possible to use the nationality criterion to follow the immigrant population indirectly: 93.7 per cent of all Non–Estonian nationalities form the foreign–born population and their second generation according to the 1989 census data.

Following analysis is taking use of the named criterion to draw out the differentiated non–marital fertility pattern in case of Estonia.

Figure 13 compares the non–marital fertility curves of the Estonian/Non–Estonian population groups for two years around the 1989 census. The comparison is carried out by two sets of age–specific non–marital fertility rates: (1) calculated with number of all females in a denominator which method was also used for the previous comparative analysis and (2) calculated with "target population", i.e. number of not married females, in a denominator.

Data represents the very large differences in two population groups. At the age of their 20s the Estonians' non–marital fertility exceeds the Non–Estonians' one for three times; in general the difference is two–fold. Formerly it was shown that Estonia has been characterized by the highest level of births outside marriage in general. If only native population would be taken into account with the non–marital fertility nearly twice as high, it would put Estonia in the outstanding position in comparison of the four countries. Probably the level of the non–marital fertility of the native population in Latvia would be much higher also. It must be underlined that namely the native population of Estonia (and Latvia) passed the early fertility transition, not present immigrants.

Estonian/Non–Estonian difference in the non–marital fertility is not too large if compared by the age–specific rates calculated with the "target population" in a denominator. It simply refers to the fact that the Non–Estonians are characterized by higher and earlier marriage rates.

Marital fertility of two population groups has been rather close to each other at the end of the 1980s (Figure 14). Anyway, namely Estonians demonstrate slightly higher marital fertility, i.e. high non–marital fertility of Estonians could not be regarded as a compensatory part of lower marital fertility caused by lower marriage rates, for example.

Figure 15 presents the distribution of births by marriage duration of a mother up to the end of the fourth year of marriage for the same period of 1988–1989. Bars are referring to the distribution of all births and lines of the first births, separately. Additionally to the high share of births outside marriage, Estonian women are also characterized by the high share of births during the 7 first months of marriage (30 per cent of all births and 40 per cent of the first births). For the first births the share is nearly on the same level compared to the share of births outside marriage and together they define 78 per cent of first conceptions ending with childbearing out of marriage.

Non–Estonians represent unsimilar distribution. Their share of births outside marriage is twice lower compared to the Estonians. It is interesting that the proportion of births during the 7 months of marriage exceeds the level of births outside marriage, especially for the first births. It indicates their aspiration to registrate the marriage after the conception. Anyway, the named level remains lower compared to the corresponding share of the Estonians, who seem to enjoy babies outside of marriage as freely as at the early stages of marriage.

It must also be noted that Estonia is a country of free abortion. Moreover, the abortion seems to be the major method of fertility control; abortion rate is very high even in comparison with East–Europe [Anderson et al 1992]. In other words, women having the conception outside marriage have an alternative to have an abortion which in general is commonly exploited. Nevertheless, considerable number of women prefer to give birth outside marriage.

Next three Figures included to the paper are presenting the cohort fertility indices tabulated on the 1989 census data. The census was carried out simultaneously in all Baltic countries, however, the data on children ever born is available for Estonia only by the very moment. Comparison of Estonians versus Non–Estonians is continued.

Figure 16 presents the proportion of childless women by cohorts. The decline of this share for the Estonian females from rather high level of 25 per cent in older cohorts to around 10 per cent in younger ones is noticeable. The Figure also proves the fact that till recently no rise of childlessness has occurred in Estonia. It is also interesting to underline that the childlessness for Non–Estonians is even lower compared to the Estonians in spite of their lower overall as well as non–marital fertility.

Census usually fixes only the current marital status of respondents at the moment of interview. Such data is not sufficient to separate cohort fertility by marital and non–marital components. However, fixing the category of never–married women gives an opportunity to follow the reproductive behaviour of those women who had not married before neither after giving a birth to a child, if any. These women represent the most "absolute" non–marital births.

Figure 17 presents those never–married women who had given birth to one child at least. Once more the unpopularity of being childless is proved. Among Estonians the proportion of having one child at least is growing in younger cohorts achieving nearly 50 per cent level of the size of the never–married women cohorts. Figure 18 compares the never–married women of different parities for the two population groups. Excess of Estonians' non–marital births of parity 2 and 3 compared to parity 1 is more stressed.

5. DISCUSSION

Undetailed macrodata available on non–marital fertility in Baltic countries which is used in the present paper could hardly provide the adequate basis for the cause–specific analysis of the process. Nevertheless, some trends outlined are useful for drawing hypotheses on nature of non–marital fertility.

Levels and trends of non–marital fertility in Baltic region seem to support the hypothesis about the connection of the historical timing of fertility transition and modern dissemination of births outside marriage. Estonia, the fore–runner in fertility transition, also represents the highest level of non–marital fertility in the region,

especially where native population is concerned. The lowest level of non–marital fertility is found in Lithuania, in country of latest fertility transition and without experience of European marital pattern.

Overall fertility trend and level seem to be rather independent of the trend and level of non–marital fertility.
The possible hypothesis that the marital fertility associates with the higher non–marital fertility and, visa versa, has not found any ground.

Finland presents the case of the country of extremely rapid growth in non–marital fertility. Such a trend is mostly the result of the exceptionally low previous rates in births outside marriage. In similar cases, not the question on causes of rapid change, but the question on causes of previous low rates must be asked first. Changes in real role of a family and its values in the society could probably not change in such a short time.

In one case, Finland clearly opposes to the other three countries: the mean age of non–marital childbearing differs considerably compared to the mean age of marital one; social background of two groups of mothers is clearly different in Finland. Such an heterogeneity between countries could be a result of some kind of different regularities of non–marital fertility trend but also the result of the different social systems which in case of Finland "pick up" the mothers giving birth outside marriage as specific group. The second hypothesis is supported by the fact, that in spite of the non–marital fertility levels and trends having been rather different in three Baltic countries, the homogeneity between marital and non–marital fertility patterns has been surprising.

The importance of definition of birth outside marriage must be underlined once more. There are two approaches for formulating the definition. (1) The marital status of a mother (whatever the criterion of the status) at some important moment in the process of having a baby would be fixed. For example, this approach seems to be useful for studying the reproductive decision–making process, wantedness/unwantedness of a child, use of contraceptions and/or abortions as methods to regulate fertility etc.

From the point of view of socialization of a marital/non–marital child, one–parent family problems and other questions dealing of the period of growing children up, data on person–years lived in and out of marriage (whatever the definition of the marriage itself) is needed. Especially this kind of approach could only be based on rather detailed individual life–history data.

REFERENCES

Anderson, Barbara, Kalev Katus, Allan Puur and Brian Silver (1992). *Characteristics of women having abortions in Estonia*. Paper prepared for the XXIInd IUSSP General Conference.

Bartonova, Dagmar (1991). Vyvoj plodnosti neprovdanych zen v Ceskoslovensku v 80 letech. *Demografie*, vol.33, No.3, pp.200–209.

Coale, Ansley J. and Susan C. Watkins, Eds. (1986). *The decline of fertility in Western Europe*. Princeton.

Cooper, Jacqui (1991). Births outside marriage: recent trends and associated demographic and social changes. *Population Trends*, No.63, pp.8–18.

EKDK (1988). *Naine tööl ja perekonnas*. Ankeet. Tallinn.

EKDK (1989). *Tallinn'88*. Ankeet. Tallinn.

Hajnal, John (1965). European marriage patterns in perspective. In: D.Glass, D.Eversley, Eds. *Population in History*. Chicago.

Katus, Kalev (1991). *Fertility trend and regional differences in Estonia*. EKDK, RU Series B, No.12. Tallinn.

Katus, Kalev and Luule Sakkeus (1992). *Foreign-born population in Estonia*. Paper prepared to the 10th Nordic Population Symposium, Lund, August.

Kuciarska-Ciesielska, Marlena (1988). Urodzenia pozamalzenskie. *Wiadomosci Statystyczne*, vol.33, No.5, pp.9–11.

Leridon, Henri (1990). Extra-marital cohabitation and fertility. *Population Studies*, vol.44, No.3, pp.469–487.

Munoz-Perez, Francisco (1991). Les naissances hors mariage et les conceptions prenuptiales en Espagne depuis. Part I and II. *Population*, vol.46, No.4, pp.881–911 and No.5, pp.1207–1248.

Nikander, Timo (1992). *The woman's life course and the family formation*. Helsinki, Statistics Finland.

Recent demographic developments in Europe (1991). – Strasbourg

Stankuniene, Vlada (1989). Vosproizvodstvo naseleniya Litvy. In: *Demografitcheskoje razvitie Litvy*. Vilnius.

Strömmer, Arno (1969). *Väestöllinen muuntuminen Suomessa*. Tornio.

FIGURE 1 TOTAL FERTILITY RATE
BALTIC REGION, 1950-1991

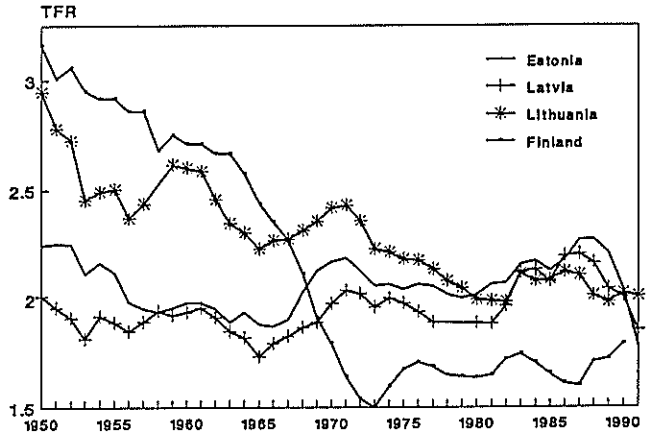

FIGURE 2 NON-MARITAL TOTAL FERTILITY
RATE, Baltic Region, 1950-1991

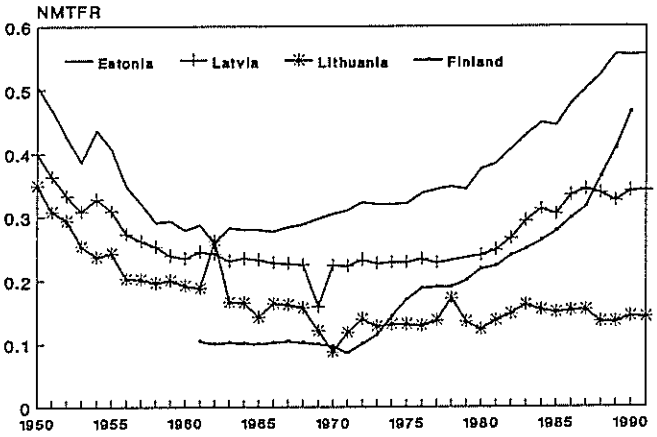

FIGURE 3 SHARE OF NON-MARITAL FERTILITY
IN OVERALL FERTILITY
Baltic Region, 1950-1991

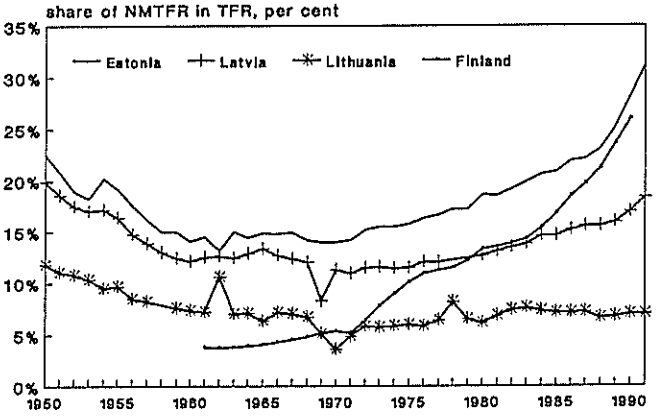

FIGURE 4 NON-MARITAL FERTILITY CURVE
Estonia, 1950-1990

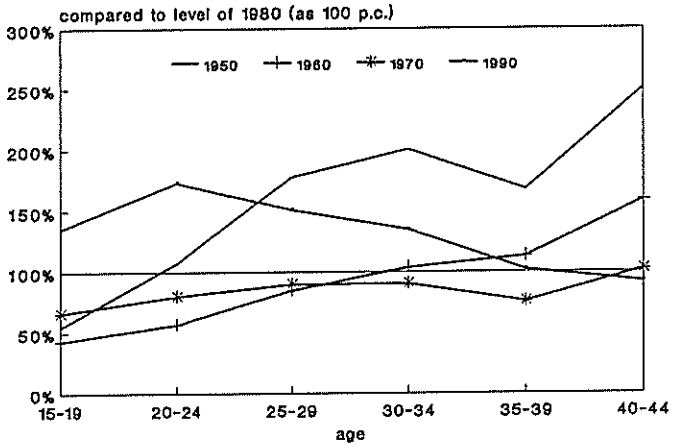

FIGURE 5 NON-MARITAL FERTILITY CURVE
Latvia, 1950-1990

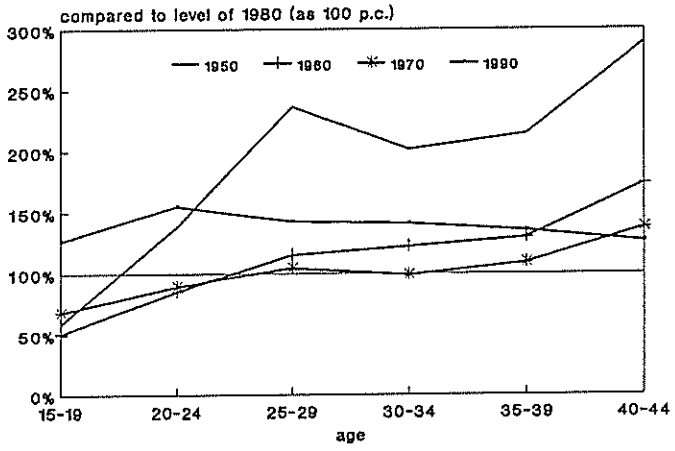

FIGURE 6 NON-MARITAL FERTILITY CURVE
Lithuania, 1950-1990

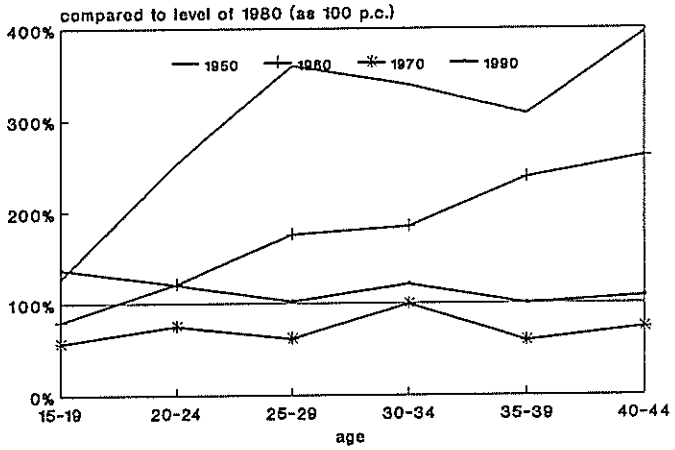

FIGURE 7 NON-MARITAL FERTILITY CURVE
Finland, 1960-1990

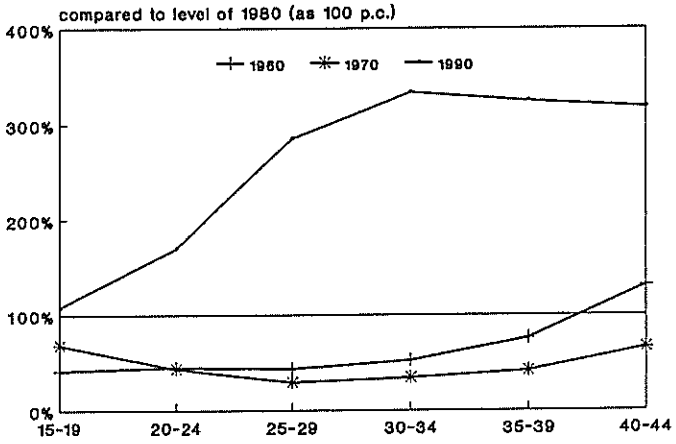

FIGURE 8 MEAN AGE OF NON-MARITAL
CHILDBEARING, Baltic Region, 1950-1991

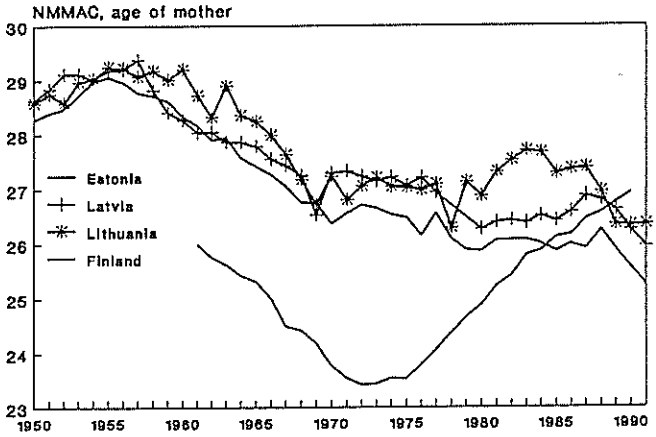

FIGURE 9 DIFFERENCE BETWEEN MEAN AGE OF
CHILDBEARING AND MEAN AGE OF NON-MARITAL
CHILDBEARING, Baltic Region, 1950-1991

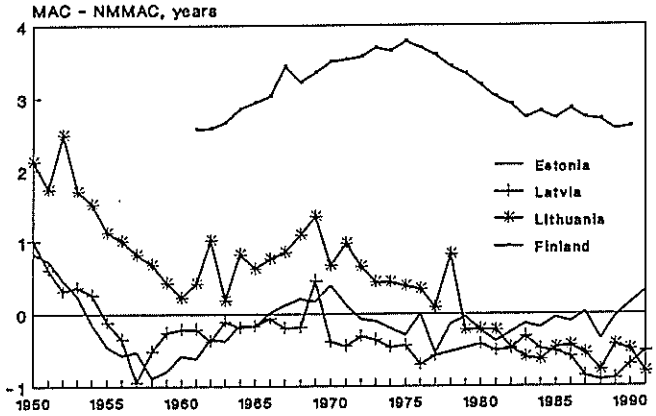

FIGURE 10 SHARE OF FIRST BIRTHS IN ALL BIRTHS OUTSIDE MARRIAGE
Baltic Region, 1980-1991

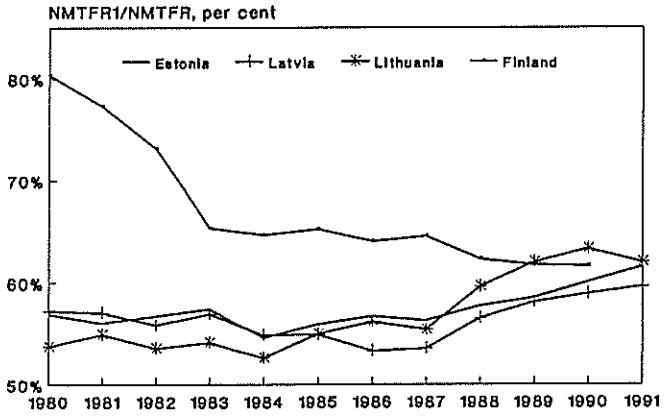

FIGURE 11 SHARE OF FIRST BIRTHS OUTSIDE MARRIAGE IN ALL FIRST BIRTHS
Baltic Region, 1980-1991

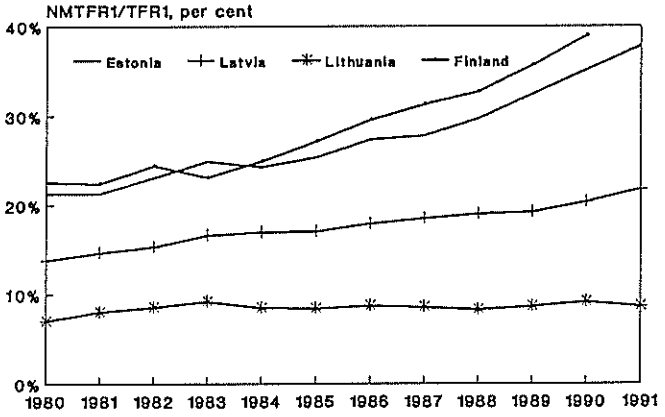

FIGURE 12 DIFFERENCE BETWEEN MEAN AGES OF FIRST MARITAL AND FIRST NON-MARITAL CHILDBEARING, Baltic Region, 1980-1991

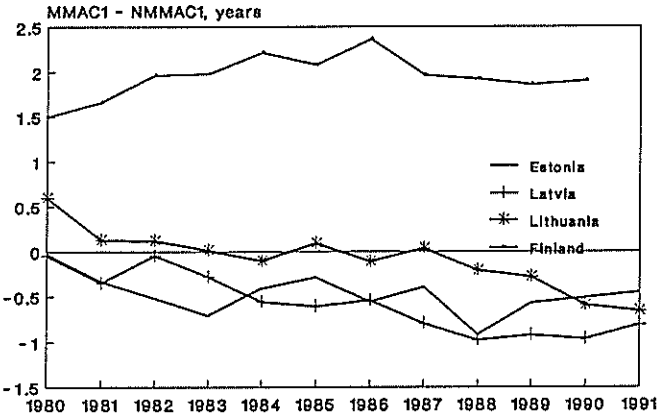

FIGURE 13 NON-MARITAL FERTILITY CURVE
(calculated for all and unmarried fmls)
Estonia,Estonians and Non-Estonians,1989

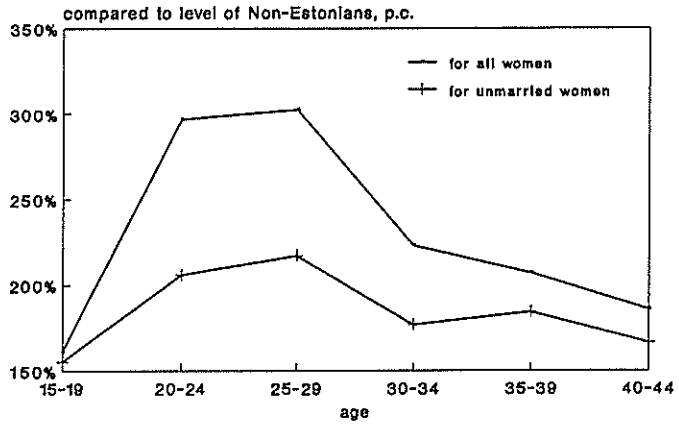

FIGURE 14 MARITAL AND NON-MARITAL
FERTILITY CURVES
Estonia,Estonians and Non-Estonians,1989

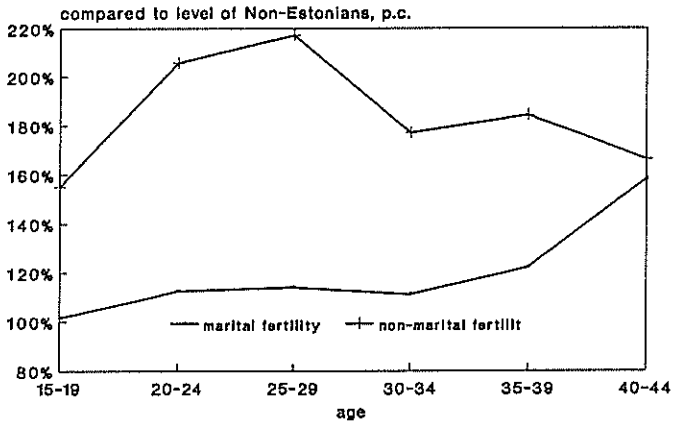

FIGURE 15 DISTRIBUTION OF BIRTHS BY
MARRIAGE DURATION OF MOTHER
Estonia, 1988-1989

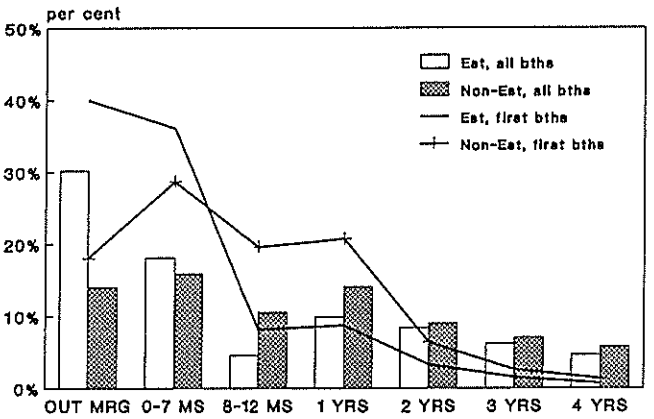

FIGURE 16 CHILDLESS WOMEN
Estonia, census 1989

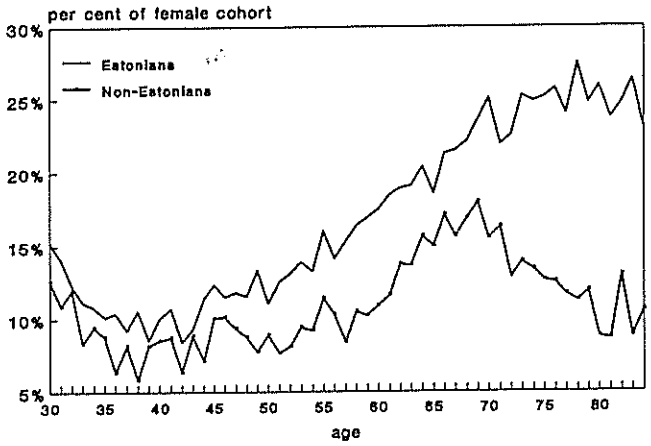

FIGURE 17 NEVER-MARRIED WOMEN WITH ONE CHILD AT LEAST, Estonia, Estonians and Non-Estonians, census 1989

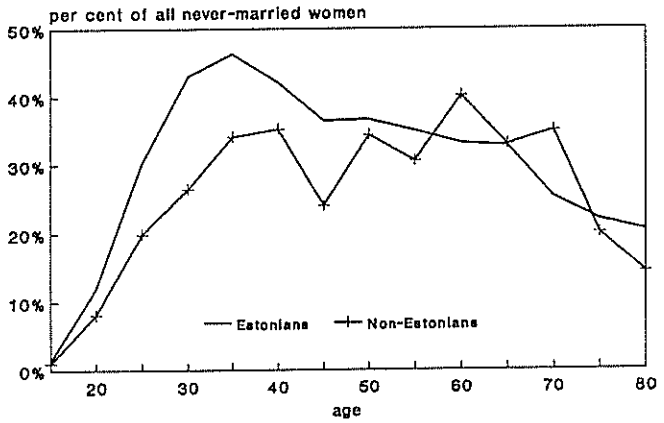

FIGURE 18 PARITY OF NEVER-MARRIED WOMEN
Estonia, Estonians and Non-Estonians, census 1989